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**REPORT ON
INFO AFRICA NOVA CONFERENCE 1995
Information Services
to Sustain Reconstruction, Development
and Prosperity in South Africa
South Africa
8 - 9 May 1995**

By:
Makane Faye
Regional Adviser
in Information Systems Development

UNITED NATIONS ECONOMIC COMMISSION FOR AFRICA

Multidisciplinary Regional Advisory Group

REPORT ON INFO AFRICA NOVA CONFERENCE 1995

**Information Services to sustain reconstruction, development
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SUMMARY OF THE MISSION REPORT

1. The INFO AFRICA NOVA Conference on "Information Services to sustain reconstruction, development and prosperity in Southern Africa which" was held from 8-12 May 1995 in South Africa was attended by over 100 documentation, library, computer and information sciences professionals from all over Africa and from Barbados and Saudi Arabia. The Conference was organized in plenary and parallel sessions and centred around the following topics: the use of technology for the advancement of human rights in South Africa, total quality management in information resource centres, partners in implementing new information technology projects in Africa, the World Wide Webb or possibilities for international resource sharing, a conceptual framework for microcomputer information retrieval and role of information in reducing the gap between developed and developing countries. During the Conference, important discussions were held with South African officials namely, the Department of Art, Director of Meta-information in the Ministry of Arts, Culture, Science and Technology and the Director of the State Library in Pretoria. From these contacts, information was obtained concerning the designation of the PADIS national focal point for South Africa and plans were made for the next visit of South Africa by two ECA/PADIS staff. Also, negotiations were held with various software and hardware developers in South Africa and interesting information was obtained on hardware and software for the development of full text and image data base in ECA and commercial software for the computerization of loan and circulation activities at the ECA library.

INTRODUCTION AND TERMS OF REFERENCE

2. In view of its role as a leader in information/informatics/communications strategies, ECA was invited by the organizers of INFO AFRICA NOVA CONFERENCE, South Africa to make a presentation on development information connectivity in Africa and to make necessary contacts with South African officials for strengthening the cooperation between ECA and South Africa in terms of information systems development.

The objectives of the mission were:

- to present a paper on " the use of electronic communications for reducing the widening gap between the North and the South";

- to discuss with South African information officials the designation of a PADIS focal point;and
- to finalize arrangements for an advisory mission to South African Black Universities to be held in June 1995.

3. The Conference was attended by over 100 information and documentation professionals from Africa, Barbados and Saudi Arabia and was conducted in plenary and parallel sessions and in workshops. However because of other assignments somewhere else in Africa, the mission was scheduled for the two first days of the conference only ie 8-9 May 1995.

HIGHLIGHTS OF THE ECA PRESENTATION

4. The paper presented by the mission was: " the role of electronic communications in reducing the gap between developed and developing countries: the example of the Capacity Building in Electronic Networking in Africa (CABECA) project.". The paper gave an account of the important role which was played by the Commission in the dissemination of information to and from the North. It stated that its most recent initiative in this area was in the field of electronic communications which benefited over 30 African countries and more than 1,000 institutions by the use of low cost FIDONET technology. With the various CABECA activities, PADIS has managed to bring African countries closer to the information from the North.

5. The first part of the paper gave the origin of the project which was funded initially by a grant from the Canadian International Development Research Centre (IDRC) and described CABECA's objectives as follows:

- to assist African countries to develop and execute national networking strategy
- to train system operators/users in communication software for:
 - DOS based systems
 - DOS/UNIX based systems
 - full UNIX systems

- TCP/IP configuration
- to configure and develop cost effective national connectivity to Internet
- to develop appropriate local information resources which can also be used regionally and internationally (local BBS, infrastructure data base, etc.)
- to assist with the development of guidelines for the acceptable usage of national networks
- to gather data for network infrastructure data base
- to develop sub-regional and regional networking strategies and fund-raising proposals.

6. The second part of the paper dealt with the geographic infrastructure grouping of African countries in the following 9 groups according to socio-economic, cultural political and communications infrastructure:

- * Horn of Africa : Eritrea, Ethiopia, Sudan and Djibouti
- * English speaking West African countries: Cameroon, Ghana, Gambia, Nigeria, Sierra Leone and Liberia.
- * West sahel countries: Chad, Senegal, Burkina Faso, Mali, Niger, Mauritania
- * Central African countries sharing borders: Congo, Zaire, Gabon
- * South eastern Africa: Kenya, Uganda, Tanzania and Burundi
- * Southern African countries with major ties to South Africa: Mozambique, Angola, Namibia, Malawi, Zimbabwe, Swaziland, Lesotho, Botswana, Zambia.
- * Maghreb: Morocco

