Establishing Community Learning and Information Centers (CLICs) in Underserved Malian Communities

Associate Award No. GDG-A-00-01-00014-00

FINAL REPORT[1]

Core funding from

and
an Unlimited Potential Grant from

Implemented by

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Executive Summary

Project Objectives

The purpose of the Community Learning and Information Center (CLIC) project was "*to accelerate economic, social and political growth by providing residents in twelve[2] underserved Malian communities with access to easily accessible development information and affordable access to information and communication technology (ICT), high-value training and locally appropriate content.*"

A CLIC is a telecenter, a public access point where the community can come to access information and communication technologies for a fee. It is more than a cybercafe in the sense that 1) it provides a range of services that cybercafes do not provide, such as training and customer support; and 2) it is community-driven and it has a clear development mandate to serve the community's information and communication needs.

In the broader context of the Government's goal of connecting all 703 communes of the country, the CLIC project was also a means of testing a range of organizational settings to identify viable public access models that could be expanded to the 703 communes. In that context, the project worked in some very challenging environments where local capacity, communication infrastructure, literacy and purchasing power, and even at times a reliable source of power, are lacking or in short supply. In other words, rather than pick only locations where the chances of success were maximized, the locations were picked to test different models under challenging conditions.

Strategy

To achieve this objective, thirteen Community Learning and Information Centers (CLICs) were established within new or renovated buildings and hosted by local institutions. USAID/Mali selected the 13 locations based on 1) the need to test a range of potential models; and 2) the potential to support existing USAID strategic objectives in Mali. Two CLICs are located in IFMs (Teachers' Colleges), four are hosted by Mayors' offices, two are hosted by NGOs, two are hosted by local radio stations and two are hosted by parastatals (Office du Niger in Macina and OHVN in Ouélessébougou) and the last CLIC to be established is located within a school.

The project was implemented by AED through a dot-ORG Associate Award with core funding from USAID as well as an Unlimited Potential Grant from Microsoft. In Mali, the CLIC project team led by Aminata Fofana Maiga, managed the project under the umbrella of a Malian NGO, INAGEF. Other partners included the Peace Corps, providing volunteer support in some of the CLICs, and World

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[2] A thirteenth CLIC (Daoudabougou) was later added under a separate contract with SAIC also funded by USAID.

Links, providing some of the initial training materials for the CLIC managers.

A standard model developed based on global best practices and experiences in other countries was applied to all 13 CLICs. The same equipment was purchased and installed, the same organizational structures were established to link the CLICs' management teams to the host institutions and the broader community, the same training was provided. The CLICs were initially provided with a connectivity solution through the national provider, SOTELMA. When this solution proved ineffective, ten of the 13 CLICs were provided with a high quality VSAT connection (either 64 or 128K depending on the CLIC) and the three remaining CLICs were connected through a different system provided by MEGASAT, a locally based provider.

A number of strategies were implemented to maximize the potential for sustainability, from marketing, capacity building, the creation of an association of CLICs and the use of vouchers to create demand.

Results & Lessons

At the end of a 29-months project period, the following results and lessons can be highlighted.

Financial sustainability

Results
- 25,000 clients paid for services at the CLICs.
- The CLICs generated approximately 22,000,000 CFA (~US$44,000) in revenues.
- 2,015,000 CFA (~ US$4,000) were distributed to the CLICs and subsequently used as vouchers by members of the community to pay for CLIC services.
- Seven out of 13 CLICs have the potential to become financially sustainable - perhaps more if bandwidth sharing is deployed successfully in more locations.

Lessons
> Because of the experimental nature of the selection of the location of the sites for the CLICs, the set of conditions necessary for financial sustainability are not present at all of the 13 locations. During the project's duration, the CLICs received decreasing subsidies covering their operating costs, including the internet connection. By the end of the project, the subsidies would be eliminated and the CLICs would have to sustain themselves on their own or find others sources of funding. The VSAT connection, which is a significant cost for the CLICs, is going to be very expensive to maintain. The primary option tested at the end of the project was to collect additional monthly revenues by sharing the bandwidth with other local institutions.

Financial sustainability is dependent on human, organizational and technical sustainability. Capacity building challenges, organizational challenges and technical issues can all contribute to financial un-sustainability or financial instability.

People – capacity building

Results
- The local CLIC project team, operating from Bamako under the umbrella of INAGEF, played a critical role in building up the capacity of the CLIC managers, many of whom had very limited computer skills at the beginning of the project.
- Approximately 500 individuals at the community level received basic computer training (introduction to computers, MS Word and Excel). Two hundred thirty-four (234) of these individual used prepaid vouchers to pay for the training. The rest of the trainees paid for the training out of their own pocket.
- On average, training represents 17% of total CLIC revenues. The CLICs in Kidal (30%), Bougouni (29%) and Mopti (30%) are significantly above this average.[3]

Lessons

Capacity building has been a key component of the project and has tried to address both the needs of CLIC managers and consultative committees on the one hand and the needs of the end users on the other hand.

For CLIC managers and consultative committee members, training workshops were organized both at the national level, bringing all CLICs together, and at the regional level, bringing 2-4 CLICs together based on their geographic location to minimize travel and to facilitate small group sessions. The training has ranged from management issues, including financial management, marketing, and outreach, to technical matters, ranging from the basics of computer use, computer maintenance and more advanced software to create web pages.

These efforts have been overall successful, yet not sufficient. There is a continuous need for training at all levels. Existing skills and knowledge need to be reinforced and taught to new staff to address turnover. New skills need to be introduced.

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[3] The Kidal CLIC's revenues are very low, so the total amount of revenues from training is not very significant. The Mopti CLIC is unique in its ability to generate large revenues from training by focusing on relatively large group contracts rather than training individuals. The Bougouni CLIC is heavily oriented towards youth and education and has done a great job of attracting and training the young and not so young (see the Bougouni CLIC profile)

The use of a Training-of-Trainer approach has been relatively successful and should be reinforced. The capacity of CLIC staff to provide training to others at the community level is uneven, and the capacity of the community to pay for such training is also wide ranging depending on the CLIC.

The more un-anticipated benefits brought about by the emergence of a network of CLIC managers (or peer network) who regularly communicate with each other and help each other solve problems needs to be reinforced as well and better leveraged.

Organizational aspect

A major reason for selecting a variety of host institutions at the project's inception was to test different models. While no overwhelming winner emerged, three types of institutions appear to have advantages. Radio stations and Mayors' offices have the advantage of being well-known information access points for the community as a whole. IFMs have the advantage of being institutions of learning with a substantial potential market among students and teachers who are on site, literate and have some purchasing power. Those advantages, however, cannot be capitalized on in a problematic location (Kidal), the absence of a market (Bougoula), or with poor management.

Within each CLIC, establishing and enforcing proper procedures and establishing clear roles and responsibilities for the staff, members of the Consultative Committee and the host institution is key to good overall management and therefore long-term sustainability.

Technical issues

Power issues have had an impact on the operations of some of the CLICs, making it difficult to operate regular hours, forcing them to interrupt training sessions and affecting their ability to provide key services. Whether there is no grid power at all (as in Bougoula) or the power is unreliable (Djenné & Ouélessébougou), a range of solutions exist. Some solutions may require a significant up-front investment in equipment (solar panels, multifunctional platform, and battery backup systems) but others, such as adjusting the CLIC's operating hours, may be easy to implement.

Connectivity was initially provided through the national provider (SOTELMA). When this solution proved ineffective, VSAT connectivity was provided to 10 CLICs and an alternative local provider (MEGASAT) provided connectivity for the three remaining CLICs. The MEGASAT solution proved unreliable and the VSAT solution is expensive for most CLICs to maintain beyond the period of project funding. Other providers, such as IKATEL, are quickly expanding their reach throughout the country and may be able to provide cheaper alternatives. Other options that are already being implemented in some

CLICs involve sharing the bandwidth with local partners.

Equipment repair and replacement is likely to become a growing challenge given the environmental conditions at all the CLICs. The CLIC Association is likely to play a key role in facilitating repairs and purchase of new equipment but the CLICs will be responsible for providing the necessary funds. This will require sound financial management and planning.

Delays in the delivery of the evaporative coolers combined with lack of familiarity with the equipment and how it should be installed resulted in their total uselessness. An attempt towards the end of the project to install a cost-effective remedy using underground tubes to cool air before it enters the machine was also unsuccessful. Faulty installation and lack of familiarity with what was a new technology for the project implementers is to blame rather than the technology itself. This experience points to the importance of proper planning and technical support when introducing new technologies. This is in sharp contrast to the multifunctional platform technology that is very well known in Mali and was effectively deployed with local capacity in Bougoula to provide affordable power to the CLIC and the community.

<u>Content</u>

Results
- The CLICs have at their disposal a collection of 35 CDs/DVDs covering a wide range of locally relevant development-related topics in French and local languages as well as a significant collection of web-based materials on health, agriculture, governance and economic issues.

Lessons

On the surface, an analysis of the content that was collected by the project for dissemination through the CLICs would seem to indicate that the collection of relevant content was successful. The contents are very relevant and appropriate. However, the relative lack of utilization of this content points to the need for further analysis. In the end, it is likely that lack of utilization resulted from a number of factors, including:

- o An approach to the collection of content that was based on assumptions rather than real data regarding the information needs and desires of communities. An approach based on principles of social marketing may have been more successful;[4]

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[4] Social marketing can be defined as "a process for influencing human behavior on a large scale, using marketing principles for the purpose of societal benefit rather than for commercial profit" *(Bill Smith 1999).*

- Failure on the part of the project team and AED to provide sufficient guidance to the CLIC staff to help them make effective use of the materials and to establish incentives for the CLIC staff to make effective use of the materials.

- Lack of systematic monitoring of the utilization of contents, resulting in inadequate feedback mechanisms and an inability to determine the root causes of the problem in time to take effective corrective action.

<u>Network Power</u>

Very few (if any) of the CLICs would be sustainable as individual CLICs. The sustainability of the network is perhaps more important than the sustainability of any individual CLIC. It is as a network that the CLICs are most likely to become sustainable. As a network, the CLICs will be able to purchase supplies at better prices, share the costs of technical support and training, build their collective expertise, and learn from each other.

Within the network, however, a one-size-fits-all approach had both advantages and drawbacks.

- Equipment and systems: It may not have been politically feasible to give one CLIC two computers while giving another 12 computers even if such a decision had been based on a thorough market analysis. In the end, however, some CLICs have the potential to expand while others are underutilized. Now is perhaps the time to make hard (politically difficult) decisions about the reallocation of equipment. The same logic applies to the internet connection. Some CLICs may be able to sustain the VSAT connection. Others may have to rely on something more affordable even if that means making sacrifices in terms of quality of the connection.

- Training: There are obvious advantages to developing and delivering training in a consistent manner across the CLICs. The training and training materials can be developed to address the need for flexibility in how individual CLICs set the prices for their services, set their operating hours, etc…

<u>Gender</u>

Results
- 13% of CLIC clients are women.
- 50% of CLIC staff are women and all Consultative Committees include several women.

Lessons

The 13% average across the CLICs hides significant differences. In some CLICs close to one quarter of the clients are women (Daoudabougou and Kidal).

Interestingly, the three best performers in terms of total number of clients – Bandiagara, Kangaba and Kadiolo - are low performers in terms of percentage of women clients (i.e., less than 10% of their clients are women).

There are no clear patterns in terms of relationship between the gender of the managers at a CLIC and the percentage of women clients.

There is anecdotal evidence that while few women may come to the CLIC to obtain services, indirect benefits could be significant. Literacy, purchasing power, time constraints and cultural barriers are the key impediments to women's use of public access points in developing countries. All of these are significant obstacles in Mali. Any strategy to address women's access should also pay attention to indirect benefits and approaches that would capitalize on intermediaries (health workers, agricultural extension workers, radio animators, leaders of women's associations) as key targets for contents and other CLIC services.

1. Project Background

1.1. Project Objectives

The purpose of the CLIC project was "*to accelerate economic, social and political growth by providing residents in twelve[5] underserved Malian communities with access to easily accessible development information and affordable access to information and communication technology (ICT), high-value training and locally appropriate content.*"

A CLIC is a telecenter, a public access point where the community can come to access information and communication technologies for a fee. It is more than a cybercafe in the sense that 1) it provides a range of services that cybercafes do not provide, such as training and customer support; and 2) it is community-driven and it has a clear development mandate to serve the community's information and communication needs.

In the broader context of the Government's goal of connecting all 703 communes of the country, the CLIC project was also a means of testing a range of organizational settings to identify viable public access models that could be expanded to the 703 communes. In that context, the project worked in some very challenging environments where local capacity, communication infrastructure, literacy and purchasing power, and even at times a reliable source of power, are either lacking or in short supply. In other words, rather than pick only locations where the chances of success were maximized, the locations were picked to test different models under challenging conditions.

Adding to the difficulties generally encountered in developing countries when setting up public access points mentioned above, Mali is a vast and very diverse country with many different local languages, and limited transportation infrastructure. A map of all the CLICs, with some key distances, is provided in Appendix G. A one-day technical support visit from the CLIC project team, headquartered in Bamako, to the Kidal CLIC in the north east, takes a full week since it takes three days of driving each way. A visit of all the CLICs, spending one day in each, took a full month of travel. Travel may have been challenging for the CLIC project team but it is an even greater challenge for the population given the lack of reliable public transportation in many areas of the country and it makes information and communication technologies even more relevant and important to the population.

To achieve this objective, thirteen Community Learning and Information Centers (CLICs) were established within new or renovated buildings and hosted by local institutions. The locations were all selected by USAID/Mali to test a range of

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[5] A thirteenth CLIC was later added.

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potential models. Two CLICs are located in IFMs (Teachers' Colleges), four are hosted by Mayors' offices, two are hosted by NGOs, two are hosted by local radio stations and two are hosted by parastatals (Office du Niger in Macina and OHVN in Ouélessébougou) and the last CLIC to be established is in a school.

A standard model developed based on global best practices as well as AED's experience in a range of countries was applied to all 13 CLICs. The same equipment was purchased and installed, the same organizational structures were established to link the CLICs' management teams to the host institutions and the broader community, the same training was provided.

1.2. Funding, Partners, Roles and Responsibilities
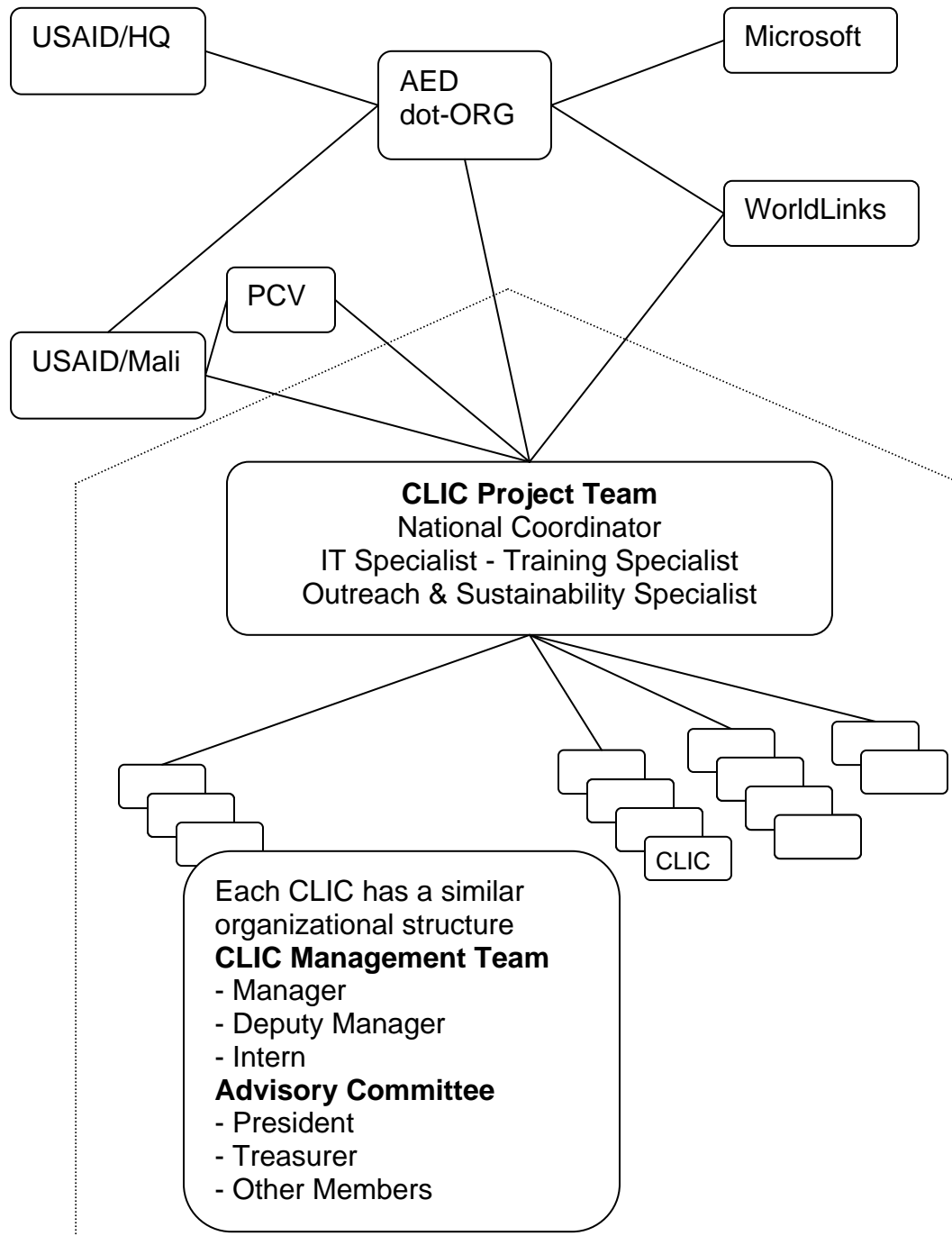
Funding: USAID/Mali and Microsoft

- **USAID/Mali:** Funding of approximately $1,400,000 was provided by USAID/Mali.

- **Unlimited Potential Grant / Microsoft**: Core USAID funding was supplemented by a $60,000 Unlimited Potential grant from Microsoft. The Unlimited Potential Grant funded a "Sustainability and Outreach Coordinator". In addition, Microsoft provided software and training materials.

Implementation Partners: AED/dot-ORG, INAGEF, World Links

- **AED/dot-ORG**
  dot-ORG provided overall management of the project, from the original design to the final evaluation from Washington, D.C., with periodic monitoring visits and ongoing communications via telephone and email.

- **INAGEF / CLIC Project Team**
  INAGEF (Institut Africain de Gestion et de Formation) is a Malian NGO based in Bamako. INAGEF's CLIC Project Team was the core implementer of the project in Mali. (See Team Photos in Appendix F: Photo Gallery)

- **WorldLinks**
  WorldLinks is an NGO based in Washington, D.C.. In the context of this project, WorldLinks facilitated the procurement of computer-related equipment for the CLICs and provided some training and training materials for CLIC managers.

- **Peace Corps**
  A number of Peace Corps volunteers contributed to the project through their assignments in Mali. Ruth MacDonald, was posted at the CLIC/Mali office in Bamako as the Media Specialist. Another Peace Corps volunteer, Brennan

Casey, worked with the CLIC in Ségou to develop marketing strategies and materials.

Communication Channels among Key Stakeholders

USAID/HQ

AED dot-ORG

Microsoft

WorldLinks

PCV

USAID/Mali

CLIC Project Team
National Coordinator
IT Specialist - Training Specialist
Outreach & Sustainability Specialist

CLIC

Each CLIC has a similar organizational structure
CLIC Management Team
- Manager
- Deputy Manager
- Intern
Advisory Committee
- President
- Treasurer
- Other Members

1.3. Timeline & Evolution of the Project

Project timeframe: May 1, 2003 to September 30, 2005, or 29 months.

Key activities undertaken within the 29 months of the project are detailed in the table below. This is a relatively short timeframe given that the 13 CLICs are dispersed around the country. A visit by the project's Sustainability and Outreach Coordinator to each of the CLICs, spending a single workday at each CLIC took an entire month (See Appendix G: Location of the CLICs)

Timeframe	Key Events
2003 – Initial steps	
May-Nov.	Project start up phase – hiring of staff, development of cooperative agreements between CLICs and local partner institutions (host institutions)
December	National Training #1
2004 - First year of operation	
March / April	Regional Training # 1
May	Opening of 11 CLICs
June	National Training # 2
July	Inaugurations of Gao & Bandiagara
August/September	Regional Training #2
October-December	Distribution of vouchers

2005 – Take off	
January	Installation of VSAT connectivity National Training #3
February	Evaluation visit by AED staff
March / April	Regional Training # 3
June	National Training # 4
July	Evaluation visit by AED staff
August/Sept.	Final Activities (Improved connectivity at three sites)

2. Results & Impacts

Extract from the Program Description

Time is another important aspect of creating sustainable public access centers such as CLIC. It is unlikely that fully self-sustaining centers can be created [in Mali] by the end of the two-year project period. Experiences across the world suggest that a period of 3 to 5 years of gradually decreasing subsidies and technical support is needed to enable donor supported public access centers to achieve sustainability. It will be possible, within the two-year project period, to identify and implement principle strategies for sustainability and to provide critical training for effective Center management. **At the end of the two-year project, AED/dot-ORG will be able to report to USAID/Mali the status of efforts toward achieving sustainability and the probability of each CLIC becoming self-sustaining enterprises and when this may be achieved.** (Emphasis added)
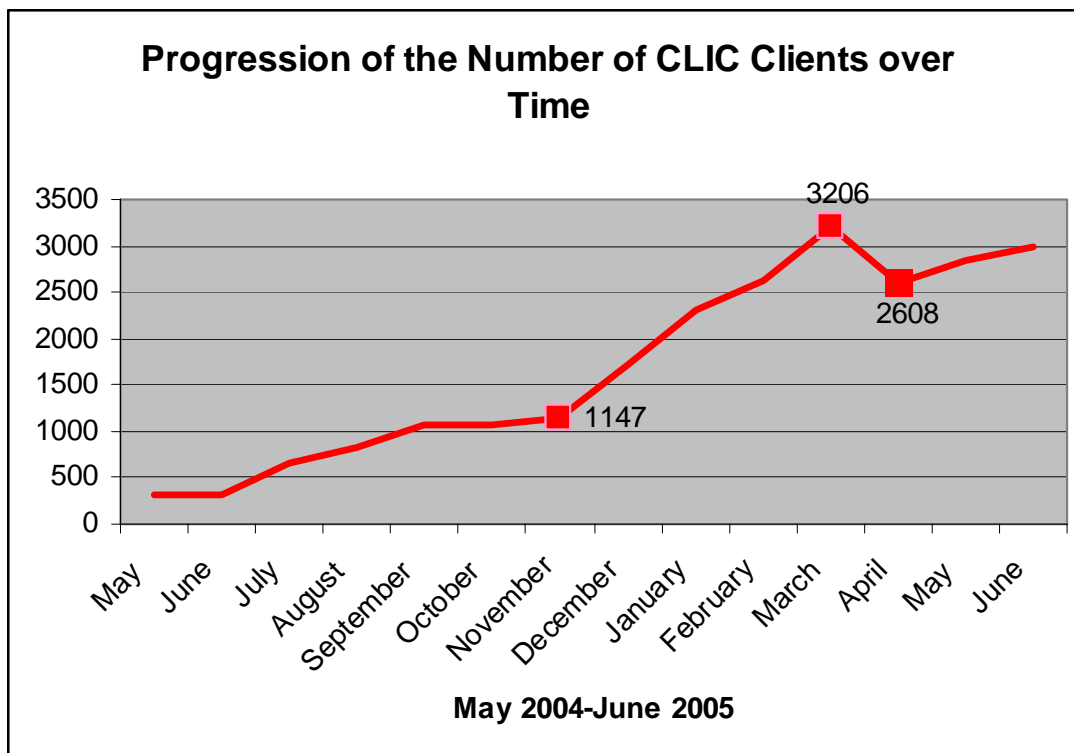
Four separate sections below discuss key elements of sustainability. In addition, a sustainability matrix provides an overview of the status of each individual CLIC at the end of the project's initial two-year period of subsidy and support.

