

**Leland Initiative: Africa Global Information Infrastructure Gateway
Project (698-0565)**

Strategic Objective 3: End-User Applications

**Country Assessment and Action Plan
Madagascar**

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Prepared for:

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Executive Summary

The Leland Initiative is a five-year, \$15 million USAID project bringing full Internet connectivity to 20 or more African nations. The initiative's three strategic objectives (SOs) support fast-paced sustainable development by establishing an Internet-friendly policy environment (SO1); promoting a sustainable supply of Internet services (SO2); and developing a dynamic and growing user base capable of using the Internet (SO3).

This report addresses Internet end-user issues and outlines an action plan to ensure appropriate user-base development. There were 51 organizations interviewed in Antananarivo and Fianarantsoa and a presentation to 21 private companies in Mahajanga. From the assessment seven potential pilot projects have been identified as fast-track partners--those most ready to begin applying the information and communication tools (i.e., the Internet) to the challenges of fast-paced sustainable development. USAID/Madagascar's assistance to these institutions would produce measurable results; by example these organizations will become excellent promoters of Internet use. These organizations include:

- Association National pour la Gestion des Aires Protegees (ANGAP) has increased in popularity as a geographic information systems user. ANGAP is an extended team member of USAID/Madagascar's Strategic Objective 3 as an executing agency for projects in the environmental sector. The strengths of ANGAP as a pilot project lie in its already active development information activities.
- Association pour la Promotion de l'Entreprise a Madagascar (APEM) was created in 1987 to provide resources to small and micro enterprises in the areas of financial management, marketing strategies, etc. USAID/Madagascar supports its work by sponsoring periodic training seminars to APEM's members. Approximately 100 small and micro enterprises from 10 provinces depend on APEM's training and resource center in Antananarivo.
- Appui Aux Programmes de Population (APPROPOP) is a USAID supported project that seeks to assist family planning providers to develop strong regional family planning programs. APPROPOP has developed standardized training curricula, service delivery protocols, indicators and data collection instruments for a national MIS, and IEC materials for effective counseling activities.
- Commercial Agricultural Promotion (CAP) Project is an agribusiness support USAID project operating in the Fianarantsoa and Mahajanga regions. CAP primarily works with medium-to large-size businesses to strengthen their customer base by providing training and consulting services.
- Centre d'Information et de Documentation Scientifique et Technique's (CIDST) main objective is to collect, translate, and disseminate information from the rural and urban regions of the island. Its clientele base of entrepreneurs, researchers, policy makers, and students--many of the same groups that USAID/Madagascar partners with in its development activities.

The center also coordinates and provides information to the five other National Research Centers under the Ministry of Technical Research.

- Ecole Nationale d'Informatique (ENI) is an institution that graduates nearly all the technical and engineering workforce in Madagascar. It has an excellent reputation for building highly qualified computer professionals, bankers, engineers, accountants, and agricultural specialists. ENI has a good relationship with the USAID CAP/Fianarantsoa Project and spoke about strengthening information-based technologies together in the region.

- Institut Nationale des Statistiques (INSTAT) has been working with USAID/Madagascar's SO2, Data for Decision Making in health, population, and nutrition activities. INSTAT operates under the Ministry of Economic Plan and has a mandate to collect statistics generated in Madagascar from the six regional offices in a timely and efficient manner. This new mandate would promote Internet use and the exchange of information among organizations on the island. In addition, international users will be able to access economic information on Madagascar on-line.

Madagascar is an excellent example of a country where wireless technology can be used effectively. A team effort among USAID/Madagascar, the government of Madagascar, and the Leland Initiative will take Madagascar--a country with as antiquated a telecommunications system as one can find in Africa--into the modern era of global information super-highways. And as a result, the economic impact will be tremendous and immediate.

1.0 Introduction

The *Leland Initiative Strategic Objective 3 Country Assessment and Action Plan* provides USAID/Madagascar with concrete action steps for effective Internet use for mission staff, fast-track partners, and other organizations to build a network of active users in Madagascar. (See Annex A: Leland Initiative Strategic Objective 3: End-User Applications Background.)

Madagascar recently established a market-oriented, democratic government that is aggressively pursuing policies to improve the island's economic condition. Part of this effort includes a telecommunications privatization and modernization program that is designed to stimulate economic growth in the country.

2.0 USAID/Madagascar's Sustainable Development Strategies

USAID/Madagascar supports the country's multi-party, market economy trends by developing programs that aim to accelerate economic growth by stimulating private investment and employment and by balancing population growth with the country's natural resources. The most challenging activity will be to transform the subsistence rural economy of fragmented markets and interrupted communications into a competitive, efficient market economy.

USAID/Madagascar employs innovative strategies to address these challenging key development sectors by promoting policy and institutional reform and developing private sector liaisons. The Leland Initiative, by developing a strong wireless telecommunication system, is one tool that USAID/Madagascar is implementing to help alleviate a communication and information bottleneck. Today Madagascar's telephone system is perhaps the most expensive (telephone calls start at \$50 for the first 3 minutes, plus about \$15 for each additional minute to the U.S.) in the world and also perhaps the most unreliable. The new Ministry of Posts and Telecommunications leadership has begun establishing an efficient modern communications system that is affordable and accessible to more of its citizens, especially for business and commerce.

2.1 Leland Initiative's SO 1: Creating an Enabling Policy Environment

A strategic objective of the government of Madagascar (GRM) is to upgrade the country's telecommunications infrastructure through an aggressive modernization and privatization program. In December 1993, the National Assembly passed law No. 93-001 that allows for institutional reform of the mail and telecommunications systems. Specifically, the law allows the GRM to carry out the regulatory functions while a "principal operator" will respond to basic voice and telex services daily operations; allowing value-added services to be met through competition by private business entities.

The National Assembly passed this law to eliminate Telecom Malagasy (TELMA) monopoly status, opening the door for private competition while creating an independent regulatory authority. The government is very keen on liberalizing the telecommunications sector. The

minister of Posts and Telecommunications stated, in March 1996, that he would like to see the sector open to private capital but that the state will remain the majority stakeholder.

The Leland Initiative's SO1 team started negotiations for an Internet Gateway Agreement August 1, 1996, and on August 7, 1996, a signing ceremony of a Memorandum of Understanding (MOU) between the U.S. government and the GRM took place. The MOU states that the two governments will "*cooperate in a mutual effort to establish a national Internet gateway.*" This formal agreement allows the United States to provide Madagascar with full Internet connectivity and technical assistance to ensure that reliable, competitive, and cost-effective services for accessing the Internet are available through a privately owned and operated Internet Service Provider Industry.

2.2 Leland Initiative's SO 2: Creating a Sustainable Supply of Internet Services

At the time of the assessment there were two organizations providing only e-mail services based on high cost X.25 technology. RIO/ORSTOM provides e-mail services for research organizations via UUCP relay; and Data Telecom Service (DTS), a branch of TELMA under the Ministry of Posts and Telecommunications (PTT), intends to provide high performance communications for commercial customers in Madagascar.

Since there are no private sector Internet Service Providers (ISPs) operating in Madagascar, it is recommended that a committee made of the private and public sectors should be created to define and agree on membership criteria, roles and responsibilities, charter by-laws, and operational procedures for ISP activities. The purpose of such a committee would be to increase direct operational involvement of existing and potential ISPs, promote technical cooperation among these ISPs, and decrease a potential threat of a monopolization of the industry.

The two most commonly heard complaints about RIO/ORSTOM and DTS e-mail services stem from a) their inability to supply the needed interfacing software and modems to support e-mail user needs and b) their weak technical support (i.e., unable to troubleshoot client problems in a timely manner if at all). It was recommended by several e-mail users that as the ISP industry develops in Madagascar, each ISP should supply modems and interfacing software to Internet users and that each ISP have, on staff, trained technicians ready to respond to users' Internet related questions and problems.

