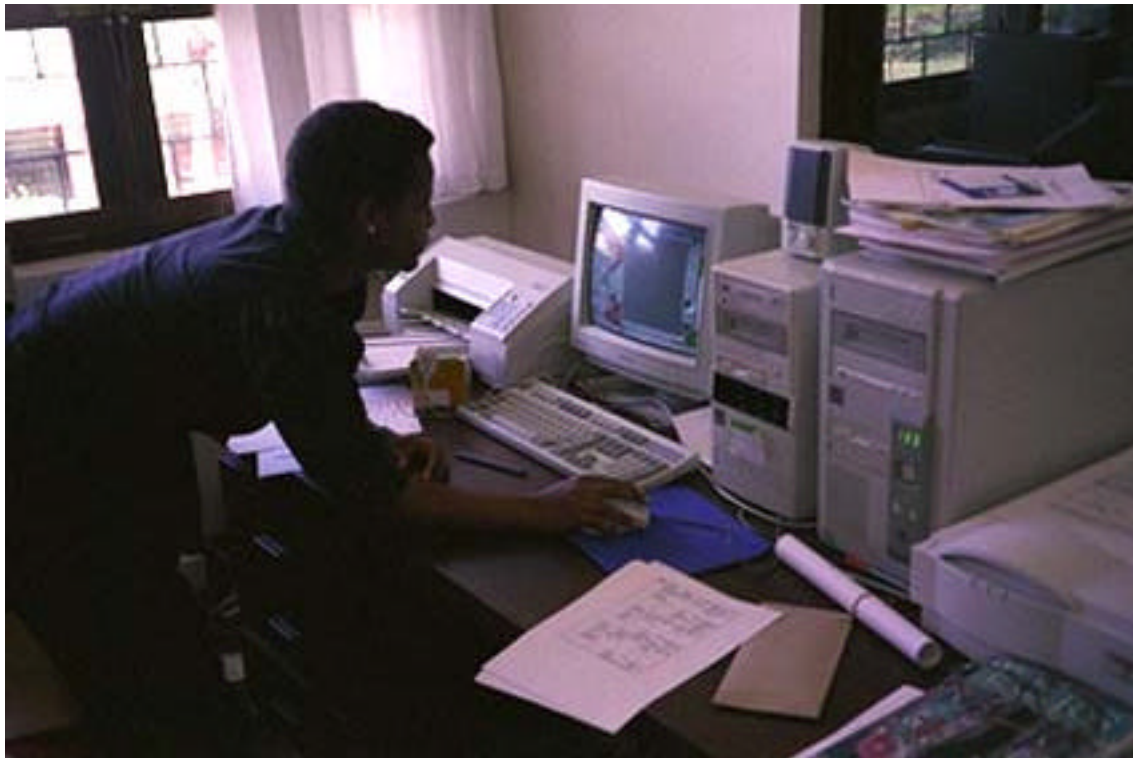


Follow-up of the HRDU(HABRI)/BYGGDOK DOCUMENTATION PROJECT in Nairobi

**and investigation of human settlements information
situation from a modern information technology(IT),
perspective in
Kenya, Tanzania, Uganda and Ethiopia**



SIDA assignment
Contract INEC/Urb 611/96
Compiled by
Bengt Eresund
Bengt Eresund IT AB
E-mail: bengt.eresund.itab@swipnet.se

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1. INTRODUCTION

The importance of human settlements information for planning, developing and managing urban and rural settlements at national and regional levels is evident.

This report is the result of a follow-up of a documentation center project dealing with information on human settlements issues at a research institute in Nairobi, Kenya.

Included is also an investigation of the occurrence of similar centres in Tanzania, Uganda and Ethiopia. One important aspect both for the follow-up and for the investigation is to analyse how modern information technology, IT, can be used in the field of human settlements information in East Africa.

The project started 1983 and has now been going on for 14 years at the Housing and Building Research Institute, HABRI, Faculty of Architecture, Design and Development, FADD. The institute changed from HRDU, Housing Research and Development Unit, to HABRI during the project period.

BYGGDOK, the Swedish Institute of Building Documentation, has been in charge of the project in cooperation with HABRI.

SIDA and to some extent also the Swedish Council for Building Research, BFR, have financed the project

The Documentation Centre is an active part of the Institute which is now covering all costs for the personnel at the Centre.

The follow-up and the investigation in the other East African countries were performed during November 1996.

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Bengt Eresund

Bengt Eresund IT AB

Blixtvägen 40

S-177 70 Järfälla, Sweden

tel/fax: +46-8-58035130

tel: +46-8-58015085

E-mail: bengt.eresund@byggdok.se

2. SUMMARY

The follow-up of the HABRI(HRDU)/BYGGDOK Documentation project has resulted in an overview of possibilities and consequences for the Documentation Centre at HABRI.

If no donor money is spent on the Centre the acquisition of documents and subscription of journals from abroad will stop as no foreign currency will be available. One of the most important sources of information content will not arrive anymore. There are today no other possibilities to obtain the information in these documents than to buy them.

Modern Information Technology, IT, can be an important tool for accessing information from sources outside Kenya. The technology is not yet widely used, but in a couple of years it will be in Kenya and in the other East African countries.

The immediate recommendations concerning HABRI Documentation Centre is to continue financing the Centre for some years at approximately the same level as today but allow for upgrade of worn out equipment, training of personnel and an E-mail connection. In order to strengthen the market value of the Centre it is of vital importance to acquire Kenyan documents on human settlements topics from other institutions. In that way the Centre will have “all” Kenyan human settlements documents. If this is achieved the charging for information services will be much easier and the negotiation position much stronger when for instance dealing with other information providers for exchange of information sources.

Parallel to the above the following should be looked into:

- Digitizing of HABRI reports and University documents on human settlements
- Make the documents available on the most appropriate media for searching, distribution, supply on demand. It could be on diskette, hard disc on a PC, CD-ROM, full text databases, Internet with www, Gopher, FTP, etc

New HABRI reports and University documents are probably produced on PCs so the digitizing process is no problem. For older document which are judged to be digitized a scanning process is necessary.

The Documentation Centre at HABRI was not very well known in the visited East African countries. HABRI as such was on the other hand known among “sister” organizations. After my visits the organizations are more informed about the Centre.

Better marketing activities combined with good and easy to use communication facilities are needed in order to promote the utilization of the Centre by other African Countries. Fax and ordinary postal service tend to be too expensive and cumbersome for maintaining an active information service.

The solution is to use modern IT as soon as possible. All visited countries have E-mail systems and Internet facilities ready to use.

The following four international organizations, UNCHS (Habitat), OAU, African Housing Fund and Shelter-Afrique presented immediate plans for the use of E-mail or Internet facilities to improve the communication with member organizations or country representatives. All these organizations are dealing with human settlements.

In this context it is possible to make available the very important human settlements information from many different sources.

My suggestion is therefore to set up an East African pilot project with HABRI as one focal point on human settlements information in cooperation with one or two of these organizations.

HABITAT has its Information and External Relations division including a documentation unit and the Best Practices and Local Leadership Programme (BLP). OAU has the Proposal for the Establishment of a Pan-African Human Settlements Information System. African Housing Fund and Shelter Afrique need to improve the communication with country representatives, etc.

Participants from the East African countries should preferably be those recommended in the report.

From Sweden LCHS , BYGGDOK and others could be engaged.

PADIS at UNEAC should be informed and/or involved in one way or an other.

The financing of such a project should be shared between donor organizations and participating organizations.

A new contact should immediately be taken with OAU to find out the definite plans for the human settlements information system.

A project proposal was discussed with Christina Engfeldt at UNCHS (Habitat) in Nairobi and she submitted a proposal after that to SIDA for consideration.

One general observation during my visit to the four East African countries was the focus on South Africa. Many of the persons I met had been to South Africa for training, international meetings, seminars, research , joint venture projects or business. The distance from an East African country to South Africa is much shorter than that to Europe or USA.

Persons within the building industry were very positive to the intermediate construction technology available from South Africa.

Some of the organizations in East Africa are via satellite linked to South African Internet providers. The University of Dar es Salaam has a link to UNINET in South Africa.

It is obvious that South Africa is already an important generator for the development of East Africa and that its importance will increase.

3. THE ASSIGNMENT

In short the assignment¹ was to

- follow-up the HRDU/BYGGDOK Documentation Project² and analyse the situation today and suggest strategies for the future especially within the IT area and
- investigate the conditions for a wider cooperation with other representative organizations, research institutes, universities and other schools of higher education within the area of the human settlements and the built environment in Kenya, Ethiopia, Tanzania and Uganda.

3.1 Contacts with Institutions, Universities, etc.

With the help of the Swedish Embassies and SIDA representatives in each country and the Embassies of the countries in Sweden and Denmark contact and mailing lists were drawn up. An official letter presenting the assignment was sent from SIDA to all listed. Follow-up letters were later sent by Bengt Eresund including a questionnaire. Around 30 letters were sent from SIDA. Many more persons and organizations were contacted by Eresund before and during the field work.

3.2 Fieldwork

The countries were visited in the order, Kenya, Tanzania, Uganda and Ethiopia during the period 2 November 1996 to 2 December 1996.

A part of the follow-up in Nairobi of the HRDU/BYGGDOK Documentation Project was executed in cooperation with Ms Barbro Widell, Chief librarian at BYGGDOK. HABRI related data concerning the project was put together by the staff of HABRI before and during the visit to Nairobi.

3.3 BYGGDOK data

Access to the project files at BYGGDOK and discussions with other persons involved in the project (Ms Barbro Widell and Mr Bernhard Lindahl), gave further basic information of the project.

4. HABRI³/BYGGDOK DOCUMENTATION PROJECT

4.1 Background

Discussions of a cooperation between BYGGDOK and HRDU was initiated in the summer 1980 when the director of HRDU, Mr Tara Chana visited Sweden on the initiative of the Swedish Council for Building Research. After further discussions in Nairobi between HRDU and a representative of BYGGDOK a project proposal was completed 1982 detailing the scope of the project, the contribution of each organization, costs and project duration.

An application for project funds was sent to SIDA together with the project proposal and a copy of a letter from UNCHS (Habitat) to Mr Tara Chana on the importance of the proposed documentation project. The application was signed by Mrs Ingrid Munro, Director General of the Swedish Council for Building Research and Mr Adolf Stern, Managing Director of BYGGDOK. The administration of the project was stated to be in the hands of BYGGDOK with Mr Bengt Eresund as project leader.

A contract was signed between SIDA and BYGGDOK on 30 December 1982 for the assignment:

“in co-operation with Housing Research and Development Unit, HRDU, University of Nairobi, reorganize and develop the library at HRDU, educate the personnel and develop the documentation services at HRDU”.

HRDU was a research unit established in 1967 as a project unit within the Department of Architecture, in the Faculty of Architecture, Design and Development (ADD).

HRDU was changed to **HABRI**, Housing and Building Research Institute, a full fledged research institute as a sub-department in the Faculty of ADD. The activities of HRDU were focused on human settlements problems including low-cost-housing and appropriate technology for it. HABRI has

a broader field of activities than HRDU had including the building and construction industry as such.

Before 1983 the library at HRDU included a small internal collection of documents mostly handed over by researchers to the library and HRDU publications.

4.2 Scope of assistance to HABRI(HRDU)/BYGGDOK Documentation project

4.2.1 Financing

The start was a 3 year project, January 1983 to 31 December 1985, all financed by SIDA. The second phase covered the period 1986-1990 and the third 1991-1994 and a fourth 1995-1996. The third phase was to one fourth (100,000 SEK) financed by the Swedish Council for Building Research, BFR.

