USING THE INTERNET TO PROMOTE PRIVATE SECTOR GROWTH IN AFRICA: THE AFRICAN VIRTUAL BUSINESS ASSOCIATION NETWORK

By
Catherine Kuchta-Helbling, Ph.D.
January 2003

ABSTRACT

This paper describes the mechanics and results of the African Virtual Business Association Network (AVBAN)--an innovative, web-based strategy to bridge the digital divide, strengthen private sector business associations, and promote economic reform and development in Africa. AVBAN consists of a website (www.avban.org), a searchable directory of African business associations, and communication tools such as discussion boards and a listserv to enable business associations to exchange ideas on economic development issues and business association best practices in governance, management, and advocacy. AVBAN also offers online management and advocacy training materials to build the capacity of business associations to foster economic reform and private sector development in their countries. A website-building feature on AVBAN transfers information technology directly to associations, giving them the tools to create their own web sites and make their organizations visible to the world. By creating a strong network of African business associations, AVBAN empowers African private sector organizations to work more closely together in identifying reform priorities and achieving growth objectives. This study assesses AVBAN's impact in using information technology to minimize the digital divide, promote economic development, strengthen business associations, and transfer technology; discusses lessons learned; and analyzes the possibility of using similar networks in other developing countries and regions for these aims.

AVBAN is a project of the Center for International Private Enterprise (CIPE), which administers grant and leadership development programs to business associations, chambers of commerce, and think tanks in emerging, developing and transitional economies. CIPE founded the award-winning Virtual Business Association (VBA) to provide online training and assistance in solving the organizational challenges of business associations. For more information, please see: www.cipe.org.

I.   INTRODUCTION

Africa is often described as suffering from famine. Yet as two scholars point out, there are at least two kinds of famine: one stems from lack of food and the other from lack of

information.[1] Both famines, they assert, have similar causes and consequences. The causes are the lack of democratic and responsive governments; the consequences are severe food shortages,[2] rampant disease, low life expectancy rates, armed conflict, corruption, low levels of economic growth and employment, low levels of literacy and human capital, poor quality infrastructure, and few opportunities to participate in policymaking, among others.

Recently, much emphasis has been placed on bridging the digital divide as a means to advance political and economic reforms and thereby improve the quality of life on the African continent. Information technology (IT) offers the potential to provide cost-effective and rapid exchanges of information, experience and know-how across huge geographical distances. The success of the Africa Virtual University with 24 campuses on the continent is one example. Recently, African business associations have begun to take advantage of IT in order to address their internal weaknesses, better represent their members and advocate essential reforms that would create a more hospitable business environment. Although only 6 percent of African business associations have web sites, those that do have begun to employ this technology to publicize information on pending legislation that affects business and business position papers. This demonstrates the usefulness of the Internet as a medium for sharing information, strengthening associations and building support for advocacy efforts that will advance key reforms. It also offers the means for business associations to become more visible in the global market place and to establish profitable trade and investment relationships.

In order to encourage business associations to use IT to strengthen themselves and to advocate for key reforms in Africa, the Center for International Private Enterprise (CIPE) has recently launched the Africa Virtual Business Association Network (AVBAN). AVBAN is an innovative, web-based strategy designed to strengthen private sector business associations, transfer technology, help bridge the digital divide, and promote economic reform and development in Africa.

This paper describes the mechanics and results of AVBAN. It begins in Section II with an overview of the digital divide in Africa. Section III describes the aims and activities of AVBAN while Section IV presents the results to date and outlines how AVBAN can be strengthened. The paper concludes in Section V by discussing how AVBAN strengthens business associations and equips them to promote political and economic reform, and how creating similar networks in other developing countries and regions is likely to be feasible and beneficial.

II. WHAT IS THE SIZE OF THE AFRICAN DIGITAL DIVIDE?

Although increasing, the availability and use of the Internet on the African continent remains way below that found in developed countries. Recent estimates indicate that as of September 2002, there are 605.6 million individuals online worldwide. (Please see Tables 1 and 2 found in the Appendix.) Only slightly more than 1% of these (6.31 million users) are located

---

[1] Daniel Akst and Mike Jensen, "Africa goes online," *Carnegie Corporation of New York* (2001).

[2] Nobel Laureate and economist Amartya Sen pointed out that, "No substantial famine has ever occurred in a democratic and independent country, no matter how poor."

in Africa. Roughly 50% of African Internet users are in South Africa. This means that the remaining 3 million users are dispersed within 53 African countries.