2.3 Rural Access

At the time of this study TELMA was installing a modern domestic satellite (DOMSAT) service to link remote cities of Madagascar that could provide Internet connectivity. Installations in Antananarivo, Diego, and Nosy Be are completed. DOMSATs were scheduled to be installed in Mahajanga and Morondava with future plans to install DOMSATs in Fianarantsoa, Tulear, Fort Dauphin, Manakara, Antalaha, and Sainte-Marie. It is important to note the DOMSAT installation sites so that USAID/Madagascar can work with TELMA to improve internal marketing strategies and overall economic growth for Madagascar.

3.0 The Leland Initiative's SO 3 Strategy

The purpose of the Leland Initiative in Madagascar is to bring the benefits of the global information highway to the island through full Internet connectivity. The first step needed to achieve this goal requires increasing the supply of e-mail connectivity. The first step is followed closely by a second step: successfully applying this connectivity to the challenges of sustainable development information efforts. In keeping with these steps the Leland Initiative SO3 team operates at two levels. The first level is implemented in the field where developed assessment tools and training approaches are used to identify and support an Internet Service Provider industry and a dynamic and growing user base. The second level, implemented out of USAID/Washington, includes collecting and preparing lessons learned from other donors and the private sector on successful application of electronic communication methods to development information needs. The tools used by the Leland Initiative SO3 team included:

- *Internet readiness assessments and strategy development:* the SO3 team assesses the Internet readiness of USAID field missions and their host country development partners. The objective of this assessment is to identify the fast-track USAID partners that will serve as pilot projects and develop a strategy to integrate Internet use in development activities.
- *Internet applications training:* the SO3 team conducts a workshop that includes training, brainstorming, and action planning activities to provide Internet tools that may be incorporated into USAID/Madagascar and their development partners' activities.
- *Demonstration pilot projects:* the End-User Application Country Assessment and Action Plan for each field mission summarizes the assessment findings and pilot projects recommended to demonstrate the application of Internet connectivity to specific development challenges.
- *Internet best practices:* the Leland Initiative SO3 team has begun to collect and disseminate information and lessons learned on the use of the Internet to foster sustainable development for decision-makers throughout the donor and host country communities.

3.1 Assessment Process

The Leland Initiative was geared toward working within the Strategic Objective teams established priorities. This process depended on the mission to identify partners, collaborators, and institutions that the Leland team should interview as potential fast-track pilot projects. The identification process used six basic criteria (see Annex A for a complete explanation of indicators) to measure an institution's readiness for effective Internet use:

1. *Institutional information and communication strategy:* This indicator is based on the institution's ability to understand and communicate to itself and to an outside audience its mission and main objectives.
2. *An institution's information use:* This indicator reflects the importance an institution places on generating information and using information to accomplish its goals and make decisions.

3. *Recognize potential contribution of Internet to institutional mission:* This indicator is intended to demonstrate whether the institution recognizes the need for and potential use of information from outside its usual resources.
4. *Champion:* This indicator is intended to identify an individual to serve as catalyst/enthusiast for Internet use.
5. *Telecommunication and computer infrastructure:* This indicator identifies an institution's need to upgrade and/or purchase equipment to use the new technology.
6. *Potential for sustainability:* This indicator is intended to anticipate the time when the Internet becomes a standard tool within the institution, having to be maintained and sustained in the operational budget.

3.2 Assessment Findings

A summary of findings was presented to USAID/Madagascar staff and to Ambassador Huddleston providing an overview of respondents' readiness for effective Internet use. (See Annex C for assessment matrix.) The matrix reveals most institutions (82 percent) interviewed were aware of the advantages of Internet use as a communication tool and were committed to efficient development information management systems. There was an overwhelming desire for Internet training in all Internet applications. The two primary constraints holding these institutions back from using e-mail are the lack of financial capital and the limited number of individuals within the organization capable of maintaining the technology.

4.0 Potential Fast-Track Organizations

Of the 51 institutions interviewed, seven institutions are cited as potential fast-track organizations (see Annex B for fast-track interview summaries and Annex D for survey tools). They were selected for their high degree of Internet awareness, ability to produce immediate results, and potential to demonstrate successfully to other organizations the value of the Internet. The potential fast-track organizations include:

- Association National pour la Gestion des Aires Protegees
- Association pour la Promotion de l'Enterprise a Madagascar
- Appui Aux Programmes de Population
- Commercial Agricultural Promotion Project
- Centre d'Information et de Documentation Scientifique et Technique
- Ecole Nationale d'Informatique
- Institut Nationale des Statistiques

Association National pour la Gestion des Aires Protegees (ANGAP) has increased in popularity as a geographic information systems user. It can't even find the time to close the doors to the resource center long enough to clean up files that people inadvertently leave on

the public computers. The strengths of ANGAP as a pilot project lie in its active development information activities: 1) providing access to information from outside the island; 2) disseminating tourism, scientific, and biodiversity information; 3) organizing an archive of donor information; and 4) maintaining field indicators that can be used to measure impact.

Association pour la Promotion de l'Entreprise a Madagascar (APEM) was created in 1987 to provide resources to small and micro enterprises in the areas of financial management, operational and marketing training as well as advocacy work. USAID/Madagascar supports its work by sponsoring periodic training seminars to APEM's members. Approximately 100 small and micro enterprises from 10 provinces have benefitted from APEM's training and resource center in Antananarivo. APEM would like to decentralize its services by operating out of regional offices instead of from the central location in Antananarivo so that more small and micro enterprises will have training and consulting services available to them.

Appui Aux Programmes de Population (APPROPOP) is a USAID population support project that seeks to assist family planning providers to develop strong regional family planning programs. APPROPOP has developed standardized training curricula, service delivery protocols, indicators and data collection instruments that have high participatory and client-oriented results. APPROPOP is currently working with the Ministry of Health to build a health reporting system using the information that is gathered from its six regional offices.

Commercial Agricultural Promotion (CAP) Project is an agribusiness support USAID project operating in the Fianarantsoa and Mahajanga regions. CAP primarily works with medium-to large-size businesses to strengthen their customer base by providing training and consulting services. One of the main activities is to locate export markets for the 100-client product base.

Centre d'Information et de Documentation Scientifique et Technique's (CIDST) main objective is to collect, translate, and disseminate Malagasy and international market information to its clientele base of donors, entrepreneurs, researchers, policy makers, and students. CIDST services many of the same groups of people that USAID/Madagascar works with to implement its development activities. The center also coordinates and provides five National Research Centers under the Ministry of Technical Research. CIDST was represented at the INet '96 conference to learn how to market its services as well as provide and disseminate information throughout the island in innovative ways.

Ecole Nationale d'Informatique (ENI) is an institution that graduates nearly all the technical and engineering workforce in Madagascar. Eighty-five percent of its graduates join the private sector as computer professionals, bankers, engineers, etc. ENI has a good relationship with the USAID CAP/Fianarantsoa project and spoke about strengthening information-based technologies together in the region.

Institut Nationale des Statistiques (INSTAT) has been working with USAID/Madagascar's SO2, Data for Decision Making in health, population, and nutrition activities. INSTAT

operates under the Ministry of Economic Plan and has a mandate to collect all statistics generated in Madagascar from six regional offices. E-mail connection among the six regional offices would radically speed the flow of regional data to headquarters, improve data consolidation and reporting, and potentially allow for more timely early warning indicators from distant, isolated regions. Good research and analysis is linked to program management. It would be valuable both for local and international Internet users to be able to access economic information on Madagascar on-line.