2.1. Sustainability

Sustainability needs to be addressed from a range of perspectives: Financial, organizational, human and technical. Each of these perspectives will be addressed in turn, concerning both achievements and remaining challenges.

2.1.1. Financial Sustainability

Financial sustainability refers to the economic capacity of the CLICs to survive on their own over time. In other words, will the CLICs be able to generate sufficient revenues to cover their expenses? Revenues can be generated through the provision of services for a fee, but other options should be considered, including support from other donors or other development programs within the country. A CLIC with a diversified source of revenues is likely to be more sustainable than a CLIC with a single source of revenues. In this context, the CLICs that are able to generate a new line of revenues through bandwidth sharing with local organizations will have a significant advantage.

Progression of the Number of CLIC Clients over Time

A line chart showing the number of CLIC clients from May 2004 to June 2005. Values rise from about 300 in May, to 1147 in November, up to a peak of 3206 in March, dropping to 2608 in April, then rising to about 3000 in June.

May 2004-June 2005

a. Achievements

The CLICs have served 23,750 clients between May 2004 and June 2005. By the end of July, the CLICs had served more than 25,000 clients. Throughout the report, a "client" refers to "a single purchase of services at a CLIC" and therefore includes repeat visits from regular clients. In fact, many of the CLICs have developed a core regular clientele.

In the graph on the previous page, the drop in the monthly number of clients from March to April can be explained almost entirely by a drop of more than 500 clients/month in Ségou, a drop resulting from a loss of connectivity in April. Ségou went from more than 550 clients in March to 42 in April.

These aggregate numbers hide significant differences in the performance of the 13 CLICS.   Using the last six months of operation and eliminating data from the early days of the CLICs, three categories of CLICs can be identified:

1) High performers: Ségou, Bandiagara, Kangaba, Kadiolo.
2) Mid-range performers: Daoudabougou, Djenné, Bougouni, Mopti, Gao.
3) Low performers: Bougoula, Kidal, Ouélessébougou, Macina.

Average Number of Clients per Month - January 05-July 05

Average Monthly Revenues January-June/July 2005
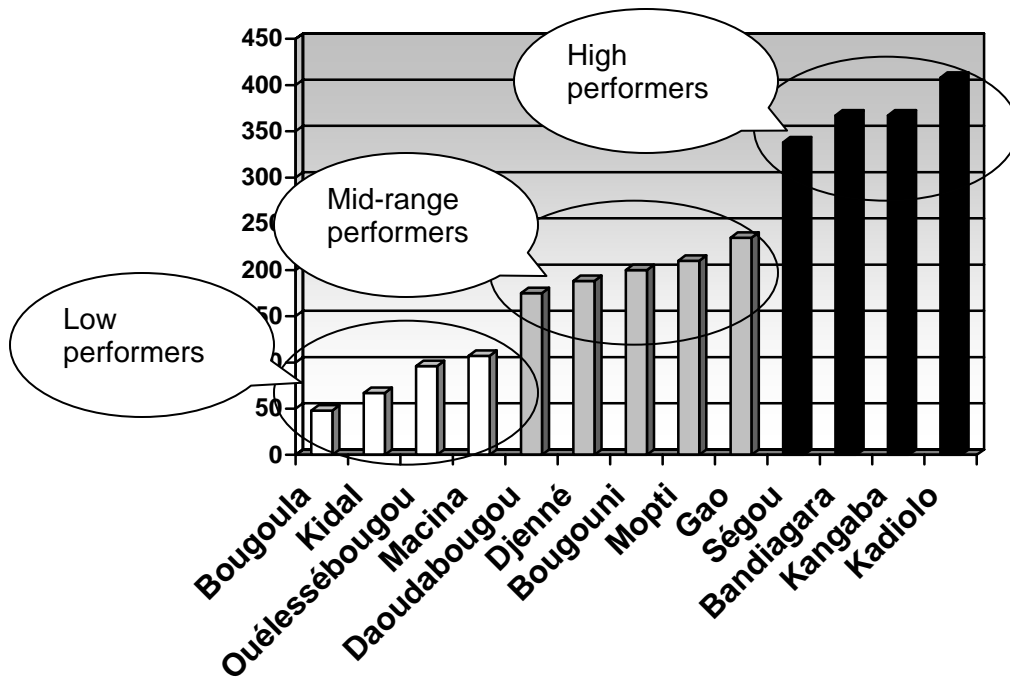
Some of the mid-range performers in terms of total number of clients (grey) are doing very well in terms of monthly revenues (Mopti & Gao).

Some of the high performers in terms of total number of clients (black) are not doing as well in terms of monthly revenues (Ségou & Kangaba). The explanation lies with differences across CLICs in terms of the origins of their revenues (i.e. key services).
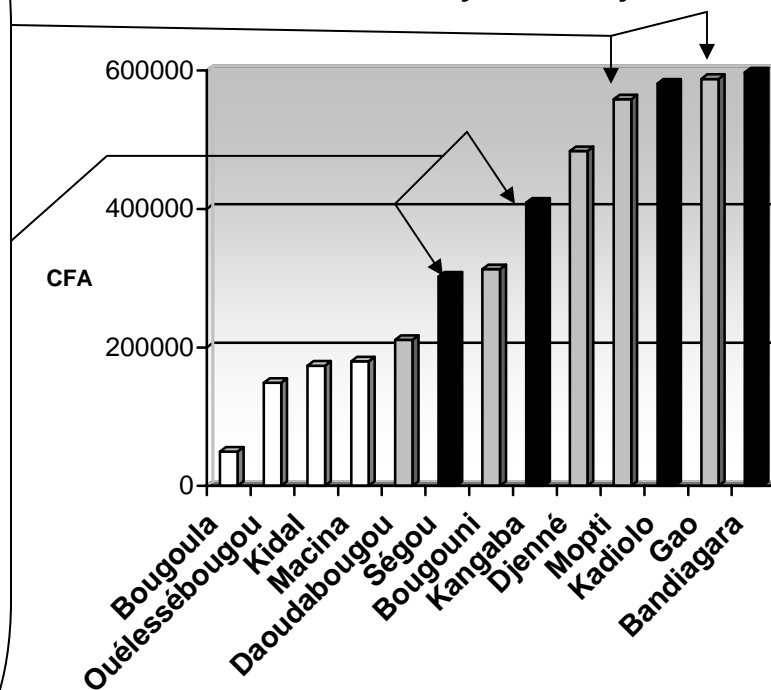
Building demand with a voucher program

A prepaid voucher is the equivalent of a coupon allowing community members to obtain free services at the CLICs. The voucher program was meant to increase awareness of the CLICs and their services, to provide initial training to those who had limited computer experience, and to ensure that women, who might not otherwise have either the means or capacity to make use of the CLICs' services, were not unfairly excluded. Vouchers were distributed in two denominations (1000 CFAs and 5000 CFAs) and could be used for any CLIC services.

Approximately 3,250,000 CFA, or 250,000 CFA per CLIC, were distributed to the population in the form of vouchers to be exchanged for CLIC services. There were wide variations in the utilization of the vouchers depending on the CLICs. All 5000 CFA vouchers were used for training in Bougoula and the trainees were all either students or teachers and school administrators (7 women and 10 men). In Mopti, on the other hand, none of the 5000 CFA vouchers was used for training, and only 1/3 of the 5000 CFA voucher users were women. Most of the vouchers used in Mopti paid for Internet connection. This illustrates a clear difference between the two markets - one with no existing computer literacy (Bougoula), and one with an existing market of computer literate users (Mopti).

Success Stories
Bougouni Student using voucher to get training
Ms. Astan Kayo

Ms. Kayo, a student at the local high school, came to the CLIC with a voucher to ask for basic computer training. To promote the CLIC's services vouchers had been distributed to community members to try services free of charge. One voucher was given to the high school principal to reward the best student with computer training at the CLIC. Ms. Kayo was nominated as the best student. After receiving this initial training, Ms. Kayo became a regular visitor to the CLIC.

Looking at the Balance of Revenues & Expenses

A steady stream of clients and a resulting steady source of revenues are a prerequisite for the sustainability of any CLIC, yet they are often not sufficient to guarantee financial sustainability. Subtracting actual expenses from revenues is the only way to get a sense of the CLICs' financial sustainability, To become truly financially sustainable beyond the period of donor subsidy, a CLIC must be able to:

1) Cover its monthly expenses in order to stay in business in the short run;

2) Set funds set aside to weather seasonal lows and temporary technical problems; and in the longer run,

3) Set funds aside for equipment repairs, replacement and investments in new types of equipment as appropriate.

Average Monthly Balance of Revenues & Expenses
January-June 2005
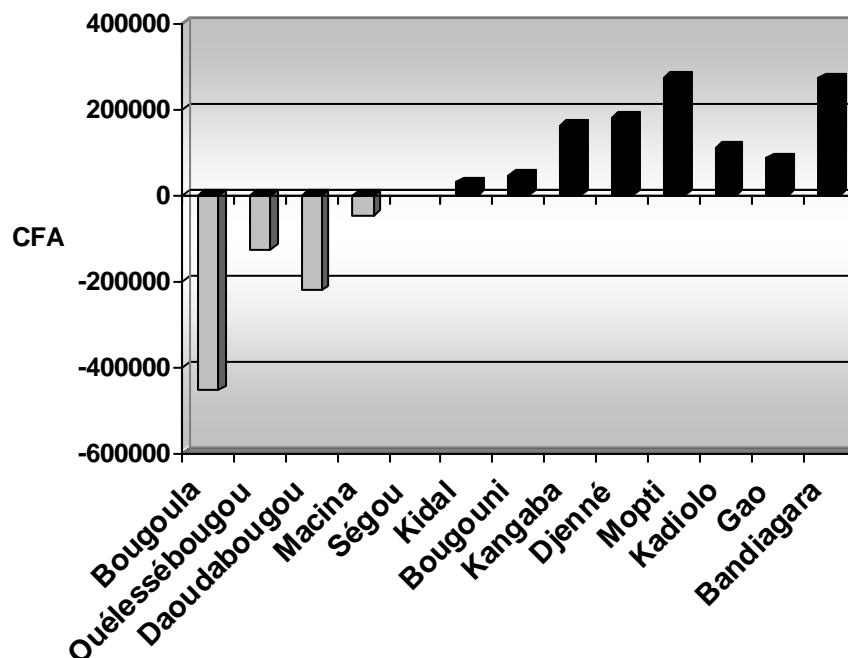
Note: Ségou is omitted due to unavailability of expense data. CLICs were able to operate at a deficit because of project subsidies.

Interpreting Expenses
Expenses should be interpreted carefully and the graph above provides only a

partial picture of the CLICs' financial sustainability. On one hand, high expenses can be a sign that a CLIC is making sound investments in equipment that will help the CLIC increase revenues.   For example, a CLIC could spend a considerable amount of its revenues for essential repairs or to purchase a new photocopy machine. If this were the case, a CLIC's position in the graph would not tell the full story and might show the CLIC barely breaking even.

On the other hand, high expenses can be a sign of poor financial management and uncontrolled expenses.   During the period of January-June 2005, the CLICs received a decreasing subsidy to pay for their connectivity and operating expenses. The financial figures above exclude the subsidy and show their revenues from services sold and expenses (not including connectivity expenses).

The graph on the previous page, in addition to previous graphs showing how each of the CLICs perform in terms of the number of clients and total revenues, provide an indication of which CLICs are mostly likely to become financially sustainable and which will either need more time or cannot become fully financial sustainable under the current model of service delivery (Bougoula).   In order to establish whether more time is needed or whether time is not the decisive factor, more in-depth knowledge of the CLICs situation is required. Some problems can be corrected (poor management, inactive committee), others are more difficult to address (a CLIC's unfavorable location within the community), and others simply cannot be addressed (limited market, lack of disposable income) – at least not without continued subsidies or a different model of service delivery.

Even though the graph above shows 7 out of 13 CLICs breaking it even or making a profit, a number of those seven CLICs would still have difficulty in the end to invest in new equipment.

The Bougoula CLIC – Lessons in "failure"

Context

The selection of Bougoula as one of the sites was a known risk at the beginning of the project. Bougoula is a small rural community of 9,220 individuals scattered in 11 villages. Some of these villages are as far as 17 km from the CLIC. There is no connection to the electrical grid. While a generator initially provided electricity for the CLIC, fuel costs were too high. A local solution, the "multifunctional platform", was applied successfully to address the electricity challenges. A multifunctional platform is built around a simple diesel engine that can power multiple tools, such as a battery charger, a mill, and other tools (See the full Bougoula CLIC profile for more details). Finding qualified managers for the CLIC became a challenge. The literacy levels are very low within the community and even radio programs in French, provided through the WorldSpace radio, are of little use to a local population that exclusively understands local languages.

Results

If all the CLICs were ranked in terms of their likelihood of achieving sustainability, the Bougoula CLIC would rank at the bottom of the list. During the month of June 2005, the CLIC sold only 4 hours of Internet connection representing revenues of 4000 CFA. The Internet connection costs 157,000 CFA per month. Even if other services could help to recoup some of the costs, it is a clear-cut case of lack of financial sustainability - under current conditions. The main client of this CLIC is the host institution, the Mayor's office. However, the host institution has not been paying for services provided by the CLIC. The mayor has argued that he would start paying for services and would cover the manager's salary once the project ends (i.e., once external subsidies end). The multifunctional platform providing electricity for the CLIC is also a source of revenues, allowing the community to recharge batteries using the platform. Forty-one percent (41%) of the CLIC's revenues were from the sale of photocopies, and 23% from battery charging fees.
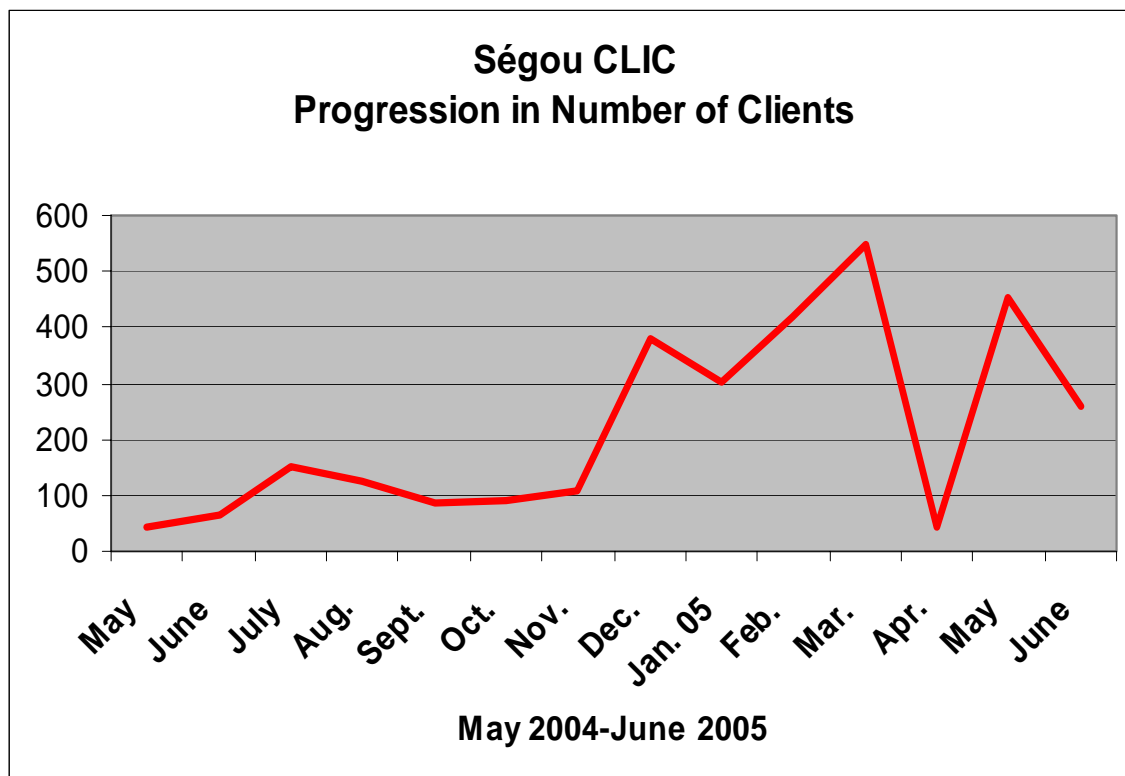
Solutions:
- Explore the potential for new sources of funding for the Internet connection. There are International NGOs working in the area that may be willing to support the CLIC's Internet connection if they have a real need for improved communication with their headquarter offices for example. If the CLIC is able to maintain its connection (whether through VSAT or another option), finding a more appropriate mix of services to offer, including VOIP, may help make the CLIC more relevant to the population's needs and better able to secure revenues.
- Explore the potential for alternative means of getting connectivity, including having a larger CLIC (Ouélessébougou) provide limited, cheaper connectivity to Bougoula.
- Step back and analyze the real needs of the population;
- Rethink this CLIC as a community resource and learning center with limited or no connectivity, CD-based materials for literacy and other content that could be used by NGOs working in the area, or as the base for a community radio.

A more complete CLIC profile for Bougoula, see Appendix A.

b. Challenges

⇒ Difficulties in sustaining a steady flow of revenues due to seasonal variations in the number of clients, technical and human resources challenges, etc…

- Rapid CLIC management turnover has created significant challenges in Kidal for example, where computer skills are scarce and in high demand and those who have the skills can demand higher salaries (salaries that a struggling CLIC cannot afford to pay).
- Technical difficulties can have a significant impact on revenues.

**Ségou CLIC
Progression in Number of Clients**

May 2004-June 2005

The graph above shows a dip in the total number of clients above 500 in March to less than 50 clients in April. This was due to a complete loss of connectivity. Ségou is one of the three CLICs connected through MEGASAT rather than the VSAT solution. The MEGASAT connection proved unreliable in all three locations and fell apart completely in Ségou and eventually Kidal. As a result, the Ségou CLIC went from more than 200,000 CFA in revenues generated by the Internet connection in March to less than 10,000 CFA in such revenues from the internet connection in April.

⇒ Difficulties in controlling expenses: control of expenses is in the hands of the Consultative Committee and in particular the President of the Consultative Committee and the Treasurer. Lack of proper management procedures (inability to document expenses, inability to recognize excessive expenses in

time) and unjustified expenses can have a significant impact on the overall sustainability of even the best revenue generating CLICs.

- The Kadiolo CLIC has been very successful in generating revenues, yet it has had serious difficulties controlling expenses. The result is that what could be a very sustainable CLIC (from a strictly financial perspective) is facing serious management challenges that will affect its long-term potential.

⇒ Competition and the Local Market
Even where there is limited competition (i.e., a SOTELMA cybercafe with a slow connection) a CLIC's unfavorable location within the community can be a serious handicap. A CLIC on the outskirts of the town or otherwise difficult to access, or located in an area that raises security concerns for potential visitors, will face a struggle to market its services.
- In Ouélessébougou, the CLIC is located on the outskirts of town.
- In Kidal, the location is problematic for security reasons.
- In Ségou, the CLIC is located very close to its main competitor, a SOTELMA cybercafe.

The competition is also likely to evolve rapidly. Each CLIC will have to continuously assess the market situation, adjust its marketing strategies and pricing as appropriate in order to keep up with the competition when it emerges, or to provide a broader range and higher quality of services.

c. Lessons Learned / Options

⇒ Location: Location is key in many ways – relocate if necessary or develop locally specific models for the delivery of services at multiple, smaller locations.

⇒ Address ongoing CLIC management and Consultative Committee issues through sustainable solutions, including appropriate incentives. Selection/replacement and training of managers are ongoing issues – proactively replace staff and strengthen training for all as well as on an individual basis to address specific gaps

⇒ Improved analysis of the cost of services and adoption of appropriate pricing structure

⇒ Expand bandwidth sharing: Bandwidth sharing is a means of increasing revenues by reselling a portion of bandwidth to local institutions and organizations that want their own access but cannot afford their own VSAT and / or are not satisfied with connectivity provided by SOTELMA. This is not technically very difficult but does require additional skills in partnership management and contract management.