The time span of each phase was prolonged, within the given budget, due to among other things the change of directors and personnel at HRDU/HABRI.

All new applications to SIDA were based on project proposals issued by HRDU (HABRI) in cooperation with BYGGDOK. In principal the requests for project funds were sent to BYGGDOK from HRDU to be forwarded to SIDA.

Contract 334/90 and the contract with the Swedish Council for Building Research (contract 900917-7) were based on the same project proposal.

The total amount of funds used during the 14 year project period are:

Contract of 30 December 1982	480,000 SEK
Contract VL 202/87 1987-05-19	493,000 SEK
Contract VL202/87 , extension 36.000 kr 17 August 1989	36,000 SEK
Contract 334/90, 1990-11-07	300,000 SEK
Contract with Swedish Council for Building Research	100,000 SEK
Contract 334/90, extension of contact, 1993-12-23	200,000 SEK
Contract INEC/Urb 611/96 Follow-up 25 Sept. 1996	100,000 SEK
Total SIDA	1,609,000 SEK
Total BFR, Swedish Council for Building Research	100,000 SEK
TOTAL Project up to 1996-12-31	1,709,000 SEK

An average cost of 122,000 SEK/year including everything can be judged as a moderate sum of money to build up and maintain the most up to date information centre on human settlements in East Africa.

4.2.2 The Built up of the Documentation centre

The detail planning of the project was assigned to Bernhard Lindahl at BYGGDOK⁴. He visited HRDU in the beginning of 1983. Marie Edwards started to organize the library holdings in accordance with the approved plan, classified the documents, produced index cards, placed books and other documents on book shelves, etc., during a 9 week stay at HRDU starting in April 1983. Marie Edwards assisted HRDU in recruiting a documentalist, Jayne Abonyo, and instructed Abonyo about the project layout and all the details concerning the organization of the library/documentation centre. The build up of the library/documentation centre with new documents could now start. The framework of the Documentation Centre was set to **human settlement** information.

A close cooperation was established between UNCHS (Habitat) Information Division in Nairobi (Gigiri) and HRDU Documentation Centre. The UNCHS' Thesaurus in the field of Human Settlements (UNCHS, 1980) is used by HRDU for keyword indexing. HRDU and UNCHS are also using the same input format for their two databases. The contact between the two documentations centres is well established.

For classification of documents HRDU is using a Reduced Universal Decimal Classification, RUDC, produced by BYGGDOK⁵.

Books and subscriptions were ordered through BYGGDOK and local documents and subscriptions were purchased by HRDU with funds supplied by BYGGDOK for that purpose. The personnel in the first phase included in the project were three persons at HRDU, documentalist, Jr documentalist and typist. During the next phases the cost for personnel was taken over by the Unit.

Training of personnel in using PC equipment and software took place in Sweden at two occasions with follow-up visits from BYGGDOK personnel to HRDU. The unit was supplied with equipment such as PCs, printer, copier, bookshelves, etc.

4.2.3 Important Development Steps

The collection of documents and subscriptions of journals increased gradually. To begin with the work within the unit was manual using, typewriters and stencils. The search tool for the library holdings were index cards.

A dramatic change for the whole of HRDU and the Documentation unit occurred with the introduction of a PC with printer and appropriate software for word processing and database production. The assistant documentalist Anne Njiri was 1987 sent to BYGGDOK for training in the use of PC, Wordperfect and the database software Micro CDS/ISIS-a bibliographic database software developed by UNESCO. At the same time, by coincidence, Dr Nicki Nzioki at FADD studied fire regulations in Sweden at the Faculty of Land development, KTH. He could take part in some of the courses together with Anne Njiri and in this way the PC and software knowledge was strengthened for the benefit of HRDU. Nicki Nzioki took active part in the PC training at HRDU that followed the training in Sweden.

The equipment was primarily used for the documentation project but also by researchers and typists at HRDU. The use of stencils disappeared.

Through other research projects sponsored by a Belgian University and the German Agency for Technical Co-operation Ltd, GTZ⁶, HRDU was soon well equipped with PCs printers and software for various use.

As the volume of documents increased the need for larger space for the Documentation centre grew. In 1991 the Documentation centre was allocated new and larger space within the premises of HRDU and with a more direct access at the entrance of HRDU. New library furniture, book shelves, etc., increased the accessibility of documents. The use of the centre increased very much after this. In the same year (1991) the Documentation unit was supplied with a second PC to replace the old one which was beyond repair. The purchase of a copying machine improved the dissemination capacity of the unit⁷.

The Director Dr Paul Syagga was 1992 elected a member of the board of CIB, the International Council for Building Research Studies and Documentation. The project has been followed up during the years and base materials for this has been supplied by HABRI.^{8 9 10 11}

4.2.4 The content of the Documentation Centre at HRDU/HABRI

The total library holdings according to the stock taken in December 1994 is as follows:

1.	Books	1871
2.	Books on loan at stock taking time	168
3.	Journal titles	
	- Miscellaneous journals ¹²	23
	- Local Journals and periodicals	79
4.	Thesis statistics and Government of Kenya Publications	218
5.	Swedish Council and Leuven	283
6.	Habitat publication	500
7.	Working papers local publication on projects and subject interests	3613
8.	HRDU publications and University Publications	113
9.	Photo albums	11

TOTAL	6845
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The library also contains literature on e.g. Kenya Gazette and daily newspapers and other periodicals that are not subscribed but are useful for quick reading. The total amount of titles are estimated to be around 7,000.

The database contains 2200 records pointing to the most up to date documents. The database is updated continuously.

4.3 The Use of the Documentation Centre

{tc \13 "4.3 The Use of the Documentation Centre}In the beginning of the project very few persons visited the HRDU to search information in the small collection of documents and HRDU reports. This changed dramatically as soon as modern new documents, books, journals, proceedings etc., started to pour into the new centre. The subject coverage included literature on planning, sociology, women in development and technology apart from its original housing information-aspect as it began.

During the period 1983 until November 1996 there were more than 6,200 visitors to the Documentation Centre. That is 480 persons/year if evenly distributed.

The different categories of use of the Documentation Centre can be illustrated by the library borrowers during 1993-1996. In total 1127 persons.

LIBRARY BORROWERS 1993 - 1996

STAFF ADD/HABRI	STUDENTS	OUTSIDERS	UNIVERSITIES	UNCHS (HABITAT)
608	434	48	28	9
54%	39%	4%	2%	1%

Another indicator of the use of the Centre can be the amount of copies produced by the project copying machine. The machine was installed at HRDU January 1991 and has now produced **762,423 copies**.

Translated into 50 pages reports the production has been **15,250 copies of reports** or if instead

3 pages journal articles more than **254,000 copies of articles** have been distributed. Of course the copying machine has been used also to some extent by the HRDU as such and even by FADD staff.

In any case the continuous input of up to date documents, books, journals, proceedings and gray literature including HRDU/HABRI and other Kenyan documents in combination with an effective library and documentation services seems to be one good way of transferring knowledge in a practical way.

4.4 The use of PC and database software, Micro CDS/ISIS. Copying machine

Besides using word processing software (Wordperfect) the choice of database software was important for many reasons. It should be of the same type used or to be used by other organizations within the field of human settlements information in Kenya and preferable in other East African and African countries, not to forget international organizations such as UNCHS and UNEP. The choice fell on Micro CDS/ISIS, developed by UNESCO. It is powerful database software in DOS environment, free of charge. It is now widely used throughout Kenya and Africa. It is also used in Europe. BYGGDOK is using the software for off line input to its databases. There are training facilities in all East African Countries. In Kenya the software is used by UNCHS, UNEP, University of Nairobi Library, Shelter-Afrique and many other organizations. The CDS/ISIS software is used for the databases at HRDU.

After the delivery of the second PC 1991 to the Documentation project HRDU has added more internal memory to the PC and also put in a new harddisk. A copy of the database is sent on request to BYGGDOK.

As part of the PC equipment a matrix printer was supplied. It has now served its term and is in the state of no repair. The Documentation Centre has now no possibility to make immediate print outs after searching the database. This makes it very difficult to serve the visitors to the centre and also to produce dissemination products which could promote the Centre to a wider circle of users. It should also be noted that the above mentioned copying machine is out of order. It has been equipped with some new vital parts but needs a thorough service undertaking.

4.5 Personnel situation

During the thirteen years of the project, the following persons have participated in the Documentation Centre:

- Jayne Abonyo, Documentalist in charge, 83-87, 91-95, 95-leave of absence
- Anne Njiri, Documentalist Assistant, 86-93
- Doreen Anyona, Acting Documentalist, part time
- Fransisca Odero, Typist, part time
- Jane Oluoch, Documentalist Assistant, 94-

The directorship has changed during the period:

- Mr Tara Chana, -1983
- Mr Joel Kateregga, Ag, 1983-1984
- Mr E. Agevi, Ag, 1984-1986
- Dr Paul Syagga, 1986-1992
- Dr Peter Ondiege, 1992-

Thanks to the flexibility of SIDA in allowing time extensions of the project in those situations where the activities were low due to changes in personnel and leadership of the unit it was possible to bridge the difficulties in these cases for the benefit of the project.

4.6 Cooperation with UNCHS(Habitat) information centre

The documentation project was early recognized by UNCHS (Habitat) and looked upon as a very interesting attempt to improve the human settlement information at a national level. It was also seen as a way to exchange information at regional and eventually later on international level. BYGGDOK has in its co-operation with UNCHS (Habitat) produced two documents which were published jointly by UNCHS and BYGGDOK.

The first one which also is used at HRDU is “Reduced Universal Classification, RUDC, A UDC selection for Human Settlements and the Built Environment, 1985, CHS/INF/85-4

The other document is “BASIC DOCUMENTS ON HUMAN SETTLEMENTS FOR DEVELOPING COUNTRIES”¹³. The author of this book is Moses D. Mengu.

As mentioned above the Habitat Thesaurus is used at HRDU and the same input format is used at HABRI and HRDU. Close contacts and exchange of experiences are maintained between HRDU and UNCHS (Habitat) information centre.

4.7 Effect on target groups

The statistics above indicates the importance of the information content at the centre.

Interviews with the most frequent users at the faculty and outside strengthen the impression of a very useful centre for obtaining relevant information on all aspects of human settlements and the built environment.

4.8 Summary of findings and suggestions

4.8.1 The situation to-day

The HABRI Documentation centre is a traditional documentation centre with an up-to-date collection of relevant documents and good search tools on the subjects of human settlements and the built environment.

HABRI has as planned taken over most of the costs and the responsibility for the running of the Centre. BYGGDOK's part during the latest phase has mainly been to handle the purchase of documents, subscriptions and membership fees requested by HABRI. The demand driven approach has been the idea in this project.

HABRI has financed the upgrading of the project PC (386-model) to some extent.

The copying machine which is out of working order has been supplied with vital spare parts, financed by HABRI, but lacks a final service before being in full use again. As mentioned before the project printer is not working any more and can obviously not be repaired.

If the Documentation Centre is left without any support from donor organizations the following scenario can be foreseen:

- Books and journal subscriptions from abroad can not be purchased
- On the other hand Kenyan documents such as reports, theses, etc., on human settlements from e.g. university institutions can be handled
- It will be difficult to replace old equipment (PCs, printers, copying machines, etc)
- The use of the centre by researchers, teachers and students will decline due to the shortage of new documents and other information sources
- A 14 years investment will not be wasted but the standard of the Centre will be much lower

A continuation of the project for some years makes it possible to bridge between “traditional” documentation centre and a “node” in a “human settlements network” using modern information technology, IT.