5.0 Next Steps

This assessment revealed that the need for Internet assistance varied from player to player (i.e., USAID/Madagascar, fast-track organizations, other organizations, the ISP industry, donors, and private voluntary organizations). Therefore, recommended action steps were created to target these needs. This report includes a next steps matrix, citing the action steps recommended, the USAID person or persons responsible for implementing the steps, and an approximate implementation time frame.

5.1 USAID/Madagascar Staff and Potential Fast-Track Institutions

USAID/Madagascar is one of over 40 USAID missions with a Very Small Aperture Terminal (VSAT). VSATs were originally installed in USAID missions to provide connectivity to USAID/Washington as required for implementation of USAID's New Management System applications; however, a VSAT can also be used to provide direct, full Internet connectivity to the USAID mission staff.

For USAID/Madagascar to effectively promote Internet use for sustainable development in Madagascar, the mission (as a whole) must first become more Internet literate and then demonstrate to its development partners what the Internet can contribute to an institution's information and communication strategy. Interest was expressed from USAID/Madagascar staff to learn how to use various Internet applications. Out of this interest, the Leland team provided an introductory Internet demonstration for 10 staff members before leaving the mission. It is recommended that subsequent training be provided for the mission staff to learn basic Internet applications. It is further recommended that each SO team prepare with the partner organizations an action plan to integrate the use of development information tools at the activity level. The seven fast-track organizations may need USAID investment to effectively use and promote Internet use in Madagascar. Recommended action steps for both the mission and the fast track institution include:

Step 1: USAID/Madagascar hosts a staff-wide and fast-track organizations training workshop. (See Annex E: *Internet for Development: Applications and Training Workshop*.) The curriculum would be tailored to meet the various proficiency levels and language needs of Internet use and relevant application.

Step 2: USAID/Madagascar and fast-track organizations develop specific development information and communication action plans.

Step 3: USAID/Madagascar initiates an Internet user group comprised of fast-track partners and other organizations, focusing on development applications of the Internet (this group could become a subgroup of the Madagascar chapter of the Internet Society). This advocacy group would support development information needs and continue to explore and implement urban and rural information and communication strategies.

Step 4: USAID/Madagascar makes available a facility to share Internet and development experiences for fast-track organizations and other partners.

5.2 Other Development Institutions

The remaining USAID/Madagascar partners interviewed averaged a low assessment on their institution's information awareness and technology advancements. These organizations demonstrated that they need more support than what USAID/Madagascar can provide. However, their needs reflect the roadblocks many Malagasy institutions face (i.e., lack of computers, reporting system not yet computerized, etc), and a strategy should be developed to assist these organizations. At USAID/Madagascar's discretion, organizations not interviewed during the Leland SO3 assessment should also participate in this strategy, when possible. Listed below are some guidelines for action:

Step 1: For those institutions that are aware of the Internet's capabilities and are looking to integrate them, attendance at seminars hosted by the USAID's fast-track institutions' user group should be encouraged. Suggested discussion topics include Internet use for development purposes, topical search strategies, an introduction to hardware requirements, and a list of technical constraints to Internet use in Madagascar.

Step 2: It is recommended that USAID/Madagascar provide a facility for those interested institutions that lack access to and/or experience with the Internet. Sector-specific demonstrations could be conducted, if USAID staff time allows.

Step 3: For those development institutions unaware of the potential of the Internet, the fast-track institution user group should host awareness sessions that provide general information on Internet connectivity and the advantages of Internet use for development.

5.3 Internet Service Provider Industry

It is important for the initiative to support an open business environment to cultivate a healthy and competitive Internet Service Provider industry that will contribute to meeting end-user demands. For example, the mission could begin by circulating the essence of the Memorandum of Understanding to potential ISPs, which may discourage the government from monopolizing the ISP industry. More specifically, to encourage a competitive ISP industry in Madagascar it is recommended that USAID/Madagascar take the following steps:

Step 1: It is recommended that USAID/Madagascar and the Leland Initiative provide technical assistance and support to potential ISPs (collectively).

Step 2: It is recommended that USAID/Madagascar encourage a Madagascar chapter of the

Internet Society. Members will ensure that the MOU is followed and encourage Internet use. This will also provide a forum to address Internet needs and constraints.

Step 3: It is recommended that USAID/Madagascar and the Leland Initiative increase technical assistance and training provided to the potential ISPs and to the appropriate telecommunication staff responsible for maintaining the node.

5.4 Donors

It is recommended that the mission director continue promoting Internet use in development activities among other donors. The Leland Initiative provides an organizational framework for donors to coordinate their efforts, improve the local communication infrastructure, and encourage relevant applications of Internet technologies for indigenous institutions. Internet activities are already under way at the World Bank and potential opportunities lie with the United States Information Service, United States Peace Corps, and the United Nations Development Program.

The World Bank has been working on telecommunications policy reform, and its representatives were interested in reading the Leland Initiative's MOU for substantive understanding of the agreement signed. The World Bank's FASP Project (Fond d'Appui au Sector Privé) is scheduled for implementation in April, 1997. Its objective is to improve the capacity of private sector companies by increasing the quality of their products and their access to information. The World Bank will have its own domain and server to provide up-to-date commodities information. The World Bank suggested that it would work with the Leland Initiative by promoting the MOU and providing technical assistance to develop information packages and training to help the private sector institutions use Internet resources.

United States Information Service (USIS) is interested in promoting its center as an electronic media center. USIS has sponsored Internet awareness seminars at its business round table meetings and will continue to be a proponent of integrating electronic communication among its clientele.

One program objective of the Peace Corps program in Madagascar is to increase the number of English speakers on the island, thereby opening communication doors for the island's inhabitants to other regions of the world. Peace Corps has volunteers working in eight resource centers training approximately 350 people throughout the island. There is at least one personal computer for each resource center. The Peace Corps expressed its readiness to incorporate Internet training into its curriculum once the island is fully connected.

It may be possible to collaborate with the United Nations Development Program (UNDP), which is interested in expanding its role to that of promoter of Internet use among small and micro enterprises. UNDP is looking to do so in a five-province area, starting with Nosy-Be because of its tourism and fishing industries.

It is important to note that in Madagascar the amount of resources that donors are prepared to commit to for full connectivity is high. It is recommended that the donor community along

with the government of Madagascar meet on a regular basis to capitalize on each others strengths to build a coherent Internet program. The goal is to reduce duplication of effort and encourage strategies that will provide Internet capabilities and training to the rural and urban communities on the island.

5.5 Private Voluntary Organizations (PVOs)

Most of the PVOs interviewed have e-mail connectivity and use the connection to communicate with their home office in the United States. However, most of the PVOs lack resources and work with very poor, rural non-governmental organizations (NGOs) that can't afford to computerize their offices. Under these conditions Internet connectivity should be viewed as a long-range strategy. It is recommended that USAID/Madagascar encourage PVO partners to work at developing a communication and information management component with their NGO partners, and where possible, provide the hardware and encourage computer use to track inventory and prepare reports. Computer literacy is an important skill to develop before an organization is ready to use the Internet.

In cases where Internet applications are not appropriate, other fora for information exchange should be explored, such as information communication conferences, site visits, and postal service. Information exchange will enable institutions to share ideas and lessons learned, allowing them to work more effectively. It is recommended that USAID/Madagascar address PVO information strategies in the *Internet for Development: Applications and Training* Workshop, as SO teams discuss how to integrate an information component in partners' activities.