$\Rightarrow$ Marketing strategies must evolve as the CLICs mature: Develop more targeted marketing strategies: market specific services to specific groups (i.e., training and content to NGOs; internet access to students, teachers, health professionals).

$\Rightarrow$ New strategies based on social marketing principles (i.e., understanding the target audience and developing marketing strategies based on such in-depth understanding) must be developed and implemented to increase the development, dissemination **and** utilization of locally appropriate and useful content.

2.1.2. Human Capacity

Human sustainability refers to the availability of adequately trained staff both at the level of the individual CLICs and at the level of the CLIC Association and to the potential for loss of trained staff to other jobs, either in the private sector or in public administration.

a. Achievements
$\Rightarrow$ Training tailored to specific needs of CLIC managers and continuously tailored to observed gaps and difficulties encountered in implementation

$\Rightarrow$ Training & increased capacity
Given the rapid turnover in the Kidal CLIC and distance from Kidal to Bamako, the Deputy CLIC manager in Kidal came to train at the Gao CLIC for 10 days instead of coming to Bamako for training in the project's main office. This demonstrates that some of the CLIC managers are now able to serve as resource persons for training within the network of CLICs.

$\Rightarrow$ Connectivity has made it possible for CLIC managers to communicate easily with the project team in Bamako as well as with each other at no added cost, thereby creating a peer-support network that is used extensively (using Yahoo Messenger and at times, VOIP, using Skype). This experience could be expanded to the Association of Community Telecenters in Mali.

b. Challenges
$\Rightarrow$ Different starting points for managers & different learning curves

$\Rightarrow$ Varying levels of integrity (an individual issue rather than a pervasive one)

$\Rightarrow$ Short timeframe for absorbing training materials in face-to-face training and then immediately implementing

$\Rightarrow$ Turnover of staff: Staff who receive training through the national and regional training programs increase their qualifications and are able to apply for better paying jobs. In addition, their daily access to and use of computers gives

them a strong advantage over other applicants who may have the training but little practice. This challenge has been particularly severe in Kidal where three successive managers had to be replaced after leaving for better jobs in Bamako.   There is no simple solution. A successful CLIC can reward its managers with bonuses based on revenues, but a struggling CLIC will not have the resources to do so.

⇒ Reluctance of managers to rely on digital and print training materials at their disposal & substantial reliance on CLIC project staff – limited self-help skills of managers

c. Lessons Learned / Options

⇒ Intern position
   The creation of an intern position has already been successfully implemented in several CLICs. The rationale is to be able to always have at least one person at the CLIC, to have time to train the Intern over a period of time to take over some responsibilities should one of the managers leave or be absent.

Bandiagara CLIC
Hamidou B. Ouologuem (better known as "Cisse") is the CLIC intern. Cisse finished high school this year and sucessfully passed his final exams. Now he wants to study informatics at the University of Bamako. 7/19/05

Success Story – Cissé

"This experience as an intern for the CLIC has helped me a lot. It will be a great asset."

Hamidou B. Ouologuem, aka Cissé

⇒ Additional training needs, including training in social marketing (i.e., selling the CLIC's development-oriented content in addition to its other services and therefore better differentiating themselves from cyber-cafes).

Appendix D provides a list of training modules delivered to CLIC managers and members of the Consultative Committee & Timeline for training events

2.1.3. Organizational Sustainability

In the context of the CLIC project, organizational sustainability refers to the capacity of host institutions and CLIC management teams to establish and implement clear guidelines for the roles and responsibilities of all involved. This applies at the level of individual CLICs and at the level of the CLIC Association.

a. Achievements
⇒ Consultative committees generally represent a range of sectors within the community and include women representatives.
⇒ Renewal of committees
   A number of CLICs have renewed their committee to ensure that those who are not able to (or unwilling to) be actively engaged are replaced.

b. Challenges

⇒ While the Committees may be representative of the community at large, this does not guarantee committees that act for the benefit of the community at large.

⇒ In several cases, members of the committee are too busy with other responsibilities and often not available to play their role. This is the case in Kidal and Gao in particular. It was also the case initially in Mopti. In Mopti, however, renewal of the committee has helped to address this problem.

⇒ Some committees seem unclear about their responsibilities, in particular concerning the quarterly financial reports.

Success Story – Bougouni

The CLIC in Bougouni is hosted by the Mayor's Office. The Consultative Committee represents a broad range of sectors and groups within the community and is very actively engaged.

List of members present at March meeting:

- Mr. Labassou Kayo, General Secretary of the Mayor's office and President of the CLIC consultative committee
- Mr. Fousseyni Diakite, GADS (NGO)
- Mr. Yacouba Diakite, artisan
- Mr. Youssouf Konate, CLIC Treasurer & member of the municipal council
- Mrs. Nene Coulibaly, Deputy Director of Radio Banimonotie & representative of women's associations.
- Mr. Lamine Doumbia, Administrative Secretary & Head of the Youth, sports, arts and culture section.
- Mrs. Maiga Fily Diouara

All the expenses for the CLIC's inauguration were paid for by the community itself.

Mr. Labassou Kayo, President du CLIC, speaking at the end of the meeting:

> "*The evaluation has allowed us to recognize our weaknesses and strengths and it will allow us to consolidate our strengths and address our weaknesses. Everyone participated in the discussions and this is no doubt the result of the participatory approach that was used by the evaluator* [Monitoring & Outreach Specialist Moustaphe Doumbia]."

c. Lessons Learned / Options

⇒ Reiterate established rules and enforce as necessary:
For example, the President of the Consultative Committee does not need to be the head of the Host Institution and the Consultative Committees can be renewed at regular intervals, making it possible to replace inactive or unavailable members and reinvigorate the committee

⇒ Incentivize the Committee members with access to the CLIC's services
For example, Committee members could receive free training if they join an

already scheduled training session and/or free access to the Internet for specific amounts of time. These incentives could also be provided to hosting institutions that have not made use of the CLIC's services (in particular Macina's Office du Niger and Ouéléssébougou's Office de la Haute Vallée du Niver).

⇒ Does the type host institution make a difference? Yes and no. Overall, there is no clear winner among host institutions. Radio stations have the advantage of already being a key source of information for the population. Mayor's offices have the advantage of being generally seen as representative of the local community and a location that is very familiar to community members. IFMs have the advantage of having a significant market of teachers and students within their immediate reach. These are all "potential" advantages that become irrelevant when there is poor management.

Radio Internet Convergence – transforming potential into reality

Mali has the advantage of being served by a large network of community radio stations. Most of these radio stations are not currently connected to the Internet but efforts by UNESCO and others, including the CLIC project, are testing the potential for reinforcing community radio stations with internet access.

⇒ Radio stations can host public access centers: As public access centers, radio stations have the advantage of already being known as organizations that are the source of valuable information and that are serving the community as a whole.

⇒ Radio stations can use the Internet to strengthen their programming:
   o Animators can look for information on the internet and serve as infomediaries. Radio browsing programs have been popular in a number of countries.
   o Radio staff can download programming from WorldSpace and other organizations

⇒ Radio station staff can communicate more easily with fellow stations within the country as well as radio professionals around the world, perhaps even taking part in online professional development.

Most of this will not happen without a systematic effort to provide training and guidance to the radio stations once the connectivity is established.

Average Monthly Revenues
January-June/July 2005
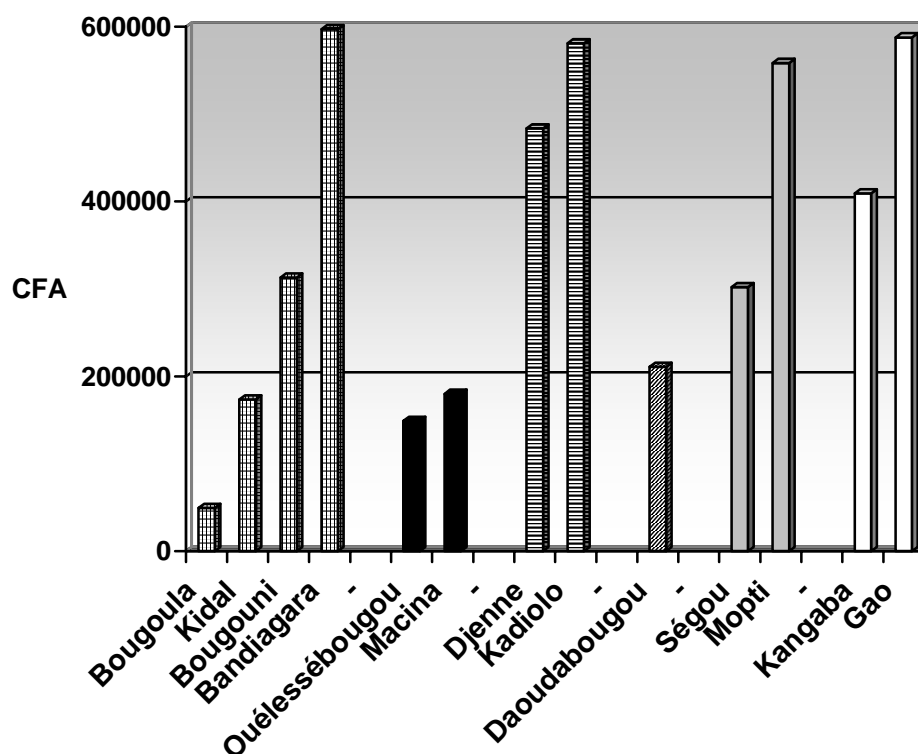
Legend

Mayor's office	
Radio	
IFM	
Parastatal	
NGO	
School	

The graph above tells us that the type of host institution probably can only partially explain a CLIC's success or failure (measured here in terms of monthly revenues). The four mayors' offices demonstrate this well. In those cases, success or failure has much more to do with the local market environment than with the fact that the CLIC is hosted by the Mayor's office. Mayors' offices are usually a well-known location, centrally located and a place where the community is accustomed to come for various needs. The two parastatals (OHVN and Office du Niger) are clearly underperforming and the two CLICs hosted by radio stations are doing very well.

2.1.4. Technical Sustainability

Technical sustainability refers to a CLIC's capacity to address technical issues related to equipment repair and maintenance, connectivity issues, power outages and other power-related challenges, as well as basic computer networking. In addition, a CLIC management team's technical capacity can be a strong asset in terms of training provision to external clients.

Connectivity

With USAID/Mali additional funding to improve Internet connectivity, all 13 CLICs received a reliable Internet Connection this quarter (last quarter of 2004). Bamako, Kidal and Ségou were connected by Wireless radio Link by MEGASAT at 64 Kb, 10 remaining localities were connected by VSAT by the firm Ibex. Among these 10, five have a bandwidth of 128 Kb (Bougouni, Kangaba, Djenné, Mopti, and Gao) and five localities have 64 Kb (Bandiagara, Macina, Oueléssebougou, Bougoula, Kadiolo) in shared bandwidth.

Regulatory Environment

_____

The project was allowed to use a no-license fee VSAT in areas that were not served by one of Mali's licensed telecom operators. When the project started, most of our CLIC sites were not served; today, however, Ikatel and Sotelma are present in many of the locations where the CLICs have been established.

a. Achievements

Quality of the Connection

Ten out of 13 CLICs have had good connectivity since January 2005 through VSAT connections. The only complaints relate to a daily slowdown around 6 pm. This level of quality in the connection has enabled the CLICs to weather local competition very well in locations where SOTELMA, the national provider, has established cybercafes or where private entrepreneurs have established cybercafes using dial-up connections. The high quality of the connection has allowed some CLICs to maintain higher prices than the competition because of the time saved using a high quality connection. For example, if it takes 15 minutes and 1000 CFA for an individual to go through their inbox, it is a better deal than to pay 1000 for an hour of bad connection needed to check the same

inbox. Given the competitive advantage that the VSAT connection brought to the CLICs, it is essential to try to find ways to cover the costs of the VSAT connection rather than reverting to dial-up or other lower quality solutions. One option is bandwidth sharing.

Bandwidth Sharing
The high quality VSAT connections are making it possible for some of the CLICs to act as service providers for other local institutions or organizations and to share the bandwidth. This is already happening in Gao and Mopti.

b. Challenges

Disappointing Results with MEGASAT
Three CLICs were connected through a local company, MEGASAT, and experienced significant problems with their connection, resulting in considerable loss in potential business and revenues.

Costs of VSAT Monthly Fee
The VSAT connection is relatively expensive for the CLICs to afford and results in a fixed monthly cost.

128 KB = 220,000 CFA / month
It takes between 146 clients paying 1500 CFA/hour and 220 clients paying 1000 CFA/hour to cover these basic connectivity costs.

The CLICs with a 64 KB connection pay 110,000 CFA/ month and therefore need between 73 and 110 Internet clients a month.

Bandwidth Sharing
The challenges associated with bandwidth sharing are two-fold. First, there are costs associated with the equipment needed at both ends (at the CLIC and at the partner's end) – and the CLICs were not able to invest in the equipment themselves. Second, by far the most critical challenge is the lack of enforceable contract mechanisms and potential disputes and delays in payments of agreed upon connection fees.

c. Lessons Learned / Options

$\Rightarrow$ SOTELMA cannot provide quality connectivity at this time.

$\Rightarrow$ Emerging providers, such as Ikatel, can potentially provide an alternative to VSAT in some localities.

$\Rightarrow$ Carefully select partners for bandwidth sharing (this is already done but insufficient apparently)

⇒ CLICs must establish very tight contracts with their bandwidth sharing partners and enforcement mechanisms. The mechanisms through which the bandwidth sharing will be managed need to be established and agreed upon prior to the connection.

⇒ Where the national provide is absent, the CLIC may want to consider providing VOIP as a new type of service. This will be a financially viable option only in specific markets.

Equipment maintenance and repairs

a. Achievements

⇒ Maintenance training was successfully provided to CLIC management teams;

⇒ Procedures for reporting equipment failures, repair requirements, etc… have been established.

b. Challenges

⇒ Equipment failures do not seem to always be reported in a timely manner. When the connection fails, CLIC manager must rely on telephone calls to communicate with the project team in Bamako.

⇒ Limited funds available to replace equipment, invest in new equipment, etc…

c. Lessons Learned / Options

⇒ Each CLIC should establish an equipment replacement fund and develop a long-term plan for raising the necessary funds.

Power solutions and costs

a. Achievements

⇒ It is possible to find power solutions for off-grid CLICs and therefore, being off-grid or having an unreliable power supply should not exclude a community from the benefits of information technology. The CLIC in Bougoula has implemented an effective multifunctional platform solution that provides affordable electricity for the CLIC, battery charging services for the community and extra revenues for the CLIC.

⇒ CLICs that are in locations handicapped by an unreliable grid can be creative and adjust. The CLIC in Ségou has had regular power outages but dealt with them by adjusting opening hours and staying open till late at night when it is both cooler and the power is more reliable.

b. Challenges

⇒ Solar solutions would seem to be ideal given the climate but solar panels are expensive and if the power requirements are heavy, solar power solution is prohibitively expensive.

⇒ Where there is no power, there may also be other challenges related to local capacity and purchasing power.

c. Lessons Learned / Options

⇒ Two of the CLICs experiencing electricity outages and unreliable electricity supply from the grid (Ouélessébougou & Ségou) could benefit from a battery backup solution (Appendix E - "Energy Solutions for ICT Projects" provides details of a dot-ORG telecenter project in Rwanda that successfully used a battery back up solution).

⇒ Energy requirements of ICT equipment should be taken into account at project inception stage.

⇒ Evaporative coolers can provide an energy efficient alternative to air conditioners. They consume about a quarter of the energy required by air conditioners. In addition, they slightly increase the humidity in the air, whereas air conditioners decrease the humidity. While the CLICs were supplied with evaporative coolers, the equipment was not installed properly and disconnected soon after.

SUSTAINABILITY MATRIX: How are the CLICs doing?

CLIC's Location & Host Institution	Financial Sustainability		Human capacity	Organizational Sustainability	Technical Sustainability (*)
High performers					
Bandiagara – IFM	Monthly Revenues= High		Strong team	Committee is active	
	Monthly # of Clients = High				
Gao – Institut de Formation des Maîtres (Teacher's College)	Revenues = High		Qualified Team	Potential difficulties with Host Institution Leadership	Already sharing connectivity-Electricity paid for by IFM – A/C included Favorable market situation & location
	Clients = Medium				
Kadiolo – Radio	Revenues = High + high expenses			Lack of control over expenses	Power outages
	Clients = High				
Kangaba – Institut de Formation des Maîtres (Teacher's College)	Revenues = Medium-high		Weak Team	Strong Committee	
	Clients = High				

CLIC's Location & Host Institution	Financial Sustainability		Human Sustainability	Organizational Sustainability	Technical Sustainability (*)
Mid-range performers					
Mopti – Health NGO	Revenue = High		Some early challenges have been addressed	Early challenges have been addressed	Already sharing connectivity
	Clients = Medium				
Ségou - Health NGO	Revenues = Medium		Qualified team	Strong support from host institution and active Committee	Connection Difficulties - MEGASAT
	Clients = High				
Bougouni – Mayor's office	Monthly Revenues= Medium		Some staff challenges Strong with training	Strong Consultative Committee, very engaged Local mayor's office is highly supportive of the CLIC	
	Monthly # of Clients = Medium				
Daoudabougou – School	Revenues = medium-low			Committee is source of problems	Connection Difficulties - MEGASAT
	Clients= medium-low				
Djenné – Radio	Revenues= Medium-high		Qualified Team	Committee is active	Power outages Strong seasonal market (tourism)
	Clients = Medium				

CLIC's Location & Host Institution	Financial Sustainability		Human Sustainability	Organizational Sustainability	Technical Sustainability (*)
Low-performers					
Bougoula – Mayor's office	Monthly Revenues= Low		Early difficulties in finding locally qualified CLIC staff have been addressed	Mayor's office is key client of the CLIC but fails to pay for services.	No grid power – use of multifunctional platform to power CLIC + charge batteries
	Monthly # of Clients = Low				
Kidal – Mayor's office	Revenues = Low		High turnover Current Manager is "in training"	Members of consultative committee are often too busy	Connection difficulties; MEGASAT Unfavorable location
	Clients = Low				
Macina – Office du Niger	Revenues = Low			Early difficulties with host Institution & perceptions of the local population have been addressed	
	Clients = Low				
Ouéléssébougou – Office de la Haute Vallée du Niger (OHVN)	Revenues = Low		Qualified team Manager has strong accounting background & Deputy Manager has training and technical background		Unreliable electricity Location is unfavorable – outskirts of town
	Clients = Low				

(*) All CLICs experienced the following technical issues:
1) inadequate connectivity through SOTELMA in the early months of the project;
2) ineffective evaporative coolers;
3) early malfunctions of the multipurpose fax/printer/scanner machines.

2.2. Analysis of Services Provided by the CLICs

The CLICs have the capacity to provide a wide range of services. The actual range of services provided in each of the CLICs varies and the relative importance of each type of service in terms of revenues varies greatly as well. For most CLICs, however, internet connection, photocopying and training are the three key services.

2.2.1. Services as a Percentage of Total Revenues

The graph below shows that on average, 74% of revenues come from three key services: the Internet, photocopying services and training.

**Share of Different Services as a Percentage of Revenues
(Average across CLICs)**
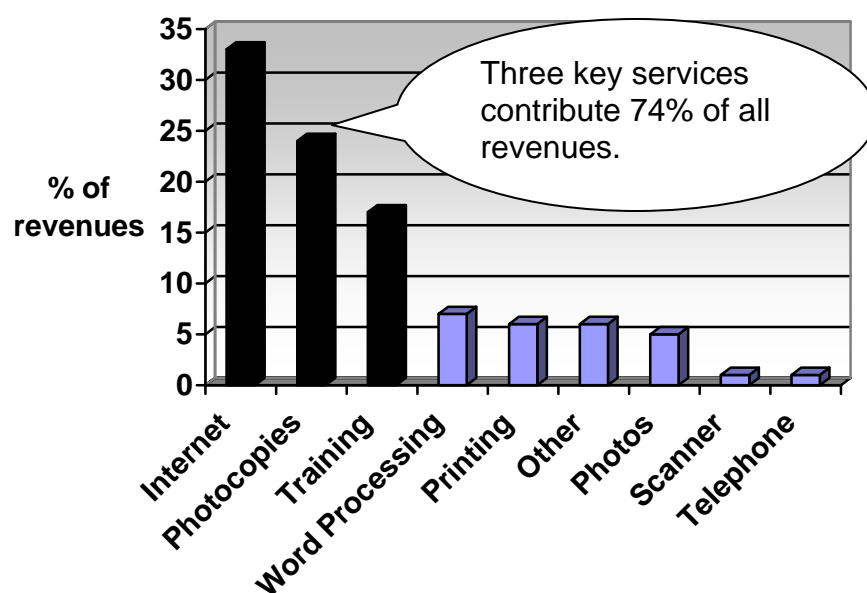
a. Internet Connection as a Key Service

Over the period of the project and averaged across all CLICs, Internet services represent 33% of total revenues. This percentage has significantly increased over time. Between May and September 2004, revenues from the Internet represented only 10% of total revenues. For the period of October 2004 to February 2005, Internet revenues represented 26% of total revenues. One of the reasons for this increase in the importance of Internet services was the arrival of high quality VSAT connectivity in 10 of the 13 CLICs in January 2005.

Evidence suggests that the Internet is used primarily for email, though there is some anecdotal evidence of some individuals, in particular teachers and students browsing for educational materials.

The 33% mentioned above represents an average across the CLICs. The percentage varies from a low of 9% in Bougoula to a high of 55% in Bandiagara.

b. Photocopying as a Key Service

The 24% average hides a high of 66% for Kangaba and some CLICs have no photocopying capacity and therefore no revenues from photocopying. Gao is a good example of a CLIC without photocopying capacity that is managing to generate significant revenues from the internet, training and digital photos.

2.2.2. Training as a Key Service

Given the low levels of computer literacy within Mali and the growing demand for computer skills (especially in larger cities), the provision of basic computer training for members of the community is a key element of the CLIC's sustainability strategy. The provision of computer training is also a key element differentiating the CLICs from cybercafes. Cybercafes have emerged in many of Mali's larger towns. The level of services and capacity of cybercafes staff, however, are much lower than what the CLICs can provide.

a. Achievements

$\Rightarrow$ On average, 17% of CLIC revenues came from training services.

