

REVIEW OF THE ICT SECTOR IN LEBANON AND ICT OPPORTUNITIES FOR USAID/BEIRUT

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INTRODUCTION

Across Asia and the Near East region (the geographical focus of the USAID Bureau that supports this activity), ICTs are an emerging reality, but there are a number of key impediments to make ICTs everyday practices and tools for development. The US Government (USG) recognizes the critical need for its partner countries to be engaged in Internet and E-Commerce development; the ANE Bureau has adopted the 4 “P” approach to successful Internet development: Promoting (1) Policy, (2) Pipes, (3) Private Sector, and (4) People.

1. **“Policy”** - Opening doors through policy reform to permit the introduction and growth of ICTs, reducing barriers to open connectivity, and ensuring that global electronic commerce can take place in an open and transparent fashion.
2. **“Pipes”** - Demonstrating the effectiveness of appropriate hardware and software by utilizing the latest in technology such as wireless, high speed data transfer, secure transaction capability, extending the Internet to underserved areas, and working with private sector Internet Service Providers to offer a range of services to clients.
3. **“Private Sector”** - Ensuring the private sector “can do what it needs to do to be successful.” This entails combining “Policy” reform and “Pipes” improvement with ensuring there are sufficient, well trained technicians to support the build-out of ICT industries.
4. **“People”** - Implementing new approaches to sustainable social and economic development through ICT tools. It is critical to the success of the program that USAIDs partners use the Internet and other ICT technologies as tools for development.

The three working day TDY allowed USAID ANE Bureau’s Internet Development Advisor (IDA) and Embassy’s Commercial Assistant Rouba Chalabi to work with the USAID/Beirut, the Government of Lebanon (GOL), the Lebanese private sector, Lebanese (American) Universities, and the NGO community. The TDY provided an opportunity to review the Lebanese ICT sector, what hurdles lie ahead for the sector, and what, if anything, could the USG do to collaborate with the Lebanese to advance the sector.

Challenges

Lebanon is a middle-income country, on the verge of complete recovery from a devastating civil war. The war has been over for ten years; physically Beirut is like a city reborn, with modern or reconstructed buildings replacing those that were damaged/destroyed during the war. The Israelis withdrew their army from the South last year and most Lebanese feel it is time for the Syrians to withdraw their thirty-five thousand troops. And yet, there are daily reminders that Lebanon can be a difficult place in which to live and operate, with Israeli military jets breaking the sound barrier over Beirut or bombing a power plant or Syrian military police checkpoints. Politically, the country is factionalized into multiple parties. Because of the need to maintain stability and not favor one party or ethnic group over another, there is virtually no statistical data on which to base economic decisions. The factionalization has meant that policy reform, while a national imperative, is difficult to realize. Economically, the

country is in a recession. The country is in debt of around twenty-four Billion dollars. Four Billion dollars of debt is added each year with thirty-eight percent of that (\$1.5 Billion) coming from propping-up its overvalued currency. Some Lebanese who returned post-war with investment capital have now left because it wasn't financially profitable (even though it was personally rewarding). A huge building boom has meant an oversupply of business and residential space. Because of the recession, (lack of policy reform and transparency) and the small market of Lebanon (somewhere around 4 Million people), entrepreneurs are looking to new markets in the region rather than investing in Lebanon. Some international firms have left because the return-on-investment wasn't high enough. Most University graduates have left too. Without statistical data, it is difficult to estimate, but people say it can be as high as seventy-five percent. (In essence, people are voting with their feet). Some people state that for every one Lebanese in Lebanon, there are three Lebanese overseas. The expatriate Lebanese provide valuable remittances, but that cannot replace the lack of local investment if people stayed in Lebanon, the number of Lebanese graduates they could hire, all the taxes they could have paid in Lebanon, and how much they could have invested in Lebanon.

Opportunities

With all those challenges, Lebanon has the fundamental building blocks to regain its pre-war status of being a regional powerhouse. The private sector is large, well-educated and well-capitalized. A large percentage of people have phones and there are over one hundred thousand paying Internet subscribers, representing two to four hundred thousand users (the highest percentage of Internet subscribers of any ANE country). However, select policy reform items are needed for the ICT companies to flourish instead of floundering in the wake of ICT enabled neighboring countries like Dubai/UAE and Jordan.