6.0 Conclusion

The fast track institutions identified through the Leland Initiative SO3 assessment process are USAID/Madagascar's partners. Because of their understanding of the value of information and the networks in which they participate, these institutions are ideal models for other development institutions looking to work more effectively through the use of information and technology. With little investment from USAID/Madagascar, these fast tracks will demonstrate and facilitate the relevant use of the Internet to development organizations throughout Madagascar.

USAID/Madagascar, with the help of the Leland Initiative, is promoting the Internet industry, thereby improving services and reducing costs to the client. By working and coordinating with donors in Internet activities, USAID strengthen the use of Internet technologies and development information in Madagascar.

NEXT STEPS MATRIX

	Action Steps	Responsible Party	Time Frame
USAID/Madagascar & Fast-Track Organizations	1. attend a training workshop	USAID/Madagascar Leland S03 team	June 1997
	2. create action plans	S0 team members	June 1997
	3. create an Internet user group for development information; encourage continued Internet use	S0 Leland teams & USAID/Madagascar	on-going once created
	4. provide space & encourage use of a facility for Internet related activities	USAID/Madagascar	on-going
Other Development Institutions	1. attend Internet seminars	Fast-track organization reps & Internet user group reps	July 1997
	2. attend sector specific demonstrations	USAID/Madagascar	ongoing from July 1997
	3. attend awareness campaigns	Fast-track organizations	ongoing from July 1997
ISP Industry	1. attend ISP seminars	USAID/Madagascar & Leland /W	as needed
	2. establish Madagascar chapter of the Internet Society	USAID/Madagascar	July 1997
	3. attend TA & training seminars	Leland/W	as needed
Donors	1. continue to promote collaborative Internet efforts	Mission Director	continuous
	2. work with other donors specific activities	USAID/Madagascar	continuous
PVOs	1. develop information strategies in all activities	USAID/Madagascar	June 1997
	2. incorporate Internet applications when appropriate	USAID/Madagascar	June 1997

Annex A

Leland Initiative Strategic Objective 3: End-User Applications Background

Annex B

Fast-track interview summaries and organizations contact information

- List A: Interview summaries of potential fast-track pilot organizations
- List B: Interview summaries of selected other donor
- List C: Contact information for all organizations interviewed
- List D: List of potential Internet Service Providers
- List E: List of individuals and organizations that were not interviewed but recommended by USAID/Madagascar to take part in the assessment but due to time constraint and/or scheduling problems were not included.
- List F: Organizations briefed on the Leland Initiative in Mahajanga

NB: Exchange rate: US \$1 = 4000 FMG

List A

Interview summaries of potential fast-track pilot organizations

ANGAP

Tropical Forest Management Trust

tel: (261)2.30518

fax: (261)2.31994

BP 1424

Antananarivo 101, Madagascar

Interviewee: Jean-Michel Duflis,

SAVEM Project

GIS Technical Advisor to **ANGAP** (email: TFMTMAD@BOW.DTS.MG)

Overview:

GIS- geographic information systems (GIS) are increasingly used by businesses, non-governmental organizations (NGOs), universities, and government agencies to plan and carry out commercial, conservation, research, and public service activities, there is more and more demand for geospatial data sets. Base category data (roads, population centers, topography, hydrography, administrative boundaries) are sought by all disciplines, and demand is high for themes related to agriculture, land use, forest cover, climate, and demography. Such data sets consist, in large part of digitized maps, images of the Earth's surface, point observations, and survey sample information.

The Earth Resources Observation Systems (EROS) of the U.S. Geological Survey (USGS) proposes a partnership with Leland. The EROS Data Center (EDC) has been a partner with USAID in Africa since the mid-1980's. Through support of regional projects like AGRHYMET and the Famine Early Warning System (FEWS), and projects for Missions in Senegal, Madagascar, Mozambique, Zimbabwe, and elsewhere, a rich archive of geospatial data sets describing the continent and/or individual countries has evolved. As this archive became known among the GIS user community, many requests for copies of data sets were received. Consequently, a website was developed to economically and efficiently service this demand - the Africa Data Dissemination Service (ADDS). The project seeks to link ADDS-like servers such that search criteria (latitude-longitude bounding coordinates and information theme keyword) composed remotely by a user can result in the discovery of data sets at websites which might otherwise be unknown to the user. For this to be technically possible, all members of the cooperative must maintain on-line metadata files constructed according to Federal Geographic Data (FGDC) standards (proposed for adoption as ISO standards in November 1995) which can be accessed by a search engine. The IGDN is currently in the prototype stage, with EDC staff providing technical assistance to 5 initial partners as they work to implement their websites. Not yet open to the public, special permission is in place to let USAID users access the server at <http://edcintl.cr.usgs.gov/igdn/igdn.html>

The EDC is equipped to assume the role of a partner under the Initiative's SO3. Technical assistance to African institutions which are holders of important geospatial data sets can be

provided to help them establish and maintain their own websites. This will serve those in the user community who need data to support new undertakings in Africa, as well as the provider organizations, who will gain greater exposure before potential customers for their products. Institutions like the AGRHYMET Regional Center (Niamey), the Centre de Suive Ecologique (Dakar), and the Association National pour la Gestion des Aires Protegees (ANGAP, in Antananarivo) are examples of organizations that would benefit from the introduction of this technology, and with whom USGS already has a positive working relationship. Jim Verdin, USGS/EROS Data Center

Interesting Points:

- Jean-Michel has worked at ANGAP for 3 years. He has observed that in the past 3 years ANGAP has only increased in popularity with their success to deliver precise mapping request for the Ministry and other clients. They are in such demand now that Jean-Michel can't close the doors long enough to clean up files that people inadvertently leave on the public computers.

- He feels ANGAP has 4 "diffusion" info points:

1. access to information from the outside,
- 2 advertise network park/reservations: tourism, scientific i.e., biodiversity info. This combination saves money since the information will be gathered only once and used for different purposes.
3. donor information isn't lost. An archive of information will be maintained
4. field indicators can be measured for impact on a more frequent basis

- One opinion is that : ANGAP is more suited as a pilot site over ONE given the material and human resources available, (i.e., their computer lab with high tech equipment).

Association pour la Promotion des Entreprises a Madagascar (APEM)

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Mrs. Celine Rabevazaha Rabekoriana
Secretaire General

Mr. Eddy Nirina Randriambololona
Charge de Mission
tel: 261.2.627.75

Overview:

APEM was created in 1987 with the aim to provide resources, i.e., training, and expert advice to small and micro enterprises. This association meets a niche--developed after the members of Groupement des Entreprises a Madagascar (GEM), an association that represents medium to large size companies, realized that many entrepreneurs were not getting their needs met since they were too small of an enterprise to be represented by GEM..

Interesting Points:

·There are over 100 microentrepreneurs that use APEM's services. The business owners travel from all 10 regions to use the resources at APEM.

APPROPOP

tel: (261) 2.347.58

fax: (261) 2.249.66

Antananarivo, Madagascar

Interviewee: Randy Wilson,

Logistics/MIS Advisor

Overview:

The APPROPOP project - Management Sciences of Health (MSH) is an important user of information sharing and dissemination.

APPROPOP's major applications include:

1. coordinating each region reporting system so that their data is collected quarterly. This is presently done by sending a diskette to Antananarivo .
2. working with the Ministry of Health who wants an integrated health reporting system. All information is planned to be consolidated on one form. APPROPOP will assist with the organization and training for this. The Internet would be valuable for the transmission of this data.

Interesting Points:

·APPROPOP plans to install a network at the Service de Sanitation which is responsible for the coordination of all health statistics. Randy Wilson would like them to become a repository of data. They would be interested in the development of a web page for users which the regional offices and others could access. It is likely that they would also have a need to obtain information from web sites themselves relating to health matters and publications which they could then distribute.