* Indian Ocean islands: Mauritius, Madagascar, Comoro, Seychelles

* West African Portuguese speaking countries: Guinea, Cape Verde

7. The third part of the paper discussed the technology used for project implementation and development in the above countries. The low cost FIDO technology which is very performing over poor telecommunication lines and the UUCP's robust multi-tasking and easily adaptable to Internet environment were chosen by PADIS to constitute the backbone of the system advocated for African countries. The paper stated that UUCP and Fido accounted for over 70% of African linkages while connection to full Internet was less than 4%. However a recent survey undertaken by Lishan Adam the CABECA project Officer indicated that the user base of uucp is very limited as compared to the Fido nodes in Africa. Indeed, national nodes with Fido technology such as Zambia, Zimbabwe and Ethiopia host over 500 users each while the largest UUCP users in a country does not exceed 30. Hence, according to the paper the FIDO technology will continue to play a predominant connectivity role in Africa because of its good performance on Africa's telecommunication infrastructure, its ease of use and low cost compared to other communication devices. In addition to FIDO and UUCP technology, expanding user base in some countries was making it possible for those countries to work towards INTERNET connectivity trough TCP/IP linkages using UNIX hosts. According to the paper, in the countries like Zambia, Zimbabwe and Ethiopia where TCP/IP is feasible, experiments and proposals were put forward to setup a full Internet link. According to the paper, the proximity of South Africa would make facilitate connectivity to INTERNET between South Africa and countries with which it is sharing the same border.

8. The fourth part of the paper discussed collaboration between ECA electronic communications activities and those initiated at the regional level by various agencies including:

- RINAF-UNESCO
- RIO-ORSTOM
- MIGA-WORLD BANK
- SDN-UNDP

Co-operation was necessary to avoid duplication of activities, and to promote sharing of resources, techniques and strategies in Africa.

9. The fifth part of the paper dealt with specific activities undertaken by ECA in each country, the various types of training rendered and the nature of equipment purchased and supplied by PADIS in the framework of the project which distributed hundreds of modems and computers and undertook over 50 advisory services and training courses during the past two years.

10. The last part of the paper underlined the PADIS strategy to strengthen the countries taking part into the CABECA project and introducing electronic communications in countries which are not yet open to computer networking activities. Specific information was given to participants specially from Southern Africa concerning concrete CABECA plans for the subregion.

DISCUSSIONS

11. In the discussions that followed South African participants were eager to know more about the United Nations, the activities of the United Nations Economic Commission for Africa and the Pan African Development Information System. They wondered why the ECA planned mission to visit South African universities did not take place. Also, questions were also raised concerning compatibility of information systems and coordination of activities between ECA/PADIS, UNESCO and SADC for the development of national infrastructures in individual countries and the networking effort at the regional level particularly in the field of making African information available to Africa.

12. In the responses, participants were informed that the PADIS plan to visit South Africa was approved by ECA authorities and that the dates would be fixed after consultations between the mission and South African officials. It was agreed that a series of lectures on the UN, UNECA and PADIS would be programmed by for two weeks in October 1995 by ECA and would be delivered in South African black universities and in selected institutions dealing with information in Pretoria and Johannesburg.

13. Concerning the cooperation between UNESCO AND PADIS and cooperation at the regional level, the mission informed the participants that there were regular consultations between

ECA and UNESCO concerning several programmes on information whether it is PGI or RINAF. Both institutions have the mandate to assist member States to develop their national infrastructures; however PADIS has the additional mandate to develop regional data bases and to coordinate member States efforts in networking and information exchange. In this regards participants were informed that member States were participating in the building of indigenous regional data bases and in standardization work. Concerning co-operation with SADC, the Conference was informed of a meeting which was held between ECA and SADC officials in which SADC was informed about what PADIS could do for its planned information network.

DISCUSSIONS WITH SOFTWARE DEALERS

EXCALIBUR EFS

14. The Excalibur Electronic filing Software was demonstrated to participants to the INFO AFRICA NOVA Conference. The objective of the software is to manage full text documents and image by:

- input from magnetic and optical disks or tape
- input via a modem
- input from a grey or colour scanner. According to its promoters EXCALIBUR EFS has the capability of overcoming optical character recognition (OCR) processing errors. Hence it "allows accurate search for raw OCR-processed text without any need for correction, clean-up or re-keying".

For the Excalibur Electronic filing software any word in a document can be searched.

The Software is UNIX base and was operating in Sun Spark Station 10 of 1GB of disk.

15. Furthermore, the South African company which was marketing Excalibur, named GRINAKER Telecom has availed itself to develop e-mail search facilities for PADIS data bases run under EXCALIBUR using a Sun Spark Station. However the cost of the software is a bit high, \$16,000 for one copy and \$5,000 a copy if there is group purchase of at least 25 copies.

PADIS should investigate the possibility of using EXCALIBUR or other similar software to enable its users have direct access to full text and image data as well as factual data. It was decided that terms of reference for the setting up of PADIS on-line data bases, a listserv and e-mail searching tool would be sent to GRINAKER Telecom to enable it apply for the consultancy.

LIBRARY MANAGEMENT SYSTEM

16. Our interest to the Library Management System software (STYLIS) was guided by the interest shown by ECA Chief Librarian in acquiring such a system. Stylis was demonstrated to members of the INFO AFRICA NOVA Conference. It is already used by a wide range of libraries in Southern Africa.

Stylis manages a data base, does searching on indexes or fields, performs loans, acquisitions and manages serials. However in view of the size of the software (40 MB) and the space occupied by processed data (4 MB per 1000 records), the ECA library, with its several hundred thousand records, would require several GB of disk storage when fully automated.