The USAID program has one direct hire running a financially growing, ready to be redesigned, portfolio. It is recommended that USAID/Beirut consider modest, targeted activities to energize a sector that is struggling for the lack of policy reform. USAID/Beirut could help the country develop a Master Plan for ICT capacity borrowing lessons learned from USAID/Amman and their REACH Initiative. With the "Big Picture" in mind, USAID/Beirut could target select hurdles such as the lack of a conducive policy environment through independent telecommunications regulation and policy liberalization like USAID/Rabat and pricing reform such as what US Embassy/Tunis has seen. With an improved policy environment, the private sector would thrive and invest. For long-term plans, USAID/Beirut could promote using the Internet as a tool for development in the rural cooperatives through a training-of-trainers program akin to what USAID/Leland Initiative did in sub-Saharan Africa. Additionally, USAID/Beirut could help to computerize and bring Internet to schools to train tomorrow's leaders like USAID's Education for Development and Democracy Initiative. Lastly, USAID/Beirut could pull all of these activities together and support a pilot e-activity to propel the ICT sector like several other USAID countries have done.

After having visited most USAID/ANE countries, the author was impressed that Lebanon, compared to most other countries, has all of the right building blocks such as entrepreneurs, capital, educated population, and good infrastructure. The challenge for Lebanon will be to put all of the building blocks together, realize its potential, and become a regional/global ICT powerhouse.

BRIEF OVERVIEW OF THE SECTOR

Policy Environment

The growth of the Internet in most countries has depended upon having a conducive policy environment allowing the dynamic and competitive private sector to do what it wants and needs to do. In environments where this exists, quality-of-service is generally high while the cost-of-service is reasonable.

The telecommunications policy environment in Lebanon is not strong. While the new government is only a few months old at the time of writing, the privatization effort of the state run telco is moving very slowly. (Privatization is supposed to be in early 2002). Tied to the privatization effort is the creation of an independent regulatory authority. Until an independent regulatory agency is created, the Ministry of Posts and Telecommunications will arbitrate disputes. (As an example, the two private sector GSM licensees are in a billion dollar dispute with Ogeru, the monopoly fixed-line provider which wants the third license). (On a recent trip to Paris, the French government offered PM Hariri with select policy assistance such as frequency management. France Telecom will be a very strong contender in the creation of Liban Telecom). Bandwidth pricing is extremely high, particularly considering what bandwidth costs in other countries. (E.g., for a "64kb" leased-line, a business will need to pay between \$1,000 and \$1,500 per month. The "64kb" leased-line will be shared between three and four other businesses. As a result, the customer is paying for a 16kb connection. Several businesses, ranging from a cybercafe to an incubator, choose to leave a dedicated telephone line connected with a 56kb modem to an ISP all day and the monthly local phone bill charges will only amount to \$600-700. While a cumbersome mechanism to get, in effect, a "leased-line," it is cheaper. The high-pricing restricts economic growth and reduces net usage. Additional difficulties include customs importation problems on some equipment. (E.g., one major US telecommunications equipment representative indicated Customs required individual letters describing the function of each piece of equipment imported. Customs used to physically examine each compact disk that came into the country). While an Intellectual Property Rights law was passed, there are certain loopholes such as Article 25 where Universities can buy one copy of software and copy it for the entire university. Without enforcement of IPR laws or loopholes such as Article 25, Lebanon does not have a conducive policy environment for software production. Lastly, new technologies can be difficult to employ, for example, video conferencing and Voice-over-Internet are both illegal.

There are some bright spots on the policy front. Prime Minister Hariri is a businessman. He understands that change is necessary. When he came into power, he said he believed telecommunications reform is essential. Recently, the PM has taken on tough issues such as shutting down the inefficient state run television company and eliminated the subsidies propping up a sugar beet program. The private sector hopes he will push for telecommunications reform based on the recent policy victories. There are select energetic, private sector oriented people in government who want change (and they need to be encouraged and supported). Government eliminated customs duties (12/01/00) on select equipment (but not all equipment. E.g., one can import a computer duty free but a replacement modem is taxed at five percent). Intellectual property rights (IPR) law was passed (see comments about loopholes) and the telecommunications legislation will be debated by the cabinet after the Eid holiday. (Approval is expected and then it will be sent to Parliament for debate. If approved, anticipated timeline is between eight and twelve months).