4.8.2 A continuation of the project at a low level

It is obvious that the PC and surrounding equipment need to be upgraded. A new PC and attached printer are essential for maintaining a reasonable service level. It also includes a copying machine dedicated for documentation purposes. The centre should also be equipped with a direct telephone line for a fax machine and E-mail. Fax and E-mail must be easily available at the centre if the centre shall play an important part as information supplier in Kenya and the rest of East Africa. A much closer cooperation with the information and documentation units at UNCHS (Habitat) and Shelter Afrique will strengthen the information capacity of all three units. The same database software is used and the databases can therefore easily be exchanged.

The funds for the purchase of documents and assistance from BYGGDOK should be kept at the same level as for the latest phase of the project. Education of the staff at the centre is essential. It should also include back-up personnel if available.

4.8.3 Further steps of development

After studying the development of networking in East Africa by E-mail and Internet operators it is fully clear that these tools will be widely used by all actors in the area of human settlements and the built environment. The need for reliable information is at hand. What will be the role of HABRI? The Institute is to-day the most up-to-date East African information centre on human settlements in a broad sense but it is also a unique source of Kenyan knowledge within the field of human settlement and the built environment. First of all access to information about the holdings at HABRI can also be facilitated through E-mail and fax. Knowledge about the Documentation Centre at HABRI and its information sources must be better known in Kenya and in neighbouring countries.

At this stage the possibilities to digitize specific Kenyan documents such as HABRI reports, and make them accessible in full text through, E-mail, FTP or Internet www should be looked into.

4.8.4 Full Internet utilization

A www-centre that will primarily deal with human settlement and built environment information should be established.

Partners in this centre besides HABRI could also be FADD (the Universities), UNCHS (Habitat) Information Division, Shelter Afrique, Africa Housing Fund, organizations within the building and construction sector, OAU, NGOs¹⁴ such as CREUMHS¹⁵.

This centre should cooperate closely with corresponding centres in other East African countries and other African countries for that matter. In all the visited countries there was great interest in using the new communication tools available e. g. Internet with www, FTP, Telnet, E-mail, Gopher, etc., because these tools are fast, reliable and cost effective.

Meetings at HABRI in conjunction with the follow-up of the project

4 November 1996

Present:

Dr Peter Ondiege	HABRI, Director
Dr Joyce Malombe	HABRI, Sociologist/Planner
Mrs Jayne Abonyo	HABRI, Documentalist, Doc. Centre
Mrs Jane Oluoch	HABRI, Assistant Documentalist, Doc. Centre
Dr Laban Shihembetsa	HABRI, Architect/Planner
Prof Paul Syagga	Dean, Faculty of ADD
Dr Nicki Nzioki	FADD and Research Coordinator at CREUMHS
Mr Bengt Eresund	Bengt Eresund IT AB, Consultant

Summary of discussions concerning the HABRI/BYGGDOK Documentation Project.

All aspects of the project were discussed.

Dr Nzioki pointed out that the centre is the only one in the region and it has an up-to-date collection of very useful documents including journals.

Professor Syagga, former Director of HABRI, suggested a wider capture of documents for the database. Suppliers could be other institutions at the university such as the Geographical Institution with their reports and theses. The subject "Human Settlements" is in fact multidisciplinary. If the centre is more complete the possibility to charge for information services increases. At present external (outside FADD and the university) users of the centre are charged to some extent for services already today.

The documentalists explained the problems of not having a direct access to a printer from the library PC and the total lack of copying facilities and E-mail. The PC which is a five year old 386 has been upgraded with more memory.

Dr Malombe informed of the new E-mail facility that she had received but not yet started to use. The subject of further education of the documentalists in using the database software CDS/ISIS was taken up. A meeting was arranged with Mrs Jacinta Were at the University library to arrange the training of the documentalists.

The HABRI contacts with sister organizations in Tanzania, Uganda and Ethiopia were not very frequent.

The cooperation with other "Human settlements" institutions in Nairobi were discussed. Some of them are UNCHS (Habitat) information centre, the library at Shelter Afrique, and African Housing Fund, AHF. There is some cooperation between HABRI and UNCHS and Shelter Afrique.

The use of Internet and building up a communication network and databases for human settlements and built environment organizations were discussed. A focal point could be FADD and HABRI together.

The possibilities to digitize relevant HABRI documents and make them available on CD-ROMs, online, as documents stored in a computer for transfer via FTP (File Transfer Protocol) or on a Gopher server were also discussed.

The general impression of the discussion was that the representatives of FADD and HABRI looked upon the Documentation Centre as a very important institution which should continue and be "upgraded" with better educated personnel and with modern necessary equipment including access to modern communication facilities.

6 November 1996

Present:

Dr Joyce Malombo	HABRI, Sociologist/Planner
Jayne Abonyo	HABRI, Documentalist, Doc. Centre
Mrs Jane Oluoch	HABRI, Assistant Documentalist, Doc. Centre
Mrs Susan Thomson	UNCHS (Habitat) Best Practices and Local Leadership Programme
Dr Nicki Nzioki	FADD and Research Coordinator at CREUMHS
Dr Erustus Abonyo	CREUMHS
Dr Dorothy Abonyo	CREUMHS
Dr P. Mutuku Nthuli	Development Alternatives Network (DAN)
Ms Barbro Widell	BYGGDOK, Swedish Institute of Building Documentation
Mr Bengt Eresund	Bengt Eresund IT AB, Investigator

Summary of the discussions concerning the HABRI/BYGGDOK Documentation in relation to UNCHS (Habitat) and the programme of Best Practices and Local Leadership Programme.

Mrs Susan Thomson gave a very up-to-date summary of Habitat II and the continuation of the Best Practices Project including Local Leadership Programme (BLP), a Partnership and Capacity-building Programme for Sustainable Development. She also mentioned that the new approach from UNCHS' side to work together with NGOs and not exclusively with government organizations was very promising. Mr Bengt Eresund described the HABRI (HRDU)/BYGGDOK DOCUMENTATION PROJECT and declared that the information at HABRI/BYGGDOK Documentation Centre could be of great value for the BLP programme as a case study (Best Practice Project) and as a valuable source of information for other BLP projects.

The representatives of CREUMHS described interesting ongoing projects and actual applications to UNCHS for funds for Best Practices Projects.

One issue of mutual interest was the use of modern IT. The BLP programme needs good communication to the established focal points throughout the world, Africa included. HABRI and also FADD need modern IT to be able to distribute information and have contact with sister organizations, partners and clients in East Africa, Africa as a whole and the rest of the world. A meeting with the next day with Mrs Christina Engfeldt, Chief of Information and External Relations at UNCHS, was confirmed by Mrs Susan Thomson.

5. KENYA

During the fact finding mission to Kenya and Nairobi a number of institutions and organizations besides HABRI and related Faculty of ADD were visited.

5.1 Shelter-Afrique^{16 17 18 19 20}

The name of the organization is the **Company for Habitat and Housing in Africa**, Shelter-Afrique. It started to operate in 1985 as a pan-African housing finance and development institution. It is incorporated in Kenya as a limited liability company.

The current membership of Shelter-Afrique consists of 30 African countries, two regional institutes (African Development Bank, AfDB, and African Re-Insurance Corporation, AFRICA-RE) and one non-regional organization (Commonwealth Development Corporation).

According to the Corporate profile published by Company “the general objective of Shelter-Afrique is to redress the increasing housing deficit in Africa..” How this is carried out is described in more detail in the company documents. The core activity is to coordinate the financing of housing and related projects. The housing schemes are intended for middle income people, not for low income people.

At Shelter-Afrique **Mr Ositadinma C. Okonkwo**, Senior Project Officer, and **Mr Victor N. Karanja**, Documentalist, were interviewed.

Knowledge of HABRI (Shelter-Afrique)

HABRI is well known at Shelter-Afrique. Staff at HABRI have been employed as consultants for certain projects. The present acting director at Shelter-Afrique was dean at the Faculty of ADD when the Documentation Project started. The Documentation Centre at HABRI has also been used by the library at Shelter-Afrique. The library is using the same database software as HABRI Documentation Centre, Micro CDS/ISIS.

IT-Status (Shelter-Afrique)

The Company is well equipped with PCs, Note-books, printers, etc. The PCs will be linked to a LAN, Local Area Network, next year. In the beginning of 1997 E-Mail facilities will be installed.

Within 2 years the company will have full Internet connection for marketing purposes and for publishing all relevant documents on their own Internet pages with the help of an Internet Service Provider (ISP) or through their own Web-site.

The communication costs (telephone, fax, mail) for Shelter-Afrique is 28,000 USD/year. The calculation is that these costs can be reduced with 50% by using Internet, and having documents, proceedings, etc. available on Internet instead of printing and distributing through mail or fax. Dr Okonkwo emphasized that the installation of a LAN, E-Mail and finally a full Internet access will significantly increase the productivity of Shelter-Afrique.

Summary and comments (Shelter-Afrique)

Shelter-Afrique is well acquainted with HABRI but could use the HABRI Documentation Centre to a greater extent. All computer and communication facilities needed will shortly be available at Shelter-Afrique. If HABRI has the same facilities the use of the information at HABRI will be more easily available to Shelter-Afrique and its member states. There is an obvious market potential of having Shelter-Afrique informing its members of HABRI Documentation Centre. The first step should be for the two organizations to exchange databases. Both are using the same database software.

5.2 African Housing Fund (AHF)^{21 22}

The African Housing Fund was established in May 1988 by Shelter-Afrique (see above). Today 39 African countries are members. The prognosis is that within 3 year all African countries will be members.

Information materials gives the following about AHF:

“The African Housing Fund (AHF) was first operated as a programme in Shelter-Afrique and was, in May 1990, established as a legal entity whose mission is to assist the poorest of the poor in Africa. The AHF philosophy and strategy are built on the most successful examples identified by the United Nations’ International Year of Shelter for the Homeless, and adapted to the special African conditions and possibilities. AHF assists communities in both urban and rural areas to set up viable businesses (often building materials factories) with loans and with training. These businesses are the catalysts which enable communities to upgrade housing and initiate other new income- generating activities and social programs. The AHF approach focuses on popular participation, with the poor themselves ultimately developing the necessary skills for managing their own projects independently”.

The major part (95%) of AHF’s funding in 1996 consists of donor grants. The strategy is to build up enough revolving loan funds so that after a certain amount of time the activities will be to a minimum dependant of donor funds. The target revolving loan funds for the period 1995-2004 is USD 360.000.000 or **USD 1** per inhabitant in member countries.

The projects funded by AHF are self help groups for housing, production and savings cooperatives. The members of the cooperatives are educated in how to run a cooperative and also assisted with simple and practical documents for by-laws and keeping track of loans, production, savings, etc.

AHF has a representative in each member country. The offices in the countries are equipped with telephone, Mac personal computer and a fax for communication with the AHF headquarter in Nairobi and others.

Mrs Ingrid Munro, Chief Manager of Africa Housing fund, was interviewed.

Knowledge of HABRI (AHF)

Ingrid Munro was well acquainted with HABRI and the documentation project.

In her former capacity as Director General of the Swedish Council for Building Research in she had 1982 together with Adolf Stern, at that time director of BYGGDOK, the Swedish Institute of Building Documentation, signed the application to SIDA for funds for the HRDU/BYGGDOK DOCUMENTATION PROJECT!

AHF deals with human settlements and related problems but is presently using the HABRI information capacity very little. Discussions with the country representative in Uganda provided good examples of problems that could be solved if access to the information at HABRI was easily available.