While Internet use in Africa is still limited, it has grown and continues to grow rapidly. In 1997, only 11 African countries had any Internet access at all. By 2001, all 54 of them had permanent connections. Cyber cafes are popping up in all the capital cities of Africa. Most African capitals now have more than one Internet service provider (ISP) and as of mid-2002 there were approximately 560 ISPs across the continent (excluding South Africa).[3] The United Nations Information and Communication Technologies Task Force reports that the number of dial-up Internet access subscribers rose by 20% between early 2000 and late 2002. This translates into about 1.7 million dial-up subscribers in total, 1.2 million of which are based in North and South Africa. Because of the number of shared accounts and the frequent use of public access services, it is difficult to measure exactly the total numbers of Internet users in Africa. Current estimates place the number of users per subscription between 3 and 5, meaning that the total number of users on the continent ranges from five to eight million.[4] However, if one excludes Northern Africa and South Africa, only one in 250 Africans use the Internet compared to a world average of one user for every 15 people, and to a ratio of one user for every two individuals in North America and Europe.[5]

Internet access in Africa remains plagued by erratic or non-existent electricity supplies and insufficient, poor quality telecommunications' networks and basic infrastructure such as roads. This confines most access points to the major cities where a minority of the population resides. It also drives up connectivity costs. Using a local dial-up Internet account for 20 hours a month cost around $68 per month. This figure includes usage fees and local telephone time, but not telephone line rental. ISP subscription charges range from $10 to 100 per month.[6]

Moreover, poor quality, unreliable, and expensive infrastructure as well as high telecommunications tariffs make obtaining enough bandwidth to access the graphics- intensive World Wide Web very costly.[7] The lack of Internet links between African countries and the number of African Internet servers located abroad also increase costs and hinder Internet use because emails between users in the same city are often routed through the U.S. or Europe.[8] Regional Internet backbones are now being built across the continent in order to drastically reduce the cost of Internet access and facilitate increased usage. In addition, many international and regional donors as well as African governments are undertaking serious efforts to address these weaknesses and thereby reduce the digital divide in Africa.

III. AVBAN USING INFORMATION TECHNOLOGY TO PROMOTE CHANGE

---

[3] *AfricaOnline*, "Rise in dial-up subscribers in Africa," August 14, 2002.

[4] *AfricaOnline*, "Rise in dial-up subscribers in Africa," August 14, 2002.

[5] *Reuters,* "Internet use increasing in Africa," October 1, 2002 and *AfricaOnline,* "Africa wired, but Internet access limited," April 29, 2002.

[6] Figures in this paragraph are from *AfricaOnline,* "Africa wired, but Internet access limited," April 29, 2002.

[7] Akst and Jensen.

[8] Akst and Jensen.

The recent increase in Internet usage in Africa and by African business associations offers a window of opportunity. Voluntary, membership-based associations and association networks are effective vehicles of change. Business associations foster democracy and promote reform by uniting entrepreneurs in an organized, participatory manner to promote their interests before government policymakers, legislators and other groups. Nonetheless, business associations in Africa must overcome some fundamental challenges before they can become effective agents of change. The obstacles that need to be surmounted include: weak human and financial resources, low managerial skill levels, limited knowledge of organizational best practices, poor communications infrastructure, and lack of information technology resources which hamper the effectiveness of member-based business associations. Moreover, because many African business associations are perceived as weak, they fail to command the attention or respect of government policy makers. This in turn reduces private sector support for the associations, because they are not seen to carry the necessary clout. This vicious circle is perpetuated by donor-driven initiatives that create competing structures that have better access to information and resources, further marginalizing the business associations.

Recently, African business associations have begun to take advantage of IT in order to address their internal weaknesses, better represent their members and advocate essential reforms that would create a more hospitable business environment. African business associations with web sites have begun to employ this technology to publicize information on pending legislation that affects business and business position papers. In short, IT can be an effective mechanism through which African business associations can begin to strengthen themselves, share information, bridge the digital divide, advocate for key political and economic reforms, and foster economic growth.

AVBAN's aims and services

Over the past 18 years, CIPE has helped to strengthen business associations in Africa by conducting over 20 business association training programs on the continent that reached over 600 business association professionals. These training programs helped to strengthen business associations by providing association staff with knowledge and tools to improve internal management and membership services, increase membership, and advocate for essential political and economic reforms. In order to take advantage of web and Internet-based communication technologies to expand the reach of CIPE's training materials in Africa, CIPE recently launched AVBAN. (This network is based on CIPE's award-winning, web-based Virtual Business Association[©] -- VBA.)