Pipes Platform

The telecommunications infrastructure in Lebanon is modern. They have a fiber optic ring around the country. There are roughly 750,000 fixed-line phone (with about an equal number of mobile users). The challenge is for Ogeru to deliver the high-speed bandwidth and install the 750,000 additional lines that they have capacity to deliver. For several years, Ogeru has promised to deliver ISDN but according to the Ogeru representative at the ARABCOM exhibition, they do not have the switches (again this year). The Daily Star reported on 1/27/01 that CISCO representative Mohammed Abdul-Malak said it took "his company six months to get a leased-line connection between Beirut and Zurich." Under right management, the pipes problem in Lebanon could be resolved very quickly. The bandwidth problem has opened select opportunities for those with the right licenses. Mr. Ibrahim IBRAHIM at GlobalCom said they are providing high-speed bandwidth for those that can afford premium service. While it is beneficial that such services can be provided, long-term growth of the estimated 100,000 paying Internet subscribers (representing a user-base of 400,000 people or 1/10th of the country) is to have inexpensive bandwidth offered by multiple providers. Local phone rates (35 Lebanese Pounds/\$1.40 per peak time hours between 6AM to 9PM and 17.5 Lebanese Pounds/\$0.70 per off-peak time hours between 9PM to 6AM) must be reduced. There are fourteen or fifteen Internet Service Providers (ISPs). While monthly account prices are affordable (\$10-20 depending upon the service), the ISPs indicated the market is flat-lining. Competition is fierce and two ISPs recently closed shop. Cyber-café's are plentiful and affordable (\$1-4/hour) and available around the country.

During the TDY, several people discussed the forthcoming USTDA financed and led study of the Beirut Emerging Technology Zone (BETZ). One should investigate if the lack of an ETZ is holding back the private sector or if it is the lack of a conducive policy environment and pipes problems.

Private Sector Overview

In addition to the policy and pipes hurdles discussed above, the private sector faces numerous challenges resulting from the poor economy. As a result, the private sector is investing their capital in other places. Several companies indicated that they were targeting countries like the United Arab Emirates, Jordan, or other countries in the region. The Government of Japan indicated that two of the eight Japanese companies in Lebanon have left the country because of the economy. (For comparison purposes, prior to the war, there were one hundred Japanese companies). In addition to investments moving overseas, Lebanon's best asset, its people, are also moving overseas. While all types of statistical data in Lebanon is a difficult to obtain if it exists at all, anecdotally, seventy-five percent of the ICT graduates have left the country. While Lebanon is a well-educated country producing some of the best-trained technologists and businesspeople on a per capita basis, recent graduates do not find that there are opportunities in Lebanon. If policy hurdles can be eliminated, companies will grow and will have an easier time to provide job opportunities for recent graduates. While there are some reports that capital and incubator support services do not exist in Lebanon, the Embassy Commercial Office arranged meetings with several people that are providing commercial incubator services in addition to American University Beirut's incubator competition (funded by HP). Bottom-line, private sector can and will thrive if there is substantial policy reform.

People Power

USAID and its NGO partners have been providing ICT support to those clients that they serve. While they face challenges in the rural areas of lower-levels of literacy, limited computer use, limited access to phone lines, periodic power outages (Israel has bombed power stations), etc., the NGOs are using ICTs. SUNY-Albany has tied the five rural development NGOs into a Management Information System (MIS). USAID has also brought the Lebanese parliament on-line (www.lp.gov.lb) and has developed an (incredible) municipal tax collection program. The challenge for USAID is to extend the ICT capabilities of its NGO partners to train more rural institutions (e.g., municipalities, water management teams, rural cooperatives, etc.).

RECOMMENDATIONS

The USAID staffing level is extremely limited considering they are increasing the portfolio management to \$50 Million. With one USG direct hire, a handful of FSNs, and support from the Embassy Commercial Section. Proposed ICT activities must:

(a) Be focused to have maximum impact. Several worthwhile ideas will not be able to be funded because the Mission cannot handle too many projects.

(b) Draw upon greater USG resources. Rouba Chalabi Embassy Commercial Assistant was invaluable during the brief TDY. She knows the ICT sector and the key players and it was clear during the meetings that she has the respect of the key players. During a forthcoming TDY to Washington, it is recommended she stay on for a few days to meet Washington ICT specialists from USTTI, FCC, NTCA, etc.

(c) Draw upon the local ICT community. To have success in the ICT sector, USAID/Beirut will need to draw upon the expertise and energies of the local ICT community, principally the private sector where there is mutual interest to promote rapid change.

