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**STRATEGIC PLANNING
NIGER APPLIED AGRICULTURAL
RESEARCH PROJECT**

A HERNS REPORT

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for USAID/Niger**

**The Office of International Training
U.S. Agency for International Development,
World Learning, Inc. and
LearnTech**

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I. INTRODUCTION

The Niger Applied Agriculture Research Project (NAAR, Project # 683-0256) was developed to merge research activities funded under the National Cereals Project (NCP) with research funded under the Applied Irrigation Research and Coordination Project (AIRC). NCP was funded by USAID from 1982-1989. The PID for the AIRC project was approved in 1986. NAAR was designed to merge the successor to NCP with the concept of the AIRC project into one bilateral agreement with a single research organization. NAAR was authorized on 6/10/87 with a scheduled PACD of 5/28/92. The PACD was extended to April 1994, primarily to complete the training activities under the project.

The goal of the NAAR project is to increase agricultural production and diversified sources of rural income through a system of applied agronomic research characterized by strong functional linkages to extension. Productivity increasing technologies are to be developed under the project and made available to the farmer in a form that is acceptable and easily adaptable to Nigerien farming circumstances. The project is a bilateral agreement with the Government of Niger (GON) with the Institute National de Recherches Agronomiques du Niger (INRAN) as the official implementing organization. To be able to conduct appropriate research and facilitate its dissemination, it was necessary to include considerable training and institution building into the project.

Three focus areas were identified in the project paper: 1) growth and development of INRAN's capacity to manage its research programs, resources and linkages to other institutions, 2) growth and development of INRAN's ability to support its research efforts through support service functions, such as soil analysis, grain quality analysis, etc, and 3) growth and development of specific activities oriented toward the development of a comprehensive, integrated and systematic approach to research. Several multi-disciplinary areas were defined under the project; these included crop improvement, production systems for dryland and irrigated crops, on-farm research and water management. Functional linkages between INRAN, extension and other agricultural services were to be developed in these areas.

Project activities were designed for the first five years; it was anticipated that in year 4 (1991) a project evaluation would serve as a roll forward review. A mid-term evaluation

was performed in 1990. The evaluation team noted that although the project was making good progress with regard to building the human capacity necessary to meet project goals, there were a number of underlying management problems and a lack of direction within INRAN impeding the achievement of project objectives. The evaluation team recommended that a subsequent evaluation be made to determine whether a second phase of the project should occur.

Due to the emergence of other priorities in USAID/Niger and that INRAN had developed a basic institutional soundness under USAID auspices, a transition from USAID funding to World Bank credit began in 1992-1993. Currently, INRAN is developing its program under World Bank auspices and support from USAID will be limited to training/continuing education activities that relate to achievement of project objectives.

The purpose of this report is to review the current status of institutional capacity at INRAN and to make recommendations with regard to how training and continuing education activities might be designed to further sustainable agricultural development in Niger. In preparing this report, several issues were considered:

1. Identification of areas in which training and/or continuing education are needed to further project objectives.
2. Examination of ways in which telecommunications and distance education techniques might facilitate meeting project objectives.
3. Constraints that impede the ability of INRAN to meet its mandate of increasing agricultural productivity through research and extension.
4. Ways to leverage past investments to enhance impact.

Several inputs were obtained to prepare this strategy paper. These included meetings with USAID/Niger personnel, representatives of INRAN, the Ministry of Education, the University of Niamey (including the Dean of the School of Agronomy), AGRHYMET, ICRISAT, ORSTOM, ENA, SNISS, and USIS and USAID-sponsored alumni. Results of those discussions are presented in the Appendix. Accompanying this report is a companion report that details an assessment of the electronic capabilities of the local institutions.

II. ELECTRONIC COMMUNICATIONS AND LINKAGES AT INRAN

A. Current Status and Needs

The Director and scientists at INRAN have recognized the need for better communications and information management. Because of the multi-disciplinary nature of INRAN's research, the need to translate that information into practical applications for farmers and the necessity of disseminating it throughout the country, there is an obvious and pressing need for good communications and data management. In-house capacity, ability to disseminate information to various parts of the country and access to international information sources all need to be improved.