·The problem now is getting additional phone lines in town. The Ministry of Health will require a lot of equipment upgrading the phone and computer equipment.

Commercial Agricultural Promotion (CAP) Project, USAID

Chemonics/Projet CAP

Rue Dr. Raharinosy, Andohalo
B.P. 4304
Antananarivo 101, Madagascar
tel: 348.08
fax: 348.01

Chemonics/Project CAP
Villa Anne - Ivory Nord
B.P. 1068
Fianarantsoa 301
tel: (261)7.508.66
fax: (261)7.507.63

Interviewees:
Mark Heim
Project Director
email: M.HEIM@CGNET.COM

H Art Schar
Regional Director, Fianarantsoa

The CAP project is an agribusiness support project operating in the Fianarantsoa and Mahajanga regions. CAP primarily works with medium to large size businesses. One of the main activities is to locate export markets (i.e., brokers, and buyers) for the 100 client base.

Interesting Points:

- Headquarters in Antananarivo has the ability to send and receive data with the Fianarantsoa office. The Mahajanga office can send data to Antananarivo office but can't receive any data electronically.
- CAP representatives in Fianarantsoa would be willing to help ENI in some ways if the Institut is responsible for maintaining a secondary node.
- CAP potential public access center
- CAP is using MCI Mail, but took a year to get it set up (X400). CGNet in the US provides service to the ag research institutions world wide -- this is how CAP got their Microsoft Mail. Need to connect small LANs.
- Mark Heim's general impression about e-mail access and full connectivity in Madagascar:

ISP industry development strategy should include supporting a technical staff to maintain the hardware, staff training to show end-users how to use the technology, and sponsor an expo or awareness fairs to show people what they can do with the Internet.

Currently: Fianarantsoa lines (not digital) can carry up to 14.4 and Mahajanga can send, but not receive -- whole country can dial up to Tana at 2400 baud, 9600 if you want to pay for a direct line to Tana. DTS won't allow regions (except Diego) to use the Internet because it doesn't have a pricing structures worked out yet.

La Centre d'Information et de Documentation Scientifique et Technique (CIDST)

Marie Laure Rokotoarivelo-Ajorque, Director

Arisaine Randriamiadana, Databases

tel: (261) 2 332 88, 249 19

fax: (261) 2 334 30

B.P. 6224

Antananarivo, Madagascar

Overview:

CIDST show great entrepreneurial spirit and are looking to cater their product to their markets. They target each market separately, depending on their needs. They coordinate the 5 other National Research Centers under the Ministry of Technical Research, and sometimes provide info to them too (though this has gone down lately, with increased Minitel connections among those centers).

Its objectives are to collect and disseminate Malagash and international information throughout Madagascar is right on with the Leland objectives. It has a special interest in the rural areas because so much of their clientele come from there, and the demand is so high. They have offices in Tamatoav and Fiana.

Arisaine went to the INet conference in Montreal and would like to get the 5 research centers connected. Their clientele include researchers, "opérateurs", policy makers, students (though at the higher levels of university).

They do all kinds of PR for their services, and in incorporating the Internet would also provide the public with the "how to use it" idea. They probably wouldn't be involved in the more commercial aspects, like web page development, but the WB/FASP project could fill in the market that would be looking to push ahead with it.

They definitely need some technological help, then I really think they have the initiative to run with it. They'll find what they need from there to do what they feel needs to be done.

CIDST - Fianarantsoa

Simon Ranaivoson

Hard time getting information to Fianar from Tana - which is the big info base, and the place where decisions are made. CIDST here must be a channel for the flow of information, and they work primarily with "opérateurs" on the micro level in the whole of the southern regions. Takes them every step of the way, providing documents, manuals, people resources. All

kinds of documents for sale and to xerox -- from FAO, UNICEF, Women Jurors of Madagascar, manuals in Malagache on all kinds of micro enterprises.

Clientele also include the research and university communities; will help anyone, but says materials aren't relevant to work of school students.

They also summarize and translate the documentation, and cater it to the needs of the clients. And look for appropriate technologies. Desk studies, with some fieldwork, but not enough resources to do extensive fieldwork. The World Bank wanted a survey done of the southern region, but CIDST didn't have the resources to do it. Shows the level of competence, though, if they're being sought out by the government and donors to do these caliber surveys.

Ecole National d'Informatique (ENI)

Christian Clercin

Denis Planchamp

Instructors:

Vernot Ratiarson

Chomas Mahatody

Madison Rasoloarijaona

Louis Haje Rabetafika

Jocelyn Rabarijaona

Jerome Dumont

Jacques Rabarijaona (also attended private sector meeting at CAP)

B.P. 1487

Fianarantsoa

Madagascar

tel: (261) 7 508.01/504.10

- 150-175 students/year
- offer bac+2, bac+3 degrees
- budget is 80-90 million FMGs/year, depending on the number of students (therefore concern about how to pay for recurring costs of Internet)
- students pay 25,000 FMG/year, and receive a bourse of 60,000/month
- concours all over the island to get in -- so get students from all over the country, but mostly Fianar and Tana.
- In their curriculum, they do teach them marketing and how to target the job market, showing the client the value of their skills and services. In this way, will also be awareness providers, and probably the private sector we're looking for in terms of ISPs and value-added services.
- Next month, expecting 20 computers. Have the two rooms ready. Currently have 2 older machines. But just fixed up the rooms, wiring security, tables, printer room -- for these

machines. Will have a Novell LAN, syfed-aupelf connection (X25). Subsidized, but still have to pay communications fees within Fianar. Use to be able to get WWW 9a-12p, before DTS cut off. Won't incorporate into curriculum before having available connection.

INSTAT

Steven Haggblad, Ph.D.

Chercheur Principal

INSTAT annex of the Enquete Permanante des Manages

Programme d'Action en Maitiere d'Alimentation et de Nutrition

B.P. 5253

tel: 348.01

fax: 348.83/345.39

overview:

INSTAT is an office that falls under the Ministry of Economic Plan to collect and analyze data. INSTAT could help the 6 regional offices, by its example, learn to use email and the Internet which would help decentralize power and give each of the provinces tools to be decision-makers.

USAID/Madagascar SO1- SO2 collaboration on an activity where Steven working at INSTAT as resident adviser for the participation and Poverty Project would be the link. The collaboration would be between RP3 Data for Decision Making (DDM) in HPN activities, with INSTAT, and collaboration with census and survey data analysis and dissemination. Internal to Madagascar, email could radically speed the flow of regional data into HQ, improve data consolidation and reporting, and potentially allow for more early warning indicators from distant, regions. Internationally, INSTAT would benefit from the ability to communicate with external collaborators and draw on international data sources.

To begin this process, the first step would seem to be a local DTS connection, in-service training and learning by doing by INSTAT staff. Steven has his office a DTS account and installed a connection. DDSS has also used email to process and analyze census data with USBUCEN in washington, should also get on-line and initiate staff to email and the Internet. The problem is if these offices can afford the monthly service fees.

Interesting Points:

- The one time expenses for modems or computer upgrades can be purchased by the offices, but he is afraid that the monthly service fees from the ISP would be difficult for the offices to pay.
- Informal training at USAID/Madagascar could be done and accepted by the individuals. Steve already conducts one-one training and realizes that these individuals are prepared to learn how to use the Internet.