Aims of AVBAN

The overall objectives of AVBAN are to strengthen the business association network across Africa and contribute to the development of business associations and chambers as strong grassroots democratic institutions working to keep Africa on track in her transition to democracy and market-oriented economies. AVBAN's specific objectives are to provide African business associations with tools to:

- Institute sound management techniques within their associations and members' businesses;
- Increase membership
- Improve and diversify membership services;
- Facilitate networking among African business associations to allow association members to benefit from the wealth of experience and knowledge of colleagues in their own region and to make business contacts;
- Increase access to knowledge and technology that will help strengthen the capacity of their staff to represent association members effectively in the policy making process by advocating for changes in the legal and regulatory framework that will improve the business climate and stimulate economic growth;
- Strengthen their ability to communicate with their members and a wider audience;
- Make them more visible on the World Wide Web;
- Accelerate Africa's integration into the digital world.

What does AVBAN have to offer?

AVBAN is an online resource with its own web site (www.avban.org). The AVBAN site features a comprehensive, searchable directory of African business associations, and communication tools such as discussion boards and a listserv designed to enable business associations to exchange ideas on economic development issues and business association best practices in governance, management, and advocacy. AVBAN also offers online management and advocacy training materials and other documents featuring success stories in association best practices that can be used to build the capacity and leadership of business association staff so that they are better equipped to serve members, promote private sector development and advocate for reform in their countries. A web site-building feature on AVBAN transfers information technology directly to associations, giving them the tools to create their own web sites and make their organizations visible to the world. AVBAN also provides links to other useful web-based resources, African news from AllAfrica.com, and an events calendar that provides a one-stop resource center for anyone wanting to know what is happening where and when in the world of African business associations.

Specific features

The African Virtual Business Association Network (AVBAN) Web site

Directory of African business associations

Information from the directory is organized in a dynamic, searchable, on-line database that is available to all users. New members are encouraged to use the online self-registration process, but can also fax or email their registration information to CIPE. The registration form includes basic questions about each association as well as more specific questions about each association's internal management system. Each time a new business association or chamber registers through the on-line directory, CIPE staff reviews the application to ensure that only African business associations register, that

applications are complete, and that there are no duplicate entries. This registry is the first step in introducing large numbers of African business associations to the World Wide Web. Each new member is invited to participate in the AVBAN information-sharing network.

Template-based web site development tool

The AVBAN web site includes template-based web development tools that permit associations to build their own web site which will be hosted under the AVBAN domain name free of charge. AVBAN members have 100% control over the contents of their site. Associations can have a web site even if they do not have direct access to the web. In other words, they could use an Internet café to upload, create or update their site. It is even possible for associations to offer their members the opportunities to create their own web sites and host them using the same central hosting service. All associations listed in the registry are encouraged to use the template to create their own web site; however, CIPE will offer direct assistance to about 10 African chambers or business associations which need to obtain local technical support to build their respective web sites. Each time a new business association or chamber creates a web site through AVBAN, CIPE reviews the new web site to ensure that only African business associations are using this service and that the web site content is compatible with the mission and services of a business association or chamber of commerce.

Case studies and useful links

While the primary means of information exchange with African member associations is through the various communications tools described below, the AVBAN web site features a page devoted to best practice case studies and useful links to other relevant web sites. Eventually, based on member and user input, other pages may be added.

Communications tools

The information-sharing network utilizes several on-line communication tools, including a listserv, topical email discussion forums, message boards, and a downloadable newsletter featuring best-practices and success stories drawn from CIPE's training programs, the VBA, and chambers and associations across the African continent. These communication tools make CIPE's wealth of business association management training information more accessible in Africa and permit African associations to share their best practices and advocacy initiatives.

The information from CIPE's VBA that will be sent out through the network includes the contents of each of the various VBA 'offices':

The Chief Staff Officer which describes the fundamental infrastructure of an association.

The Financial Manager which explains how associations should report money spent.

The Public Policy Advocate which provides information about how to establish effective relationships with government officials and advocate for legal and regulatory changes.

The Communications Manager which contains information about how to engage in effective public relations including how to write useful newsletters and publications.