INRAN has begun a three phase project (World Bank funding), that is designed to provide better communications and information management capability both within country and internationally. The first phase of the project is to build the institutional capability at INRAN in Niamey. Currently the institution has more than 25 computers and is planning on installing a local area network (LAN). Subsequent phases of the project include a wide area network (WAN) to link the regional centers to the headquarters in Niamey. Then after, the INRAN LAN will be linked to a national network and also to a regional-international (West African) network.

Electronic communications with access to the international community would provide:

1. better in house management and coordination of information.
2. linkages to other researchers in the Sahel with similar problems.
3. linkages to North America and Europe for continuous updates on international research activities.
4. access to computer-assisted long distance educational and training activities.
5. better coordination and management of activities in remote parts of Niger.
6. more cost effective means of gathering and disseminating information to/from the field.

B. Recommendations

1. Infrastructure: Telecommunications and Documentation Center

For maximum benefit, electronic communications and information management should become an integral part of INRAN. All of the researchers should have

access to electronic mail for professional linkages and access to the Internet for database searching and computerized course offerings. To do so, INRAN needs a LAN for their main office and a WAN to connect their regional offices.

Because of relatively good telephone connections in Niamey, there is immediate potential to access international electronic networks, either through NigerPac or using ORSTOM's link to Transpac (via NigerPac). Currently INRAN has one entry port to RIO (through ORSTOM) to which the director has access. However, because this sits at a single stand alone computer and there is no real expertise on its utility outside of e-mail, there is limited use of link. Given adequate training and technical support, installing a LAN and establishing connectivity to the international networks in Niamey are feasible objectives.

Due to the relatively poor telephone communications between Niamey and the regional centers, successful functioning of a WAN and dissemination of information may be somewhat more problematical.

In the short term (1-2 years), it is recommended that:

- INRAN install a LAN in their Niamey offices as soon as possible (funding for computers/hardware obtained through World Bank).
- The systems administrator be trained to handle the technical aspects of running the LAN.
- A dedicated line to the PTT's NigerPac (or ORSTOM) be installed and international connectivity established. (The ORSTOM link is somewhat more cost effective, but involves the uncertainty of working with a French-funded organization).
- INRAN establish a Telecommunications and Documentation Center to institutionalize the use of electronic communications.
- A communications/information facilitator be trained in the use of the internet and other international networks. This person would have the responsibility to train others and serve as electronic mail and data transmission coordinator. This individual is expected to be a key figure in INRAN's Telecommunication and Documentation Center. Consideration might be given to training this individual at one of the anchor universities described below.

- Formal electronic linkages be established with one or more U.S. universities and/or the USDA to initiate electronic activities and serve as anchor points for their utilization. Purdue University and Texas A&M would be good candidates for this activity since members of the faculty of these universities are advisors to the board of INRAN and several INRAN staff have trained at these universities. Alabama A&M would also be a good candidate for linkages since it is doing collaborative research with INRAN.
- Funding for communications costs and training be absorbed by the NAAR project.

III. CONTINUING EDUCATION AND INRAN STAFF DEVELOPMENT

A. Current Status and Needs

In order to sustain education investments that have already been made and to disseminate information, it is important to organize continuing education and training for INRAN's scientific staff. These training activities could be conducted using traditional face to face methodology, distance education techniques or a combination of the two.

Training needs that were identified include the following:

1. Technical areas
 - a. Irrigated crops
 - b. Natural resource management
 - c. Livestock production
 - d. Rainfed crops
 - e. Farming system assistance

Natural resource management/sustainable agriculture was identified as a priority need that encompasses several of the technical areas.

2. Staff development area. The organizational structure of INRAN places scientists in management positions at various levels. For example, a program manager may handle 5 or 6 projects and be responsible for their coordination and financial management. The program managers have all received advanced technical training, but no management training. Specific areas that training is needed include:
 - a. Human resource management and planning
 - b. Leadership skills
 - c. Financial management

B. Recommendations

1. Technical areas

It is recommended that a pilot project employing distance education techniques be utilized for training in a priority area, such as natural resources management. Using a television broadcast modality, training could be provided not only for the scientists at INRAN, but also for scientists at the University of Niamey, ICRISAT and other interested parties, thereby multiplying the impact of the investment. The training might take the form of several (2-4) long distance seminars between the United States and Niger. One possibility would be to organize the use of USIA's

Worldnet to transmit several hours of instruction to Niger. Other countries in the Sahel may also be interested in receiving these transmissions and the potential for cost sharing would be further enhanced. Because participation and information sharing would be an important part of such activities, it would be advisable to establish two way interaction via telephone links. It is suggested that there be an evaluation of the utility of this type of training modality before undertaking larger scale and/or commercial endeavors. The technical content of the programming should be determined based on the institutional/country/regional needs. For maximum effect, technical support in-country to assist in organizing and providing pedagogical support for distance education activities should be provided.