List B
Interview summaries of selected donor organizations

Peace Corps

tel: (261) 2 313 54, 313 30

fax: (261) 2 314 13

B.P. 620

Antananarivo, Madagascar

interviewee: Bob Freidman

- Peace Corps has 8 English language resource centers.
- The British funded 6 provincial centers, based sustainability on (Malagash) teachers, but must have outside resources to remain open. The government doesn't have money to do it. Business sector community is the primary clientele. PCVs are teacher trainers.
- Trying to integrate health and environmental messages into centers.
- The Resource center -- Peace Corps resource center, 350 members, several computers, well educated well financed population.
- trying to cluster PCVs so they can group hardware in centers, less maintenance...

United nations Development Program (UNDP)

B.P. 1348 Antannanarivo

tel: 219.07

fax: 333.15

Interviewees:

C.P.C. Metcalf

Representant Resident du PNUD et Cordonnateur des Activites Operationnelles du Systeme des Nations Unies

direct tel: 234.90

Karl-Heinz Cordes

Directeur des Operations/Operations Manager

direct tel: 234.40

email: Riomag@undp.undp.Mg

- The Madagascar office is staffed with 4 professional/ 6 national professionals/100 field workers.

- They believe that Leland Initiative needs to be on an awareness campaign to dispel any misinformation that this initiative is in direct competition with the French.
- UNDP's email system has very limited access. Server system Higgins/ccmail. Just last week subscribed to DTS for I services., they use faxlink
- UNDP would like to expand their role to promote SME and their use with the Internet in a 5 province area. They feel that Nosy-Be would be a good place for a satellite: tourism and fish industry

USIS

tel: (261) 2 202.38
 fax: (261) 2 213.97
 Department of State
 Washington, DC 20521-2040
 email: psaxton@usaid.gov
 Antananarivo

interviewee: Paul Saxton, Director

- Talked about Business Roundtable for the Malagasy population interested in speaking about economic themes, in English-- to develop business vocabulary. About 5 months ago USIS had a session on the Internet (right before DTS started offering services), and they understand the Internet as being email. USIS has 900 English student, 95% of which are professionals. Do special courses when they go to the National Assembly, Central Bank, etc.
- He doesn't believe that there will be no public access through USIS; but they have begun using CD ROM technologies and are encouraging people to see USIS as somewhere to get information, not just check out books.
- USIS pubs: US Views and News-about 800 subscribers, Katana-1600 subscribers, public affairs people, government, journalists
- MBA Association of those who got their MBAs from the US, natural to seek connection outside, it;s them and other business men who are going to be the natural promoters of the Internet... especially those companies that are large and diversified and looking for outside, various markets...
- Dr. Harry Bowen, Fulbright fellow coming in January (perfect timing) to work for 10 months with the two business schools -- INSCAE and ISCAM.

World Bank/Madagascar

tel: (261) 2 289 17, 287 77
fax: (261) 2 329 02
Immeuble MACOMA
1 bis, rue Patrice Lumumba
B.P. 4140
Antananarivo, Madagascar

interviewee: Dieudonne Randriamanamisoa
Charge des Operations

- World Bank has been working with telecommunications policy reform
- The World Bank subscribed to DTS a month ago, but has not yet had the opportunity to use it (technical difficulties). From their experience it takes about 10 tries to connect, but once connected (unless there's a call waiting interruption) the connection is fine.
- The French, Malaysians, and Malagasy do cellular service, but can't use the service from 10-3 during the day, as all circuits are busy.

World Bank, FASP

Fonds d'Appui pour le Secteur Prive (FASP)
Henri Rabarijohn
tel: 621-12, mobile 03-819-94

- Madagascar - FASP: Fond d'Appui au Sector Prive
objective is to facilitate access to local and foreign expertise and will subsidize 80% of cost. Included an Internet component into the project; and a partnership program with South Africa, U.S., Canada, Italy and 4 other countries before the end of the year. Funding for TDYs to come out an find prospective partners, and find local money to do the same for Malagasy in those countries.
- FAST is a private association, no government intervention, taking the form of an association, funded by IDA credit to the government, but all members will be from the private sector. They have a Bureau Permanent, but no government representation. FASO audited every 6
- looking to improve the capacity of private sector companies by increasing the quality of their products and their access to information.
- FAST could compliment Leland in focusing on this aspect of development, and complimenting infrastructure within the country (i.e., in Diego Suarez, if no connection and need one, WB could provide one).
- Recommended that his TA come in the form of a tech advisor after we can give him draft specs for country hardware and nodes -- then bring in PS info experts to develop info package (resources on the Web, databases, listservs), then trainer to help private sector

institutions use the resources on the Web, etc.

- WB looking to have their own domain, server
looking to have info on server:
 exchange rates, commodities, market prices, sectoral info, legal regulations

- project should be operational by the end of the calendar year through Project Preparation Fund, expect signing with government to happen by May 1997. Then money to government.

List C
List of contact informatin of interviewed organizations

ANAE - Association National pour l'Action sur l'Environnement

Paul Raonintsoa
tel: (261) 7 511 22
B.P. 1106
Fianarantsoa, Madagascar

ANGAP

Tropical Forest Management Trust
tel: (261)2.30518
fax: (261)2.31994
BP 1424
Antananarivo 101, Madagascar
Interviewee: Jean-Michel Duflis,
SAVEM Project
GIS Technical Advisor to **ANGAP** (email: TFMTMAD@BOW.DTS.MG)

APPROPOP

tel: (261) 2.347.58
fax: (261) 2.249.66
Antananarivo, Madagascar
Interviewee: Randy Wilson,
Logistics/MIS Advisor

Association pour la Promotion des Entreprises a Madagascar (APEM)

c/o Cabinet Ramaholimihaso
Rue Rajakoba Augustin Ankadivato
Antananarivo 101, Madagascar
tel: 261.2.217.63
fax: 261.2.338.64
interviewees:
Mrs. Celine Rabevazaha Rabekoriana
 Secretaire General
Mr. Eddy Nirina Randriambololona
 Charge de Mission
 tel: 261.2.627.75

BASICS, Antananarivo

Dr. Mary Carnell
tel: (261) 2 344 09
1600 Wilson Blvd.
Arlington, VA 22209

Centre d'Information et de Documentation Scientifique et Technique (CIDST)

Marie Laure Rokotoarivelo-Ajorque, Director

Arisaine Randriamiadana, Databases

tel: (261) 2 332 88, 249 19

fax: (261) 2 334 30

B.P. 6224

Antananarivo, Madagascar

Commercial Agricultural Promotion (CAP) Project, USAID

Chemonics/Projet CAP

Rue Dr. Raharinosy, Andohalo

B.P. 4304

Antananarivo 101, Madagascar

tel: 348.08

fax: 348.01

Chemonics/Project CAP

Villa Anne - Ivory Nord

B.P. 1068

Fianarantsoa 301

tel: (261)7.508.66

fax: (261)7.507.63

Interviewees:

Mark Heim

Project Director

email: M.HEIM@CGNET.COM

H Art Schar

Regional Director, Fianarantsoa

CIRAGRI

Stilly Andriampenomanana

tel: (261) 7 513 64

B.P. 1138

Fianarantsoa, Madagascar

CJPM - Commite Jean Pain Madagascar

David Sanchez

tel: (261) 7 504 03

B.P. 1285

Fianarantsoa, Madagascar

CRIF

Joe Rajaona

Directeur
B.P. 1020
Fianarantsoa

CNS - Conseil National de Secours

Mme Lucille
B.P. 833
Antananarivo 101, Madagascar
tel: 252 97

Delta Informatique

Adrien Mac Mo Chan
Societe Mac de Frere
Vatienlteurs - Transporteurs
B.P. 1006
Fianarantsoa
Tel: 506.70/508.70