The author is happy to have a virtual presence and periodically TDY to support Lebanon's proposed ICT program. The Mission should send one or two people to the ANE ICT workshop for USG employees tentatively slated for October in Cairo or Amman.

1. The Big Picture Recommendation

The lack of a centralized leader advancing the ICT sector is apparent. The Hariri government is relatively young administration and has numerous top-priority items on its agenda. Unfortunately, ICT policy assistance hasn't been one of them. In contrast to Lebanon, regional countries such as Jordan or the UAE-Dubai have support from the highest levels of government that has energized the sector by creating a conducive environment for the private sector to thrive. This required the Jordanian and the Emirate leadership to enact (often) difficult policy reforms, make capital investment, and empower at least one top level government official to spearhead sector reform. In the case of Jordan, the King asked a leading private sector businessman Karim Kwar to draft a business plan for ICT success in Jordan. A public-private partnership was developed with the Information Technology Association of Jordan (INT@J) of (principally) private sector firms serving as the conduit for ICT leadership. With Kwar working with the government and the private sector, the REACH Initiative (www.reach.jo) was born (with USAID support). In Dubai, the country recognizes that oil supplies are finite and that as a country, it must move to an information based economy. With

Dubai's Internet city, they are attracting companies through an improved business environment. For international investors, easy operating environment has meant rapid company registration, affordable and available building space, low taxes, high-speed and low-cost bandwidth, etc. In effect, Dubai is trying to remove the barriers to success.

While the Lebanese government has select people who both understand the ICT sector and whom are trying to change it, the contrast to Dubai and Jordan is apparent. The Big Picture vacuum means that it is difficult and costly to register a company and there is reputed to be government inefficiency, corruption, malaise, lack of enabling laws, overdue need for telecom reform, and inability to get affordable bandwidth. Success, or the lack thereof, for an ICT company, can often be measured by bandwidth (through such measures as affordability and availability). For regional comparison purposes, a 2MB (MegaByte) circuit in Dubai costs \$100/month, in Jordan, \$900/month, and in Lebanon, \$2,200/month.

At the start of the Hariri government, the private sector met with the Prime Minister and talked about the need for immediate reform. The PM indicated that he supported this effort. Unfortunately, the operating environment hasn't changed. With a successful program 'just around the corner,' it is recommended to learn from Jordan and bring Karim Kavar to Lebanon to work with the private sector and make a presentation to the GOL. To make the proposed Kavar visit a success, he needs to work with a dynamic association that is vested in driving the reform process. The American Chamber of Commerce (AmCham) could be such an association. While the AmCham is still in its infancy, it has a solid mixture of "policy, pipes, and private sector" representatives. If the AmCham hosted a visit by Kavar, it is recommended to include other associations such as the Professional Computer Association (PCA), First Tuesday, Lebanese Software Association, and include government representatives from the Ministries of Economy and Trade, Finance, Reform, and Posts and Telecommunications. (The later four Ministries have just started an ICT committee but it does not have any private sector representatives).

The visit by Kavar would focus on the big picture and could examine:

- What it took to get Jordan on the right-track,
- What kind of assistance was required,
- What kind of awareness raising was needed,
- How to get top-level government buy-in, and
- How to make it a national imperative for Lebanon's future to become an ICT powerhouse.

Kavar is a good choice to answer those questions as he coordinated the design of REACH and REACH has had seven critical areas of success:

(1) Top level support, "all the way to the King," has been critical to instill the REACH goals are a national priority.

(2) Improved policy reform, whether it is measured by the number of laws in the process of amending/passing to facilitate ICT growth, cutting edge nature of the laws (e.g., first UNCITRAL style E-Commerce law in the Middle East), or policy support applied directly to the Telecommunications Ministry (through the AMIR program).

(3) Through INT@J and AMIR Program support, a true public-private partnership has been established. Public-private partnerships are discussed in many/most countries, but are rarely achieved as most governments give 'lip' service to a public-private partnership but consistently return to their outdated *modus operandi*.

(4) Jordan is making progressive strides to reform the education sector as it is critical to long-term growth (e.g., English is mandatory from the first grade onwards). While more assistance is needed in the belief that Jordan's children are the future, the country is putting a foot forward for the long haul ahead.

(5) Jordan is taking steps to integrate itself with the world community. It is now a WTO member (approved 2000), IPR laws have been enacted (and recently enforced with a \$25,000 fine levied for software piracy), and Jordan became the fourth country in the North American Free Trade Agreement (signed 2000).