$\Rightarrow$ 234 clients trained with vouchers[6]

$\Rightarrow$ Training sessions for NGOs and other organizations/ rental of room and equipment as a source of revenues. Mopti and Gao have taken advantage of their larger room space and training capabilities.

$\Rightarrow$ Two young women trained in Kidal went on to find jobs after their training.

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[6] Many more paid the full fee for the training. Given total training revenues of approximately 5,500,000 CFA and a training fee of 15,000 CFA per module, the number of modules taught would be about 360. Trainees would generally take more than one module, therefore the total number of trainees who paid for the training would be lower than 360.

Training as a Percentage of Total Revenues

On average, 17% of the CLICs' revenues have come from training provided to CLIC clients. As with almost all other aspects of CLIC performance, the percentage for each CLIC varies significantly from this average, going from zero in Bougoula to 30% of revenues coming from training in Kidal. Kidal, Bougouni and Mopti are the leaders, followed by Gao, Ouélessébougou and Ségou. Interestingly, with the exception of Gao, none of these CLICs is a revenue leader or leader in terms of the numbers of clients. The three other "high performers" in terms of clients and total revenues (Kadiolo, Kangaba and Bandiagara) do not get more than 8 % of their revenues from training. With close to 1 million CFAs, Gao is the leader in terms of total revenues from training.

The Mopti CLIC has been unique in its ability to market group training for organizations and collect relatively large one-time fees from such training sessions.

The Bougouni CLIC has actively and successfully targeted youths and educators.

"There's been a great interest in the training. There used to be a perception that you needed to be very highly educated and smart to use a computer but that is going away… People get really impressed when they see very young kids using computers."
President of the Consultative Committee, Bougouni.

Training as a % of Total Revenues
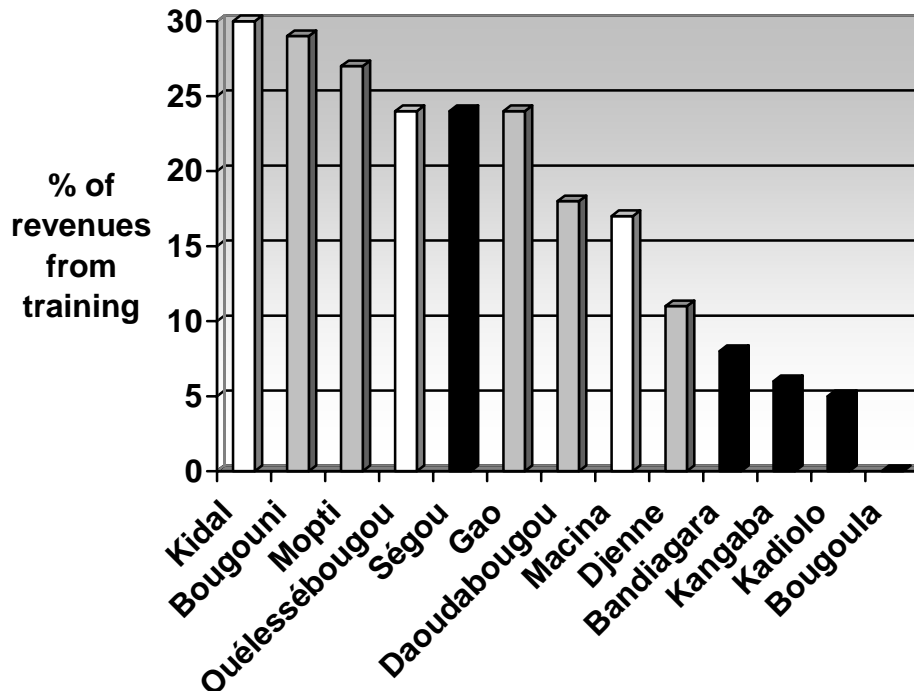
Black = "High performers" in terms of total number of clients
Grey = "Mid-range performers" in terms of total number of clients
White = "Low performers" in terms of total number of clients

Possible explanations

Demand for training services varies across the CLICs based on at least three factors:

1) Existing computer skills of the population - in larger towns the CLICs could face less demand for training services by individuals but more demand for group training by organizations.

2) Affordability of training - CLICs in smaller towns may not find a market for the more expensive services such as training;   (15,000 CFA per month of training for a single module, usually two hours a day).

3) Literacy - Bougoula cannot have a significant demand for training until basic literacy increases. Bougoula did provide some training using vouchers, but no one paid for training.

The skills and enthusiasm of the CLIC managers may have an impact on how training is marketed to potential clients and in the value that potential clients may see in getting training from the CLICs. For example, the deputy manager in Ouélessébougou acts as the training expert. He is highly qualified and actively recruiting training clients by going around town with his motorcycle. On the other hand, CLIC managers who are struggling themselves to keep up with the skills necessary to manage the telecenter and have no experience in training others may be quite reluctant to market training services.

The percentage of revenues coming from training also varies with the structure of revenues from different services across the CLICs. Gao and Ségou, both reaching 24% of their revenues from training have no photocopies and therefore rely more extensively on other services for their revenues, whereas the other leaders, and in particular Kadiolo and Kangaba, rely extensively on photocopies for their revenues.

b. Challenges

⇒ Absence of quality control for the training;

⇒ Cost of training limits the number of people within the community who can afford the training; computer training may serves the educated elite within the community rather than the majority of the population;

⇒ Local organizations have approached some CLICs with requests to rent out the space, computers, connectivity, and sometimes instructors for training purposes. In some cases, the CLICs were unable to get the job because they either did not have enough computers or did not have a reliable connection at the time. This has been the case in Ségou in particular.

c. Lessons Learned / Options

⇒ Providing training to small groups may have advantages in terms of effective use of space and instructor time and may enable a larger group of trainees to acquire basic computer literacy and eventually become CLIC clients.

⇒ Greater marketing by USAID of the CLICs' potential for training within other USAID programs. For example, the CLICs can be an avenue for individuals or small groups to pursue distance learning (self-paced or facilitate online). This could significantly reduce costs associated with participant training where groups of health workers or education for example, are brought in to Bamako for several weeks to complete their training.

2.2.3. Content Collection & Utilization

a. Achievements

A complete list of all the materials that were collected by the project, copied and distributed to all the CLICs in digital formats is provided in Appendix C. The materials collected fell into five broad categories of issues of relevance to the USAID Mission:

- Economic Growth
- Education
- Health
- Governance
- Agriculture

The challenge of finding even anecdotal evidence of use of this content points to a serious problem:

⇒ There was very limited demand for the content;
⇒ There was very limited outreach and marketing by the CLICs related to this content

Examples of Uses

Most CLICs mentioned putting DVDs on during the day when there were clients working on the computers and there is anecdotal evidence that some clients became interested in the content and started watching. In most cases, the CLIC staff would select one of the HIV/AIDS programs.

In Macina, a women's association came to the CLIC to view the video on nutrition (Balo Nafama). This seems to be such an isolated event that a more systematic approach to documenting and monitoring content use may have been superfluous. On the other hand, it is possible (though not likely) that the lack of a systematic monitoring system for content utilization has resulted in an underestimation of content utilization. The value of such as monitoring tool would have been to identify a challenge that required a more aggressive reaction than what was eventually done.

b. Challenges

⇒ The CLIC managers, under pressure to "sell" services that can bring in revenues have limited incentives to focus on content dissemination since in most cases it is not a revenue generating service.

⇒ Posting a list of content on a wall and keeping the CDs and DVDs out of view for fear of theft, is guaranteed to result is zero demand for such content.

Content dissemination requires a pro-active outreach strategy. Transportation costs associated with this outreach are problematic. Some Committees are not allowing CLIC staff to travel for outreach or not reimbursing CLIC staff for such travel.

⇒ CLIC staff have limited capacity to identify local information needs to respond to such needs. Most of the content that has been collected to date was produced at the national or international level with local needs in mind and reflects the international community's perception of the types of information local communities need (or should have access to). Matching perceived needs with the local demand is the key challenge.

⇒ Language barriers (limited availability of content in Northern languages –ex: Tamacheq)

c. Lessons Learned / options

⇒ Need for a much more detailed and funded strategy for content development, dissemination and utilization. The approach simply failed because it relied too heavily on assumptions regarding demand for such content. An approach based on social marketing principles may have been more successful.

⇒ CLIC managers need to market content that is available at the CLICs and identify information needs that can be fulfilled locally by the CLICs. They would greatly benefit from training on social marketing.

⇒ Increased use of local radio stations for marketing and outreach of content available at the CLICs

⇒ Given the low levels of literacy around the country, there is a need for CD-ROM based materials for off-line content use and touch-screen technology as well as graphics-based content. This will be essential for CLICs such a Bougoula but could increase the relevance of the CLICs to large segments of the local population in rural and semi-urban areas throughout Mali. Involving the communities in the identification of relevant themes and topics for the materials and in the development of such materials would be essential to ensure that it truly responds to local needs. This would need to be part of a broader social marketing approach to avoid having the finished products collect dust.

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Low literacy and low connectivity approaches

Touch-Screen Information Kiosks
Touch-screen technology combined with a graphics-based menu can address problems associated with the lack of computer skills and low literacy.

- Dissemination of animal health knowledge for development of landless dairy cattle owners in the peri-urban regions of Pondicherry, India.
http://www.ragacovas.com/sw/techrep.pdf

- ECA provides touch screen kiosk for Addis Ababa local administration
http://www.uneca.org/apps1/newsfromdivisions/News.asp?cmd=view&articleid=108

CD-ROMs
CD-ROMs combined with the use of multimedia (audio or video) can address problems associated with the lack of connectivity or low bandwidth
- Rural Women in Africa: Ideas for Earning money (Audio + graphics)
http://www.iwtc.org/files/!start.html

</div>

2.3. Gender

One goal of the project was to ensure gender equity by developing a process whereby members of both sexes are active participants in the CLICs (as users and as managers/trainers).

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Success Story

In Ségou, the president of CAFO (local women organization) is a member of the CLIC Advisory board, she created a partnership between the CLIC and the CAFO, and they organized Open door day for women and provide them with prepaid vouchers. Following that event, the women begun to use CLIC services more regularly.

</div>

Women Clients
On average, 13% of CLIC clients are women. This average hides significant variations across CLICs, with percentages of women clients going from zero (in Bougoula) to 26% in Daoudabougou. These variations can also explain some of the factors behind the numbers. At one extreme, Bougoula has not had a single

woman client. The likely explanation is illiteracy.[7] At the other hand of the spectrum is Daoudabougou, a school-based CLIC near the capital city of Bamako, where women's literacy is much less likely to be an issue.

On Average, 13% of CLIC Clients are Women
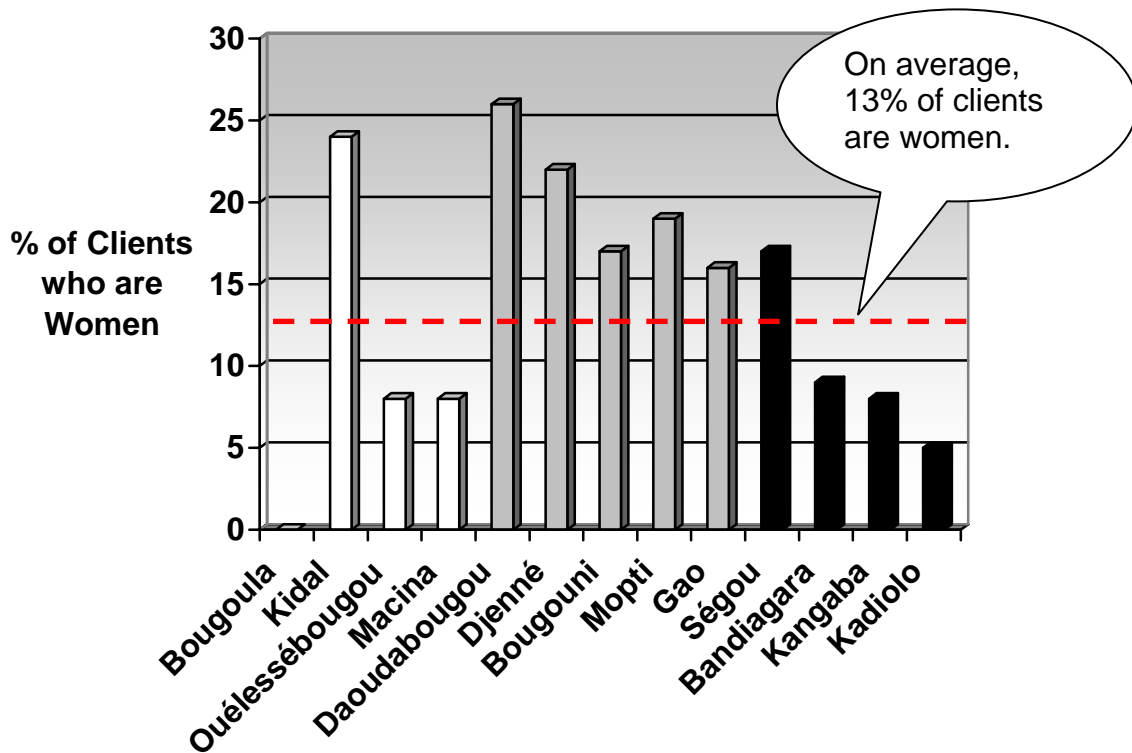
Black = "High performers" in terms of total number of clients
Grey = "Mid-range performers" in terms of total number of clients
White = "Low performers" in terms of total number of clients

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[7] The possibility of inaccuracies in the data for Bougoula should not be dismissed as the early CLIC management team had to be replaced due to its inability to handle the tasks and some data was lost in the process.

Success story
An old woman enjoying the arrival of the CLIC

"Thank you for choosing our Kadiolo community to benefit from this tool, I have heard people talking about computers but I really didn't know what it is, now that I saw the computers, I will come to the CLIC to know how people use them;…. Of course I am old and illiterate, I mean that I will send my children and pay for their training, if they understand how it works, it's like I myself followed the program. This is a great opportunity for all the parents to send their children to the CLIC to improve their knowledge."

Women Managers and Members of Consultative Committees

Approximately 50% of the CLIC managers are women. In some cases, the manager and deputy manager are both women. In Bandiagara and Ouélessébougou, the Manager is a woman and the Deputy Manager is a man. There are no clear patterns in terms of relationship between the gender of the managers at a CLIC and the percentage of women clients.

Consultative Committees all have women representatives, though the number of women varies. In some cases, the women representatives are in the critical position of Treasurer, but no woman is President of a Consultative Committee. In many cases, the President of the Consultative Committee is a representative and leader of the host institution.

Vouchers
The vouchers were meant to allow the more disadvantaged members of the community, including women, to receive services at the CLIC – including training. While the CLIC managers were encouraged to distribute vouchers to women, there was no strict prescription in terms of giving at least half of the vouchers to women or in terms of how the vouchers could be used. Vouchers were used for training, but also for all other services.

The table below shows how vouchers were utilized for training at all the CLICs. It shows that 22% of those who used vouchers to obtain training were women.

CLIC	Basic computer skills		Word		Excel		Total Men	Total Women	Total
	M	W	M	W	M	W			
Kidal	9	0	3	2	3	2	15	4	19
Gao	7	3	20	2	10	0	37	5	42
Mopti	2	0	7	0	7	0	16	0	16
Bandiagara	1	3	0	0	0	0	1	3	4
Djenné	2	1	4	2	3	0	9	3	12
Macina	2	0	3	1	2	0	7	1	8
Ségou	16	3	6	3	4	1	26	7	33
Kadiolo	11	5	15	5	3	0	29	10	39
Kangaba	8	2	2	2	1	0	11	4	15
Bougouni	6	2	6	1	5	2	17	5	22
Bougoula	3	1	0	0	0	0	3	1	4
Ouélessébougou	3	1	2	2	3	0	8	3	11
Daoudabougou	0	3	2	1	2	1	4	5	9
Total	**70**	**24**	**70**	**21**	**43**	**6**	**183**	**51**	**234**
%	30	10	30	9	18	3	78	22	100

There is anecdotal evidence that while few women may come to the CLIC to obtain services, indirect benefits could be significant. Literacy, purchasing power, time constraints and cultural barriers are the key impediments to women's use of public access points in developing countries. All of these are significant obstacles in Mali. Any strategy to address women's access should also pay attention to indirect benefits and approaches that would capitalize on intermediaries (health workers, agricultural extension workers, radio animators, leaders of women's associations) as key targets for contents and other CLIC services.

Content for Women & Marketing Strategies

Many of the contents available at the CLICs are targeted to women, in particular health-related content.

Strategies for marketing to women – Djenné CLIC

Question: The proportion of people who are illiterate within the community is very large and the majority of women are illiterate. How do you manage to get women to be interested in the activities of the CLIC or to bring them to the CLIC?

Answer from Mrs. Haouda Bacoum **, Djenné CLIC deputy manager:

> *"We use the radio to let them know that we exist and to explain what we do. First, they must be informed about the fact that we have information that may be of interest to them. We also work in collaboration with the women's association. The president of the regional women's association is a member of the CLIC's consultative committee. When we need to get in touch with women, we rely on her and she talks to the women to let them know what we are doing."*

** Mrs. Haouda Bacoum is trained as an agricultural extension agent. Prior to becoming the CLIC's deputy manager, she worked for Radio Jamana (the CLIC's host institution) as a radio animator. She had never touched a computer and managed to get some quick training before taking on the job. She still works as a volunteer for the radio, mostly to create programs on development related issues.

2.4. Impacts

A rigorous impact assessment of the project is beyond the scope of this report. To ask the question of impacts is to ask what was made possible as a result of the CLICs that would not otherwise have been possible. This section will limit itself to making inferences about potential impacts of the project based on all the results that have been documented in the previous sections and illustrated with anecdotal evidence.

2.4.1. Economic Impacts

- Increased access to communication tools (use of email in particular), to keep in touch with relatives and business acquaintances, possibly resulting in increased potential for learning of job or other business opportunities.

  For example, a CLIC provides an alternative to expensive phone calls to relatives and other important connections in other areas of Mali, in the capital of Bamako and abroad.

- Reduced costs associated with essential communications. In the absence of a CLIC in a rural community, community members often have to spend a lot of time traveling to larger towns that have better communication services. Even the availability of a copy machine at the CLIC may result in significant cost advantages for community members.

- **Agriculture**
  More indirect economic impacts can also occur as the CLIC clients start using the more advanced services offered, such as web browsing, and search for information related to their business activity (alternative vendors for their agricultural inputs, alternative markets for their crops, marketing opportunities through the web, etc…).

  One young CLIC client in Bougouni discovered that there were people looking for local partners in Mali to grow sesame for export. He did some research on the internet and started working with local farmers to convince them to grow sesame and to find seeds.

- **Employment**

  Opportunities for basic computer training can lead to better job opportunities. Two young women in Kidal found jobs after completing computer training at the CLIC (See Appendix B: CLIC Client Profiles).

  Computer and management training for CLIC managers can result in new job opportunities (unfortunately resulting in high turnover in some locations).

2.4.2. Social Impacts

- **Health**
  o Increased access to communication tools for health professionals, more effective, on-time transmission of reports via email and ability to communicate with suppliers and health staff in larger health facilities.

For example, one of the regular clients in Bandiagara is a pharmacist who comes regularly from 45 km away to access and send emails at the CLIC.

o   Increased access to health-related content for health professionals. For example, In Macina, a women's association came to the CLIC to view the video on nutrition (Balo Nafama).

- **Education**

  o   Increased access to basic computer training for both teachers and students (a requirement for effective use of the CLICs' more advanced services);

  For example, Bougouni has made significant efforts to reach out to schools and educators. The CLICs located in the teachers' colleges (Kangaba and Gao) are also training students and professors.

  o   Increased access to educational resources by teachers to improve their own teaching;

  This has most clearly happened in Bougouni and Gao, but other CLICs also mention visits by educators. (See Appendix B – CLIC Client Profiles – Professors in Gao)

  o   Increased access to study resources by students (Encarta)
  The use of the Encyclopedia Encarta by students for research or to study for exams is often mentioned by the CLICs. (See Appendix B – CLIC Client Profiles - High school student, Moussa Oulale)

- **Democracy & Governance**

  o   Increased ability of local government entities such as mayors' offices in very rural areas that have hosted CLICs (Bougoula, Kidal, Bougouni, and Bandiagara) to communicate with the outside world, including with the central government and with potential donors and development partners.

  The Mayors' offices hosting a CLIC are usually also good CLIC clients. In Bougouni, the Mayor's office has been connected to the CLIC through a special line and the CLIC receives a monthly income for that line.

o Increased ability of civil servants (services techniques) to save time for basic tasks such as making photocopies of key documents or to communicate with colleagues across the country via email.

The Bougoula CLIC's main client is the Mayor's office and the CLIC's services are clearly an asset for this isolated community. Unfortunately, the Mayor's office does not pay for services.

3. Concluding Thoughts

3.1. What was achieved?

The project created a network of community-based internet access points that have been able to provide valuable services to the communities they serve. It was clear from the project's inception that it was unlikely that any of the CLICs would be financially sustainable within the two-year timeframe of the project. This report attempted to provide both a broad view of the project's results and an analysis of the achievements of individual CLICs. In the end, however, irrespective of how well (or poorly) each of them has performed over the past 29 months; it is as a network that they will survive.

3.2. What remains to be done: The future of the CLICs

- Solving immediate challenges related to connectivity and bandwidth sharing;
- Increasing the social impact of the project through renewed emphasis on social marketing approach for the dissemination and utilization of development-related content;
- Continuation of limited support through CLIC project staff & strengthening of the AMPTIC network;
- Evolution of the CLIC network within the broader context of the growing telecenter network in Mali (UNESCO CMCs, etc.).

3.3. Telecenter models

There is considerable debate over whether the telecenter approach that has been deployed by many donors in the past decade is really living up to expectations. While cell phones are clearly spreading around the globe and reaching rural and remote areas, resulting in significant improvements in rural and remote communities' ability to communicate with larger towns and with the world, the Internet has the potential of bringing much more to these rural locations. Yet realizing that potential is turning out to be much more complex than anticipated and a wide range of telecenter models

have been deployed around the world with varying success.