IT-Status (AHF)

AHF headquarters is well equipped with Mac computers linked together with a LAN including printers. The local offices in each country are using Mac personal computers and telephone/fax for communication purposes.

The information situation at AHF was discussed. The activities of the organization are growing very rapidly and there is a strong need to handle and structure the generated internal information from projects, feed back, etc., for filing purposes but also for presentation of information to the whole organization and interested bodies outside the organization. The possibilities to set up databases and communication network for AHF including traditional E-Mail and full Internet capacity were discussed.

Summary and comments (AHF)

African Housing Fund with 39 African member countries is working within the human settlements field “...to assist the poorest of the poor in Africa, in both urban and rural areas, to establish income-generating activities and to improve their shelter and living conditions.”

The AHF projects continuously need up to date information about problems related to housing and other human settlements issues. The projects will also generate information and feed-back of great interest to other similar projects.

HABRI Documentation Centre is a source of information that could be very useful for AHF as a whole. The experiences from AHF projects and other AHF activities themselves also constitute an important source of knowledge that should be taken care of.

5.3 UNCHS (Habitat) ^{23 24 25 26 27 28 29}

The United Nations Centre for Human Settlements, UNCHS (Habitat), was created as a result of the first Habitat Conference in Vancouver 1978. The overall mission statement for UNCHS reads:

“The mission of Habitat is to promote socially and environmentally sustainable human settlements development and management, through policy advice and capacity-building at international, national and local levels”.

UNCHS planned and organized the second United Nations Conference on Human Settlements (Habitat II), held at Istanbul in June 1996. The Conference adopted the Istanbul Declaration and The Habitat Agenda (Goals and Principals, Commitments and Global Plan of Action).

The concept of Best Practices was highlighted at Habitat II and twelve initiatives were awarded at a special ceremony. The Best Practices Initiative is now a permanent programme of UNCHS (Habitat).

The Best Practices and Local Leadership Programme (BLP) will be a global network of regional and Thematic Resource Centres. A second call for Best Practices is now sent out with the goal of a second award ceremony at the World Habitat Day in October 1998.

The core of the BLP will be the Best Practices database.

Mrs Christina Engfeldt Information section, Chief of Information and External Relation, **Mrs Susan Thomson**, Gender/Best Practices Officer and **Mrs Shivona E. Tavares**, Officer-in-charge, Documentation and Reference Unit, Information, Audio Visual and Documentation Division, were interviewed,

Knowledge of HABRI (UNCHS)

UNCHS was involved already at the start of HABRI (former HRDU) Documentation Project. In a letter to HRDU Mr A Fugelsang, Deputy Director UNCHS (Habitat) in charge of Information Division, wrote in January 1982,

“As one of the main goal of the information policy of UNCHS is to create information services at the national level, it is of great importance that the HRDU library receives an appropriate support to be able to participate in an exchange of information on human settlements problems at the national , regional and eventually later on international level.

.....

Moreover, HRDU publications represent a very good example of what should be expected of human settlements and building establishments in developing countries, and should be more extensively known by being entered in the future information systems.”

A close cooperation between Habitat Documentation Unit and HABRI (HRDU) was established from the beginning of the project. The same database software and input format are used by both units.

IT-Status (UNCHS)

In general the IT-status at Habitat seemed to be low. The Documentation centre for instance has very

old PCs . Not even the use of CD-ROMs is possible. The whole information section needs an immediate upgrade of tools like PCs , software and communication capacities.

Summary and Comments (UNCHS)

There is a well established cooperation between the documentation centres at UHCHS and HABRI but it could be developed further with little effort. The first step should be the exchange of databases and here also the UNEP library could be involved. The second step should be to establish a simple and effective way of arrange the inter library loans of documents.

HABRI's involvements in Best Practices and Local Leadership Programme (BLP) could be as a Best Practice project in cooperation with BYGGDOK but most important as a source of information within the human settlements sector.

A further step to develop the human settlements information situation in Kenya, in the region and in Africa in conjunction with UNCHS (Habitat) including the Habitat project BLP, AHF, HABRI and OAU is described in "Conclusions and Recommendations".

5.4 CREUMHS, Cohort for Research on Environment, Urban Management and Human Settlements³⁰

CREUMHS is a registered NGO in Kenya and has declared its purpose and mission,

"...CREUMHS is a non-profit Education and Research Organization which brings together scholars, researchers, professionals and public officials to integrate theory, practice and understanding of the Environment, Urban Management and Human Settlement Policies with significant impact on human-welfare.

CREUMHS was formed with the primary goal to develop a strong network of researchers in African institutions working on a variety of areas which have a positive contribution to solving the problems of deteriorating environment and poor human settlements in Africa."

At CREUMHS Dr Nicki Nzioki, Research Coordinator, and Dr Erustus Abonyo were interviewed.

Dr Nzioki is also Chairman of section Development within the Faculty of ADD.

Knowledge of HABRI (CREUMHS)

The office of CREUMHS is situated at the Faculty of ADD and all persons at CREUMHS are well aware of HABRI Documentation Centre and also frequent users of the Centre. Dr Erustus Abonyo described how a team including himself used HABRI Documentation Centre when compiling a government report for UN. He estimated that the team saved 12 man days by using the centre.

IT-Status (CREUMHS)

CREUMHS has a small office run by Dr Nzioki and it is equipped with PC and E-Mail facilities.

Summary and comments (CREUMHS)

CREUMHS could be considered as one local partner if a more elaborated information system for human settlements in Kenya and East Africa is planned.

5.5 FADD, Faculty of Architecture, Design and Development

The Faculty includes HABRI which is situated within the premises of FADD.

Professor Paul Syagga is the Dean of FADD and he was from 1988 to 1992 the director of

HABRI(HRDU). Professor Syagga stressed the importance of HABRI Documentation Centre for the development of the human settlements situation. He is a frequent user of the Centre and also sees to it that documents of interest come to the Centre from his own collection of documents.

The Faculty can be an active partner and back-up if a broader approach is taken to strengthen the information supply on human settlements. **Dr Nicki Nzioki**, FADD, see above, was also interviewed in his capacity as teacher Chairman of a section within FADD.

5.6 Institution of Surveyors of Kenya

Mr David. K. Macoco, Chairman of the Institute was interviewed about the Institute and its members relation to human settlements and the use of modern IT. The level of knowledge of HABRI was low and also the use of modern IT at the office of the Institute.

5.7 African regional Centre for Computing (ARCC) ^{31 32}

A statement from ARCC about its activities reads:

“ARCC is a registered non-profit organization whose main objective is to promote the use and development of computing and communication technologies in Africa.”

ARCC supplies full Internet communication and also separate E-Mail facilities. The Internet capacity was supported by British ODA and US national Science Foundation (NSF).

A meeting was held with **Dr Shem J. Ochuodho**, Director, also Chairman of Computer Society of Kenya (CSK) and Chairman of Telemedia Communications Ltd and **Mrs Betty Angogo**, marketing Director. An other operator on Internet is **Africa Online** ³³, which is an international company.

5.8 SatelLife HealthNet Kenya ³⁴

“HealthNet Kenya is a telecommunications system that link health care workers and other professionals around the world and provides them with access to appropriate sources of information.”

Healthnet runs a “store and forward” E-Mail system which is linked to other countries via low-earth-orbit satellite (HealthSat). Among other things the system allows for participating in electronic conferences. The Healthnet Kenya is managed by **Dr Fred Bukashi**, HealthNet Coordinator Eastern and Southern Africa Region.

5.9 Conclusions and recommendations

To strengthen the information situation on human settlements in Kenya a closer cooperation between HBRI, UNCHS, Shelter-Afrique and African Housing Fund is recommended. Such a closer collaboration would benefit all these organizations.

With high telephone/fax and postage tariffs and problems with copying facilities it is very interesting to look into the possibilities that opens up with modern information technology, IT. It could be interesting to put all HABRI and university reports and theses, etc., on human settlements in a digital form and “publish” them in the most appropriate way. The options are manyfold such as CD-ROM, diskettes, online, Internet (world wide web, Gopher, FTP), LAN. From the East African perspective this would be a valuable contribution from Kenya.

If the same approach is take from the other East African countries the information situation on human settlements would improve very much.

The Kenyan, and the most important, partner in an East African cooperation on human settlements information should of course be HABRI and its Documentation Centre.

The roles of the international organizations UNCHS, Shelter-Afrique and AHF are discussed in a separate section.

6. TANZANIA

6.1 MECCO, Mwananchi Engineering and Contracting Corporation³⁵

MECCO is the largest local contractor in Tanzania established 1964 under the Company Ordinance (Cap 212) and re-established as a Corporation in 1983 under the Public Corporation Act No. 17 with added functions and scope to play a bigger role in the Tanzanian construction industry. At the moment MECCO is a wholly Government owned parastatal under the Ministry of Works. There is a privatization programme in progress which could include a plan for MBO, Management Buy Out.

Some of the problems facing MECCO are influx of foreign contractors, delayed payments for work done, excess labour and poor equipment base. It is necessary for local contractors to enter into joint ventures with bigger foreign firms, and/or that larger projects are sliced into smaller packages. Otherwise it will be very difficult for local contractors, including MECCO to secure jobs in such programmes.

At MECCO **Mr F Barozi**, Director General and **Dr Emmanuel Simkoko**, head of Research and Development, were interviewed. Dr Simkoko studied for his PhD at The Royal Institute of Technology in Stockholm.

HABRI was not familiar to MECCO. To-day there are 2 PCs at MECCO. The design of a new computer system was under way with the help of a British overseas organization. Documents are difficult to get hold of from others countries due to money problems. Memberships in international organizations help the situation thanks to membership journals etc.

6.2 NEDCO, National Estates and Design Corporation

NEDCO is a parastatal under Ministry of Works. Its activities are decreasing and the staff reduced.

Mr A Mpunga was interviewed

6.3 NCC, National Construction Council³⁶

NCC was one of the results of "The Local Construction Industry Study" of 1977 financed by SIDA.

The organization is a Government Institution established through Act of Parliament No. 20 of 1979 and became operational in 1981. In the Council's profile paper it says: "The Council's Corporate Mission is to promote the development and sustainability of an effective and efficient construction industry in Tanzania. The Corporate Mission is implemented through functions which include: planning and coordination; provision of technical advisory services; training; research; documentation and information services.

The staff at the Council include: 20 civil engineers, 4 quantity surveyors and 2 information scientists.

Mr Kesogukewele M. I. M. Msita, Executive Secretary, and **Mrs Dorothy Sekimang'a**, Chief Documentation and Information Officer, were interviewed.

Mr Msita knew about HABRI and had even visited HABRI. NCC has a IT-plan included in the information strategy for NCC. NCC is now very well equipped with PCs, 486s or Pentiums and related equipment. There will be 14 PCs linked with a LAN, Local Area Network, and a file server. One PC within the network will be dedicated for communication with modems. The local offices in Moshi and Mwanza are also well supplied with PC equipment. The intended software for databases is Micro CDS/ISIS; the same software used by HABRI and many other institutions in East Africa. CDS/ISIS is provided by UNESCO free of charge.

NCC is an interesting organization and could be to considered when discussing an East African Information System on human settlements and the built environment.

6.4 ERB/IET Joint Training Project^{37 38}

ERB, The Engineers Registrations Board, and IET, Institution of Engineers Tanzania, have launched a joint programme proposal for the professional development of engineers in Tanzania. The project is led by **Professor Burton L. M. Mwamila**. He studied for his Ph.D. at the Royal Institute of Technology in Stockholm. He was the former Dean of the Faculty of Engineering at the University of Dar es Salaam.