The Membership Manager which explains how to obtain and retain association members.

AVBANINFO – This service enables users to email AVBAN and request information and assistance. CIPE responds to these queries on a daily basis.

Links to other useful web resources – This section includes local web sites that may be of use to African business associations. Each link is followed by a brief description of the site's contents. CIPE regularly updates this information. CIPE actively encourages African business associations and other users to suggest useful links.

Events calendar – The events calendar provides a one-stop resource center for anyone wanting to know what is happening where and when in the world of African business associations. CIPE regularly updates this information and actively encourages African business associations and other users to send updates to the events calendar.

Training material and other documents – In addition to the training materials on the AVBAN site that are listed above, CIPE actively searches the web for useful training material, success stories, and other documents to post on the site and send out through the listserv. Many useful materials in this section originate from the web sites of African business associations. CIPE periodically reviews these sites to cherry pick good material. In addition, CIPE actively encourages African business associations and other users to send documents to share with AVBAN members. All posted documents are sent out through the listserv.

Technical development

The database and the template-based web development tool feature are linked to the AVBAN web site through a web interface. The on-line database is managed offline by CIPE. The web site and distributed information is in English. The web site runs on the two most widely used Internet browsers, Internet Explorer 4.0 version and above, and Netscape Communicator 4.0 version and above. The site is designed to run reliably on a wide range of computers operating on either Windows or Macintosh platforms.

Technical advice – Many of the potential users of the AVBAN web site template tool are new to the World Wide Web. As CIPE reviews their web sites, it provides pointers on formatting to improve the look of the AVBAN web sites. In addition, CIPE actively encourages business associations that do not have web sites to create them using the AVBAN template. This requires helping not only with technical advice, but assisting people overcome the techno phobia associated with a new technology.

<u>Translation of all pages into French and Portuguese</u> – The AVBAN web site is currently in English. The web pages will be translated into French and Portuguese, as will some of the training material.

Marketing

CIPE actively publicizes the AVBAN site and the registry. CIPE regularly encourages African associations, multi- and bi-lateral groups working on economic reform issues, and other groups working on democracy-building initiatives to channel information through the network, thus increasing access by African business associations to information that strengthens their role as the voice of the business community.

The groups that CIPE solicits AVBAN-relevant information from include:
1. African business associations and chambers of commerce
2. Business associations and chambers of commerce from around the world
3. The World Bank Group
4. U.S. Agency for International Development missions and U.S. Embassies in Africa
5. The National Endowment for Democracy and its core institutes
6. The Foundation for Democracy in Africa

Awards Program

CIPE has created an awards program to document the experience and best practices of business associations in Africa and to generate success stories from AVBAN's growing network. The awards program is modeled along the lines of the American Society of Association Executives *Gold Circle Awards* program and the Federation of Uganda Employers' *Employer of the Year Award*.

<u>The Awards Program</u> - The awards program acknowledges African business associations for their successful initiatives and generates case study material in business association governance, management, and advocacy. The African-specific case study material provides African business associations with successful African role models from environments similar to their own – both in terms of the material and human constraints and the economic and political environment.

Some of the award categories include:

1. Association Governance
2. Membership Development and Retention
3. Membership Services/Programs
4. Advocacy – Winning Strategies
5. Advocacy – Winning Issues
6. Public Relations
7. Volunteer and Staff Relations
8. Human Resource Management

9. Communication Strategies
10. Business Association Finances
11. Donor Support for Business Associations

Marketing the Awards Program **-** CIPE utilizes the AVBAN network to publicize the Awards Program and to solicit interest in participating in the initiative. CIPE also draws upon its extensive knowledge of business associations in Africa to nominate associations that are particularly strong in some aspect of business association governance, management, or advocacy. A peer review committee will review the submissions and select the winners who will be granted a monetary prize. CIPE will publicize the award in a full-page advertisement in the local paper of choice for each winner. In addition, each year's winners of the Awards Program will be featured on the Awards Page of the AVBAN web site.

Case study development **-** CIPE will work with each of the winners to develop the original submission into a polished case study. The case study collection is intended to inspire other business associations to strive for excellence in association management, governance, and advocacy.

Dissemination - Winning case studies will be posted on the AVBAN web site and channeled through the listserv to a user network that already includes 1500 recipients. Channeling this material through AVBAN strengthens it as a peer network where African business association professionals and leaders can tap into the wealth of experience and knowledge of colleagues in their own region. CIPE will also incorporate the success stories in its on-site training programs in Africa and around the world and will share the material with other organizations that are striving to strengthen African business associations. CIPE is already participating in a World Bank /International Finance Corporation initiative that can further disseminate this information.