(6) To spearhead national reform, strong leadership is essential. INT@J has been able to play that role, effectively galvanizing the private sector and bringing in the public sector to institute reform.

(7) The Amman Mission has financially backed the program at \$8.3 Million, making Jordan's ICT program the financially largest in the USAID community to be undertaken to date. While funding can be difficult for many Missions, USAID/Amman recognizes ICTs are a critical tool for widespread economic growth and can be embedded as a cross-cutting strategy. For additional information on the others results to date, please refer to the REACH 2.0 document which can be found at www.reach.jo

2. Regulatory Reform Recommendation

Simply put, the Lebanese private sector cannot do what it needs to do. To overcome the policy hurdles expressed in the Background Section, the Mission could support reform efforts. One easy mechanism to start with is to benefit from the ANE Bureau's US-North African Economic Partnership Program (formerly known as the Eizenstat Initiative) policy assistance to Morocco. USAID is supporting the relatively young Moroccan independent regulatory agency to oversee the privatization of the telecom company, grant new licenses in select areas (e.g., GSM), arbitrate when there are disputes, etc.

USAID/Beirut is welcome to send up to five people (including one USG/Beirut personnel) to Morocco to participate in the regulatory assistance training. The training will tentatively be conducted by the US FCC and the International Telecommunications Union starting on June 4th or 11th and will last one week. While the training was originally going to be for Morocco only, several ANE ICT countries would benefit from policy assistance. Accordingly, a request has been made to the Moroccan Regulatory Agency, the ANRT, if they would be willing to host additional countries. Training would cover:

- Overview of the regulatory process;
- Licensing;
- Interconnection;
- Spectrum management;
- Convergence, including Internet Administration and IP telephony;
- Universal service, including access for rural and other under-served populations;
- E-Commerce.

For more information, see [Annex A, Task 2.2 FCC/ITU/ANRT Regulatory Training Workshop in Morocco](#) for more details.

The Morocco training is just one of many telecom assistance packages USAID has and can provide. Assistance can be provided through the US FCC, USTTI (US Technology Training Institute – the 2001 course catalog was left with Jon Breslar), and other public and private institutions. The Mission could select policy oriented courses from the catalogue and send key delegates to the training (both public and private sector). Additionally, the Mission could support policy makers with Telecommunications Policy

assistance through a study tour arranged by USTTI. See Annex A, Task 2.1 ANRT Executive Study Tour; a task order to support the Moroccan regulatory authority by ANE Bureau using USNAEP (United States North African Economic Partnership) Funds.

3. Pricing Reform Recommendation

One problem that faces the private sector and all end-users is monopoly high pricing on telecom. The Ministry of Posts and Telecommunications (MPT) is the second largest revenue source for the country. ISPs (Internet Service Providers), ASPs (Application Service Providers), Technology leaders, etc. all buy bandwidth at rates that exceed international norms by several factors. (In other words, cost-based tariffing is not used). With high-rates, illegal provision of service has increased which has hurt the licensed providers. High Bandwidth costs are passed along to the consumers that restrict growth of the user-base and limits the expansion of services offered. Some entrepreneurs claim that several investors (both companies and individuals) have taken their business elsewhere because bandwidth is both hard to deliver and the price is too high.

It is recommended that Lebanon take lessons learned from other countries. In Tunisia, Tunisia Telecom (TT) did two things to increase the user base by lowering two types of pricing that affect Internet growth. TT lowered the dial-in rates by 1/3rd for all data calls (not for voice) allowing more users to get on-line and stay on-line longer. (Dial-in costs for the time users spend on-line are generally three to five times the monthly account costs making the Internet a costly tool for development). Then, TT encouraged ISPs to lower their monthly account charges as they returned ten percent of the revenue from the time the ISPs' customers spent on-line. (One Lebanese ISP at the PCA ISP meeting said their subscribers user 160,000 hours per month). In response, the Tunisian ISPs lowered their monthly account costs. As a result, new membership doubled in the first month alone (January 2001). Because of the initial success, Tunisia Telecom will likely give the ISPs thirty percent of the revenues. If this happens, the ISPs have pledged to give Internet away for *free*. In this win-win-win scenario, Tunisia Telecom and the ISPs will be making more money and the number of users will increase and they will spend more time on-line using the Internet as a tool for development. The author is willing to assist the Mission coordinate a policy visit to Tunisia.