2. Staff development

The need for developing the management skills of the staff is great. Taking into account that there are approximately 20-30 scientists who need this type of training and the unique organizational structure of INRAN, the most cost effective way to train these individuals would be in country. It is recommended that this management training be implemented through a coordinated series of thematic workshops and computer-assisted tutorials. It is recommended that this training be bilingual; face to face instruction would probably be most effective in French; computer-assisted materials could be either in English or French, depending on applications and availability. Local institutions such as the Ecole Nationale D'Administration or the Centre Nigerien de Perfectionnement a La Gestion could be co-partners in this training (i.e., that outside consultants be brought in only as necessary and if brought in should include a training of trainers component for local counterparts). Leadership training and skill development can be part of these workshops.

Financial management assistance and training is being provided under the World Bank project.

Other staff development activities that should be encouraged:

- Strengthen interactions with ICRISAT. This institution has considerable technological capacity in the agricultural sector and can serve both as a source of expertise and a focal point for interactions between INRAN, the University of Niamey and the Ministry of

Agriculture. ICRISAT would be an enthusiastic partner in a pilot project on distance education.

- Strengthen interactions with the University of Niamey School of Agronomy. There are several areas of mutual interest for both institutions, including natural resource management.
- Strengthen interactions with the Ministry of Agriculture. In addition to bureaucratic types of interactions, grass roots interactions between USAID-trained individuals at INRAN and the Ministry might be fostered (the alumni association might serve as one method).

IV. AGRICULTURE EXTENSION SERVICES

A. Current Status and Needs

Although INRAN has the responsibility of disseminating the results of its research to the rural population, there are great barriers to doing so. At the first level, INRAN can make its findings available in written form. However, whether this information ever reaches the end-user, i.e., the farmer, is in question (even to INRAN). The system of agriculture extension in Niger, is complicated and cumbersome. There is need for both the GON and INRAN to develop a better system for information dissemination and farmer training.

B. Recommendations

Under the current World Bank project there is a major endeavor to improve the outreach capability of INRAN. In addition to those activities the following might be considered:

1. Strengthen the capacity of INRAN's Documentation Center to prepare materials appropriate for dissemination to the extension agents and the farmers. In addition to enhancing the capabilities of the documentation center to receive and transmit sophisticated documents electronically (see above), documentation center personnel may need to be trained in appropriate preparation of materials for low literacy audiences.
2. Development of distance learning materials for extension agents and/or local community officers to use in the field. These could take the form of video tapes, radio broadcasts or other. The purpose of such materials would be to disseminate the information produced by INRAN, ICRISAT and the University of Niamey to the farmer. (This might be a useful endeavor for the University of Niamey to undertake in conjunction with a U.S. university).
3. Hold focus group sessions with key partners in the agriculture sector to assess how best for INRAN, the University of Niamey, ICRISAT, the Ministry of Agriculture and all donors involved in this sector to coordinate information and to further productivity and other development goals. The issue of agriculture extension would be an important topic to be considered.

V. CROSS CUTTING ISSUES TO BE CONSIDERED

A. Current Status and Needs

Although not strictly related to the NAAR project or the agriculture, sector several cross cutting issues permeate the society and impinge indirectly on achieving project objectives. These include the following observations:

1. The basic needs of Niger are almost overwhelming. The low level of literacy presents a major barrier to implementing development projects and their sustainability.
2. The interaction/communications between various arms of the government, between the government and its own university/research organizations and between the government and various donors leaves much to be desired and is a hindrance to effective development.
3. The system of aggregation and dissemination of information to/from the rural community, especially in the agriculture sector, is neither coordinated nor very effective.