The proposal is now to introduce an Engineers Apprenticeship Programme (EAP) and Continuing Professional Development Programme (CPDP) which will facilitate the systematic professional development of graduate engineers. Without going into details it seems to be a very well prepared programme for development of engineering skills in Tanzania. Professor Mwamila will on behalf of the joint project eventually ask for assistance from donor organizations. But before that he wants to have a well worked through proposal, approved by all parties concerned in Tanzania.

6.5 BRU, Building Research Unit

Building Research Unit is a government institution which was sponsored for many years by NORAD including the financing of the buildings, equipments and staff houses. Many researchers from NBI, Norwegian Building Research Institute, worked at BRU. SIDA has financed building regulations experts at BRU for more than 10 years. Many good results were achieved through this Norwegian and Swedish input.

Today there is no activity visible at BRU. The Director **Mr A. L. Mtui** was interviewed.

BRU will be forced according to Mr Mtui to be a government agency and stand on its own feet after some years with seed money from the government. Seen from the situation at BRU today it is doubtful if the institute will survive.

HABRI was well known at BRU. From my own experience working at BRU the publications from HABRI, at that time HRDU, were very much used at BRU. At present BRU has very little possibility to contribute to an East African cooperation on human settlements information

6.6 University College of Lands and Architectural Studies (UCLAS)³⁹

The former Ardhi Institute is now linked to the University of Dar es Salaam as a university college. The college undertakes teaching in architecture, land survey, water and drainage systems, etc. At the college there is also the "Institute of Housing Studies and Building Research" former "Centre for Human Settlements Studies". This institute is very similar to HABRI and performs research, consultancy, short courses and information dissemination. It has its own library linked to the main library of UCLAS.

At UCLAS **Principal A. M. Nikundiwe**, **Mr Alphonse Gabriel Kyessi**, Associate Director Institute of Housing Studies & Building Research, **Mr Phillidas B. F. Munubhi**, Head of Library Department (UCLAS), and **Dr E. G. Mtalo**, Information Systems Manager of UCLAS, were interviewed.

HABRI was a well known organization. The libraries at UCLAS and the Institute of Housing Studies & Building Research are located in two separate buildings very close to each other. The main library is situated in a well equipped new library building. The database programme to be used is the Micro CDS/ISIS.

The College as such has got very good computer facilities with many PCs and a PC rooms for training staff and persons from external organizations. There is a great interest in participating in an information project related to human settlements. The competence and equipment is available.

6.7 University of Dar es Salaam, Computing Centre

The University has a well worked out IT-plan for the development of the computer network of the university. E-Mail is available today. There is one fibre optic backbone net to which each institution link their own LANs. The actual plan for 1996-1999 includes 8 sub projects of which

not all are funded yet. Full Internet facilities will be available through a link to UNINET, South Africa. How UCLAS connection to the university network will be is not yet decided but radio a link is discussed. At the Computing Centre **Dr Beda Mutagahywa**, Director, was interviewed.

6.8 Tanzania Commission for Science and Technology, COSTECH ⁴⁰

Tanzania Commission for Science and Technology replaced in 1986 the Tanzanian National Scientific Research Council. The Commission covers all fields of science and technology.

In *"The National Science and Technology Policy for Tanzania, Ministry of Science, Technology and Higher Education, April 1996"* the section on building and construction reads:

"31. In the building and construction industry efforts shall be directed to:-

- strengthening of institutions dealing with building in order to develop and promote the use of locally available adopted design, and alternative building and construction materials for construction;*
- designing and development of low cost waste disposal systems;*
- designing and development of low cost all-weather roads and infrastructure; and*
- promotion of tropical architecture; and urban and rural planning and design."*

On information:

"Dissemination and Utilization of Research findings

- 87. Efforts must be made to ensure the dissemination and utilization of the already available research findings both generated from within and outside the country and adopt or adapt the available technologies in order to suit our needs with the view to optimizing the limited resources at our disposal.*

Information and Documentation Services

- 88. Today's rapid pace of technological innovation and the degree of specialization are responsible for the "information explosion"" or the availability of a large mass of scientific and technological data, which calls for the establishment of databases for storage and dissemination of information effective and efficiently The provision of up-to-date and efficient scientific and technological information system including libraries, documentation centres and computer systems is vital.*
- 89. An up-to-date inventory of scientific equipment and director of the nation's scientific and technology manpower should be prepared by the Tanzania Commission for Science and Technology. Where possible, the directory of manpower should also give brief notes on the scientists research project(s). The inventory and the directory should be updated from time to time.*
- 90. The Tanzania Commission for Science and Technology should also act as a focal point which will strive to establish an industrial and technological information system consisting of, among other things, patent information services, database on local and imported technologies, technology suppliers, data on technology costs and contractual agreements details."*

At COSTECH **Mr Theophil Mlaki, Head of information and Documentation** was interviewed. He knew all institutions dealing with research and development including those dealing with human settlements and the built environment. COSTECH arranges a lot of courses in using computers (PCs) and free softwares. In November they had a two weeks course for women scientists, researchers and technologists and also a course together with Tanzania Library

Association on computer application and the use of Micro CDS/ISIS database software. COSTECH is well provided with PCs, LAN, printers etc. The Commission runs an E-Mail service in Tanzania. The plans are to set up an Internet connection and a Web server at COSTECH. The Tanzanian telephone company, TTCL, will charge USD 10,000 per month for a leased line of 64 kbps to London. The price was too high according to Mr Mlaki. He will try to have TTCL to lower the price. An other possibility is to link to the university network for Internet through VSAT to South Africa.

There is one operator, in November 1996, that supplies full Internet facilities, CyberTwiga, and an other advertises about it but is not yet in operation (Wilken Afsat, Tanzania, Ltd).

COSTECH could be an important partner if an East African information cooperation within the human settlements and built environment sector is established.

6.9 ACET, Association of Consulting Engineers of Tanzania and Inter-Consult Ltd ^{41 42}

Mr Mark W Njiu, Chairman of ACET and Deputy Managing Director of Inter-Consult Ltd was interviewed. Inter-consult was formed by Tanzanian professionals 1978. The company is a multidisciplinary entity owned and run by Tanzanian Nationals. It offers consultancy services in most branches in the construction industry, from architecture and town planning to mechanical engineering and project management.

Mr Njiu had no knowledge of HABRI. The company was interested in participating in the design of low cost houses.

Inter-Consult is well supplied with PCs and appropriate software for design works of different kinds. The company will be linked to E-Mail and Internet through CyberTwiga which is in contact with Inter-Consult.

The mostly used standards are British Standards, BS, and its CP, Code of Practice.

It was interesting to note that the Simplified Regulations and the recommendations on how to handle seismic risks in design, produced at BRU during the seventies by Mr Bernhard Lindahl are used by Inter-Consult.

6.10 CyberTwiga ⁴³

The company offers, as the first company in Tanzania, full Internet connection. **Mr Adam Messer** was interviewed at CyberTwiga. He is together with **Mr William Sangiwa** the owners of CyberTwiga. The Internet connection was tested at the visit. A new company is soon on the market. ⁴⁴

6.11 Other meetings

Mr Ove Engström, regional Project Coordinator, DNV Development, was interviewed. Mr Engström has been working with the built up of TBS, Tanzania Bureau of Standards and at SADC, Southern African Development Community, office in Dar es Salaam.

Mr Jan Furengren, Senior Programme Officer, SIDA, was interviewed about among other things the telecommunication situation in Tanzania.

Discussions were also held with **Mr Ali Yusuf Kirobo**. He is a former information officer at BRU, Building research Unit, and now operates a small organization undertaking small housing projects. For his activities he lacks simple house building guidelines, dealing with aspects of roofs, walls, foundations, etc.

6.12 Conclusions and recommendations

In Tanzania there are two institutions that would fit into an East African cooperation on human settlements information. Those two are University College of Lands and Architectural Studies,

UCLAS, including its Institute of Housing Studies and Building Research and the National Construction Council, NCC.

Both Institutions have the capacity and personnel resources to be active in such a cooperation and both organizations expressed great interest in participating in an information project.

These organizations are also capable of making Tanzanians documents on human settlements available in a digitized form if wanted. Their computer competence is up to date and PCs, LAN, etc., are available.

In the background there is also the Tanzanian Commission for Science and Technology, COSTECH, which has a responsibility within the area of information and documentation services. The IT situation in Tanzania is improving very rapidly. There are private Internet operators and E-mail suppliers available today. The University will soon have its own Internet link to South Africa and UCLAS will connected to it.

7. UGANDA ^{45 46 47}

7.1 National Housing & Construction Corporation, NH&CC ⁴⁸

The corporation is a parastatal under the Ministry of Housing and Physical Planning and has responsible of government housing. The directive is now to leave the housing business and sell out houses to the tenants. Some of the buildings may be converted to condominiums. NH&CC also owns office buildings. The financing of housing projects have been through Shelter-Afrique to some extent.

At NH&CC **Mr Godfrey Nabongo**, Senior Information Systems Officer, was interviewed. He knew about HABRI. The library at NN&CC was not very up-to-date and therefore seldom used. According to Mr Nabongo it is difficult to get approval for subscriptions of technical journal due to lack of foreign currency. The corporation has a computer department of 2 persons dealing with all aspects of computer aid. There is a LAN , Local Area Network, installed. NH&CC has its own home page on Internet (<http://www.uganda.co.ug/House.html>) and E-mail facilities. CD-ROM drives are available and next year CAD will be implemented including plotters for design work.

7.2 Ministry of Housing and Physical Planning

At the Ministry **Mr Emmanuel M. Byaruhanga**, Director of Housing and Deputy Permanent Secretary, and **Mr Samuel Mabala Shibuta**, Ag. Assistant Commissioner (Housing Planning & Operations) were interviewed.

Mr Byaruhanga is very much involved in the activities of UNCHS (Habitat) concerning Best Practices. He is also responsible for submission of urban indicators to UNCHS. HABRI is well known within the Ministry. The responsibilities of the Ministry are decentralized to the districts in Uganda. The central staff of the Ministry has been reduced from 505 to 200.

The Ministry has several E-mail addresses and some information about the Ministry is available on Internet. The E-mail facility is available for all staff. There are 4 PCs at the Ministry of which only one is a 486, the rest 386.

The country coordinator of African Housing Fund (AHF) has her office at the Ministry.

7.3 African Housing Fund, AHF

At the AHF country coordinator office in Uganda **Mrs Marcella T. Ochwo**, country coordinator, and

Mrs Josephine Kaggwa, programme officer, were interviewed.

The office was supplied with a Mac personal computer, telephone and fax. They described the AHF projects they supervised. One cooperative had 700 members and already 370 houses were built. A group of women had set up a factory for production of roofing tiles. An other group of women had after building their own houses started to undertake construction contracts. This group had now for the local authority built 5 school blocks with a total of 20 school rooms.

When discussing technical problems the AHF persons expressed the need of having access to reliable information on housing, all aspects. Easy available HABRI information would have been of direct help. They were also very interested in knowledge about other similar projects.

Mrs Ochwo was very interested in getting access to E-mail at her office but would in any case subscribe privately.

7.4 Makerere University, Faculty of Technology: Department of Civil Engineering and Department of Architecture ⁴⁹

Professor Tore Haavaldsen, Head of Department of Civil Engineering and **Dr Barnabas Nawangwe**, Head of Department of Architecture, were interviewed.