4. NGO Support Recommendation

USAID NGO partners are connected to the Internet and generally have their own websites promoting development. For example, the five rural development cooperative partners, Creative Associates, YMCA, Mercy Corps, Cooperative Housing Foundation, and the Pontifical Mission all use the net. However not all of the rural village cooperatives that they work with aware of the benefits of the Internet and are trained on Internet use. (They indicated there were eighteen computers installed in municipalities but only 2-3 are using the Internet). Accordingly, the Mission could sponsor a training-of-trainer (TOT) program akin to those sponsored by the Leland Initiative.

The TOT's run by the Leland Initiative for the USAID partners in sub-Saharan African were useful because those trained could go on and provide, principally, marketing of the Internet to individuals and companies. The Internet, a powerful combination of the telecommunications and information revolutions, will likely be a useful tool for rural development communities. As new technologies and new business/organization mechanisms can be difficult to adopt, if USAID/Beirut provided TOTs to its chief NGO partners, the NGO partners can market the Internet to rural developing communities.

Through the Leland Initiative, English and French end-user Internet manuals are available for free downloading. See www.usaid.gov/leland/manual.htm

The training approach used for the TOT workshop integrates Internet technology into a wider framework of an organization's information use strategy in order to achieve its development goals. The TOT workshop provides a step-by-step process for conducting an effective Internet use training—from important training preparation considerations to methods to evaluate the overall success of the training. The TOT workshop allows the trainee to:

- Acquire the tools and resources to conduct an Internet for Development Training.
- Understand participatory training methods that are effective in adult learning situations.
- Develop “action-planning” skills designed to assist organizations to integrate the Internet into their activities.
- Tailor an Internet training to the needs of the audience.
- Interact with and learn from the experiences of other trainers.

5. Long-Term Educational Investment Recommendation

As a country, the Lebanese have a long history of education. Most of the country is literate, often in three or more languages. However, computer (and Internet) penetration in schools, particularly public schools, is low. Public school curriculum can be outdated and not have the resources necessary to train the next generation of Lebanese leaders in the latest tools.

There are those trying to make a change. The sister to Prime Minister Hariri, a Member of Parliament in her own right, heads a Parliamentary committee on Education as well as a Foundation to computerize and Internetize public schools. The Foundation recently received a grant of \$250,000 from Schools-on-Line. There are companies like local companies like EduWare (www.eduware.net) to international powerhouses like Microsoft that are working to provide the next generation of Lebanese professionals with ICT skills from an early age. USAID can draw from lessons learned from other programs like The World Links for Development (WorLD - www.worldbank.org/worldlinks) program that provides Internet connectivity and training for teachers, and students in the use of technology in education. While becoming engaged in the education sector is outside of the focus of the USAID portfolio, putting Internet into schools could fall under the Economic Growth portfolio because a more well-trained, well-educated population will lead to a more economically robust country. While the opportunity to work with the Hariri family could be of political advantage to USAID, this recommendation requires further investigation.

6. Pilot

At the AmCham review meeting, the members suggested that they could increase awareness of the power and utility of ICTs if USAID/Beirut funded a high-profile pilot. While several types of pilots were mentioned, e.g., e-procurement, e-government, the author feels it is important to fund a pilot which will ultimately either resolve a key sector hurdle or expose the need to resolve a hurdle. Thus, the pilot matters less than the results that the pilot will lead to. The AmCham group agreed to meet again to discuss potential pilots and ultimately make a recommendation to USAID Mission Director Jon Breslar.

SUMMARY

Lebanon is a middle income country, on the verge of complete recovery from a devastating civil war. Politically, the country is factionalized into multiple parties. Economically, the country is in a recession. However, the private sector is large, well-educated, and well-capitalized. With select policy reform, the moderately sized ICT sector could flourish. While USAID/Beirut is a limited Mission, there is financial opportunity to add a modest element to a program that will be redesigned this year. Accordingly, promoting ICTs for economic development in Lebanon could help energize a sector that is struggling for the lack of policy reform. USAID/Beirut could be the catalyst for reform with select, targeted interventions. USAID/Beirut could help the country develop a Master Plan for ICT capacity. With the "Big Picture" in mind, USAID/Beirut could target select hurdles such as the lack of a conducive policy environment. USAID/Beirut could promote an independent regulatory agency, policy liberalization, and pricing reform. With an improved policy environment, the private sector would thrive and invest. For long-term plans, USAID/Beirut could promote using the Internet as a tool for development in the rural cooperatives through a training-of-trainers program. Additionally, USAID/Beirut could help to computerize and Internet schools to train tomorrow's leaders. Lastly, USAID/Beirut could pull all of these activities together and support a pilot e-activity to propel the ICT sector.