B. Recommendations

Outside of the context of major endeavors to address these fundamental issues, some recommendations/options for activities that the Mission might wish to consider include the following:

1. Maximize the investments in training by continuing to promote the formation of an alumni association. The alumni have already identified the need for e-mail access back to the U.S. to keep up their professional skills. This should be encouraged and perhaps initial funding for a computer work station and an e-mail connection might be provided at the American Cultural Center for use by returnees.
2. Investigate the feasibility of promoting adult literacy through distance education. The paradigm using radio in other countries might be explored.
3. Design programs to improve literacy and basic education. Areas of endeavor might include:
 - a. distance education techniques, such as radio outreach, audio visual aids, etc, for literacy. These efforts might be woven into ongoing or future projects as cost-effective

- means of reaching larger numbers of individuals to achieve specific objectives.
- b. in-service upgrading of teachers at all levels. The design for such a major undertaking might include curriculum development and distance education (radio, video cassette) techniques for teacher training. Although this is a complex problem, this activity might well be facilitated by a joint effort between the University of Niamey and a U.S. university. Underlying development of these materials would be the in-country capability to continue producing and utilizing such materials once the mechanism is in place.

**APPENDIX
NOTES ON MEETINGS/DISCUSSIONS**

USAID: James Anderson, Mission Director, Michael Sullivan, Special Projects Officer, Gaston Kaba, Special Assistant to the Director, Hadiza Bolho, Training Assistant

Wednesday, April 27, 1993, 10:00-11:00

- The team was briefed on Mission strategy toward training and the potential applications of electronic communications and distance education in Niger
- Human resource development and use of training to meet project objectives was underlying theme to raising awareness within the Mission.
- The NAAR project had been extended for training activities. Identification of possible distance education and telecommunications activities was put forth as a major task.
- Follow-on and alumni activities could be investigated to capitalize on investments already made.

Friday, May 6, 16:30-18:30 (Also present Keith Simmons, Design and Evaluation Officer, and Gary Merritt, Program Officer)

- Recommendations of the team were presented and outlined in a Memorandum to the Director. (attached)

USIS: Ms. Shirley Stanton, USIS Officer

Thursday April 29, 09:00 - 10:00

- USIS participants include about 30 long term academics, Sr. Scholar Program & Humphrey Scholars. Majority have studied ELT, linguistics and literature. One MPH and one administration graduate.
- One to two scholars / year brought in via Fulbright. Entirely supply driven. Less brought in recently because they can not count on University. You never know when there will be a strike, etc. Things seem to have improved since the government settled with the students, i.e. they paid them their scholarship.
- USIS very interested in/receptive to collaboration on alumni association and on getting them hooked up electronically.
- USIS interested in pursuing the possibility of receiving WorldNet transmissions that are programmatic in nature and related to development.

General Meeting, Project managers
Thursday April 28, 15:00 - 17:00

- Michael Sullivan called a meeting for project managers and their assistants to discuss the purpose of our visit. Chief GDO Helen Soos and Felicia Lightfoot of DEO attended along with training office staff.
- The purpose of our visit was discussed and the concept of distance learning explained. Emphasis was placed on the importance and role of training from the project design stage all the way through to evaluation.
- Objectives, opportunities and procedures relating to HERNs were also addressed.

**INRAN, Mamadou Ouattara, Director General, Salou Moussa,
Training Director**

Friday April 29, 09:00 - 11:00

Monday May 2, 09:00

- Niamey is the headquarter office, 6 regional centers. Working on 2 new regional centers.
- Created in 1975 as the center for agricultural (includes livestock, forestry, animal husbandry, etc.) research. Coordinates all the governmental ag research.
- Staff includes people from ministries other than ag, e.g. finance, trade, education.
- Total staff of 354, including 70 scientific researchers.
- INRAN would like to have USAID-sponsored individuals getting advanced degrees abroad perform their research at INRAN.
- Center for Agricultural Research, in charge of regional needs, composed of politicians, extension agent, farmers. Help to define constraints.
- Scientific Conference Center (members include professors from Purdue and Texas A & M). Supposed to meet once a year.
- Radio would be an appropriate technology to reach farmers. Extension agents are underfunded.
- They need better communication for more information from outside Niger: 1) literature search, library linkages; and 2) dissemination of their research.
- They also need help to improve internal communication, i.e., from INRAN station to centers. The main documentation center is in Niamey but the telephone lines are not clear enough to send information electronically outside of the city.
- Another priority communication between INRAN and the extension agents. They need better methods of "translating" research findings into materials appropriate for the extension agents and ultimately the farmer.
- Staff weak in animal production and forestry/natural

resource management. They have no expertise in rural economics.