The cost of the software is \$16,000 with all the modules required to run satisfactorily the ECA Library. Also, installation and training costs at the library would be borne by ECA. Information on the software was sent to the ECA Chief Librarian.

DISCUSSIONS WITH SOUTH AFRICAN OFFICIALS CONCERNING FUTURE ECA/PADIS ACTIVITIES IN THE COUNTRY

17. Several meetings were held concerning ECA/PADIS future activities in the country.

Designation of the national focal point

18. The mission was informed by the Director of Meta-information and the Director of State Library that following consultations between the Department of Arts, Culture, Science and Technology and the Department of Foreign Affairs, a letter was sent to the State Library requesting it to be the PADIS focal point in South Africa. The Director of the State Library informed the mission about the process which was underway for submission of the required documentation to the forthcoming Board meeting of the State Library which would be probably

before July 1995. The Board would have to decide because of financial implications on the designation. Indeed the focal points plans to have one Senior middle professional to handle coordination issues with PADIS and between PADIS and the various partners in South Africa such as the RDP, the CSIR, Meta-information and SABINET. It is to be noted that the State Library has undergone several budgetary cuts of around 20% in the last three years.

Advisory mission to South Africa in October 1995

19. An advisory mission which was scheduled to take place in June 1995 was postponed to October 1995 to enable the South African organizers to involve as many partners as required.

The objective of the mission would be as follows:

- to organize a one day seminar involving South African Senior officials and officials from international and regional organizations planning to undertake activities in South Africa, in order to map out a strategy and discuss programme coordination (the organizations would include ECA, IDRC, AAAS, USAID, BOSTID, UNDP, UNESCO, etc);
- to have a one day seminar for discussion of the use of electronic communications in the Southern African subregion using FIDO connections and possibilities of linkage to INTERNET via South Africa;
- to assess the training needs of various information groups in liaison to PADIS training programmes for 1996; and
- to deliver lectures and hold discussions on the United Nations, the United Nations Economic Commission for Africa and on PADIS development information activities in the region.

20. In this regard the South African organizers agreed that three days would be used for discussions with professionals and officials of the University of Pretoria, the University of Bloofontain, the CSIR and various information infrastructures in Johannesburg. One week would be reserved to deliver lectures in the Black Universities and Technikons in the Transkei (Umtata), Durban and Cape Town.

Exact dates of the mission would be discussed by e-mail between the Regional Adviser and the Director of Meta-information.

Meeting of the standardization Subcommittee on Authority File

21. The Assistant-Director of Meta-information had proposed to the Chairman of the Subcommittee that the meeting of the Subcommittee be held in August 1995 in Cairo. However due to the fact that the Carnegie project has just been approved and also that preparatory work needs to be carried out before submission of a proposal to the Subcommittee, the August meeting was unlikely to take place. In addition, most of PADIS staff will be on leave during August thus preventing any backstopping activity for the Subcommittee. Meta-information was informed that if everything went well as planned the meeting would take place in September or November 1995 in conjunction with meeting of other selected technical committees and with training on the maintenance of the authority file. Relevant information on the matter will be sent by PADIS to the Assistant-Director of Meta-information and to other members of the subcommittee on Authority file.

Conclusion

22. The Conference had a positive impact by enabling ECA to make known its position in development activities in Africa vis a vis its national, regional and international partners. This was necessary because there are always individuals which are trying to undermine PADIS impact in individual countries and the region as a whole. However despite its limited number of staff and its meagre financial resources, PADIS has made an impact in the region and this was recognized and applauded by the participants. Countries are demanding more and more from PADIS and it is up to ECA to strengthen development activities in the region to enable countries to get a sound information base for their planning and decision making activities.

List of South African officials met during the Conference

1. Ms. R. M. Cillié, Director of Meta-Information, Ministry of Arts, Culture, Science and Technology
2. Mr. André Roos, Assistant Director, Meta-Information
3. Dr Peter Lor, Director of State Library
e-mail: pjlor@statelib.pwv.gov.za
4. Mr. Thози Nomvete, Department of Information Science, University of Transkei
e-mail: nomvete@getafix.utrc.za
5. Ms. Trudie Coetzer, General Manager AFRICA INFO NOVA
6. Dr. Stephen S. Mncube, Divisional Manager, Development Information Services, Centre for Policy and Information, Development Bank of Southern Africa
7. Dr. Stan Miller, Senior Lecturer in Immunology and Veterinary Tropical Diseases
e-mail: INFEK1@OP1.UP.AC.ZA
8. Mr. William D. Bennett, Chief Librarian Peninsula Technikon
e-mail: Bill@inforserv.pentech.ac.za
9. Mr. Piet Dempsey, Programme Manager, Computer Systems, Avtitroniks
10. Mr. Graham Melvill-Smith, Software Technologist, Grinaker, Telecom
11. Ms. Nicoline Wessels, Library Management Services, Stylis, Denel Informatics
12. Ms. Sandra Mackie, Manager, Information Management Services, North West Government, Directorate for Development Planning