**Delta Informatique, Geiant du
ACER**

Ju Yan Chan
Fianarantsoa
tel: 504.05

DMD-Reuters-Marches Tropicaux

La Voix de l'Allemagne - Media Club
Honore S. Razafintsalama
58, R Ue Tsiombikibo
tel: 277.88
fax: 359.79
Antananarivo

EcaInfo

Pascal Rafaralahy
B.P. 1096
Fianarantsoa
tel: (261) 7 512.41/502.62

Ecole National d'Informatique (ENI)

Christian Clercin
Denis Planchamp
Instructors:

Vernot Ratiarson
Chomas Mahatody
Madison Rasoloarijaona

Louis Haje Rabetafika
Jocelyn Rabarijaona
Jerome Dumont

Jacques Rabarijaona (also attended private sector meeting at CAP)

B.P. 1487
Fianarantsoa
Madagascar
tel: (261) 7 508.01/504.10

FID (Fonds d'Intervention pour le Developpement, World Bank)

Falison Razafindratovo
tel: (261) 7 510 83
B.P. 1124
Fianarantsoa, Madagascar

FOFIFA

David Rakotovoalavo
B.P. 206
Fianarantsoa

Global Data Services

Samad Ali, Directeur General
tel: (261) 2 303 03
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B.P. 21 bis Andraharo
Ambohimananarina
Antananarivo
email: sali01@bow.dts.mg

Groupement des Entreprises de Madagascar (GEM)

Kianja MDRM sy Tia Tanindrazana
Zinah Rasamuel Ravaloson
Secretaire General
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Tel: 238.41
Fax: 219.65

HB - Cabinet Hevitra Sy Banjina

J. Harson Ravelojaona
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Fianarantsoa
tel: (261) 7 504.36
Tulear, tel: (261) 9 429.85
Manakara, tel: (261) 7 213.62

INSTAT

Steven Haggblad, Ph.D.

Chercheur Principal

INSTAT annex of the Enquete Permanante des Manages

Programme d'Action en Maitiere d'Alimentation et de Nutrition

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**Institut National des Sciences Comptables et de l'Administration d'Entreprises
(INSCAE)**

Maison des Produits - 67 HA

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Antananarivo

Tel: 284.44

Fax: 308.95

Juliette Joelson Raharisoa

Directeur General

Cyprien Botonavao

Professeur Titulaire du DESS en Admininstration des Entreprises Ingenieur Informaticien

International Rice Research Institute (IRRI)

Mimi Gaudreau

B.P. 289

Mahajanga, Madagascar

tel: 23264

Institut Superieur de la Communication des Affairs et du Management (ISCAM)

Parfait Ralamboson, Conseiller Technique

Florent Razafimbelo

Melle Anna

Mme Irene

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B.P. 8224

Antananarivo, Madagascar

JIRAMA

Centre Medico-Social-Jirama

13, Rue Mahafaka Tsaralalana

B.P. 200

Antananarivo

Dr. Evelyne Rakotomavo

Medecin Chef

Lova Soa

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Fianarantsoa, Madagascar

Maire

Samuel Razanamapisa
2eme Adjoint au Maire
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tel: 508.51
Fax: 505.53

Materauto Agence Fianarantsoa

Anthony Dazaratiana
Directeur
B.P. 1225
Fianarantsoa
tel: 511.18/19

Michel Ramiaramanana

Ilgihieen Strecopa
B.P. 37
Ambohimahasua

Office National de l'Environnement - KEPEM Project

tel: (261) 2 351.84
fax: (261) 2 356.55
B.P. 4300
Antananarivo
interviewee: Larry Blake

ORSTOM

Bernard Cellin, Director
RAMSE - Recherche Applique Malagache pour la Sante et l'Environement
tel: (261) 2 404.49

PACT - Madagascar

Rajoharisoa Andriamanantena
tel: (261) 7 507 05
067 A 3603 Mahamamine
Fianarantsoa, Madagascar

Peace Corps

Bob Freidman, Director
tel: (261) 2 313.54, 313.30
fax: (261) 2 314.13
B.P. 620
Antananarivo

SALFA

Fiangonana Loterana Malagasy-FLM Department de Sante
Thomas A. Krohn, R.Ph.
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Antananarivo
tel: 286.52
fax: 337.67
email: pi@bow.dts.mg

SAMTREX (PTY) Ltd

Guy Shepherd, Representant
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fax: (261) 2 240.47
B.P. 5188
Antananarivo

Sidexam

Kumar Ramdin
Directeur
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Societe AFAFI, Sarl

Nampoimaina (Pouni) Rabenasolo
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Societe Lam Seck Fils

Jacques Lam Seck
B.P. 1152
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Transport R.N.CFM

Jacques R. Fanomezaura
Chef Division Transport R.N.CFM

B.P. 1003
Fianarantsoa

Tsara Guest House
Jimson Heritsialonina
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United Nations Development Program (UNDP)
B.P. 1348 Antananarivo
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C.P.C. Metcalf
Representant Resident du PNUD et Cordonnateur des Activites Operationnelles du Systeme
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Fianarantsoa

USIS
Paul Saxton, Director
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Department of State
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email: psaxton@usaid.gov

World Bank
Dieudonne Randriamanamisoa
Charge des Operations

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fax: (261) 2 329.02
Immeuble MACOMA
1 bis, rue Patrice Lumumba
B.P. 4140
Antananarivo, Madagascar

FASP, World Bank
Henri Rabarijohn
tel: 621-12, mobile 03-819-94

List D
Potential Internet Service Providers

Delta Informatique

Adrien Mac Mo Chan
Societe Mac de Frere
Vatienlteurs - Transporteurs
B.P. 1006
Fianarantsoa
Tel: 506.70/508.70

**Delta Informatique, Geiant du
ACER**

Ju Yan Chan
Fianarantsoa
tel: 504.05

Global Data Services

Samad Ali, Directeur General
tel: (261) 2 303 03
fax: (261) 2 303.30
B.P. 21 bis Andraharo
Ambohimanarina
Antananarivo
email: sali01@bow.dts.mg

SAMTREX (PTY) Ltd

Guy Shepherd, Representant
tel: (261) 2 262.81
fax: (261) 2 240.47
B.P. 5188
Antananarivo

List E

List of individuals and organizations that were not interviewed but recommended by USAID/Madagascar to take part in the assessment but due to time constraint and or scheduling problems were not included.

Christian Rasolomanana (DDSS), Directeur Generale, tel: 216-52

FTM, tel: 229 35
Razafinakanga Andrianjafimbelo

Syndicat des Industries de Madagascar (SIM)
Place MDRM Ambohitovo, tel: 236 08

GO-MAN (Groupement des Operateurs Economiques de Mahajanga)
Mrs. Monique Randriampandrisson
BP 367
tel: 225 45, fax: 293 65

Junior Chamber of Commerce, Fianar

Centre de Formation et d'Information de Geographie et Science - Joseph Amade

IMATEP - Raj Andriamanajara

Dr. Aime Rakotondrainibe, Telecom Malagash

NEAP - ONE (Office Nationale de l'Environnement) is executing office - Jean Chri Rakarorari,
Andrew Watson, Robert Zimmerman, Bedo H. Andriatsiferanarivo

Department of Water and Forest - Jeremy Grosnick (USAID)

AFGRAD, Antananarivo

CARE - Lisa Dean, tel: 435 26 fax: 423 90

Delta Audit Deloitte & Touche
Roland Ramarijaona - but we want the name of the woman who runs the firm
tel: 303 73, 278 31; fax: 210 95

Honore Razafintsalama - Journalist, Reuters Agency, Magazine Editor
tel: 277-88, fax: 359-79

Henri Fraise
Zina Andriananarivelo Razafy, tel: 227 21, fax: 284 20

EcoFruit - Karim Barday
tel: 223 73; fax: 280 64

Jean B. de la Giroday, Gerant
L.T.A. Madagascar
tel: 450 33; fax: 451 49

USIS recommended seeing Eddie Zhou - now a presidential candidate, went to UMich, has a holding company whereby he owns 12 companies, including the Express newspaper. Unofficial godfather of INSCAE.