- Always a need for short term training, institutional training. Long term training is also important because those who have an undergraduate degree from abroad are not necessarily qualified to do research. Those trained abroad often have too narrow a focus, not always prepared for reality of Niger. Scientists should also understand broader issues (development, communications, etc.). Hoping to have training plan completed by the end of the month.

AGRHYMET, Andrew Stancioff

Friday April 29, 11:30 - 12:15

- INMARSAT equipment has been installed since Johnston's visit. Their priority is to be able to send masses of information rapidly. Their needs require up-dating and educating entire population, not just the intellectual elite. The entire population is affected by a drought.
- Equipment in Niger is available or can be purchased and installed only a matter of deciding what we want to do with it.
- The question of what we would like to accomplish with distance learning should be asked first and then we can figure out the best mode of implementation. Decision should be demand driven.
- Professionals become out of date and out of touch because the government does not put them in proper place or utilize their skills in an effective manner. The government does not know what these professionals should do.
- TV, video and movies will really make an impact on people in the rural areas. Simple, universal. Language is secondary since it is the picture that grabs the audience and what people pay attention to.
- Need to focus on mid-level people. It is their role as inter-locuteur between scientific/intellectual community and the village that is crucial and has been most ignored.
- E-mail links in Niger very difficult because they have to go through government post.
- Best thing we can do for returnees is link them up with the Nigerien reality.
- No one in Nigerien government talks to or utilizes AGRHYMET (and vice-versa).

Ministry of National Education, Mr. Sidikou H. Oumarou,
Director of Higher Education and Research, Mr. Tandina
Ousmane, Professor, Faculte des Lettres, Mr. Galy Kadir Ab
Del Kader, Professor Faulte des Lettres
Tuesday May 3 09:00 - 11:00

Part one: Distance Education Project (Pr. Tandina)

- Niger is involved in Distance Education through a project designed and implemented by ACCT, the executive agency of the French speaking commonwealth countries.
- This project trains French language teachers at the high school level: 1) 1992-93 - throughout the whole country, ± 100 "Lycée" level professors (2 final years of high school); 2) 1993-94 -in the Niamey district only, ± 200 "collège" level professors (3 first years of high school).
- ACCT spent 10 million CFA Francs the first year and 5 million the second year. Only Niamey district professors were trained during the second year of the project as a result of these budget cuts.
- The content of the training, French language teaching, was chosen by ACCT, not by Niger.
- This project is supposed to last 10 years, but nothing seems very certain.
- The "Faculté des lettres" of the Education Department is deeply involved in distance education. ACCT grants allowed the Faculty to buy a photocopier to duplicate pedagogical materials designed and produced to train the teachers. The Faculty was also involved in editing audiocassettes.
- Note: training in education and pedagogy is provided for "instituteurs", i.e. elementary level teachers, and the "collège" professors, but not to those of the "Lycée" level. This category of professors, regardless of their field -science, geography, history, French, English- is in great need of training in education. The Faculty is working on a project to create an "École normale supérieure" which could train and give degrees to all.
- The main problems with the distance education training were: 1) the training period (2 months) was too short (according to trainees); 2) the training did not lead to a degree. Otherwise the participants were satisfied with the distance education formula. This was the first time they received materials to help them with their teaching.
- Two types of evaluation were conducted: a first one to assess learning and training gains; a second one, more like a survey, for comments and feedback on the distance education project itself.
- The Faculty is ready, if funding is found, to enlarge continuing distance education training to include the

"assistant-instituteurs", i.e. all those teachers at the elementary level who don't have the required qualifications to teach. This training would lead to State Examination and Certification (BSC, Brevet supérieur de capacité). Thus newly trained instituteurs would get a salary raise, and, as is well known, that is the best motivation for continuing education training.