Professor Haavaldsen had also been working at BRU, Building Research Unit, Tanzania. His

work at the University is sponsored by NUFU, Norwegian Universities' Committee for Development Research and Education. At the faculty a new programme sponsored by NUFU is just starting. The programme will involve students from Uganda, Norway and USA using the same CAD platform for designing a joint project. Mac servers and the latest available software will be used. The server at Makerere was already at the airport of Entebbe.

The faculty had a small but very well kept newly opened library. The computer room was fairly well supplied with PCs and Macs. One comment from Professor Haavaldsen was: "It is no problem here whenever any new equipment, PCs or anything else, comes in, it is immediately put into full use". A summary of the discussions were that the people of Uganda are working very hard to catch up in all fields.

7.5 Makerere University, Library

At the Library **Mrs Olivia Mutibwa**, Deputy Librarian, **Mr Bernard Bazirake Bamuhiiga**, Senior Systems Librarian, and **Mr Ely Gamukama**, Librarian, were interviewed. The library had started to produce a database covering the unique Ugandan and East African collection of documents. The database software Micro CDS/ISIS was going to be used. During the discussions Mrs Mutibwa suggested that she could produce a draft framework for a Ugandan participation in a human settlements and built environment information project for East Africa. She had previously been involved in setting up special documentation centres for medicine and agriculture. The location of a proposed human settlements documentation centre could be at the Library of the Faculty of Technology.

7.6 STARCOM, Starlight Communications (U) Ltd ⁵⁰

At STARCOM **Mr Edward Baliddawa**, Internet Sales Manager, and **Mr Edward Kasule Musisi**, Chief of Operations, were interviewed. Mr Baliddawa has been very active in developing the Internet services via satellite in Uganda. Many of the "home pages" of companies, Ministries and organizations are designed by him. Starlight Communications (u) Ltd offers full Internet communication in Kampala and outside.

Mr Musisi was earlier responsible for the University E-mail service. STARCOM offers all services for a proposed human settlements East African Information Project.

There is one major competitor to STARCOM and that is INFOMAIL. STARCOM Internet address is: <http://www.starcom.co.ug/>

7.7 INFOMAIL ⁵¹

INFOMAIL runs a full Internet connection using a satellite connection. The company was started by a Belgian **Mr Jean-Paul Minet**. One reason for starting the Internet service was that the E-mail service of the university (run by Mr Musisi) which Mr Minet used for other business was not working well.

At INFOMAIL **Mr Anders Wigand**, Managing Director, was interviewed. He offered all services for a proposed human settlements information project, including E-mail, Web-site, Gopher, FTP, etc. INFOMAIL Internet address is: <http://www.imul.com/>

7.8 Ugandan Investment Authority ^{52 53}

At the Authority **Mr Charles Matovu** was interviewed. He informed about the coordinating activities of the Authority to smooth the administrative work of investors coming to Uganda. The institution was well supplied with PCs, LAN, softwares, etc. The Authority exposes itself on Internet, <http://www.uganda.co.ug/Invest.htm>.

7.9 Conclusions and recommendations

Of the four countries visited Uganda was the most advanced user of modern IT.

There are two private Internet operators and most of the Ministries the organizations are using Internet one way or another. E-mail is used very frequently.

Makerere University has not yet its own Internet connection but some of the institutions are using the private operators to get access to Internet.

When it comes to information on human settlements there are a few possibilities.

One recommendation could be as follows.

A human settlements “Documentation Centre” is set up as an integrated part of the library at the Departments of Civil Engineering and Architecture. The main library is engaged in the preparation of the Centre and contributes with the knowledge from having set up other specialised Documentation Centres within the University.

All parties concerned have shown great interest in a human settlements information project on East African basis.

The library together with the Centre could collect and make available the Ugandan human settlements information.

8. ETHIOPIA

8.1 Ministry of Works and Urban development ⁵⁴

This Ministry is a result of a merger of two older ministries (Ministry of Works and Ministry of Housing) and Building and Transport Construction Design Authority (BaTCoDA). The Ministry has many responsibilities, from civil engineering works to low cost housing. It is building up information resources to be able to collect data and distribute statistics of different kinds on building and construction. The libraries of the three merged organizations are reorganized to one new unit. A new LAN is connecting the 18 PCs in the different offices. There is a rapid development in the use of PCs appropriate software.

Vice Minister Berhanu Tamirat and **Mr Abuye Anelye**, in charge of The Ministry's focal point for the cooperation with UNCHS (Habitat), were interviewed. Vice Minister Tamirat was very much involved in the planning of Habitat II in Istanbul. Mr Anelye is among other things working with the UNCHS' Best Practices project.

The Ministry issues Building Regulation for Ethiopia. A team from Ethiopia consisting of representatives of BaTCoDA, Office of National Committee for Central Planning, Building Design Enterprise, Valleys Development Design and Mapping Bureau engaged BYGGDOK 1991 to advise on how to design the new Building Regulations for Ethiopia. **Mr Bernhard Lindahl**, BYGGDOK, who had been working ten years in Addis Ababa at the Building College, was in charge of the consultancy work performed by BYGGDOK and other engaged experts on Building Regulations. The visit to Sweden of the Ethiopian team and BYGGDOK's fees were paid by SIDA.

The final result, the new Ethiopia Building Code Standards (EBCS), was presented by the Vice Minister at the interview. The Code is divided into 11 separate publications. The price is 730 Birr which is about the same amount in SEK.

8.2 Building Design Enterprises (BDE) ⁵⁵

Building Design Enterprise is an Architectural and Engineering consultant dealing with design, contract administration, soil and material testing since 1986.

There are 470 employees and six local offices in different parts of Ethiopia. The company is government owned and part of the profit has to be sent to the government. It is working on the open market invoicing all clients including the government. It has also started a "Business Development Service", all in the effort to market the organization to old and new clients. The company has had some projects abroad. To be more competitive the company now invests in new equipment for design work, CAD, plotters, etc. The result will soon be a significant reduction of staff.

At BDE **Mr Girma Teklu**, responsible for quality assurance (former Chief Architect), was interviewed. He was one of the members of the Ethiopian team that visited BYGGDOK in 1991 for the preparation of the Ethiopian Building Code Standards, EBCS.

Mr Teklu did not know anything about HABRI in Nairobi.

8.2 Building College (BC), Faculty of Technology, Southern Campus of Addis Ababa University

The College was totally financed by Sweden during the period 1955-1970. Sweden supplied with administration staff, teachers, etc. After that FINNIDA was one of the main sponsors and after FINNIDA other countries' aid organizations took over. There is now very little sponsoring of the College from aid organizations. The college was previously an independent organization but is now a part of the University.

The College has 340 students in total within the two Departments, Architecture & Urban Planning and Building Technology. There are also a Materials Research and Testing Department

undertaking building research and testing assignments including soil tests.

At BC **Mr Wubshet Berhanu**, Dean, and **Mr Petros**, librarian, were interviewed.

Mr Berhanu knew about HABRI (HRDU) and had visited the institute 1991 for a 3-week housing course 1991. The College had also participated in writing a book on alternative roofing materials in Ethiopia together with a Swedish organization in Lund, Swedish Assistance for Development of Low Cost Housing, SADEL.

The Dean estimated that 75% of all testing within the building and construction industry was executed by BC. There were only four PCs at BC used for administration and by teachers and students. The library which is now part of the university library has today a very limited acquisition of new documents and subscriptions of journals. About five subscriptions are the result of SAREC subscription support to Addis Ababa University (SAREC Library and Book Support Programme). The library is using an old classification system introduced by the Swedish staff, 1955-1970. The main University library is using the classification system of Library of Congress in USA.

It is very difficult for an institution in Ethiopia to get Government approval to start projects if the financing is coming from a country which has not a bilateral agreement with Ethiopia. Some examples were given. Sweden has an agreement with Ethiopia.

The Dean described the future plans for BC as follows:

- To be the centre for human settlements studies, building and construction development and coordinate new techniques in the building sector
- To expand the testing capacity
- To build up the information capacity of the college for the benefit of teachers, students and other actors in the field of human settlements and the built environment
- Building demonstration houses
- Introduce higher levels of education
- Start a computer centre with training facilities for teaching the use of construction industry programmes.

8.4 Main Library (John F. Kennedy Library) of Addis Ababa University ⁵⁶

Dr Taye Tadesse, Chief Librarian, was interviewed. He had been recruited from SISA, School of Information Studies for Africa, to reorganize the library and strengthen the personnel and introduce modern technology for the development of computer aided library systems. At SISA there will be introduced Ph.D programs to develop the Ethiopian skills in the information field. The library of Building College, BC, is part of the University Libraries. Mr Tadesse had assigned a professional librarian to the BC library. He mentioned that he very much liked to strengthen the library at BC which now is fairly weak.

The University Library receives 196 journal subscriptions paid by **SAREC** through a Library and Book Support Programme. The assistance from **SAREC (now SIDA)** to the University Library is coordinated by the Ethiopian Science and Technology Commission.

8.5 School of Information Studies for Africa (SISA)

The school is funded by the Canadian IDRC and to some extent UNESCO. The degrees achieved are Masters in Information Science. 15-16 new students are admitted each year for a 2-year programme. They must have a minimum Bachelor degree before entering the school and they can come from any of the 19 member countries. Of the students 40% come from Ethiopia and 60% from the rest of the member countries. The students come from banks, research institutes, libraries, etc. All students must submit theses. Some of these theses are original contributions of new systems or applications. At SISA there are 35 PCs linked together in a Token Ring network. New PCs are expected in the near future. Within the school there is an E-mail system and an

Internet connection is in strong demand. The Ethiopian Telecommunications Authority has the hardware and software installed for a full Internet connection but has not opened it for use. No one knows how “open” the Ethiopian Internet system will be. It is not even clear that the University will be allowed to become their own Internet Service Provider, ISP.

At SISA **Mr Getachew Birru**, Dean, was interviewed.

8.6 Ethiopian Science and Technology Commission ⁵⁷

In the booklet “National Science & Technology Policy, December, 1993” the following is stated about the Commission:

“The Ethiopian Science and Technology Commission is a government institution, headed by a Commissioner and governed by its own regulations. The Commission is accountable to the Prime Minister. It is the central organ empowered with responsibilities and mandates to plan, promote, coordinate, finance and oversee science and technology activities of the country. It is also responsible to advise the government on issues of S&T, implement the government’s S&T policy and follow up the appropriate and immediate application of research and Development (R&D) results.

.....

S&T activities, plans and research projects to be supported from government funds and from bilateral and international assistance received by the government shall be duly submitted to the commission for approval.”

Mr Asrat Bulbula, Deputy Commissioner was interviewed at the Commission. Among other things the support from SAREC was discussed.

8.7 National Computer and Information Centre (NCIC), Ethiopian Science and Technology Commission ⁵⁸

The National Computer and Information Centre is a government institution resulted from the merging of the former National Computer Centre and the National Scientific and Technological Information and Documentation Centre. The names of the three target-oriented departments indicate the activities and responsibilities of NCIC:

- Computer R&D Department
- Information Systems Coordination and processing Department
- Central Technical Library and Training Department.

The Centre has access to a large number of foreign databases for information searches.

The computer systems at NCIC include an HP3000 minicomputer with terminals using the MINISIS software for bibliographical databases. Soon there will be installed a LAN at NCIC.

The Centre is advising institutions in Ethiopia on computer matters and also coordinates the efforts in this field. One important responsibility for NCIC is to connect institutions outside Addis Ababa to an Ethiopian Information Network.

When discussing PC software for bibliographical databases, it is easy to suggest Micro CDS/ISIS which is developed by UNESCO and free of charge. NCIC has assigned a consultant to advise on the best software to be used in this field. BRS software has been mentioned as an alternative.