IV. RESULTS

AVBAN was launched in August of 2002 and already has over 400 members after only five months of operation. AVBAN's directory of African business associations is the largest available online. The directory contains an on-line registration feature and a search engine that permits searches by sector, type of association, country, association name, or association acronym. This will greatly help African business associations to connect with associations within their own country and across the continent whether it is to share information, establish business relationships, build coalitions, or advocate for key reforms.

AVBAN's template-based web site design tool offers members five different design templates from which AVBAN members can create their own site. The tool is easy to use so that even AVBAN members with limited computer experience are to build their own sites and have them hosted free of charge. To date, twelve AVBAN members have created their own web sites using one of the AVBAN web site templates. These are listed in Table 3 below.

TABLE 3: African business associations with AVBAN web sites

Country	Association
Egypt	Federation of Egyptian Industries
Ghana	Ghana Association of Women Entrepreneurs
Mozambique	Associaçao Comercial e Industrial de Sofala
	Association de Fruticultores de Moçambique
Nigeria	Nigerian Association of Small Scale Industrialists
Tanzania	Tanzania Chamber of Commerce, Industry, and Agriculture Morogoro Region
	Tanzania Private Sector Foundation
	Confederation of Tanzania Industries
	Federation of Associations of Women Entrepreneurs
Uganda	Uganda Women Entrepreneurs Association Limited
Zimbabwe	Women in Business – Zimbabwe
Cameroon	Cameroon Junior Chamber

The fact that business associations have begun to use the online template to create their own web site indicates that AVBAN has helped business associations to become more familiar with web-based technology and resources (thereby transferring technology and know-how) and to gain greater national, regional and international exposure for their associations on the World Wide Web.

AVBAN's contribution to increased usage of web–based resources in Africa is also evidenced by the steadily increasing number of user visits to the site. An administrative feature on the AVBAN site tracks user activity, including daily and monthly hits and countries where users are accessing AVBAN. The AVBAN web site recorded 770 user visits in December, up from 209 visits in August. User visits have exceeded the estimate of 500 visits per month in the first year. Table 4 below displays a summary of activity on the AVBAN web site by month.

TABLE 4. Summary of AVBAN web site activity

Summary by Month									
Month	Daily Avg				Monthly Totals				
	Hits	Files	Pages	Visits	Sites	KBytes	Visits	Pages	Files	Hits
Dec 2002	446	286	136	24	325	74594	770	4235	8892	13841
Nov 2002	555	369	126	23	461	96261	710	3808	11086	16660
Oct 2002	499	326	108	18	414	72125	566	3364	10131	15492
Sep 2002	384	260	84	10	157	76291	306	2542	7808	11540
Aug 2002	278	163	53	6	99	49726	209	1673	5083	8644
Totals						620850	4102	24226	69712	108471

The African countries that have recorded the greatest number of users on the AVBAN web site include Egypt, Mozambique, South Africa, Uganda, and Zambia. Other countries where the AVBAN site is most frequently accessed include Argentina, Denmark, France, India, Netherlands, United Kingdom, and the United States. During the period October to December 2002, non-profit organizations comprised an average of 21% of users each month. An average of

14% of users accessed the site from US educational and commercial institutions. However, a large percentage of users are not identifiable by country.

AVBAN has also succeeded in strengthening business associations by providing members with useful information to improve their internal management systems. So far, valuable training materials and case studies of best practices have been disseminated to around 1,500 recipients in Africa through the listserv which is easy for associations to access. The distributed materials cover the following topics: advocacy, finance, management, membership, national business agendas, and public relations and include best practices and sample documents for each topic.

Members of AVBAN also enhanced their knowledge of and shared information about salient topics through AVBAN's discussion forums. The forum topics included the New Economic Partnership for Africa's Development, corporate governance, the informal sector, privatization, economic development and market-oriented reform, corruption and business association policy advocacy and management.