Without a business-oriented approach, the long-term financial sustainability of telecenters is questionable. Can business-oriented telecenters serve as conduit for donor-funded services such as development-oriented content? Are the requirements that telecenters be both self-sustaining and development-oriented realistic?

APPENDIX A – Selected CLIC Profiles

BOUGOUNI CLIC PROFILE

Host Institution

The CLIC is hosted by the mayor office and was launched on Wednesday May 5th in the morning. The Bougouni CLIC Local name is ***KUNAFONI JAKATU*** ("The Hall of Information" in the local language Bambara).

Management

The CLIC is always full but revenues do not show it. Failure to collect fees can have a significant impact on the CLIC's sustainability. The Deputy Manager is also the Mayor's wife.

Abdoulaye Coulibaly
Manager, Bougouni CLIC (7/14/05)

Clients

Mr. Seyni Oumar Maiga
61 years old, retired librarian and teacher,
Came to the Bougouni CLIC to learn MS Word (7/13/05)

Other senior citizens have contacted the CLIC and asked for rebates to get training or connect to the Internet, according to the President of Consultative Committee.

Secondary School Students

Ms. Kayo, a student at the local high school, came to the CLIC with a voucher to ask for basic computer training. To promote the CLIC's services vouchers had been distributed to community members to try services for free. One voucher was given to the high school principal to reward the best student with computer training at the CLIC. Ms. Kayo was nominated as the best student.

Astan Kayo successfully passed her final high school exams this year. At the national level, only 32% of students successfully pass the exam. In Bougouni, 54% of the students complete the exam successfully.

The room was full of youths doing training at the same time as the retired librarian.

Astan Kayo, received free computer training at the Bougouni CLIC as a reward for academic excellence and became a regular CLIC client. Here in July 2005.

Sitaun Diop and Mamadou Diop learning to use MS Word at the Bougouni CLIC, July 14, 2005.

These two 9th grade (seniors in middle school) students were coming to the CLIC to learn MS Word. Teachers selected two students per class to come get training at the CLIC. It is common for two people to sit at one computer for training purposes. Sitaun wants to be a good secretary and work in a Government Ministry.

Comments from the community and its leaders

- High demand for CLIC services
  The CLIC is full most of the time. « Il y a des jours ou tout est occupé et les gens attendent. » « Some days all the computer stations are busy and people wait," said the President of the Consultative Committee. The President of the Consultative Committee noted that there are not enough computers. It may be possible to reallocated computers from Bougoula. The Bougoula CLIC would rent them out to the Bougouni CLIC.

- Sustainability
  The President of the Consultative Committee was concerned about the cost of the VSAT connection and said that "given the current receipts, it would be difficult to cover all expenses."

  "Si on n'a pas de partenaires, on risque d'être prive de la connexion ». « If we don't have partners [to share the connection with] there's a chance we'll loose the connection." (President of the Consultative Committee).

  Until now, they have had difficulty finding a partner to share the connection with. The cost of the equipment that needs to be installed was too expensive.

- Benefits to the community
  « *La population a compris que c'est vraiment un outil de développement a leur disposition pour être relie au monde. »*
  "*The population has understood that it is really a tool for development that is at their disposal to be linked to the world.*" (President of the Consultative Committee)

- About vouchers
  « *Ça a été l'occasion pour ce monde de découvrir le CLIC ».* Presidentt of the consultative committee. -   "*It was an opportunity for people to discover the CLIC."*

- Computer training
  "*There's been great interest in the training. There used to be a perception that you needed to be very highly educated and smart to use a computer but that is going away*", says the President of the Consultative Committee. "*People get really impressed when they see very young kids using computers.*"

  A Club of the Friends of the CLIC (Club des Amis du CLIC) was formed by youths at the school. They get a rebate for the internet connection and pay 500 CFA instead of 1000 CFA per hour.

They have also organized a conference on ICTs at the school and asked the CLIC manager to come make a presentation.

- Quality of Services
  While there is another operator providing internet access in town, the SOTELMA, the quality of the connection is very poor. As the president of the Consultative Committee said, "Le CLIC, c'est vraiment un truc de qualité ». [Translation: "*The CLIC is really about quality.*"]
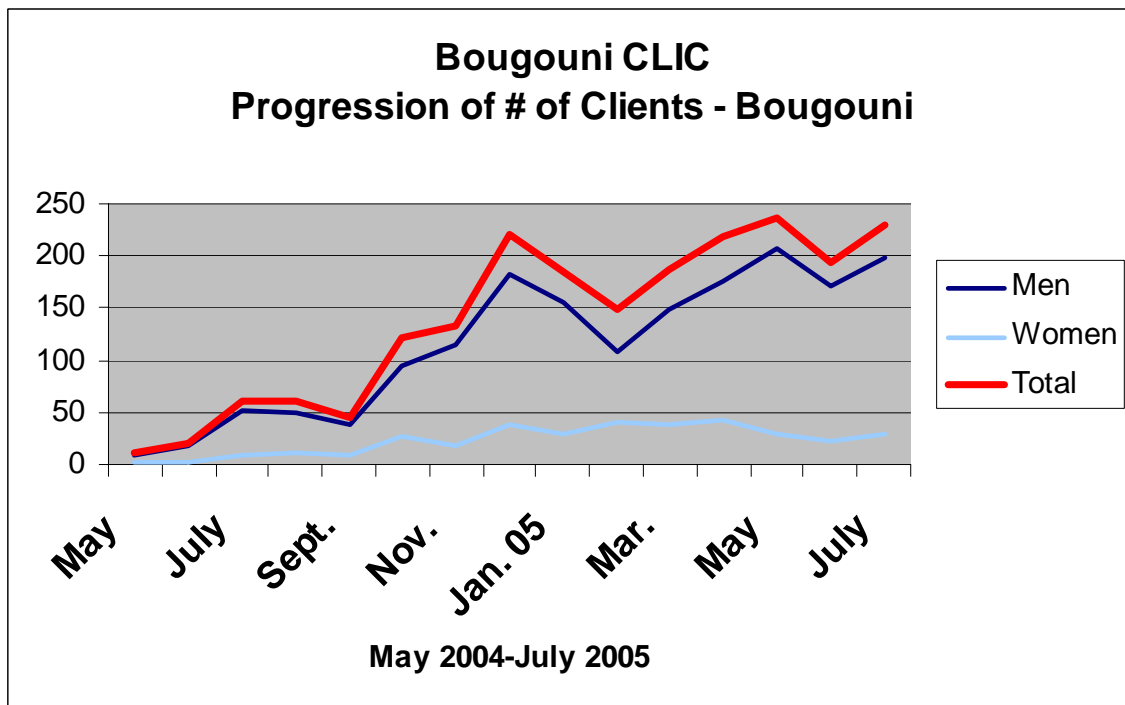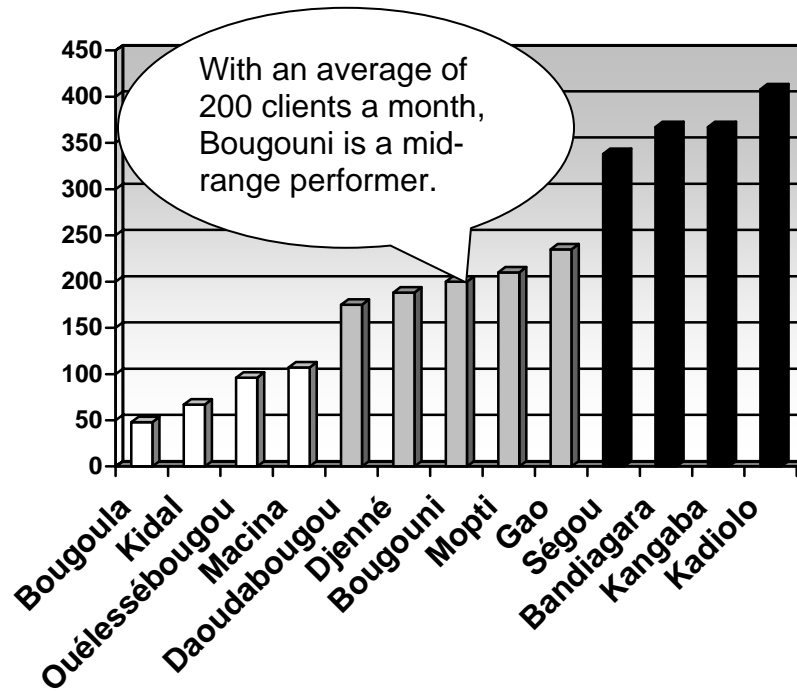

Bougouni CLIC
Members of the Consultative Committee

"Success Stories"

- One young man came to the CLIC and discovered that there are many external partners looking for sesame producers. He used the CLIC to learn more about sesame production and now he is working to help local farmers grow sesame and find markets.

- Teacher at the local high school/ member of the consultative Committee: "*J'ai découvert des choses pour me préparations de cours. J'envoie mes élèves au CLIC. Certains élèves viennent chercher des informations au CLIC pour leurs devoirs, pour préparer leurs examens »*.   [Translation: "I discovered things to prepare my lessons [at the CLIC]. I send my students to the CLIC. Some of the students come to find information for their assignments and to prepare for their exams." Kassim Diakite, teacher at the Lycée Kalelou Fofana (sp?)

  The students often use the Encarta Encyclopedia to do their research.

Volume of Clientele, Gender Distribution and Evolution of Clientele

Average Number of Clients per Month - January 05-July 05

While the Bougouni CLIC has seen a good progression in the volume of its clientele, it is still not reaching 300 clients a month. As a comparison, the leading CLIC [leading in volume of clientele] is now reaching more than 500 clients a month.
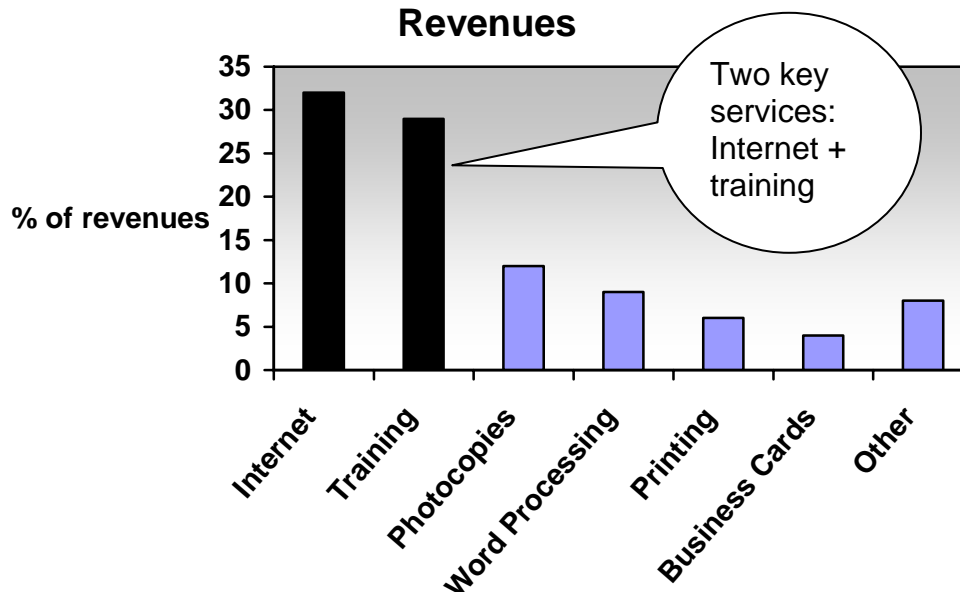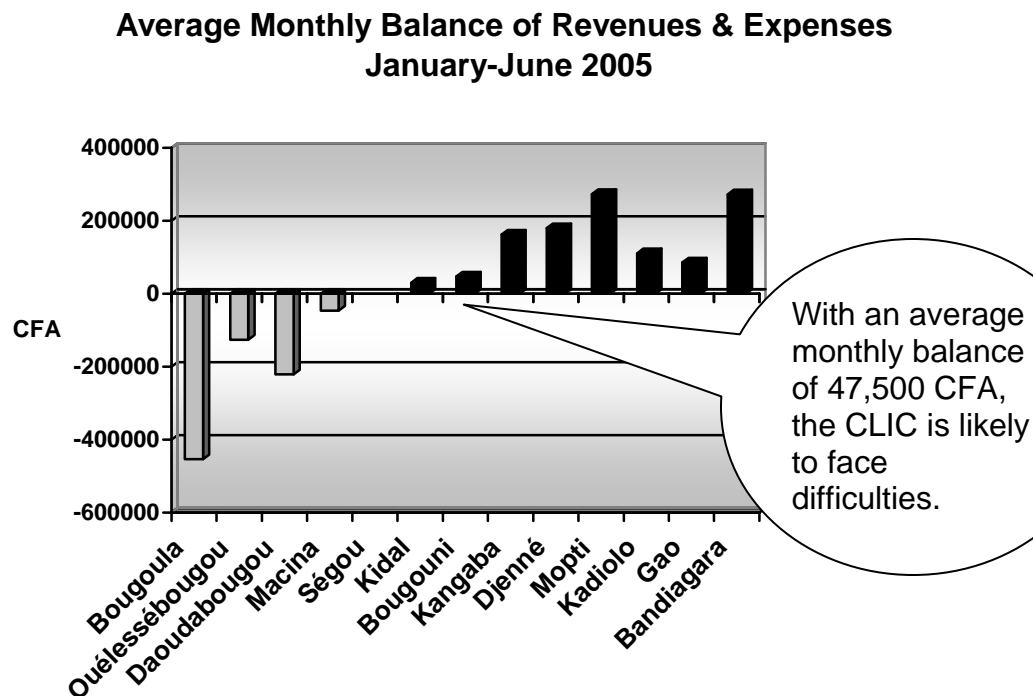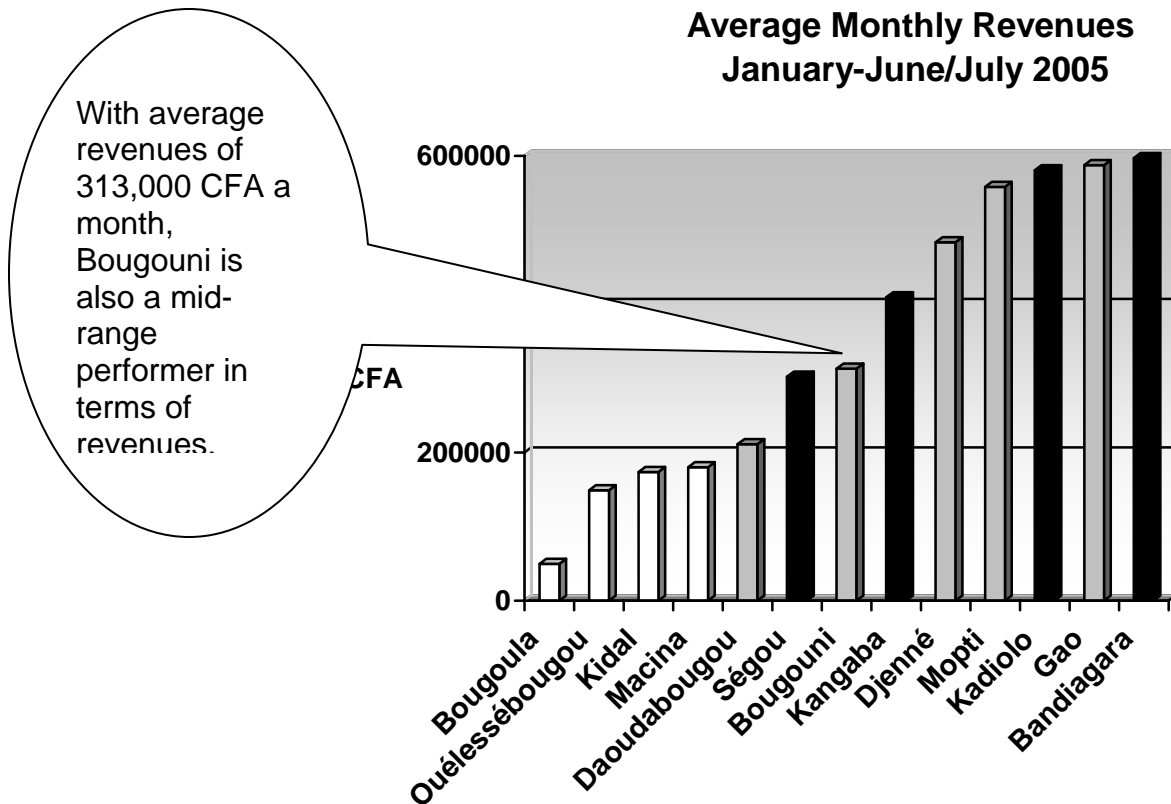
Bougouni CLIC
Approximately 17% of Clients are Women

Women 17%

Men 83%
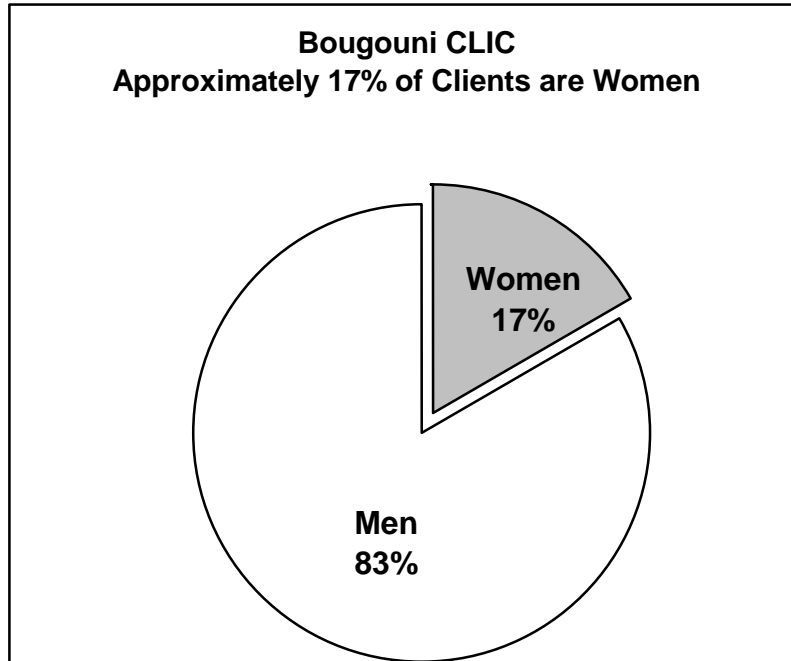
Bougouni CLIC Cumulative # of Clients

Men	1,724
Women	348
Total	2,072

May 2004 to July 2005

Bougouni CLIC
Share of Key Services as a Percentage of Total Revenues

% of revenues

Two key services: Internet + training

Internet, Training, Photocopies, Word Processing, Printing, Business Cards, Other

Financial Sustainability

Average Monthly Revenues January-June/July 2005

With average revenues of 313,000 CFA a month, Bougouni is also a mid-range performer in terms of revenues.

Average Monthly Balance of Revenues & Expenses January-June 2005

With an average monthly balance of 47,500 CFA, the CLIC is likely to face difficulties.

CONCLUSION

Overall, Bougouni is a successful CLIC well integrated within the community and with a strong focus on youth and training. The Consultative Committee is actively engaged, many of its members use the CLIC. A number of teachers and students are frequent clients. The CLIC successfully sells a range of services, including training (29% of revenues).

For a CLIC that is said to be "full most of the time", it is not showing numbers of clients and revenues similar to that of other successful CLICs such as Bandiagara, Gao or Kadiolo. While vouchers and discounts for students or other disadvantaged members of the community have a role to play in the long-term sustainability of the CLIC, discounted services must be allocated systematically and according to agreed upon guidelines to ensure that they are used by those who need them most. Discounts or free services allocated at the discretion of CLIC staff will seriously undermine the sustainability of the CLIC.

The CLIC is showing a small positive balance overall, but would have difficulties maintaining its VSAT connection if it does not find one or more bandwidth sharing partner.

BOUGOULA CLIC PROFILE

Host Institution

The CLIC is hosted by the mayor office and was launched on Monday May 3rd. The Bougoula CLIC Local name is **SAFE KUNAFONISO** ("The Safe House of Information" in the local language Bambara). The Mayor's office is also a key client for word processing services and photocopies but fails to pay for such services.

Local Environment

This is a very small rural community. 9,220 individuals scattered in 11 villages. Some of the villages are as far as 17 km from Bougoula's CLIC. The electricity grid has not reached the community and most people rely on batteries for power. The population is 99% illiterate.

The road to Bougoula is a very slow 16 km of damaged dirt road after an hour of asphalt road from Bamako.

Exciting?
YES

Sustainable?
PROBABLY NOT

"Hurray! It's incredible that my little village is at the heart of civilization! IT'S FANTASTIC!!! CONGRATULATIONS Mr. MAYOR!!! I am very happy to be able to communicate with my village for free now. Can you imagine that! AN EMAIL FROM BOUGOULA.

Mr. Mayor, this is all the result of your perseverance and determination to make the village the capital of SAFE."

Extract from an email sent to the village mayor by a USAID employee in Ghana who comes from Bougoula.

Electricity Challenges and New Benefit for the Community

"Plateforme multifonctionelle"
This generator is very efficient, uses little fuel. It powers the CLIC and is used to charge batteries used by the community to power their personal televisions and radios.

The CLIC charges 500 CFA (~US$1 per battery). Before the CLIC and this multifunctional platform, the community had to go to Bamako to recharge batteries. It would cost 300 CFA for round trip transport and 500 CFA to charge the battery. Now the community can come to the CLIC to charge batteries.

A charged battery provides between 15 and 30 days of electricity to a family, depending on the battery's state and its usage. The CLIC has about 10-12 battery clients on Wednesdays. Wednesdays is market day in Bougoula. People from all surrounding villages come to the market and take advantage of that to charge their batteries and use the CLIC's services.