Part two: Computer Training and Electronic Communications Planning (Pr. Galy Kader)

- Mr. Kader is a professor of Education, he is convinced that communications and electron communications, in particular, are essential to the development of Niamey University. The university is almost entirely cut off from the rest of the world because of its deep underdevelopment in the communications field. For example, the university only has 3 fax machines: one in the Rector's office; one in the "Faculté des Lettres"; and one in the Education Department.
- Mr. Kader and a few of his colleagues have organized an Interdisciplinary Working Group to promote greater knowledge of Computer and Communications Science and to service the university community needs in computing techniques.
- The first thing this group did was to list the equipment at its disposal, i.e. 3x386 PC, 2x286 PC and a few very old computers. They then organized, mobilized and were given access to these meager resources.
- The group then developed a strategy to gradually break down the Faculty's conservatism: 1) disseminated information about computers and electronic communication; 2) offered training activities in computing; 3) furnished programming services; 4) designed a communication development plan.
- The proposed plan contains three parts: 1) implementation of E-Mail (the International Center for Theoretical Physics, located in Thrust Italy, has just furnished a modem, and talks with ORSTOM should start soon); 2) development of a LAN for the university, and if it is impossible to acquire a server in the short term, a minimum will be done by creating a computer room to give community members access to computer resources; 3) development of a computer assisted editing process to allow community members to publish research findings and thus develop the university scientific publications.
- This plan will be presented to the authorities of the University, to the Ministère de l'Éducation nationale, and to any organism which may be of some help.
- Students and professors are beginning to understand that computers and communicating is a must. Curriculum training courses organized by the group are always full,

even though students have to pay 15 000 CFA Francs (compared to the 5 000 CFA Francs university tuition fees). The money collected is used for the maintenance of equipment and eventually for new equipment. Note: the university budget has not been increased in the last ten years, so any development is nearly impossible.

USAID/Niger, Gary Merritt, Chief Program Office
Wednesday May 4, 08:15

Mr. Merritt explained the present organization of the Mission and the plans for reorganization. The training office is expected to fall under the project office. However, he does not see operations in training being effected substantially by these changes.

Mr. Merritt also discussed the Mission's strategic objectives and how he sees training is related. The Mission needs to focus more on strategic objectives when selecting participants for training - the fields have to match objectives more closely.

Literacy and basic education needs are enormous and failure to address them hinders all other project work.

ORSTOM, Mr. Julien Bonfort
Wednesday May 4, 09:00 - 11:00

We were given a tour of the facilities and the computer/communications capabilities were explained. A price list for subscription to and use of e-mail was provided. (See attached)

**École nationale d'administration (ENA), Mr. Issaka Djibo,
Director & the Director of Continuing Education**
Wednesday May 4, 10:30 - 11:30

- The "École nationale d'administration" offers two initial training programs: 1) a long-term program of 4 years after the French equivalent of a "Baccalauréat" leading to class A manager ("Cadre") degree; 2) a short-term project of three years after the BEPC (i.e. state examination after the 3 years of high school, same as in France) leading to class B manager degree.
- The school also offers continuous training "à la carte" (i.e. on demand); these short term training courses fulfill the needs of civil servants (60%), local communities (i.e. municipal white collar employees and civil servants) (10%), managers of the business sector (40%).

- The school is also engaged in a third type of activity: Study groups, ("Recherche action"); teams ("cellules) composed of professors, civil servants and business managers are formed around a specific theme or topic (ex: rural development).
- The school has 430 long term students and 100 short term; there are 40 full time professors and 60 occasional lecturers ("vacataires"); the school being a "établissement public" (i.e. state like, but autonomous, -partially), is 60% funded by the State and 40% self-funded; the school also receives donations; all non civil servant short term students have to pay for their training.
- In 1991 the school sponsored a survey on the needs of Niger's territorial civil servants (level of départements -as in France-, level of arrondissements -districts-, level of local communities ± municipalities) for continuing education in management. A copy of this study has been given to US representatives. The survey seems reliable even though there is no sampling, nor real analysis (frequencies analysis only); most probably the questionnaires were sent to the entire or most of the population of managers. All agree that there are great needs in management. The school has already offered training in financial management, the most frequently requested need. The next priority is human resource management.
- Two professors are presently in the USA for training; 1 MBA and 2 PhDs have been trained in the past, a few others were trained in third countries with US funding.

SNISS, Dr. Mounkaila Abdou & Dr. Mounkaila Noma
 Wednesday May 4, 15:00 - 17:00

Re. SNISS:

- SNIS collects data on disease, personnel and equipment from the department level, aggregates it and sends it up to the national level.
- Prepare reports on the status of epidemics (threats).
- Training of nurses in applied computer and field epidemiology.
- They are trying to connect computers at the national level and would like modems to send data. At the moment they have to wait until the evening to send data since the lines are much less congested.
- Presently they have the software to make reports at the department level. In about three months they will be able to aggregate data at the national level by diskette.
- Health center radios used primarily for contact in emergency situations.
- Compose and print newsletters, tables etc. to present

health statistics.