After having visited most USAID/ANE countries, the author was impressed that Lebanon, compared to most other countries, has all of the right building blocks such as entrepreneurs, capital, educated population, and good infrastructure. The challenge for Lebanon will be to put all of the building blocks together, realize its potential, and become a regional/global ICT powerhouse. The author is appreciative to the Mission and the Embassy whose support made the brief TDY successful.

ANNEX A: POLICY ASSISTANCE SOW FOR USAID MOROCCO

STATEMENT OF WORK Telecommunications Liberalization: Strengthening the Regulator USAID-ANRT Cooperation

Component 2: Training and Study Tours

INTRODUCTION:

In today's global economy, telecommunications and networked information technologies not only comprise a three-trillion-dollar economic sector but also enable a wide range of developmental processes; including electronic commerce, education, health, environment and science, human rights and the delivery of governmental services. Over the past two decades, advanced telecom technologies have introduced new communications and information services at prices increasingly affordable to traditionally under-served populations. Supporting this revolution in access to communications and information technologies is a global wave of liberalization of the telecommunications sector, which prior to the 1980's had languished in monopolistic doldrums. At the heart of this process of liberalization is the recognition that a competent, independent regulator is needed to attract investment, facilitate new and competing services, protect the interests of the users, and open access to rural and other under-served populations.

The Situation in Morocco

In only the past few years, the Kingdom of Morocco has made great progress in liberalizing its telecom sector and integrating its economy into the global information society. Competition on the provision of mobile phone services between newcomer *Médi Télécom* and the existing phone company *Maroc Télécom* has already resulted in a significant increase in the phone penetration rate from 60,000 in June 1999 to almost 2,500,000 in November 2000. Data services will undoubtedly increase substantially once the three VSAT networks that have licenses in Morocco are in commercial operation.

During its first two years of operations, the National Agency for Telecommunication Regulation (ANRT) launched the liberalization of the telecommunication sector by issuing the mobile wireless and VSAT licenses. The ANRT is now planning to issue licenses for data transmission, local loop services, national backbone and universal services. The positive response made by international investors and telecommunication firms to these operations underlines the attractiveness of Morocco as a regional telecommunication center. This rapid progress, however, places a demand of ANRT to provide expert services in licensing, competition, spectrum management, interconnection, universal access, and other areas of telecommunications regulation -- a daunting challenge for this fledgling agency.

1. ACTIVITY OBJECTIVE

The main objective is to support ANRT telecommunication liberalization plan by strengthening ANRT human resources skills in the technical, economic and regulatory fields and by providing in-depth analysis of the Moroccan market for telecommunication, in particular broadband, services. Expected results include: 1) trained technical staff at ANRT capable of handling the wide range of new challenges in telecommunications regulation; 2) issuance of licenses to introduce new services and promote universal access; and 3) further development of a liberalization plan responsive to the needs of Morocco's telecommunication market and to expectations of potential investors in the sector.

This program includes two components: Component 1, including technical assistance and support, will be implemented through IRM/SETA; Component 2, including training and study tours will be implemented to the Telecommunication Leadership Program.

2. COMPONENT 2 TASKS

Task 2.1: ANRT Executive Study Tour

Study tour during the week of February 18th in Washington D.C. and vicinity by four ANRT executives and two-or-three technical staff. The FCC and USAID would host the study tour. The U.S. Telecommunications Training Institute (USTTI) would handle travel and logistics support as well as participate in substantive training and planning activities. An illustrative schedule (to be determined on ANRT expressed interests) would include:

- two-or-three days in discussions at the FCC on subjects of specified interest for the ANRT;
- half day of meetings at Department of Commerce on electronic commerce and at State Department on international (especially ITU) issues;
- half day meeting at USTTI and USAID to discuss logistics, training program and telecom survey (see below);
- half day at the Telecommunications Industry Association, to include a session on wireless local loop;
- one day at the National Telephone Cooperative Association on rural access;
- half-day visit to FCC Center at Gettysburg (optional).

