

**NiDA Information and Speech**  
Darrell Owen – 4 September 2001

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**CV statement:**

Darrell Owen is currently an international consultant specializing in Information Communication Technologies (ICTs) in developing countries. Prior to forming his own company, he worked for the U.S. Agency for International Development (USAID) where his assignments included serving as Deputy Y2K Program Manager, managing the Agency's Information Technology Transfer (ITT) activity, the Agency's Internet and Intranet activities, and overseeing a Mission Connectivity initiative for improving telecommunications capabilities between the Agency's field locations via satellite and wireless technologies.

During the past two years Mr. Owen has participated in a number of ICT Assessments in various countries around the world. He conducted an ICT Assessment in Cambodia in June of this year (2001). Mr. Owen has consulted in Jamaica in support of their telecommunication liberalization efforts, and also worked with the Inter-American Development Bank (IDB) where he designed a community-based Telecenter/Community Access initiative for Jamaica. Darrell has also served as the Senior Advisor for Information Technology responsible for designing a large, 5-year ICT Initiative in Egypt, including telecommunications and strengthening the local IT business community. His continued work in Armenia has moved beyond the Assessment to assisting the government in developing a National ICT Master Strategy, and supporting the formation of a High Tech Council to oversee the coordination/monitoring of activities within the Master Strategy. Darrell is currently the Project Coordinator for a two-year project in the Eastern Caribbean where several countries are collectively pursuing telecommunications market liberalization and a series of targeted projects to better leverage ICTs for economic growth. Mr. Owen holds a Bachelors in Business Management from Portland State University in Portland, Oregon and a Masters in Telecommunications from the George Washington University in Washington D.C.

## **Title and Abstract of Speech:**

Title: ICT Assessment: Cambodia

Abstract: The U.S. Agency for International Development (USAID) undertook an ICT Assessment in the country of Cambodia for the benefit of the private sector. This was carried out during the later half of June 2001. This assessment was built around a four “Ps: framework: 1) **Policy**—opening doors through policy reform to permit the introduction and growth of Information and Communication Technologies (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 (ISPs) 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, and 4) **People**—Implementing new approaches to sustainable social and economic development through ICT tools. IT is critical to the success of USAID’s international development program and is increasingly working with their development partners in using the Internet and other ICTs as tools in its development activities. The assessment report has been completed, and includes findings and a number of recommendations in each of the 4 areas. The report is currently available on the Internet.

## **Travel itinerary:**

Arrival: Tuesday, September 11, 2001, at 9:50 AM from Bangkok via Thai Airways on Flight 696

Departure: Friday, September 14, 2001, at 4:25 PM to Ho Chi Minh City via Vietnam Airlines on flight 841

Note: I will be staying at the Sunway Hotel while in Phnom Penh, Cambodia

## Text of Speech:

### Introduction

I would like to thank Secretary General, His Excellency, Mr. Leewood Phu, for his invitation to be here today and for the opportunity to share with the audience, the findings and recommendations coming out of a recent ICT Assessment.

This assessment was undertaken by the U.S. Agency for International Development (USAID) during the later half of June 2001 for the benefit of the private sector. And it was during that time we met Mr. Phu and were most encouraged with the emerging focus on Information and Communication Technologies through NiDA on behalf of the Kingdom of Cambodia. Again, thank you very much and I trust this ICT Assessment, and my participation here today in some small way can contribute to your continuing efforts.

### Assessment using 4 Ps Framework

The ICT Assessment for Cambodia has been undertaken in support of USAID's Asia and Near East (ANE) Bureau's Information and Communication Technology program. This program has adopted a 4 "P" approach to include (1) Policy, (2) Pipes, (3) Private Sector, and (4) People.

Each of these four "P" is future articulated in the Bureau's Information and Communication Technology program with the following:

1. ***"Policy"*** – *Opening doors through policy reform to permit the introduction and growth of information and communications 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 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" reforms 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 international development partners use the Internet and other ICTs as tools for development.*

In many ways, this 4P framework simply helps us focus attention and assists in gathering a wide-range of information into workable groupings. Other

organizations use different frameworks (e.g., APEC and Harvard), and in our minds, these are equally valid, each with their pluses and minuses. Also, it is important to recognize that in just two weeks, our approach is more that of a survey than an in-depth study. We in fact don't turn over every rock, nor dig deep into every issue. In fact, we view the ultimate value of the Assessment not in the Assessment report itself (we all have enough reports), but rather in what the assessment process triggers: what initiative/s it may help to launch, what increased collaboration will take place, etc. It is more aimed at being catalytic for bringing about changes in key areas than in being the absolute definitive analysis.