If a human settlements information project is planned the contact with NCIC and the Commission is vital.

8.8 Ethiopian Civil Servants College, Faculty of Technology, Addis Ababa University ⁵⁹

The College was established under the name of "Ecole Technique Supérieure des Municipalités" (commonly known as The "Municipal Technical College" or ETSM) and took the first batch of students in October 1970, based on the special bilateral agreement made in 1966 and 1968 between the Ethiopian Government and the Republic of France.

At the time of the establishment, the main aim of the programme was to train technicians for

municipal departments having to deal with public works, hydraulics, topography, building construction and town planning. The above being the general guideline, the first intake of 35 students was accepted in 1970 and in October 1974, 27 graduated. With the same number of enrollment, from the second batch, 21 graduated in 1977. Consequently, the enrollment was raised to 70 with the idea of achieving two hundred technicians within five years.

Between 1982 and 1987, the intake of students for the Diploma course was raised between 100 and 120, and during this period, the College run three programmes:

- a B.SC. Degree in Town Planning
- an Advanced Diploma programme in Urban Technic
- a Diploma programme (or Junior Technicians)

The school is taken over by the government and incorporated into the national education system. The French connection is therefore not present any more after 25 years of support.

The school has a diploma course of 2-3 years. After that the students come back after two years as municipal engineers for a 1.5 years urban planning degree. The education gives the student a promising career within the civil servants sector.

The College has a set of PCs for practical work and training but the equipment seemed a little old. The library was well organized and very much used but was not yet supplied with a PC for a bibliographical database and other use.

The college is in a way a parallel to UCLA in Tanzania which also was an independent institute supported by foreign donors but now is a college within the University of Dar es Salaam.

The Ethiopian Civil Service College could be an interesting partner in an East African cooperation on human settlements information.

Mr Daniel Salomon, Acting Dean, was interviewed.

8.9 Ethiopian Telecommunication Authority (ETA) ^{60 61 62}

Mr Abebe Gashaw, Chief of Satellite Communications at Ethiopian Telecommunication Authority, and **Mr Fikru Asfaw**, the former Director General of ETA, were interviewed.

All necessary hardware, software and satellite connection is installed for a public release of Internet connections but the government is hesitating. One argument is that they have not decided the tariffs. At a visit to ETA it was possible to test ETA Internet. It worked all right for sending E-mail and browsing Internet. According to the representative of ETA no other Internet service providers will be allowed besides ETA. This will hamper the use of the system. The University for example will not be allowed to set up their own Web server! Maybe there will be new possibilities when the final decision is taken.

8.10 Organization African Unity (OAU)

The Organization of African Unity, founded in 1963, is the most comprehensive of all the political organizations in Africa. Its primary aim is to promote unity and solidarity among African countries. Other aims and objectives include improving the general living standards in Africa, defending the territorial integrity and independence of African states, and promoting international cooperation.

At OAU **Dr Ed. Gboloco Howard-Clinton**, Head of Environment & Conservation of Natural Resources Division, and **Mr Tadesse Kidane-Mariam**, OAU/UNCHS (Habitat) Human Settlements Consultant, were interviewed. OAU has working relations to many international and national donor organizations.

The information on human settlements was described to be of great importance.

Mr Kidane-Mariam was assigned to propose programme for the OAU on information and human settlements. A copy of the draft document was handed over: **PROPOSAL FOR THE ESTABLISHMENT OF A PAN-AFRICAN HUMAN SETTLEMENTS INFORMATION SYSTEM, June/November 1996, by Tadesse Kidane-Mariam.** ⁶³

The table of content of the 18 pages document:

“Introduction

1. *Justification*
2. *The Human Settlements Information System Objectives, Contents, Format, Utility and Functions*
3. *The Human Settlements Information System at Country and OAU General Secretariat levels*
4. *Approaches, Information priority areas and Resource requirements for the establishment and management of the Human Settlements information System at national and regional levels*
5. *Plan of Action for the establishment and operation of the Human Settlements System at national and OAU General Secretariat level*

Concluding Remarks”

.....

On content:

“2.3. Content

The cardinal thematic areas that should form the focus of the human settlements information system of all African countries includes the following.

- i) Settlement planning
- ii) Building materials
- iii) Land
- iv) Housing
- v) Public services
- vi) Transportation
- vii) The social and economic environment
- viii) Institutions and Management.

See Annex I for urban and housing indicators as an illustration of what a human settlements information system may incorporate.”

On format:

“2.4. The Format of the Information

The most common format of Human Settlement information system includes publications, statistical data, audio-visual materials and Maps. A review of these sources of human settlements information is instructional for our purpose.

2.4. 1 Publications

Considerable amount of information on human settlements comes out from UNCHS

(Habitat); government and commercial publications, journals, unpublished and semi-published documents such as consultancy reports, development plans, theses and other academic reports; and the proceedings of Seminars and Conferences Each African country can assemble a wide range of human settlements related information on national, sub-regional, regional and global levels."

The extract from the document will only illustrate how the Documentation Centre at HABRI fits into the ideas at OAU regarding an information system on human settlements.

The OAU officers were very much interested in a cooperation with SIDA on this matter.

8.11 Pan African Development Information Systems (PADIS), UNECA ^{64 65 66}

The United Nations Economic Commission for Africa (UNECA) was established in 1958 when its Terms of Reference were adopted by Resolution 671A(XXV) of the Economic and Social Council of the United Nations on 29 April, 1958.

The main organ of UNECA is the Conference of Ministers responsible for Economic and Social Development and Planning supported by the Technical Preparatory Committee of the Whole (TEPCOW).

The Pan African Development Information System (PADIS) is a cooperative regional development information system created in January 1980 under the aegis of the United Nations Economic Commission for Africa (ECA) in Addis, Ababa, Ethiopia.

The overall objective of PADIS is the promotion of development information management in the Africa region. Central to this objective is the operation of a regional information system in Africa, which will serve as a conduit for information and data for development, centred around national, subregional and regional networks to which all members will voluntarily contribute information and share their information management techniques.

PADIS has an E-mail system with 2,600 subscribers who benefit from a highly subsidised and relatively efficient service. The E-mail system is of the store and forward type.

Now the Ethiopian Telecommunication Authority, ETA, has ordered the ECA to hand over all relevant PADIS expertise and equipment and also the list of subscribers of the E-mail system to ETA.

Of course ECA has refused. But the threat is there and it is obvious that ETA is after total monopoly. Negotiations are ongoing between PADIS and ETA.

Ironically that while ECA is launching an African Information Society Initiative (AIS) to develop the use of information and communication technologies for development with an emphasis on participation of all stakeholders, the government of its host country is moving to become the sole player in the Internet business.

At UNECA **Mr Harry O. Sandberg**, Management Coordinator (UN), **Mr Solbi Soddik**, Chief Computerized Documentation Section (PADIS), **Mr Kafle**, Communication Expert (UN) were interviewed.

8.12 Omnitech

Omnitech is a relatively small computer company with three main activities

- Programme development
- Sale of PCs and related equipment
- PC-training

The two owners of the company were interviewed, **Mr Daniel Admassie**, General Manager, and **Mr Deres Tesfaye**. Omnitech had been involved in the training of Ethiopian Telecommunication Authority (ETA) personnel in using Internet. The company would very much like to be in the Internet business but ETA will probably not allow it. (See above on PADIS)

8.13 SUDEA, Society for Urban Development in East Africa

SUDEA is monitoring the ECOSAN (Ecology, Economy, Sanitation) project in Addis Ababa dealing with urine separating toilets for low income densely populated areas. In total 3,000 toilets are planned to be produced locally and put into use during the 5 year project. The urine and faecal are aimed for fertilizing the nearby gardens of the occupants. The faecal will be used after a long composting period but the urine can be used directly after dilution with water. At SUDEA and the ECOSAN project **Mrs Almaz Terrefe** and **Mr Gunder Edström** were interviewed.

8.14 Other meetings

Midroc is building the new Sheraton Hotel in Addis Ababa. The project managing positions are staffed by Swedes. At Midroc a short meeting was held with **Mr Eiler Persson**. Discussions were held with the SIDA consultant **Mr Gustaf Asplund, Architect**

8.15 Conclusions and recommendations

The IT situation in Ethiopia is not very promising today when considering electronic communication including telephone and fax. The Ethiopian Telecommunication Authority, ETA, has got all hardware and software including satellite connection and is capable of giving full Internet service but has not yet opened the Internet to the public.

There are two institutions in Ethiopia which are interesting from a human settlements point of view. These are Building College, BC, Faculty of Technology, Southern Campus of Addis Ababa University, and Ethiopian Civil Servant College belonging also to Faculty of Technology. The university library would backup an initiative to both or one of the institutions.

Another important partner is the Ethiopian Science and Technology Commission and its National Computer and Information Centre as coordinating bodies. The Commission is the approve body concerning science and technology projects.

A participation of Ethiopian institutions in an East African cooperation on human settlements information would be very interesting but the communication problems must be considered.

A local isolated Ethiopian initiative would of course be of interest but most interesting would be a joint East African effort.

Annex 2

9. Addresses

9.1 Kenya

Professor Paul Syagga, Dean
FADD, University of Nairobi
P.O. Box 30197, Nairobi, Kenya
Tel: +254-2-724521/9. Fax: +254-2-718549,

Dr Peter Ondiege, Director
HABRI
P.O. Box 30197, Nairobi, Kenya
Tel: +254-2-724521/9, ext 212. Fax: +254-2-718549,

Dr Laban Shihembetsa
HABRI
P.O. Box 30197, Nairobi, Kenya
Tel: +254-2-72451/9 ext 212. Fax: +254-2-718549,

Mrs Joyce M Maloube
HABRI
P.O.Box 30197, Nairobi, Kenya
Tel: +254-2-724522-4, ext 210. Fax: +254-2-718549,

Mrs Jayne Abonyo
HABRI Documentation Centre
P.O.Box 30197, Nairobi, Kenya
Tel: +254-2-724523. Fax: +254-2-718549,

Mrs Jane Oluoch
HABRI Documentation Centre
P.O.Box 30197, Nairobi, Kenya
Tel: +254-2-724522-4 ext 266 & 212. Fax: +254-2-718549, E-mail:

Dr Nicki Nzioki
CREUMHS
P.O. Box 48974, Nairobi, Kenya
Tel: +254-2-724525. Fax: +254-2-718549, E-mail: Nicki_Nzioki@elci.sasa.unon.org

Dr Doroty Abonyo
CREUMHS
P.O. Box 48974, Nairobi, Kenya
Tel: +254-2-725525/724521-ext 258. Fax: +254-2-718549:

Mr Erustus Abonyo
 CREUMHS
 P.O. Box 48974, Nairobi, Kenya
 Tel: +254-2-724525/724521-ext 248. Fax: +254-2-718549

Mrs Christina Engfeldt, Chief of Information and External Relations
 UNCHS (Habitat), Chief Information
 P.O. Box 30030, Nairobi, Kenya
 Tel: +254-2-623067. Fax: +254-2-624060, E-mail: christina.engfeldt@unep.no

Mrs Susan Thomson
 UNCHS (Habitat), Best Practices Projects
 P.O. Box 30030, Nairobi, Kenya
 Tel: +254-2-623352. Fax: +254-2-623080, E-mail: thomsons@unchs.org

Ms Shivona E. Tavares
 UNCHS (Habitat), Information and Documentation
 P.O. Box 67553, Nairobi, Kenya
 Tel: +254-2-621234, direct 623105. Fax: +254-2-624333, E-mail:
 shivona.tavares@unchs.org

Mrs Ingrid Munro, Chief Manager
 African Housing Fund
 P.O. Box 7148, Nairobi, Kenya
 Tel: +254-2-710041/2/3/4. Fax: +254-2-719814

Mr Ositadinma C. Okonkwo, Senior Project Officer
 Shelter Afrique
 P.O.Box 41479, Nairobi, Kenya
 Tel: +254-2-722305-9. Fax: +254-2-722024,

Mr Viktor Karanja, Librarian/Documentalist
 Shelter - Afrique
 P.O.Box 41479, Nairobi, Kenya
 Tel: +254-2-722305-9. Fax: +254-2-72204,

Mr Mutuku Nthuli
 Development Alternatives Network(DAN)
 P.O. Box 47598, Nairobi, Kenya
 Tel: +254-2-506628, 603547. Fax: , E-mail: devnet@elli.gn.apc

Mr David K. Macoco
 Institution of Surveyors of Kenya
 P.O. Box 40707, Nairobi, Kenya
 Tel: +254-2-214770. Fax: +254-2-335438,

Dt S.K. Langat

Min. of Research, Technology Training and Technology
P.O. Box 30568, Nairobi, Kenya
Tel: +254-2-219420.