CLIC Management

CLIC Manager, Mariam Sanogo and two Consultative Committee members (7/13/05)

The first two youths hired to be manager and deputy manager receive extra training because they were not qualified enough. They did not work out well on the job and ended up being fired and replaced by a young woman from Bamako. It would have been difficult to find someone qualified in the area.
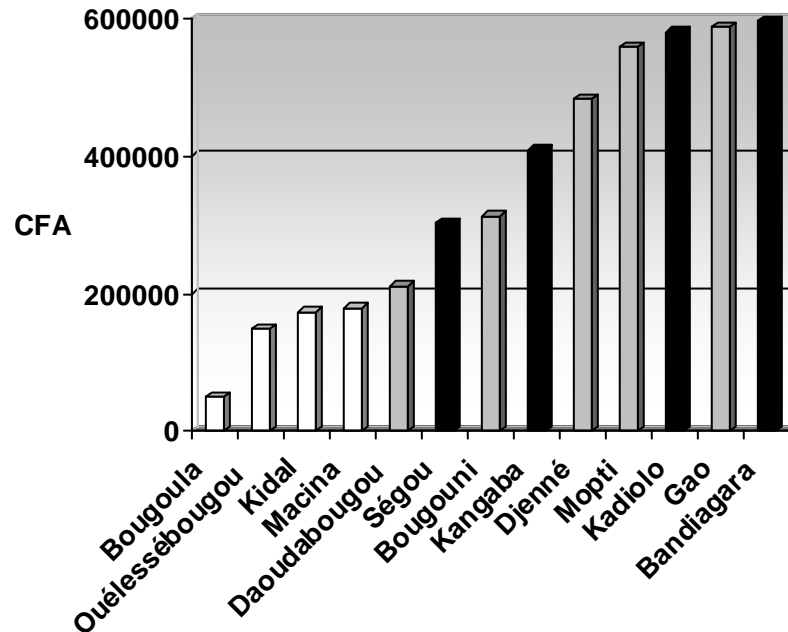
Sustainability

This CLIC is perhaps the least likely to be sustainable. During the month of June 2005, the CLIC sold only four hours of internet connection. At 1000 CFA an hour, that represents internet revenues of 4000 CFA. Meanwhile, the 64 KB VSAT connection costs 157,000 CFA per months.

The Mayor has agreed that the manager's salary will be taken care of by the Mayor's office when the project ends. There are two options to continue the VSAT connectivity: 1) Finding additional funding from other partners. For example, the village is linked to a town in Canada. The Canadian partners may be interested in providing support for the CLIC as they have been regular users when they are in Bougoula; 2) Sharing the connection with Ouélessébougou or Bougouni.
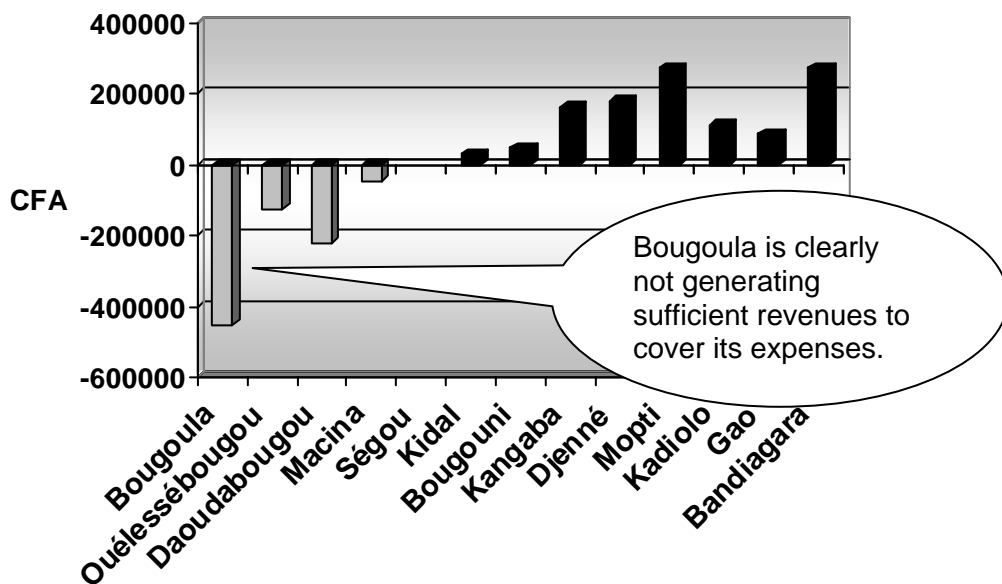
Financial Sustainability

**Average Monthly Revenues
January-June/July 2005**

**Average Monthly Balance of Revenues & Expenses
January-June 2005**

Bougoula is clearly not generating sufficient revenues to cover its expenses.

There is no local radio to help with the marketing. The community has started some steps to build a locale for a community radio but they need to be careful to find out if there are frequencies available. Bougoula is very close to Bamako (50 KM straight line) and there may not be frequencies available according to Dennis Bilodeau.

Dennis Bilodeau suggested that they might try selling telephone services through VOIP technology. There is only one telephone cabin in the village and the mayor owns it.

WorldSpace Radio: Some of the NGO staff are interested but most of the population only understands the local language and doesn't understand French. Therefore, it is of limited use.

Services

The CLIC manager did photos for a special event in a nearby village "Fete de Traole" in Djelle. She is also training some of the elected officials of the neighboring villages.

Internet is not critical to the population. The CLIC will not necessarily stop existing if it loses its internet connection but it needs to find a different purpose, one that is more directly relevant to the needs of the local population.

86% of revenues originated from three key services: photocopies, battery charging fees, and word-processing. People used to go to Bamako to make copies. That took a long time.

When the children are out of school it should be the perfect time of the year to provide training. A family with four kids was doing some training during the July evaluation visit. The parents cannot pay for four kids at once so while the kids are all getting the training now, the payments are being made in installments.
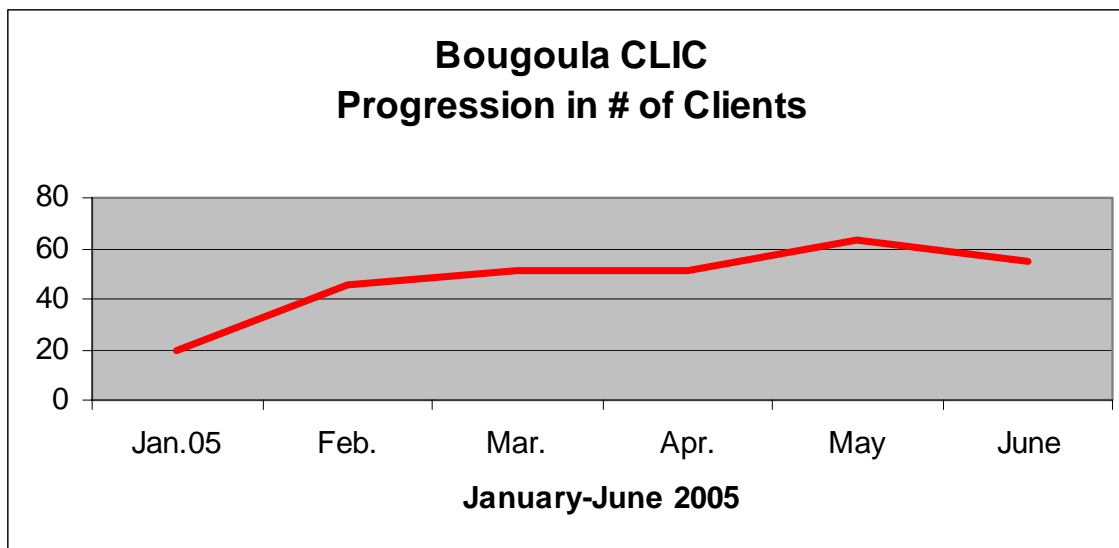
Bougoula CLIC
Key Services as a Percentage of Total Revenues
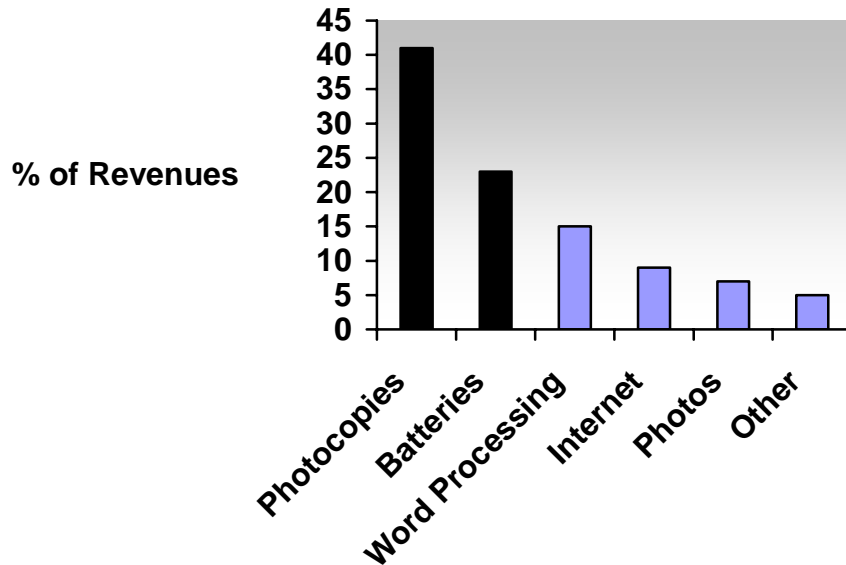
Volume of Clientele, Gender Distribution & Evolution of Clientele

Average Number of Clients per Month - January 05-July 05

**Bougoula CLIC
Progression in # of Clients**
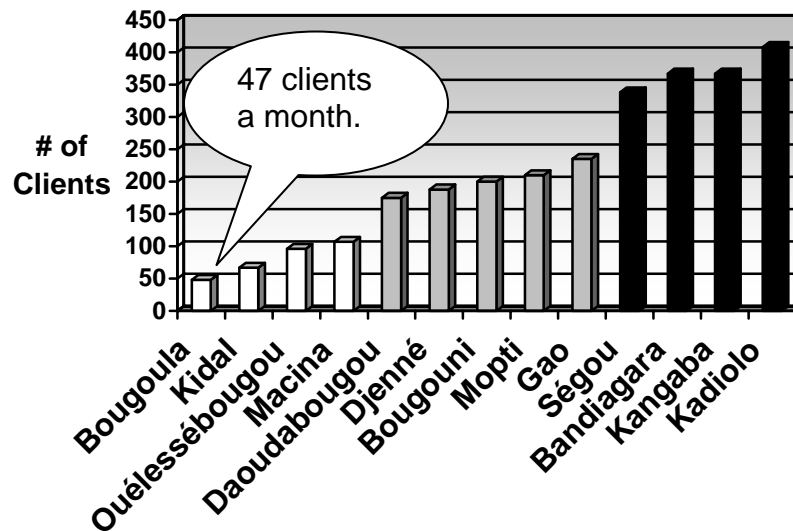
Given the very rural and primarily illiterate nature of the Bougoula community, the number of clients is unlikely to increase, even with significant promotional and outreach efforts.

While the data is incomplete (problems with the first management teams resulted in their removal and replacement, but also loss of data for the first few months of operation), the clientele of this CLIC consisted in 311 men (**100% men)**. Given what we know about the community it is also very likely that the clients consist in a dozen or less individuals making several visits a month to the CLIC.

Total of 256 clients (all men), between January and June 2005.[8]

CONCLUSION

Bougoula was a gamble and an experiment. As a gamble, it may have failed, but as an experiment, it should be the source of critical lessons.

The CLIC is very unlikely to be financially sustainable under its current mode of operation. High VSAT costs are not justified given the very low level of demand for Internet services reflecting a combination of low purchasing power and very low literacy levels. Adding to these challenges is the fact that the main client of the CLIC (the Mayor's office) is not paying for services, therefore further undermining the sustainability of the CLIC.

The main failure in Bougoula was a failure to anticipate that this extreme rural environment would require a different model than the rest of the CLICs.

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[8] Statistics for the earlier months of operation (May-December 2004) are not available.

Bougoula would benefit from a local radio station more than it can benefit from a CLIC at this point in time. When and if a local radio station is established, it could benefit from some level of connectivity, assuming the proper training is provided. In that context, collaboration with UNESCO's CMCs may be valuable.

The broader lesson that will hopefully be learned from this experiment is that a careful analysis of the local environment, demand for services and capacity to utilize such services is necessary to develop locally appropriate adaptations. In other words, while a basic CLIC model can be applied in terms of overall management structure, the type of equipment, type of services and level of subsidy as well as type of support from the project team could have been differentiated across the CLICs (though this may have been politically difficult).

GAO CLIC PROFILE

Gao CLIC
Located within the IFM - Teachers' College (7/22/05)

Host Institution
In Gao, the CLIC is hosted by the *Institut de Formation des Maitres* (IFM). It was launched on July 20, 2004. The CLIC's local name is **BARAY FONDAA** ("The Road of Knowledge" in Sonrhai, the local language).

CLIC Management

CLIC Manager: Ousmane Maiga
(photo to the left)

CLIC Deputy Manager: Omar Maiga
This is an excellent CLIC management team, very conscientious, actively doing outreach and creative.

There is a large bulletin board by the Manager's office that shows examples of different types of services that the CLIC offers. For example, the CLIC created coupon books for a local gas station. They also do business cards, invitations, etc…

The Manager uses a badge that clearly identifies him as the responsible individuals for clients walking in.

While the IFM students (i.e., student teachers) do not use the CLIC regularly, some of the teachers are regular users. There are approximately 6-8 teachers who are regular users and come to the CLIC to find information to prepare their lessons.

Students have very little free time and find it difficult to use the CLIC. Their break is between 11am and 3pm, which is the hottest time of the day when the CLIC is also closed because of the heat.

Environmental Conditions

Gao is very hot. This is the only CLIC with an air-conditioned room. The room is large and could accommodate additional computers. The electricity is paid for by the IFM (i.e., the government) and therefore the CLIC does not have to worry about paying the electricity costs associated with the air conditioning.
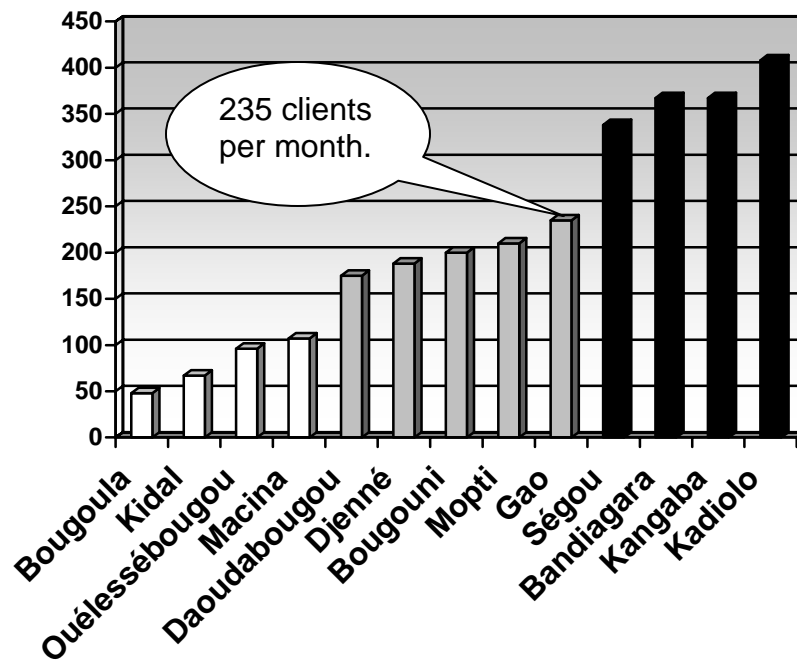
Clients


Gao CLIC, located within the Teachers' College
7/20/05

The CLIC is full almost every day and people have to wait for a machine to be free, especially during the evening hours (4pm-9pm).

Volume of Clients, Gender Distribution and Evolution

**Average Number of Clients per Month - January 05-July 05**

This middle position hides a significant progression over the past six months and the fact that the Gao CLIC has had more than 300 clients in May, June and July 2005, the last three months covered by this data (see graph below.
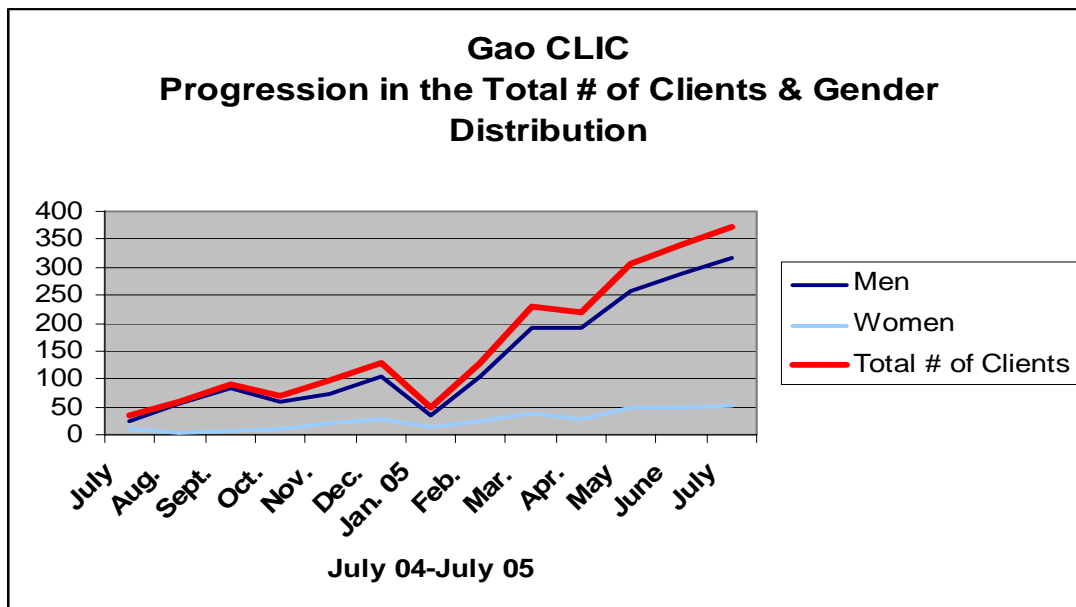
Women clients

Women come mostly for training. There are also three regular women clients who work for NGOs.

Gao CLIC - Approximately 16% of Clients are Women

Women
16%

Men
84%
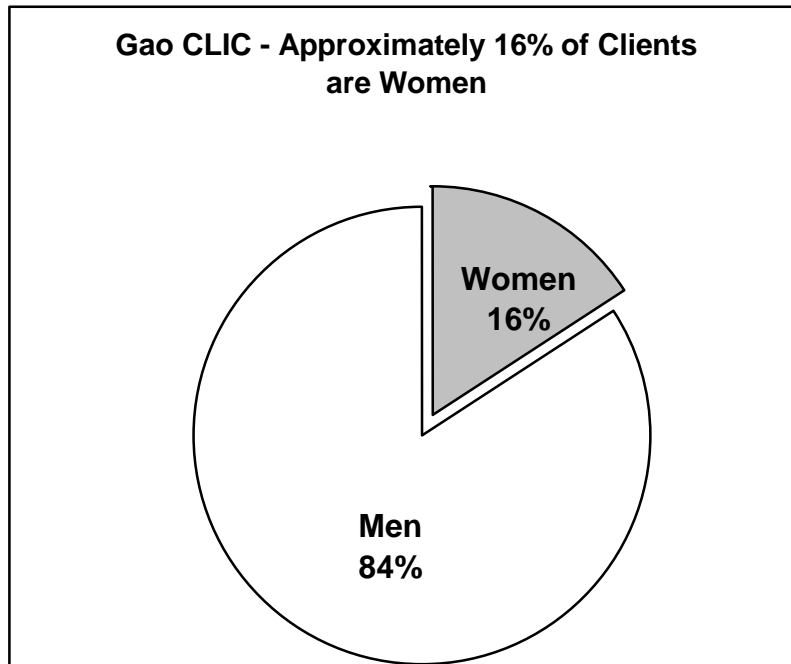
Gao CLIC Cumulative # of Clients

Men	1,814
Women	340
Total	2,154

July 2004-July 2005

Bandwidth sharing

The CLIC is already sharing its connection with a partner radio, Radio Nata. Radio Nata has three computers connected and is expected to pay 50,000 CFA per months. HKI initially supported the 50,000 CFA monthly fee. Now the CLIC is working to connect AFRICARE and World Education, each for 5 computers and a 75,000 CFA monthly fee.

Partners who are sharing the bandwidth are not supposed to resell connection services but Radio Nata has been doing it since it is the only way it can try to recover the 50,000 CFA monthly fee.

Radio

Aside from the partnership with Radio Nata, the CLIC has developed a partnership with another radio, Radio Hana. This radio is not connected to the Internet but comes to the CLIC to do research for its programming, especially using ENCARTA.

Gao Market & Competition

Gao is approximately 1200 km away from Bamako (581+405+240).   The primary activity in the region is cattle.   There is a cybercafe in Gao but it is connected

through SOTELMA and the connection is poor. Within the town of Gao, the CLIC is located within the IFM, on a main road and is very accessible.

Consultative Committee
Two key members of the committee who are often unavailable. They both travel extensively and take part in a lot of training. They are the President of the IFM (who is also the President of the Committee) and the Treasurer of the CLIC. Neither uses the CLIC. The Treasurer is a very qualified woman, but she is extremely busy. The CLIC will try to establish a way to work more directly with her deputy.

Gao CLIC
Ousmane Maiga (right), CLIC Manager, & Abdoulaye Maiga,
President of the CLIC's Consultative Committee and Director
of the IFM (teachers' college) where the CLIC is located.
7/20/05

The Director of the IFM and President of the CLIC's Consultative Committee has been offered free training many times. He has a computer in his office. The CLIC's manager has offered to establish a connection for his computer. The Director is refusing to pay for the cable that would allow him to be connected. He is also not being forthcoming in releasing funds necessary to buy a photocopy machine.

This IFM president is very different from the IFM president in Kangaba who often communicates with the CLIC project team using Yahoo Messenger and is a frequent CLIC user.