- Trying to improve communications with MPH and outside world.

Re. Alumni Association:

- An association would really be useful for health professionals.
- They would like to meet others trained in various fields for networking and researching possibilities.
- We learned to do things differently in the U.S.; it'd be nice to talk with other people who see things and think the way we do.
- Together, as a group, we have great potential to make changes in our country. We need support.
- Way to provide information on possibilities for future training.
- Interested in exploring the possibilities of linking up with alumni associations in other countries.

Ministry of Finance and Planning, Mr. Massani Koroney,
Director of Computer Science Department, Mr. Harouna Mamane,
Deputy Director of Computer Science Department
Thursday May 5, 09:00 - 11:30

- Since 1984-1985, the Computer Science Department has had a Development Plan, and each year since then it has been up dated, but none of the planned activities have ever been implemented because they have never received the necessary money. The only activities which have taken place are those that have been funded by foreign donors.
- Thus, with a gift from Japan, they were able to wire all Ministry buildings, buy a mini central unit, a X25 card and 20 work stations. But, because they could not afford to pay telephone line-ties to connect to others ministries, they could not implement a computerized data management network in accordance with their mandate.
- The combined effect of PC technology and foreign donor policies -who always include computer equipment in their projects but exclusively "national" equipment- is partitioned data bases, now each and every units has its own DB and, usually, it is impossible to communicate data and to merge DB.
- The Computer Science Department is acting for Niger in a project sponsored by UNESCO to implement and develop a continental data exchange network (RINAF); they participated in the first meeting but not in any of the subsequent three meetings simply because they have no money. UNESCO will pay a third of the cost, but Niger's government cannot pay the balance. So each time decisions were made concerning equipment funding, Niger was not present. The next meeting is in Paris and they

- already know they will not be able to send anyone. The computer science department is also unable to participate in scientific events organized by UNESCO.
- For the last national election, they offered a full computerized service, fully Nigerien, inexpensive, and it worked remarkably. The department acquired recognition on the national level and a lot of cheers, but no additional funding.
 - They try to convince politicians and decisions makers of the importance of computers in today's world, but it has not helped much. They develop software which everybody is satisfied with, but still no money. They proposed, a few years ago (around 1986), a legal framework for the development of computer technology in Niger which has not yet been discussed. The environment is wild and anybody can do anything.
 - The department would like a workshop to be organized by USAID/USIS grouping the main Nigerien actors in the computer field and all foreign donors in order to draw a clear picture of what is going on in Niamey in terms of technological development.

USAID/Niger, Ms. Katharina Puffenberger, Health and Population Office

Thursday May 5, 09:30

- Possibilities of a HERNS buy-in for the design of the new health and population project were discussed. There is a large training component contemplated in the project. A training and communications specialist is included in the team proposed on the PIO/T presently in draft.
- Ms. Puffenberger had read the HERNS brochures and felt that it would be a very appropriate for the upcoming design. However, she was not sure at what stage the PIO/T was at and how the office planned on contracting the design team. She set up a meeting with Charles Habis for further discussions.
- The alumni association is a great idea and will be very useful for project funded participants in the health sector.
- She too, as a professional abroad, would like access to professionals in her field. An alumni association would very much benefit the ex-pat professional community as well as the alumni.

**University of Niamey, Dr. Gouro Abdoulaye, Dean of Agronomy
Department**

Thursday May 5, 15:30 - 16:30

- The Department is 20 years old; to mark the anniversary, a special workshop was organized with USAID funding, however none of the invited USAID personnel came. The workshop grouped former students, managers, civil servants, professors, and researchers. The department has two programs: one leading to the "ingénieur agronome" degree; one leading to the "ingénieur d'application" level. The first program is more theoretical and the second more applied. Both curricula require 4 years of training.
- The department also offers a fifth year of training for specialization in environmental preservation and/or in Sahel agricultural system development.
- The department consists of 200 students and 27 professors of which only 18 are permanent and 55 are occasional lecturers. Only 2 professors have the status of "rang magistral" which is about equivalent to a full professor. To achieve this rank, appointed by the Rector, the professor must have a doctorate, 2 years teaching experience at the university level plus a certain number of publications showing he is able to conduct research. All the department professors have been trained in France. The French Third Cycle Studies (DEA + a Thesis) is not necessarily research training.
- As Dean of this department, Dr Abdoulaye prefers that PhD trainees stay in Niger so they can do research on subjects of interest to Niger (which is not the case now), and, while doing so continue to teach at the faculty.
- Dr. Abdoulaye is very critical of the Ministry of Agriculture and the other actors in the field of Nigerien agriculture, such as INRAN.