Dr Shem J. Ochuodho
Computer Society of Kenya (CSK)
P.O. Box 70180, Nairobi, Kenya
Tel: +254-2-211640. Fax: , E-mail: csk@arcc.or.ke or csk@arcc.permanemt.org

Dr Fred Bukachi
Healthnet coordinator Eastern and Southern Africa
P.O.Box 19387, Nairobi, Kenya
Tel: +254-2-714757. Fax: +254-2-724590, E-mail: fbukachi@ken.healthnet.org

9.2 Tanzania

Director General F. Barozi
MECCO Contractors
P.O. Box 720, Dar es Salaam, Tanzania
Tel: +255-51-860391/97. Fax: +255 51 86414

Dr Emmanuel Simkoko
MECCO Contractors
P.O. Box 720, Dar es Salaam, Tanzania
Tel: +255-51-860391/97. Fax: +255-51-864146

Director of Engineering A. Mpunga
NEDCO, National Estate and Designing Corporation
P.O. Box 567, Dar es Salaam, Tanzania
Tel: +255-51-25271/4 Ext. 119.

Executive Secretary Kesogukewe M.I.M. Msita
NCC, National Constructional Council
P.O. Box 70039, Dar es Salaam, Tanzania
Tel: +255-51-31321/2. Fax: +255-51-36441

Mrs D. A. Sekimang'a Chief Documentation & Information Officer
NCC, National Constructional Council
P.O. Box 70039, Dar es Salaam, Tanzania
Tel: +255-51-31321/3. Fax: +255-51-36441

Professor Burton L. M. Mwamila
ERB/IET Joint Training Programme
P.O.Box 2938, Dar es Salaam, Tanzania
Tel: +255-51-37042. Fax: +255-51-24265

Director A.L. Mtui
BRU, Building Research Unit
P.O.Box 1964, Dar es Salaam, Tanzania
Tel: +255-51-71971

Principal A.M. Nikundiwe
UCLAS, University College of Lands and Architectural Studies
P.O.Box 35176, Dar es Salaam, Tanzania
Tel: +255-51-71263/4, 71272.

Associate Director Alphonse G. Kyessi
Institute of Housing Studies & Building Research
P.O.Box 35124, Dar es Salaam, Tanzania, Tel: +255-51-71271/4, 75004, 75479.
Fax: +255-51-75479/75418/75448, E-mail Kyessi@UNIDAR.GN.APC.ORG

Dr E.G. Mtalo, Information Systems Manager
UCLAS
P.O.Box 35176, Dar es Salaam, Tanzania
Tel: +255-51-75004.

Senior Librarian Phillidas.B.F. Munubhi
UCLAS
P.O.Box. 35176, Dar es Salaam, Tanzania
Tel: +255-51-71264, 71272, 75004. Fax: +255-51-71853/71263/75448

Dr Beda Mutagahywa
Univ. of DSM, Computing Center
P.O.Box 35062, Dar es Salaam, Tanzania, Tel: +255-51-43500 ext: 2456, 01812-782120.
Fax: +255-51-43380, 43376, E-mail: bmutag@udsm.ac.tz

Mr Theophil Mlaki
Tanzania Commission for Science and Technology, COSTECH
P.O. Box 4302
Dar es Salaam, Tanzania, Tel: +255-51-75155-8, 75311-2, fax: +255-51-75313
E-mail: costech@costech.gn.apc.org

Director Structural Engineering Mark W. Njiu
Inter - Consult Ltd.
P.O.Box 423, Dar es Salaam, Tanzania
Tel: +255-51-35563, 114702, 114414. Fax: +255-51-35563,

Mr Adam Messer
CyberTwiga
P.O.Box 77780, Dar es Salaam, Tanzania, Tel: +255-51-118292. Fax: +255-51-865799,
E-mail: amesser@twiga.com, URL: <http://www.twiga.com/>

Mr Ove Engström
 SQ Consult Ltd
 P.O.Box 7221, Dar es Salaam, Tanzania
 Tel: +255-51-116195, 116986. Fax: +255-51- 113427. Mobile tel:+255-811-326703

Senior Programme Officer Jan Furengren Senior
 Embassy of Sweden, Sida
 P.O.Box 9274 , Dar es Salaam, Tanzania
 Tel: +255-51-111235. Fax: +255-51-113420, E-mail: jan.furengren@sida.se

Real Estate Management Consultant Louis Melin
 HIFAB International AB
 P.O.Box 4207, Dar es Salaam, Tanzania
 Tel: +255-51-68465. Fax: +255-51-67591

9.3 UGANDA

Information Systems Officer Nabongo Godfrey
 NH&CC, National Housing & Construction Corporation
 P.O.Box 659, Kampala, Uganda
 Tel: +256-41-257461/3 Ext 205, 232312, 258759. Fax: +256-41-258708,
 E-mail: nhcc@imul.com

Director of Housing Emmanuel M. Byaruhanga
 Ministry of Housing and Physical Planning
 P.O.Box 7122, Kampala, Uganda
 Tel: +256-41-242934, 235856, +256-75-719445. Fax: +256-41-235856,
 E-mail: mihpp@imul.com

Country Coordinator AHF, Uganda Marcella. T. Ochwo
 Ministry of Housing and Physical Planning
 P.O.Box 7122, Kampala, Uganda
 Tel: +256-41-230809. Fax: +256-41-230809

Arc. Dr Barnabas Nawangwe
 Department of Architecture
 P.O.Box 7062, Kampala, Uganda
 Tel: +256-41-531860, 542602. Fax: +256-41-530686,

Professor Tore Haavaldsen
 Department of Civil Engineering
 P.O.Box 7062, Kampala, Uganda
 Tel: +256-41-531860. E-mail: torehaa@imul.com

Deputy Librarian Olivia Mutibwa
 Makerere University Library
 P.O.Box 7062, Kampala, Uganda
 Tel: +256-41-531041. Fax: +256-41-530756, E-mail: mmlib@starcom.co.ug

Mr Charles Matovu
 Ugandan Investment Authority
 P.O.Box 7418, Kampala, Uganda, Tel: +256-41-251562/5. Fax: +256-41-242903,
 E-mail: uia@starcom.co.ug

General Manager Anders Wigand
 Infomail
 P.O.Box 11468, Kampala, Uganda, Tel: +256-41-258361. Fax: +256-41-236256,
 E-mail: awigand@imul.com, URL: <http://www.imul.com/>

Mr Edward Balidawa
 Starcom, Starlight Communication (U) Limited
 P.O.Box 10524, Kampala, Uganda, Tel: +256-41-143166/169/109, 245703. Fax: +256-41-245708, E-mail: edwardkb@starcom.co.ug, URL: <http://www.starcom.co.ug/>

Chief of Operations Edward Kasule Musisi
 STARCOM, Starlight Communications (U) Limited
 P.O.B 10524, Kampala, Uganda, Tel: +256-41-245705. Fax: +256-41-245708,
 E-mail: cmussisi@starcom.co.ug, URL: <http://www.starcom.co.ug/>

9.4 Ethiopia

Vice Minister Berhanu Tamirat
 Ministry of Works and Urban Development
 P.O.Box 5608, Addis Ababa, Ethiopia
 Tel: +251-1-510000. Fax: +251-1-511200

Mr Abuye Anelye
 Ministry of Works and Urban Development
 P.O.Box 5608, Addis Ababa, Ethiopia
 Tel: +251-1-154095.

Mr Girma Teklu
 Building design Enterprises
 P.O.Box 40036, Addis Ababa, Ethiopia
 Tel: +252-1-650800, 650960, 650628, 650919, 166617. Fax: +251-1-650153

Mr Wubshet Berhanu
 Building College
 P.O.Box , Addis Ababa, Ethiopia
 Tel: +251-1-552601, 550911, 550655.

Dr Taye Tadesse
 Main Library of Addis Abeba University
 P.O.Box , Addis Ababa, Ethiopia
 Tel: +251-1-115673. Fax: +251-1-550655

Dean Getachew Birru
 SISA, School of Information Studies for Africa
 P.O.Box 1176, Addis Ababa, Ethiopia
 Tel: +251-1-110433. Fax: +251-1-553811, E-mail: Getachew.Birru@Padis.gn.opc.org

Deputy Commissioner Asrat Bulbula
 Ethiopian Science and Technology Commission
 P.O.Box 2490, Addis Ababa, Ethiopia
 Tel: +251-1-155492. Fax: +251-1-518829, E-mail: ncic@padis.gn.apc.org

Director Eshetu Alemu
 National Computer & Information Centre
 P.O.Box 2490, Addis Ababa, Ethiopia
 Tel: +251-1-155306. Fax: +251-1-518829, E-mail: ncic@padis.gn.apc.org

Dean Daniel Salomon
 Ethiopian Civil Servant College, Faculty of Technology, Addis Ababa University
 P.O.Box 1023, Addis Ababa, Ethiopia
 Tel: +251-1-550198/550206. Fax: +251-1-510545

Mr Abebe Gashaw
 Ethiopian Telecommunication Authority(ETA)
 P.O.Box 1047, Addis Ababa, Ethiopia
 Tel: +251-1-514260, 136356. Fax: +251-1-515777, 553829,
 E-mail: agashaw@telecom.net.et

Dr Ed. Gboloco Howard-Clinton
 OAU
 P.O.Box 3243, Addis Ababa, Ethiopia
 Tel: +251-1-517700, Ext 180, 151587 direct. Fax: +251-1-517844

Mr Tadesse Kidane-Mariam
 OAU/UNCHS(Habitat) Human settlements Consultant
 P.O. Box 3247, Addis Ababa, Ethiopia
 Tel: +251-1-151587, 517700 Ext 180. Fax: +251-1-512622, 513036

Mr Solbi Sasddik
PADIS, Pan African Development Information System
P.O.Box , Addis Ababa, Ethiopia
Tel: +251-1-517200 Ext. 637. Fax: +251-1-514416, E-mail: Ssolbi@padis.gn.apc.org

Mr Daniel Admissie
Omnitech
P.O.Box 21944, Addis Ababa, Ethiopia
Tel: +251-1-513515, 156520.

Almaz Terrefe & Gunder Edström
SUDEA, ECOSAN
c/o Embassy of Swedish
P.O. Box 1029 Addis Ababa, Ethiopia, tel: 009251-1-126738
E-mail: Sudea@padis.gn.apc.org

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