Jean-Paul Gondet Telecom Malagash (commercial guy)

CREAPRO Christian Layman

Hery Ranaivisoa (Guy's contact)
Son of PDG MADPRINT Indian Ocgan Revue

Central Bank
Harrisson Rajaonarivo
Directeur de l'Organisation et de l'Informatique
Tel: 217.51

Henri Benard, Directeur of Credit (Frank's friend at the bank he is an advocate for the Internet-has the economist guide to the Internet).

Doyle Kee, Church of Christ (heading up an education program)
Antananarivo, tel: 300 37

WHO, Dr. Ranjala (Institute of Pulibc Health) -- recommended by BASICS

Ministry of Education - Directeur General -- recommended by Sharon Duckett, PCV

World Bank -- Crescent (health program) -- looking to computerize one health center in 34 districts by the end of 1997.

Mr. Rasolo Francois, DG of FOFIFA, tel: 402 70

Mme Mirabelle, Chef de Service de l'Information et Communication (SIC) at the Ministry of Agriculture, tel: 298 97

Mr. Lionel, Directeur de la Promotion du Commerce Exterieur of the Ministry of Commerce, tel: 298 72

List F
Organizations briefed on the Leland Initiative in Mahajanga

- M. Fakrou BOUKAFIF
Fibasom- Importation matériaux de construction fabrication de petit équipement agricole
- Mme Monique RAMAMPANDRISON
Ny Havana- Assurance et réassurance
- M. RASAMIMANANA Simon
CEM- Groupement des cadres et hommes d'affaires
- M. CYRIAQUE Jean Baptiste
RMC- Travaux publics et transport
- M. Michael HERCKENRATH
Majunga Food Processes - Tissage de raphia, exportation mangues séchées
- M. RAMAROFARIHY Gaston
JCE - Hôtel de France - Groupement des cadres et hommes d'affaires hôtelier
- M. ANDRIAMIHAMISOA A. Rajaoba
BTM - Banque
- M. RABEARISOA Luc
SICAM- Garage mécanique - Concessionnaire automobile et en pièces détachées
- M. Jean Paul EVENO
SOCTAM- Culture et exportation de tabac, agriculture
- M. Jacquot TOTOZANDRY
TELMA- Service de télécommunications
- M. Claude PAGES
Maire - Pêche Export- Mairie et pêcherie (exportation poissons et fruits de mer)
- M. RANARIVELO Andrianoma
COTONA- Filature et tissage coton
- M. RAKOTONDRAINIBE Christian
ARO- Assurance et réassurance
- M. Mamod RAZA
Agence Network-Vente de matériel informatique/télécommunication - Prestation de service

M. RAKOTO Andriamboavonjy

GAMO Océan Indien- Fabrication et commercialisation de produit d'entretien

M. Samy RAMIANDRISOA

AGI Développement- Formation en Informatique - Maintenance, représentation, revendeur de micro-ordinateur

Mme RANAIVOSOA Vololoniaina

Air Madagascar - Transport aérien de passagers - Affrètement -Service postal

M. RANDRIANATOANDRO Justin

SIB- Huilerie - Savonnerie - Rizerie

M. Bruno LAURANT

Radio Kalizy - Radio diffusion - télévision

Annex C

Assessment Summary Matrix

ASSESSMENT SUMMARY MATRIX

ORGANIZATIONS: summary results of Leland Initiative SO3 (end-user) assessment Madagascar, October 1996

Name	Institutional information & communication strategy	Institution's information use	Recognize potential contribution of Internet to institutional mission	Champion identified	Telecommunications & computer infrastructure; equipment & technical support	Potential for sustainability
ANGAP	high	high	high	high	high	high
ANAE	low	medium	high	medium	low	low
APPROPOP	high	high	high	high	high	high
APEM	low	high	high	high	low	high
CAP	high	high	high	high	high	high
CIRAGRI	low	low	high	medium	low	medium
CJPM	medium	medium	high	high	medium	high
CRIF	low	medium	high	medium	medium	high
Delta Informatique	high	high	high	high	high	high
DMD	high	high	high	medium	medium	medium
ECaInfo	medium	medium	medium	medium	medium	medium
ENI	high	high	high	high	high	high
FOFIFA	medium	medium	medium	high	medium	high
Geiant du ACER	medium	low	low	low	low	low

GEM	low	medium	low	low	low	low
HB-Cabinet Hevitra	low	low	medium	medium	medium	medium
INSCAE	high	high	high	high	medium	high
INSCAM	medium	medium	medium	high	medium	high
INSTAT	high	high	high	high	high	high
International Rice Research Institute	high	high	high	high	high	high
Lova Soa	low	medium	medium	medium	high	medium
Materauto Agence Fiaanarantsoa	medium	high	medium	medium	medium	high
SALFA	high	high	high	high	high	high
Sidexam	medium	medium	medium	high	high	
Societe Mac de Frere Vatienlteurs	medium	medium	high	medium	medium	high
Societe Lam Seck Fils	medium	low	medium	high	medium	low
Transport R.N. CFM	low	medium	medium	medium	medium	medium
Tsara Guest House	high	medium	high	high	low	high
University of Fianarantsoa	medium	medium	low	high	low	high

Annex D
Survey Tools

USAID/MADAGASCAR
Anatanarivo

DE : David Flavell

A :

de FAX :

de PGS :3 pages (y compris celle-ci)

DATE :Octobre 1996

SUJET :Initiative LELAND

Monsieur,

Suite à l'entretien téléphonique que vous avez eu avec l'USAID/Madagascar dans le cadre de la Mission USAID relative à l'Initiative LELAND, veuillez trouver ci-joint le document fournissant quelques informations sommaires sur cette initiative portant sur une technologie moderne d'échanges d'informations.

L'objectif de la Mission USAID est de discuter avec les utilisateurs potentiels de cette nouvelle technologie et d'identifier les besoins de connexion sur ce réseau d'échanges d'informations, dans le cadre d'un partenariat.

Je vous serais reconnaissant de bien vouloir nous **préparer des supports d'informations relatifs à votre organisation tels que les brochures, les bulletins ou autres publications (magasines) contenant des informations sur vos activités.**

Par ailleurs, l'équipe de l'USAID souhaiterait obtenir dans le cadre de l'entretien que vous voudrez bien lui accorder, les informations suivantes:

- Nombre de lignes téléphoniques:**
- Nombre de PC: #:-286 - 386 - 486 - Pentium - Portatifs**
- #OS:- DOS -Windows - Mac - OS/2 - Autre**
- Nombre d'ordinateurs multimédia:**
- Nombre d'imprimantes laser:**
- Nombre de modems avec/vitesse maximum: - 1200 - 2400 - 9600 - 14400 - 28800**
- Nombre de lecteurs CD-ROM; Titres CD-ROM:**
- Reseau Informatique? - oui (Modèle et Version):**
- Nombre d'employés pour l'entretien d'ordinateurs:**

Enfin, vous pourriez également indiquer la nature des informations dont vous avez souvent besoin dans le cadre du déroulement de vos activités.

En attendant de vous rencontrer très bientôt, je tiens à vous remercier d'avance pour l'intérêt que vous portez aux activités de l'USAID/Madagascar.

Veuillez croire, Monsieur, à l'assurance de ma sincère considération.

Annex E

Internet for Development: Applications and Training Workshop