Content

Efforts to use the CLIC's content (CDs, DVDs, etc.) are not extensive, as in most CLICs. Some childbirth attendants (sage femmes) have come to the CLIC to ask for information on HIV/AIDS. The CLIC manager showed them the CLIC web site that has some information and they showed them the video CDs on HIV/AIDS. They then rented out the CDs and equipment to view them. The only problem was that the programs were in Bambara. The local language in the Gao area is Sorail (sp?). A program in French would have been more useful here.

The CLIC manager has tried to actively collect local content but he has had difficulties getting the President of the CLIC's committee to release funds for him to afford gas for his transport. Local NGOs and other institutions who have local content must be made to understand that it is in their interest to share their content.

The CLIC project's M&E specialist has recently taken a position with the central government in Gao. In his spare time, he continues to play an important role in supporting the CLIC network via the Internet, communicating daily with CLIC managers around the country and he works with the Gao CLIC, actively recruiting potential users.


Gao CLIC
Bulletin Board providing information about recent activities,
services, opening hours, etc... 7/20/05

Services

The CLIC has had not revenues from photocopies in 2005 as a result of the failure of the original equipment. Given the CLIC's significant revenues, it should be possible for the CLIC to purchase a copy machine. Photocopies have proven to be a key source of revenues for all CLICs that have a high capacity copy machine.

The diversified source of revenues reflects the CLIC management's strong marketing and outreach efforts.

Gao CLIC
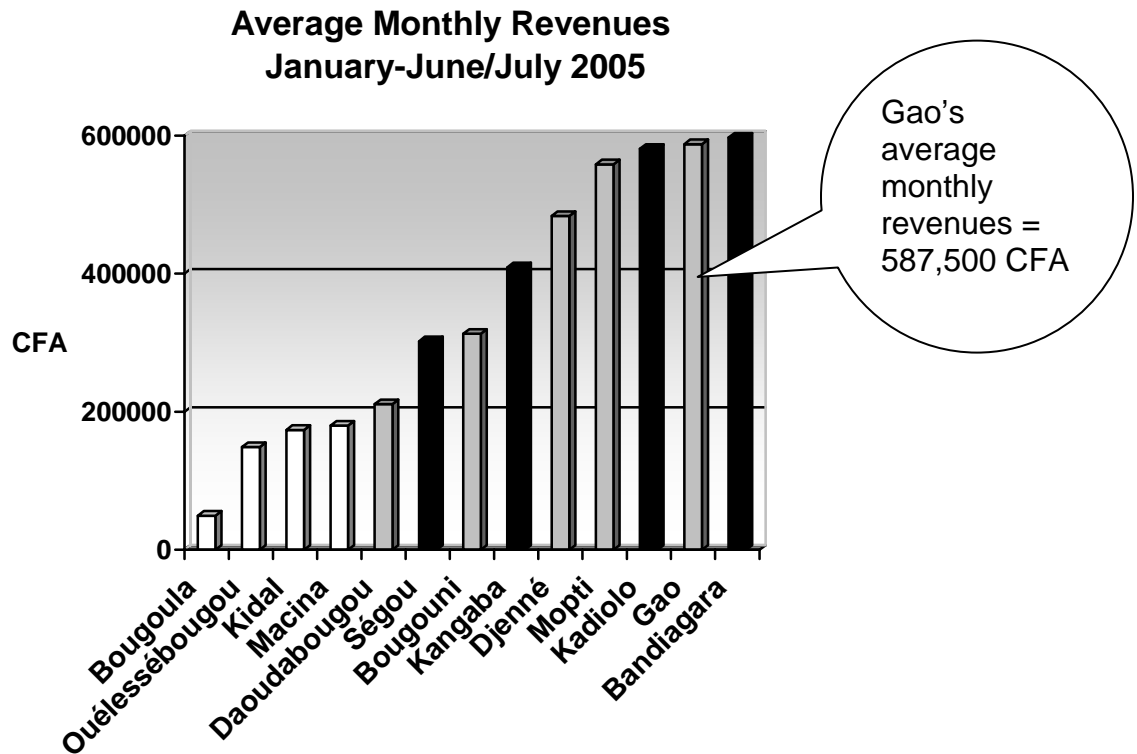## Share of Key Services
as a Percentage of Total Revenues
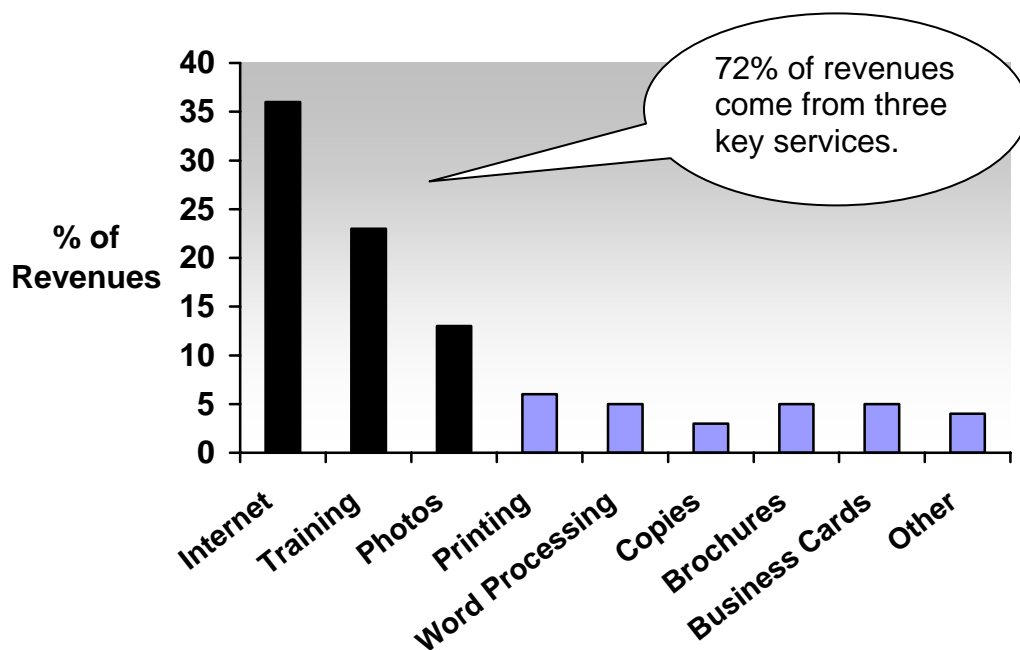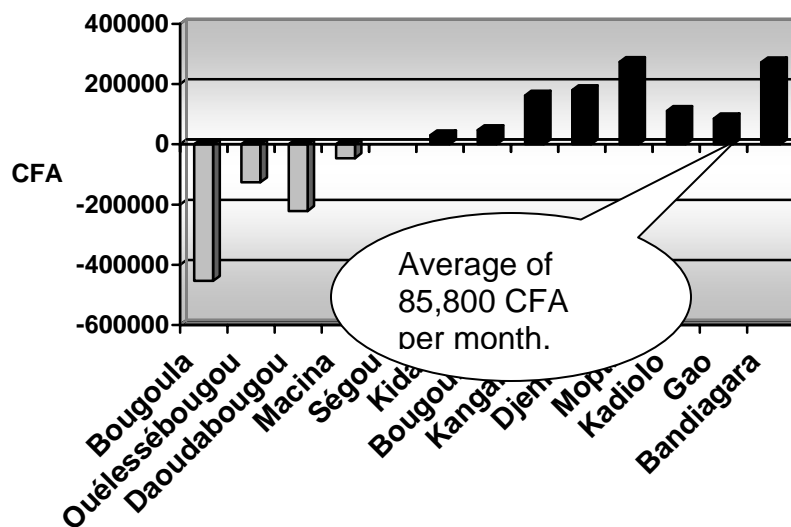

Training

The CLIC takes 3 people per training session. Three computers are reserved for training. In July 2005, there were 20 individuals taking training, 12 women and 8 men. Most of the trainees pay for their own training. There has been one case of an employer paying for an employee's training.

Trade Mali has rented the CLIC and equipment for a two-day training session. The Peace Corps volunteer has used to location to do training of local artisans. The majority of those taking training are students or government employees.

Financial Sustainability

**Average Monthly Revenues
January-June/July 2005**

Gao's average monthly revenues = 587,500 CFA

**Average Monthly Balance of Revenues & Expenses
January-June 2005**

Average of 85,800 CFA per month.

CONCLUSION

The Gao CLIC is one of the most successful CLICs. This CLIC has shown a very strong and steady progression in its clientele and shows strong monthly revenues, all of this without a photocopy machine, which for many CLICs is a key source of revenues.

This success has been achieved in spite of serious tensions and problems between the management and project team on the one hand, and the director of the host institutions on the other hand. At any of the CLICs, the head of the host institution does not automatically become the President of the Consultative Committee. This is one of the cases where the rules relating to the renewal of the Consultative Committee should be quickly applied to ensure a more productive relationship is established between the CLIC management and the host institution.

As one of the pioneers in the bandwidth sharing experiment, Gao will have a lot of lessons to share with other CLICs. This is also where the CLIC Association will continue to play a critical role in supporting the network of CLICs.

APPENDIX B -- CLIC Client Profiles

Kidal CLIC

Young Hamka comes to the CLIC whenever he has some money and talks with his brother in France via yahoo instant messenger.

> *"Before the arrival of the CLIC it was not easy for me to join my brother in France, the only possibilities were the telephone which is very expensive or sending letters through post office. Now with just 1 500 CFA I can spend an hour talking with him and giving him information about the other parents and relatives. With the arrival of the CLIC, we can talk with people throughout the world with insignificant expenses"* (Hamak)

Moussa Oulale, High school Student, Ségou

Moussa Oulale comes to the Ségou CLIC to study for his high school graduation exams. He is in his senior year at the Lycée Michel Alain in Ségou and came to consult the list of useful URLs that was put together by the CLIC project team. A regular client, Moussa walked in on a Saturday at 6pm and asked for an hour of Internet connection at 500 CFA (~US$1), a preferential fee for students. 2/26/05.

Amadou Cisse & Moctar Cisse, Djenne CLIC

Amadou and Moctar are tour guides in Djenné and they use the CLIC almost daily to communicate with clients and friends via email. Amadou (in the front), has been a regular client since the CLIC opened in May 2004. He suggested to the managers that they sell prepaid tickets at a discount for regular clients like him. This pricing innovation has now been implemented in several CLICs and is very popular. 2/24/05

Mme Kinta BAdji Maharafa, at the Djenné CLIC

Mme Maharafa works as a consultant for a French organization called Association Ille-Et-Villaine/Mopti. She has a computer at home but comes to the CLIC for the Internet connection.

"*There are not enough women coming to the CLIC,*" Mme Maharafa says. "*We can't move forward without the women.*"

Mr. Dialo

Mr. Dialo is a young graduate who recently applied for a job at the gold mine in Morila, 70 km from Bougouni. While he passed the early screening, he did not get the job because he did not know how to use a computer and basic computer skills were a requirement for this job. When Mr. Dialo learned that there was a CLIC in Bougouni offering computer training, he did everything he could to get computer literate and now he is better equipped to apply for jobs.

Ms. Astan Kayo

Ms. Kayo, a student at the local high school, came to the CLIC with a voucher to ask for basic computer training. To promote the CLIC's services vouchers had been distributed to community members to try services free of charge. One voucher was given to the high school principal to reward the best student with computer training at the CLIC. Ms. Kayo was nominated as the best student.

Professors in Gao CLIC continue to develop their capacities and update their Lessons

The Gao CLIC is located 1200 km away from Bamako, the capital of Mali. Opened in July 2004, the CLIC is hosted by the local Teachers' College (Institut de Formation des Maîtres – or IFM). The CLIC is becoming a valuable capacity-building tool for the teachers and students of this college whose main function is to train future primary and secondary school teachers. Among many challenges, teachers were finding it very difficult to prepare and update their lesson plans because in most cases, they did not have access to the necessary resource materials.

Some teachers have quickly understood that the CLIC offers them an answer to those challenges and can provide them with a wealth of resources and documentation in their fields. Through the Encyclopedia Encarta, which is installed on all CLIC computers, the teachers came to prepare lesson plans used to train the more than 1000 students at the Teachers' College.

Mr. Coumaré, Professor of Pedagogical Psychology

For Mr. Coumaré Lassana, a professor of pedagogical psychology and philosophy, "the CLIC is a breath of air for the professors, particularly in the field of pedagogical psychology where there are very few documents available in Gao". As a professor teaching 3 classes at the IFM and 194 students, Mr. Coumaré provides classes in philosophy, pedagogy and morality. With the Encarta Collection, he prepared and delivered lessons on Ibn Roch, medieval philosopher. According to Mr. Coumaré, "There are many authors I knew about but could not find their works. Now I can read their works through Encarta or on the Web. The CLIC is very important for professors like ourselves." As a result, he is also encouraging his students to visit the CLIC to gather reading materials.

According to him, many professors lack basic computer skills, which is a handicap that prevents them from coming to the CLIC. He is recommending training sessions for all professors. He himself had received training in 1997 but was already losing some of his computer skills because he was not using them.

Mr. Koné, Biology Professor, IFM of Gao

Mr. Koné, Professor of Biology at the GAO Teachers' College is also a CLIC user. He is making extensive use of the Encyclopedia Encarta to prepare his lessons. Since he is the only biology teacher, he has trained more than 250 students entirely with lessons based on materials accessed at the CLIC.   Mr. Koné says that "the CLIC is very useful for me because it makes available to us a great deal of information through the Encarta Collection and Internet."

Mr. Touré, Grammar Professor at the Gao Teachers' College.

Mr. Touré, Grammar Professor at the Teachers' College, received some initial computer training through and NGO and additional training at the CLIC. After this training, he has become a regular user of the CLIC's services. He used the Encarta Collection to prepare a lesson on types of sentences and languages structures. These two lessons were given to seven classes of 75 students each. According to hi, the CLIC facilitated his research and the printing of teaching materials from the Internet and Encyclopedia Encarta.

The CLIC is an effective support tool for the professors at the Teachers' College. Two challenges that remain include the low level of income of the teachers and the fact that many are not computer literate.

APPENDIX C -- Contents Available at the CLICs

I. Content on CLIC computers

Croissance Economique Durable :

- Cadre stratégique de lutte contre la pauvreté
- Guide sur le micro crédit en milieu rural
- Six modules de formations sur la commercialisation des céréales
- Actualité de la recherche au Mali
- Agrément des projets au Mali
- Amélioration de l'aviculture villageoise au Mali Sud
- Croissance économique (infos diverses)
- Guide des Investisseurs du Mali
- Lutte contre la pauvreté, le cadre stratégique
- 6 Modules sur les techniques de commercialisation des Céréales
- Amélioration de l'aviculture villageoise
- Bulletin d'infos mensuel du PNUD
- Carte des cultures au Mali 1
- Carte des cultures au Mali 2
- Carte détaillée du Mali
- Carte zone pastorale du Mali
- Coton biologique au Mali
- Coton biologique, un espoir pour le paysan Malien
- Criquet pèlerin, tout savoir
- Filière viande rouge au Mali
- La banane, description
- La banane, secteurs d'utilisation
- La banane, technologie
- La banane, culture
- La banane, qualité
- La culture du coton au Mali, les enjeux
- La filière riz au Mali
- La filière mangues au Mali
- La mangue, comment l'exporter en Europe
- La pomme de terre
- Le Blé, conditions de culture
- Le Blé, description
- Le Blé, description
- Le Blé, technologie
- Le coton Africain et les subventions
- Le coton
- Le criquet pèlerin
- Le fléau su Sahara, le criquet pèlerin
- Le parcours de l'investisseur au Mali
- Le recyclage au naturel

- Le riz, son origine à maintenant
- L'Economie du Mali
- L'Economie Malienne
- Les Arachides
- Les règles juridiques régissant les activités de recherche et d'exploitation minière au Mali
- Les secteurs de l'économie au Mali
- Les services d'appui à l'agriculture et à la décentralisation
- Les zones aurifères du Mali
- L'oignon, variétés
- L'Oignon, en savoir plus
- Mangues
- Missions commerciales de l'Observatoire du Marché Céréalier
- Opportunités d'invertir au Mali
- Pluviométrie et crue des fleuves au mali
- Présentation de l'Assemblée Permanente des Chambre d'Agriculture
- Promotion des énergies nouvelles et renouvelables
- Profil météo du Mali
- Quelques indicateurs économiques et sociaux du Mali
- Questions de population, dynamiques migratoires
- Questions de population au Mali et enjeux
- Question de population, fécondité et changements familiaux
- Question de populations, mortalités et santé
- Rapport sur le développement Mondial 2003
- Rapport spécial sur la situation acridienne au Mali Août 2004
- Répertoire des agro-entreprises au Mali
- Riz, la consommation
- Riz, évolution du prix
- Riz, données générales
- Riz, évolution de la production
- Riz, la transformation
- Riz, les facteurs de succès de l'Office du Niger
- Riz, les grandes lignes de la politique
- Riz, les systèmes de production
- Riz, perspectives d'exportation
- Riz, promouvoir l'exportation
- La banane, historique
- La banane Plantin
- La banane, culture
- La banane, les variétés
- Utilisation de l'arachide au Mali

Education:

- Girl friendly classroom practices modules
- Life skills modules first edition

- APE Leadership training module 1
- Contact structure Ministère de l'Education Nationale
- Dates des examens et cours de fin de l'éducation nationale
- Education des filles d'ici 2015
- Education, journée panafricaine des femmes
- Education, approche pédagogique de l'appropriation de la langue au Mali
- Education, efforts fournis dans l'éducation des filles
- Education, Etude sur l'éducation des filles, contexte
- Education, évolution des indicateurs de l'éducation de base au Mali
- Education, les mots imprimés au Mali
- Education, partenariat Gouvernement et UNICEF pour l'éducation des filles
- Gender and Education training module
- Historique de l'Université du Mali
- Information sur l'Université du Mali
- Le PRODEC, c'est quoi?
- Le secteur éducation du Mali
- Les axes prioritaires de la nouvelle politique éducative du Mali
- Les CED au Mali
- Savoir tout sur l'Université du Mali
- Success story community action planning
- Success story female leadership training

Gouvernance :
- Lois et Décrets de la décentralisation au Mali
- ANICT, c'est quoi ? Agence Nationale d'investissement des
- ANICT, c'est quoi ? ANICT= Agence Nationale d'Investissement des Collectivités Territoriales
- ANICT, les caractéristiques de l'appui technique
- ANICT, les composantes techniques, les CCC = Centre de Conseil Communal
- ANICT, modalités d'accès à ses fonds
- Atelier-Afrobaromètre
- Cahier de la conseillère municipale
- Commune, c'est quoi ?
- Commune, programme de développement
- Commune, collectivités territoriales
- Commune, désignation de ses responsables
- Commune, le rôle de l'Etat
- Commune, les partenaires publics et privés
- Commune, les ressources
- Commune, organisation
- Commune, rôle des femmes
- Commune, ses agents
- Commune, ses composantes
- Commune, son patrimoine

- Constitution de la République du Mali
- Décentralisation et le développement rural
- Décentralisation, défit du développement local
- Décentralisation, les enjeux de la reforme
- Décentralisation, mission du haut conseil des collectivités territoriales
- Décentralisation, politiques et contraintes
- Décentralisation, redéfinition des rôles de l'Etat
- Décentralisation, rôle des communes dans le développement local
- Décentralisation, DNCT contexte et enjeux
- Déclaration Forum des peuples de Kita
- Démocratie, c'est quoi ?
- Démocratie, Egalité
- Démocratie justice distributive
- Démocratie, la citoyenneté c'est quoi ?
- Démocratie, notion de chef
- Démocratie, objectifs et stratégie de la campagne nationale d'éducation civique
- Démocratie, participation citoyenne aux élections
- Démocratie, participation citoyenne dans le cadre de la décentralisation
- Démocratie, pistes pour l'action citoyenne
- Election, dépouillement des votes
- Election, déroulement du vote
- Election, documents et matériels électoraux
- Election, le bureau de vote, composition
- Election, le vote, c'est quoi ?
- Election, les opérations de vote
- Election, les superviseurs
- Election, remplissage procès verbal
- Election, rôle du président du bureau de vote
- Election, centralisation des résultats
- Etude Analytique des droits des femmes au Mali
- Etude de cas Africite au Mali
- Généralités sur la république du Mali
- Gouvernance Démocratique et lutte contre la pauvreté au Mali
- Hymne National du Mali
- Les membres du Gouvernement
- Les Sceaux et armoiries du Mali
- Femmes et processus électoral au Mali
- Partis politiques du Mali
- Pouvoir constitutionnel du président de la république du Mali
- Président Alpha Oumar Konaré
- Président Amadou Toumani Touré
- Président Modibo Keita
- Président Moussa Traoré
- Projet femme et gouvernance locale
- Rapport PNUD sur l'état de la démocratie au Mali

- Représentations Diplomatiques de quelques pays au Mali

Santé/Health :
- EDS III (Enquête Démographique et de Santé du Mali CDROM)
- AIM mali (CDROM sur le sida pour le plaidoyer auprès des décideurs),
- Alimentation d'Awa (Boite à images),
- Allaitement maternel exclusif,
- Boîtes à images sur la nutrition
- Boîtes à images sur la vaccination
- Carte conseil sur la PF,
- Choléra, définition,
- Choléra, répartition géographique
- Choléra, symptômes
- Choléra, traitement et vaccination
- Choléra, transmission
- Cycle du vecteur du palu
- Déshydratation, c'est quoi ?
- Déshydratation, clinique, complication et traitement
- Déshydratation, les causes
- Face à la diarrhée des enfants que faire ?
- Femmes et malnutrition
- Femmes fistuleuses scénario
- Fièvre typhoïde, agent pathogène
- Fièvre typhoïde, clinique
- Fièvre typhoïde, traitement
- Fièvre typhoïde, zone endémique
- Grossesse, conseils pratiques
- Grossesse et allaitement
- Projet Net Mark : Etude Ménage
- Projet Net Mark : Questionnaire pour analyse situationnelle Moustiquaire
- Guide des messages santé
- Guide des messages par rapport à la vaccination systématique
- La poliomyélite, une nouvelle menace
- La poliomyélite, c'est quoi ?
- La poliomyélite
- Le palu prévention et traitement
- Le Malaria en slides
- Mali, la tuberculose refait surface
- Méningite, comment se manifeste- t- elle ?
- Méningite, que faire pour circonscrire le mal
- Méningite, qui peut l'attraper
- Méningite, que faire en cas de suspicion
- Méningite, quel est le traitement
- Palu chez la femme enceinte
- Palu, diagnostic de laboratoire