Task 2.2: FCC/ITU/ANRT Regulatory Training Workshop in Morocco

Regulatory Training Workshop June 4-7 in Morocco, hosted by the ITU, FCC and ANRT for ANRT personnel, Moroccan telecom experts and selected guests from North and West African countries. Training would cover:

- overview of the regulatory process;
- licensing;
- interconnection;
- spectrum management;
- convergence, including Internet Administration and IP telephony;
- universal service, including access for rural and other under-served populations;
- electronic commerce policy;
- international issues.

On June 11 and 12, U.S. participants, including FCC, DOC, NTCA, USTTI and USAID would hold bilateral discussion with ANRT and other Moroccan agencies on future cooperation.

Task 2.3. Training Program for ANRT Personnel at USTTI

Ten-to-eleven Moroccan telecommunications officials would attend courses offered by USTTI in 2001, as determined in consultations between ANRT executives and USTTI.

3. BUDGET

- Task 2.1\$40,000
- Task 2.2\$54,200
- Task 2.3\$70,000
- Total\$164,200

(Detailed table attached)

This is to be accomplished by “manage-org” transfer from Mission to G/HCD for transfer to State Department (EB/CIP) Telecom Leadership Program (note the transfer mechanism is still being worked out here in G/HCD, but it has already been done with USAID/Haiti and Jamaica).

ANNEX B: Developing the Internet across Asia and the Near East, An U.S.A.I.D. Global Information Infrastructure Project

Purpose: Information and Communication Technologies (ICTs) are powerful tools for stimulating economic growth and social change. The quality of, and access to, information is critical to the successful application and adoption of ICTs by society. ICTs cut across all USAID traditional sectors: health, community development, governance, economic growth and education. They enable groups working on common issues to benefit from each other's experiences and share best practices. They can:

- Provide access to improved education and health in remote or inaccessible areas through distance learning, telemedicine, and interactive training;
- Improve services to citizens by providing on-line access to government/public services; enable individuals and communities to make informed choices in the decision making process; and
- Reduce business costs, permitting more informed economic decision while opening access to new markets through electronic commerce.

Program Description: Across the Asia and Near East (ANE) region, Internet and E-Commerce is an emerging reality, but there are a number of key impediments to make it an everyday business practice. In this context, the ANE Bureau has adopted the 4 "P" approach to support Internet development: (1) Policy, (2) Pipes, (3) Private Sector, and (4) People.

1. **"Policy"** – Promoting policy reform to permit the introduction and growth of information and communication technologies, reducing barriers to open connectivity, and ensuring that global electronic commerce can take place in an open and transparent fashion.
2. **"Pipes"** - Demonstrating the effectiveness of appropriate hardware and software by utilizing the latest in technology such as wireless, high speed data transfer, secure transaction capability, extending the Internet to underserved areas, and working with private sector Internet Service Providers to offer a range of services to clients.
3. **"Private Sector"** - Ensuring the private sector "can do what it needs to do to be successful." This entails combining "Policy" reform and "Pipes" improvement with ensuring there are sufficient, well trained technicians to support the build-out of ICT industries.
4. **"People"** - Implementing new approaches to sustainable social and economic development through Information and Communication Technology tools. It is critical to the success of the program that USAID's partners use the Internet and other ICTs as tools for development.

Project Goal: The goal of the Asia and Near East Information and Communication Technology program is to have all ANE Missions engaged in activities which address one or more of the "4-P's" within their development portfolios.

Project Countries: Algeria, Bangladesh, Cambodia, Egypt, India, Indonesia, Jordan, Lebanon, Mongolia, Morocco, Nepal, Palestinian Authority, Philippines, Sri Lanka, and Tunisia.

Project Country Activities at a Glance:

COUNTRIES	ASSESSMENT	POLICIES	PIPES	PRIVATE SECTOR	PEOPLE
Algeria	Jan '01	✓		✓	
Bangladesh	Sept '00	✓		☑	✓
Cambodia	Spring '01				✓
Egypt	Aug '00	☑	☑	☑	☑
Gaza/WBank	Aug '00	✓	☑	☑	☑
India	March '00	✓			☑
Indonesia	Jan '01	✓		✓	✓
Jordan	Sept '99	☑	☑	☑	☑
Lebanon	March '01				☑
Mongolia	July '00			☑	
Morocco	Sept '99	☑	☑		☑
Nepal	April '01				✓
Philippines	Dec '00	☑		☑	☑
Sri Lanka	Dec '99	✓		✓	
Tunisia	Oct '00		✓	✓	

✓ = Proposed/ Planning Stage

☑ = Engaged in

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