Lessons learned

Despite intense efforts to encourage African business associations to register and create their own web site, a technophobia continues to deter many Africans from using IT. As a result, during face-to-face visits, CIPE staff has shown members of African business associations how to register and become a member of AVBAN and how to use the online template to design a web site. Business association members exhibited a greater willingness to use the technology after they had seen a demonstration or received individual instruction. One way of overcoming this obstacle is to enlist the help of current AVBAN members in training not only their own members but members of other associations in the country or region. The latter could be done when members visit other associations, for example. In the meantime, CIPE will continue to show African business associations how to use AVBAN whenever feasible.

V. CONCLUSION

African business associations are vital components of a healthy democratic society. By making information on best practices much more accessible to African business associations, the AVBAN will help these associations to strengthen their management systems, improve and diversify their member services, develop their advocacy skills, and enhance their knowledge of how business associations function in democratic, market-based systems. AVBAN also helps to ensure that private business associations acquire the IT-based knowledge and skills which they can use in conjunction with their newly acquired management and advocacy capacities to begin developing and advocating national business agendas that will improve the business climate in the near future. In so doing, business associations will also be contributing to more participatory and responsive policymaking thereby strengthening democracy.

If successful, these short-term efforts will hopefully provide African private sector associations with the drive and the tools to begin tackling some of Africa's larger and longer-term obstacles to economic growth and development. This, of course, requires adequate time

and resources. Nonetheless, strong grassroots democratic institutions such as business associations and chambers can use IT vehicles such as AVBAN to tackle larger developmental barriers gradually. In the end, reforms designed and endorsed by the business community are likely to help attract capital, foster competition, lower the costs of and access to IT, and reduce the cost of doing business in Africa. This will, in turn, create more business opportunities and employment, help Africans take advantage of domestic and international innovations and markets, and keep Africa on track in its transition to democracy and market-oriented economies.

Building a similar network in other developing-country regions is both possible and likely to offer similar benefits, given that the African region has the second least number of Internet users (see Table 1 in the Appendix) and some of the weakest business associations and support structures in the world. If such a network can work under these conditions, it is likely to be even more successful in more technologically advanced, developing-country regions. Developing countries outside of Africa that also have weak business associations and similar obstacles to political and economic development are likely to find an AVBAN-type network a useful tool to bridge the digital divide and advance democratic, market-based reforms.

VI. APPENDIX

TABLE 1: How Many Online?
(As of September, 2002)

Region	# Individuals Online
Africa	6.31 million
Asia/Pacific	187.24 million
Europe	190.91 million
Middle East	5.12 million
Canada & USA	182.67 million
Latin America	33.35 million
World Total	**605.60 million**

Source: Various
Compiled by: Nua Internet Surveys, http://www.nua.ie/surveys/how_many_online/
Methodology:
- Where possible, 'How Many Online' figures represent both adults and children who have accessed the Internet at least once during the 3 months prior to being surveyed. Where these figures are not available, we use figures for users who have gone online in the past 6 months, past year, or ever.
- An Internet User represents a person with access to the Internet and is not specific to Internet Account holders. When the figure for Internet Account holders is the only information available, this figure is multiplied by a factor of 3 to give the number of Internet users.
- The figure for 'Asia/Pacific' includes Australia and New Zealand.
- When more than one survey is available on a country's demographics, Nua will take the mean of the two surveys or, in the case where Nua feels one study may be more comprehensive/reliable than the other, Nua will quote this figure over the other.

TABLE 2: HOW MANY ONLINE IN AFRICA?

REGION	COUNTRY	DATE	NUMBER	% POP	SOURCE
North Africa					
	Algeria				
		March 2001	180,000	0.57	Ajeeb.com
		January 1998	500	N/A	SANGONeT
	Egypt				
		December 2001	600,000	0.85	ITU
		January 1998	20,000	.03	SANGONeT
	Libya				
		March 2001	20,000	0.24	Ajeeb.com
		March 2000	7500	0.15	DIT Group
	Morocco				
		December 2001	400,000	1.28	ITU
		January 1998	6000	.02	SANGONeT
	Tunisia				
		December 2001	400,000	4.08	ITU
		January 1998	3500	N/A	SANGONeT

Sources:
Ajeeb, http://eit.ajeeb.com/ViewArticle.asp?Article_ID=28132
SANGONeT, http://www3.wn.apc.org/africa/users.htm
International Telecommunication Union (ITU), http://www.itu.int/ITU-D/ict/statistics/index.html
DIT Group, http://www.dit.net/itnews/newsmar2000/newsmar29table.html

Compiled by: Nua Internet Surveys, http://www.nua.ie/surveys/how_many_online/africa.html