- Palu et grossesse
- Palu et moustiquaires imprégnées
- Palu grave chez la femme enceinte
- Palu, historique
- Palu, agents pathogènes et sujets à risque
- Palu, carte de l'Afrique
- Palu, cycle de vie du parasite
- Palu, définition
- Palu, écologie
- Palu, image du moustique
- Palu, impacts économiques
- Palu, la poly thérapie
- Palu, microscope et analyse de sang
- Palu, les principaux symptômes
- Palu, traitement intermittent de présomption
- Palu, traitement
- Paludisme chez les enfants
- Paludisme photo du moustique
- Paludisme et grossesse
- Paludisme et moustiquaire imprégnée au Mali et à Sikasso
- Projet Net mark, Pourquoi le ciblage des femmes enceintes avec un coupon
- RAPID, ppt
- Sida et allaitement
- Sida et grossesse
- Sida traitement anti-rétroviral
- Sida, modes de transmission
- Sida, c'est quoi ?
- Sida, diagnostic et test
- Sida, Impact économique et données générales
- Sida, Impact économique sur l'agriculture
- Sida, Impact économique sur les entreprises
- Sida, Impact économique sur les ménages
- Sida, Impact macroéconomique au Mali
- Sida, Impact économique sur d'autres secteurs
- Sida, traitement
- Situation de la Nutrition au Mali
- Calendrier vaccinal enfants de moins de 1 an
- Calendrier vaccinal des femmes en âge de procréer et enceintes

II. Content on Video CD

SANTE
1. Les scénarios du sahel en version française: Il s'agit de 14 épisodes dont 13 sont sur un CD et le 14ᵉᵐᵉ plus long est sur un autre CD. Ces épisodes traitent les différents aspects du Sida. Ils ont été écrits par des scolaires du fondamental de la sous région (Mali, Burkina Faso, Sénégal, Côte d'Ivoire…) et réalisés par des cinéastes confirmés comme Idrissa Ouédraogo, Cheick Oumar Sissoko…
2. Les scénarios du sahel version Bamanankan.
3. WELEKAN, sketch sur l'excision,
4. Les leaders contre le VIH/SIDA.
5. L'excision, film de sensibilisation du grand public,
6. BA LALA KA DIDEGUE KUN (Planning Familial),
7. SINAYA DENWOLO (Planning Familial),
8. BALO NAFAMA (Nutrition)
9. Suivi de la Femme en Grossesse
10. Sensibilisation sur les facteurs de risques à la contamination du VIH/SID : Résultats de l'enquête ISBS au Mali.
11. L'Epidémie de l'Ombre
12. Les Femmes fistuleuses de Mopti
13. Les Aventures de Moussa le Taximan
14. Le Préservatif avant tout
15. On cause de Sida au village
16. Sida KELE
17. SIDATOW LADONI
18. La Parenté Responsable

AGRICULTURE

1. Le Compostage,
2. La Lutte anti-erosive
3. Les diguettes et Cordon pierreux
4. Les Haies vives et Bandes enherbées
5. Les Cordons Pierreux
6. Les techniques de commercialisation des céréales en 6 sketchs

EDUCATION

1. L'importance de la scolarisation des filles,
2. Sensibilisation des hommes sur l'importance de la scolarisation des filles
3. Qualité et Equité en Education au Mali
4. Appui a la qualité et a l'équité de l'éducation (World Education)
5. World Education 6 mn Video
6. Programme FIER

GOUVERNANCE

1. Femmes et gouvernance locale (résolution de conflits),
2. Gestion de conflits
3. Communes et éducation des filles

CROISSANCE ECONOMIQUE

1. Mali finance documents de formation,
2. Feuilleton Radiophonique ''Cesiri tono'' 70 episode

APPENDIX D -- Training Materials

Formation nationale 1 -Décembre 2003

    Module 1 : Défis et opportunités
    Module 2 : Missions, Buts et Objectifs
    Module 3 : Bâtir des partenariats efficaces
    Module 4 : Constituer un comité consultatif
    Module 5 : Identifier la clientèle et les services
    Module 6 : Règlement et procédures des CLIC
    Module 7 : Attribution des coûts et services
    Module 8 : Qualité d'un bon gestionnaire de CLIC
    Module 9 : Planification financière
    Module 10 : Utilisation des systèmes de rapport
    Module 11 : Produire un plan Marketing
    Module 12 : Les CLIC au service de la communauté

Formation régionale 1 -Mars- Avril 2004

    Module 1 : Règlements et procédures des CLIC
    Module 2: Les CLIC au service de la Communauté entière
    Module 3: Techniques de Marketing et de Communication
    Module 4: Identifier la Clientèle et les services
    Module 5: Gestion Financière
    Module 6:Initiation aux logiciels de base (Word, Excel et Internet)
    Module7 **:** Utilisation pratique des appareils (Dazzle, appareil photo etc.)

Formation nationale 2 – juin 2004
    Echange d'Expérience entre les CLIC
    Planification Stratégique
    Stratégie de Collecte de contenus.
    Comment chercher des partenaires
    Présentation des statuts et règlement de l'Association
    Sessions de travail sur les statuts et règlement
    Amendement des statuts et règlement
    Elaboration du Procès verbal de l'Assemblée constitutive
    Mise en place du bureau
    Finalisation des documents administratifs pour l'obtention du récépissé
    Utilisation et gestion des bons prépayés
    Stratégies de communication
    Le suivi /évaluation des activités du CLIC

NB : *Pendant l'adoption des statuts et règlement de l'Association CLIC, les gérants de tous les CLICs étaient avec l'équipe technique du Projet CLIC pour des séances techniques sur :*

- Maintenance et Mise à jour de la copie locale du site web
- Connexion Internet
- Utilisation du dazzle
- Gestion du réseau local

Formation régionale 2- aout-septembre 2004
Initiation aux techniques de formation
Conception et utilisation des fiches comptables du CLIC

Formation nationale 3 – janvier 2005
Sessions d'échanges entre les CLIC

1. Fréquentation du CLIC Analyse de la situation : *Analyser votre clientèle, les heures de pointe, les intérêts principaux, les contraintes, les solutions, les espoirs et les craintes…..*

2. Apprécier les objectifs recherchés par les CLICs : *Les objectifs de votre clic, servir la communauté, génération de recettes, autosuffisance….*

3. Étudier la marge de manoeuvre (ressources d'influence et contraintes vécues dans vos relations avec les clients) : *L'environnement vous est il favorable, quels sont vos atouts et craintes présents et futurs, les alternatives, motivation de la clientèle…..*

4. Identifier et évaluer les stratégies : *Revoir et mettre à jour vos stratégies actuelles, élaborer des nouvelles stratégies, étudier l'impact en terme de rentabilité et surveiller le feedback des clients….*

5. Développer des scénarios d'actions concrets possibles et soupeser leurs effets probables : *Exemple de scénarios stratégiques fiables, cibler un groupe de clients, séquencer vos actions envers ce groupe….*

6. Collecte et dissémination de contenu : *Y a-t-il du contenu au niveau local, comment le collecter, a t – il été collecté, traité et disséminé au niveau des autres clics, utilisation du contenu disponible par la clientèle….*

7. Comité consultatifs : *Juger par vous-même de l'efficacité de votre comité, expliquer en termes clairs comment votre implication a favoriser l'émergence du CLIC…..*

Formation régionale 3 – Mars-Avril 2005

MODULE 1: Architecture de Réseau
MODULE 2: Eléments du réseau et configuration
MODULE 3: Dépannage du Réseau et du VSAT
MODULE 4: Le Langage HTML

MODULE 5: Initiation au logiciel DreamWeaver
MODULE 6: Initiation au Logiciel SPIP
MODULE 7: Principes de Maintenance

Formation nationale 4 – Juin 2005
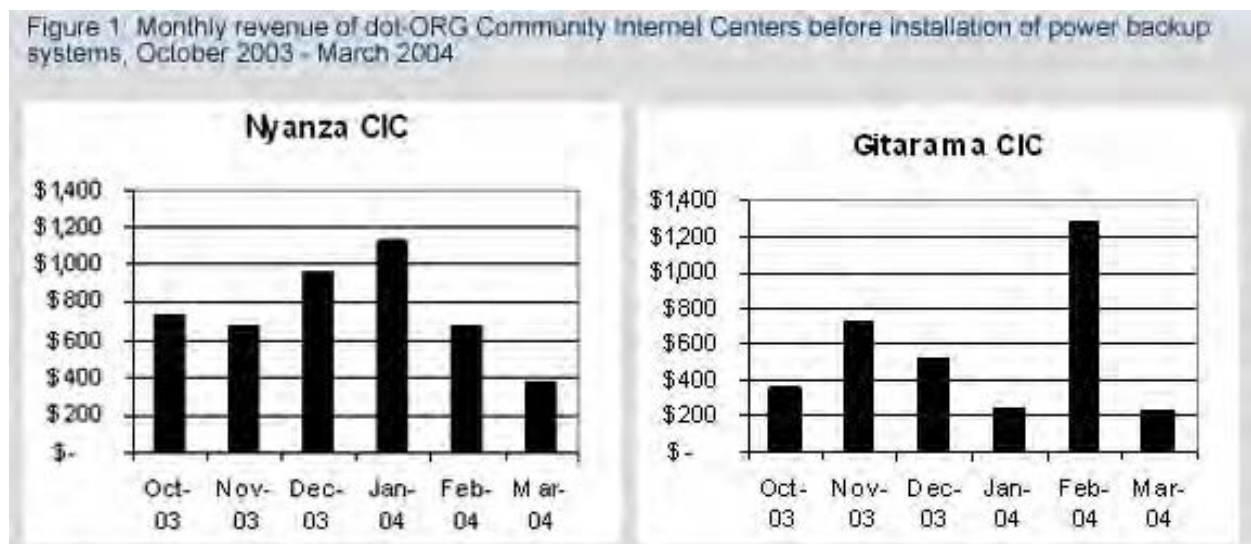
Technique d'animation
Motivation du personnel
Fixation d'objectif et contrôle d'activités des CLIC
Les indicateurs d'évaluation des CLIC

<div style="border:2px solid black; padding:20px; text-align:center;">

World Links Training Modules
Accessible online at
http://telecenters.world-links.org/Manuel_CLIC.pdf
(in French)

</div>

APPENDIX E -- Energy Solutions for ICT Projects

Lessons Learned in Rwanda

Dot-ORG, in collaboration with Winrock International, has developed an energy solutions toolkit for ICT projects. The Powering ICT Toolkit can be found online at http://www.dot-com-alliance.org/POWERING_ICT . The case study below is extracted from the toolkit and based on dot-ORG's experience in Rwanda.
In Rwanda, the AED/dot-ORG program has helped establish three entrepreneur-owned Community Internet Centers (CICs) through its dot-ORG program. The first two CICs were established in Gitarama, Nyanza. A third CIC was later established in Nyamata. While all three are connected to the national electricity grid, frequent power outages and poor quality power were adversely affecting the operating performance of the centers. The graphs below show the impact of such unreliable power supply on the CIC's monthly revenues.

Figure 1 Monthly revenue of dot-ORG Community Internet Centers before installation of power backup systems, October 2003 - March 2004

To mitigate the technical and consequent financial risks associated with unreliable energy supply and guarantee a minimum 10 hours of operation daily, dot-ORG asked Winrock International and local partner ESDA (Energy for Sustainable Development Africa) provided technical support for the implementation of grid-charged battery back-up systems for the telecenters. Photovoltaics and generator-based hybrid systems were also considered. Depending on the location, energy service from the grid was available for as low as 5 hours a day. Outages in Gitarama and Nyanza were more severe than in Nyamata for example.

The availability problem is compounded by the fact that even during periods of power availability, serious under voltages of as low as 170 VAC are experienced for up to one third of the availability period. The power quality is not only harmful to the computers but provides an additional challenge in the selection of a robust

and appropriate charging mechanism of the planned energy back-ups to provide the required additional 6 hours of power for the telecenters.

Of special concern in the Gitarama and Nyanza areas is the high prevalence and risk of lightning strikes. These areas are prone to lightning strikes and require special attention especially in the definition of back-up system components and accessories.

The three CICs are equipped with 10 computers and some peripherals. While the CICs in Gitarama and Nyanza have CRT monitors, the CIC in Nyamata was equipped with more energy efficient LCD monitors

Comparing Energy Solutions

While photovoltaics was initially also considered as an option, the detailed analysis focused on combinations of battery backup systems and generators to supplement the supply from the grid. The costs associated with three different options were compared.

Option A Grid + charged battery backup system	Option B Grid + Diesel generator with storage	Option C Grid + diesel generator without storage
$3,976	$5,659	$7,160
The total costs indicated above include all capital costs and three years of operational costs.		

The graph below show that while initial investment costs are lowest for option C, which relies entirely on the generator to supplement the grid, the total costs over three year are the highest for the three solutions. This may not always be the case and is very dependent on the cost of fuel.

Option A, which consists in using a battery backup system to supplement the grid is the most cost-effective solution. While it has significant upfront capital investment costs, the operations and maintenance costs are low. This option was selected for all three CICs.

However, the success of this option is dependent on capturing a reliable amount of energy from the grid on a daily basis in order to charge the batteries. Should the grid fail to supply the required minimums, a generator could be added to handle the shortfall (Option B).
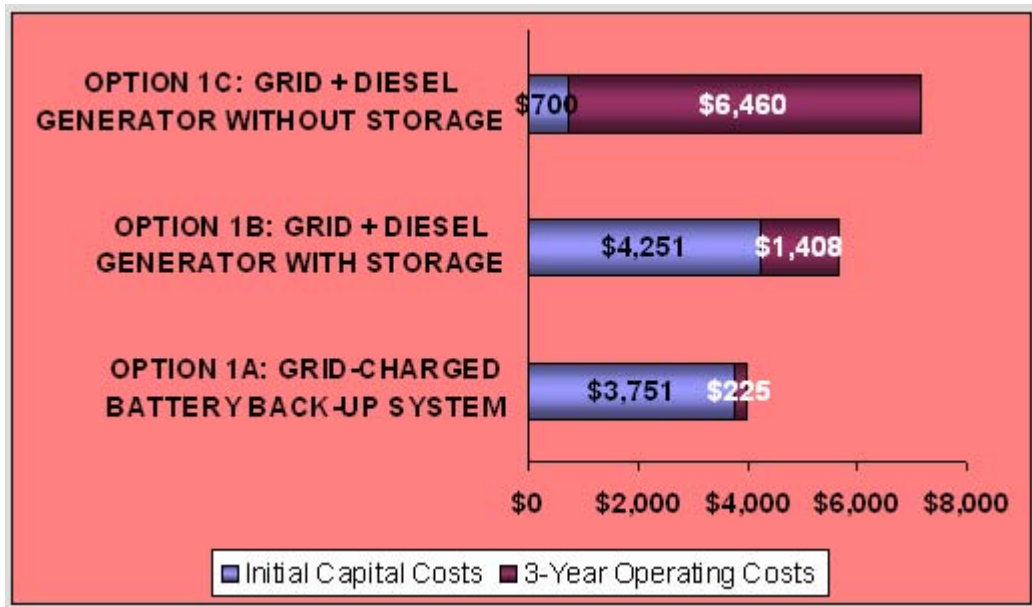
These calculations are made based on local fuel costs.

Replacing Monitors

The cost calculations presented above are based on the initial computer configuration in Nyanza and Gitarama where CRT monitors are used. However, given the potential savings associated with LDC monitors, another set of calculations were computed. What would be the energy cost savings associated with replacing CRT monitors with LCD monitors under the three energy options considered above? If CRT monitors were replaced with LCD monitors, the overall energy load would be significantly lower. A lower energy requirement may result in lower initial investment costs if the system is smaller and in lower operation and maintenance costs if it means that a battery back-up solution without generator backup can supply the demand.

Conclusions

- Initial investment costs of the battery-inverter system was much higher than the cost of a used back-up generator, but generator fuel and maintenance costs made the battery-inverter backup system more cost-effective than a generator over a 3-year period.

- The battery-inverter system boosted the hi-tech image of the CICs and helped attract more customers. Competing telecenters that operated noisy backup generators began losing customers to the CICs because of the quiet atmosphere of the CICs.

- By purchasing LCD screens instead of CRT monitors, the new CIC in Nyamata was able to reduce its daily energy demand enough to consider

running a television, VCR, fan and small refrigerator on backup power as well as ten computers, a printer, a VSAT and lights.

- Applicability to similar projects in other locations: The battery-inverter power backup solution designed for this project may be appropriate for other telecenters of similar size (about 10 computers) with limited access to AC electricity from a grid or other source.

- Battery-inverter back-up power systems are more likely to present a competitive option when the following conditions exist:
    - Electricity is available from the grid or another source for several hours each day.
    - Diesel/gasoline prices are high.
    - The energy demand of the telecenter is less than 10-15 kWh/day
    - There is a well-developed renewable energy market, so that both equipment and technical support are available at competitive prices.

Overall costs are not necessarily the primary decision factor. Other strategic considerations include availability of financing, low-power telecenter equipment packages, and availability of local technical assistance.

APPENDIX F – Photo Gallery
INAGEF / CLIC Project Team
Core Members

Aminata Fofana Maiga
National Project Coordinator

Mohamed AG ACHAROM
Training Specialist

El Moustaphe Doumbia
Sustainability and
Outreach Coordinator

Timothé Keita
IT Specialist

Construction of new CLICs and rehabilitation

New Construction

Djenne CLIC Construction

Installation of equipment

Segou CLIC - Installation of Equipment

Mrs. Yattara Oumou Sow, CLIC Manager in Ouelessebougou, presenting results of a group session on marketing to motivate community members to use the CLIC

Training

Timothe Keita, CLIC Project Computer
Specialist does some quick maintenance
while visiting the Kangaba CLIC (7/11/05)

TECHNICAL SUPPORT

**COMMUNITY
PARTICIPATION**
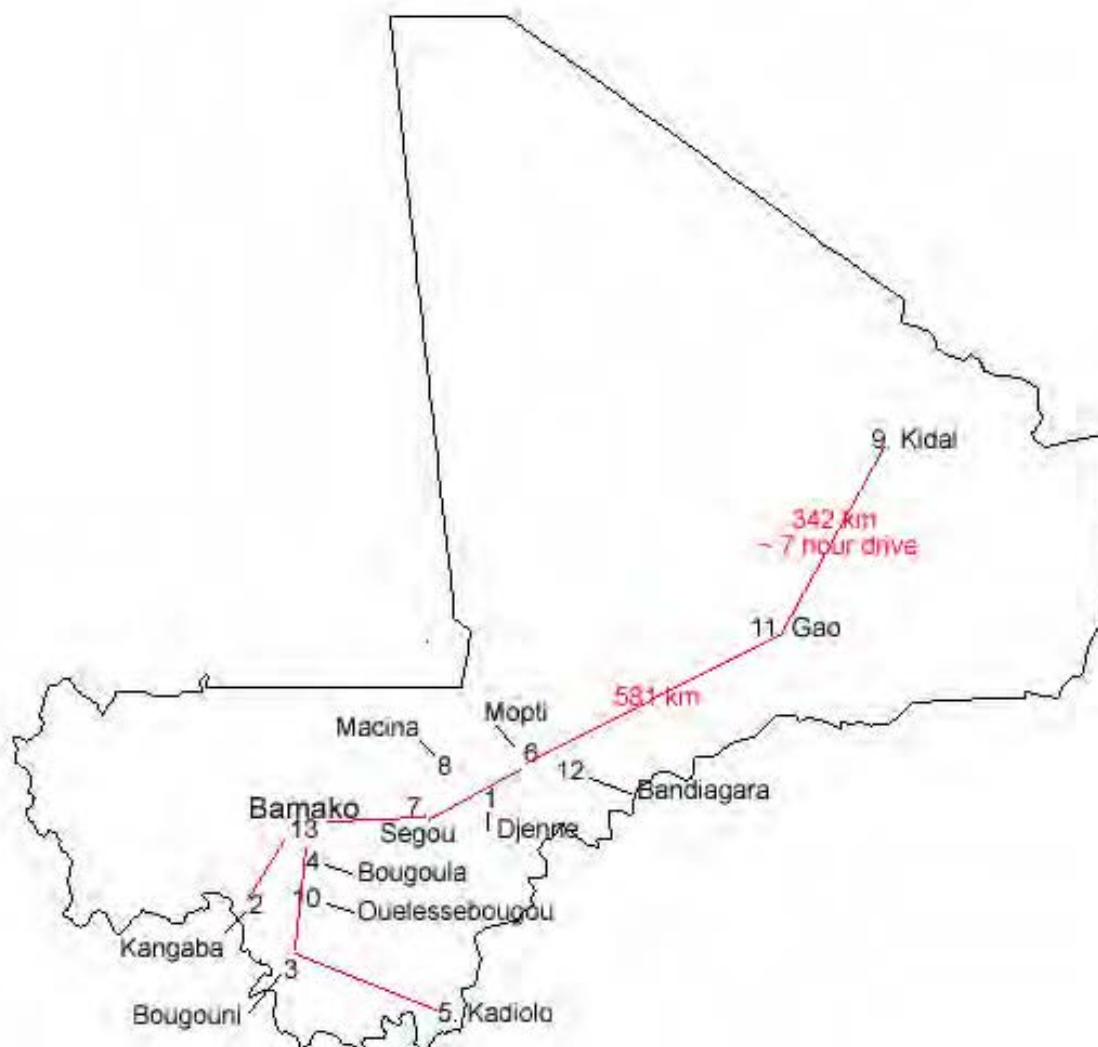
Developing a
Communication
Plan in Macina

APPENDIX G – Map of Mali / CLIC Locations

DISTANCES	Segou-Mopti	405 km
	Mopti-Gao	581 km
	Gao-Kidal	342 km (or 7 hours)
	Bamako-Bougouni	163 km
	Bamako-Kangaba	90 km
	Bamako-Segou	240 km