USAID/Niger, Charles Habis, Chief Health and Population

Friday May 6, 08:15

- Two participants are to be trained under the health project that is about to end. Mr. Habis was under the impression that the money could be transferred to HERNS for the training. Kathy explained that HERNS was not a placement contract and PIET is the more appropriate mechanism for placement. Another option would be to extend the PACD until training is complete.
- Mr. Habis explained that he did not specify which IQC he wants to access for the design of the new health project so that it would be a competitive process. HERNS could bid on it like any other IQC????

ICRISAT, Mr. Laouali, Mr. Williams & Mr. Stern
Friday May 6, 10:30 - 11:30

- ICRISAT is an important research center with 27 international researchers and 300 national human resources.
- ICRISAT is interested in developing distance PhD supervision, so research will be done at ICRISAT on topics relevant to Niger.
- ICRISAT is well equipped and its personnel is using electronic communications regularly: E-mail and data package transmissions; a direct link with Nigerpac is used, but it is very expensive, it would be much cheaper to use a "Callback" service from the USA.
- ICRISAT has developed joint short-term training programs with INRAN in Statistics and Quantitative Analysis. It is not possible to have any type of follow-up training between face-to-face sessions (about 1-2 months) because INRAN has no real E-mail facilities and the distance between center to center makes travel impossible.
- ICRISAT needs to offer some sort of continuous training to its national staff of 300. ICRISAT has specialists in many fields but not in all fields of agriculture and/or natural resource. ICRISAT is really interested in working with USAID to offer continuing education from the US through Distance Education. ICRISAT could supply resources for monitoring, if needed. As far as they are concerned this should be started soon. The needs are great, why wait.

The World Bank, Mr. Francis Mody
Friday May 6, 15:30 - 16:30

- The meeting was to confirm nature of WB funded project(s).
- Research projects are definitely useful for Niger's agricultural sector. Work on extension services is also a priority.
- The WB has contracted financial management services for INRAN to make sure that at least this part of the administration is taken care of properly. The next priority for INRAN staff will be management training in HR, research projects and planning.
- The WB, as usual, will fund computing and communication equipment.

Alumni Association

Thursday April 28, 10:00 - 12:00: General Meeting

Wednesday May 4, 17:00: Meeting with alumni to discuss e-mail

During our visit we had a number of opportunities to talk with alumni in both formal meetings and informal conversations. The second meeting of the alumni association of graduates of US universities was held on April 28. The meeting was announced on the radio and attended by 25 - 30 participants (see attached list of attendees). The group included a number USAID sponsored participants, USIS participants, military sponsored graduates and miscellaneous others. The association is still in its formative stages and groping for goals and cohesion, but enthusiasm is high. A committee was set up to write by-laws to be presented at the next general meeting (to be held Saturday May 7). The group also formed a committee to look into the problem of diploma equivalency. The overwhelming consensus was that graduates from the U.S. system are still not getting sufficient credit for the work done in the U.S. Other re-entry problems cited by the group include: technology gap; if employed most returnees underemployed; strong feelings of isolation; and working in a vacuum.

There was strong reception to the idea of getting the association connected to e-mail and the Internet. A small group of four participants who expressed specific interest in e-mail connections met again a few days later. The consensus was that in order to stay in touch with what is going on in their professional fields e-mail and/or some connection to the outside world was essential. Frustration was high. They agreed that professional networking and job opportunities were the most common and critical concerns amongst returnees. The group was encouraged to think seriously about and focus on the kinds of activities that would motivate them to devote the time and energy needed to keep an association going.

Many of the people we met with to discuss items on the agenda not related specifically to follow-on were USAID funded alumni of US (INRAN, SNIS, ICRISAT). All were very enthusiastic about an alumni group that could provide opportunities for professional networking and that would help them keep abreast of technical developments.