#### Assessment Findings and Recommendations

OK, we did an ICT Assessment recently. Now, what did we find? What are our recommendations? Using the 4Ps as our framework, I'd like to briefly go over our findings and recommendations:

#### Policy (telecommunications and e-commerce):

##### Findings:

- ? Considerable ambiguity and uncertainty in telecom policy environment at this time—without clear and transparent telecommunications law, implementing rules, regulations, administrative procedures for granting licenses, establishing interconnection rates, handling disputes, etc., private investors will be hesitant to risk any investment. They must have a predictable environment.
- ? Draft Telecom Law under review—clearly work is underway in this arena
- ? World Bank providing telecom policy/regulatory TA—the World Bank is lending support here, though suspect there's a lot of work to be done.
- ? MPTC moving toward separating policy/regulation and operations (No independent regulator at this time)—this is an essential move recognizing that there are various models for gaining varying degrees of “independence.”
- ? Voice over Internet illegal but not enforced—clearly an issue as on the one hand it provides low cost international communications, but at the same time can significantly erode revenue stream from the current circuit-switched telcom operators.
- ? Draft E-Commerce Law under review at MPTC (ICT-oriented pieces)—some pieces already exist, and more being added.
- ? Increasing focus on E-Commerce by Ministry of Commerce—Here again, it is very encouraging to see activity in this arena, be it NiDA, MoC, or MPTC.
- ? e-ASIAN Initiative likely to provide direction on ICTs in Cambodia, including e-commerce—Three keys to e-commerce are: a) reducing transactional “friction,” b) connecting to larger/ greater purchasing power (including those living in other countries), and c) establishing a legal structure that is consistent with these countries and especially neighboring countries.
- ? New NiDA organization developing a National IT Master Strategy (policy oriented)—this is a very exciting development and certainly an area where more and more countries are beginning to focus. This Awareness Seminar is excellent as it needs to embrace and engaged a wide audience of participants.

- ? Internet DNS & licensing of ISPs restrictive and cumbersome—While the current situation is working, it seems very awkward and inefficient, and more restrictive than it should be.
- ? Lack of standard Khmer fonts, but being addressed by NiDA and Ministry of Economy—having an internationally-recognized language standard is essential, and while efforts are perking along for the Khmer language, it seems to us that Cambodia should have more engagement and leadership in this area, it appears his is a hot topic.

Recommendations:

- ? Support NiDA's efforts to develop a national ICT Master Strategy—As I mentioned in my opening comments, NiDA can play a very critical role, and it is my honor to participate in this Seminar to contribute whatever I can.
- ? Finalize new Telecom Law—it is essential that the telecom environment be established on a sound legal foundation that is transparent and predictable.
- ? Separate policy/regulatory from operations within MPTC—it is our understanding this is the direction being sought, and we would certainly recommend it in the strongest way possible (as quickly as possible as well).
- ? Loosen restrictions associated with the Internet—there's little rationale for limited the growth of the Internet and the number of private sector players that can add their value. Thomas Friedman in his book, "the Lexus and the Olive Tree" makes the statement there are no longer first world, second world, and third world countries. Rather, there are fast countries and slow countries.
- ? Expand awareness, education, and skills for ICT public officials—This Awareness Seminar is wonderful and we would recommend that this is but the opening of ongoing awareness, dialog, education, and skill building.
- ? Establish common UNICODE for Khmer language—it is my understanding that There are efforts are already underway on several fronts to solve this.

Pipes (looking predominately at the telecom infrastructure for telephony and Internet):

Findings:

- ? MPTC provides telecom and Internet services, competing with the private sector—this can be OK if there is a level playing field with clear and transparent legal structure, and where the setting of legal structure is separate from operations. However, increasingly it is being proven country after country, the government should exist operations and encourage the private sector to invest.
- ? Several private sector telecom companies are in place with market dominated by MobiTel with 80% --clearly MobiTel has been very aggressive here in Cambodia with their mobile services
- ? National teledensity of mainlines placed at 0.25 by ITU in 1999—this is extremely low by comparison to other countries and the actual report includes more detailed data.
- ? High growth in mobile cellular with 1999 teledensity placed at 0.81—the activity here in Cambodia is in the mobile marketplace and not the landlines.

- ? Total teledensity currently estimated at 2.28 with mobile phones potentially as high as 90% of total in Cambodia—this reliance on mobile as a percent of the total is perhaps one of the highest in the world! This is good and this is not so good. It is good in that it represents rapid build-out for telephony; it is not so good as it doesn't have much data carrying capability.
- ? Estimated total telephony in Cambodia at around 250,000-300,000—again, considering a population of Cambodia this is very low, and the distribution is in urban areas.
- ? Low availability of public phones—frequently when there is low teledensity, this is made up by public phones and even Community Access Points or Telecenters. This is not really the case in Cambodia.
- ? Estimated number of Internet accounts at 7,000; estimated number of PCs at 15,000—hard to get real numbers as they change fast and no official counts
- ? Estimated 50-80 cyber cafés in Cambodia—again, an estimate
- ? Significant urban/rural “digital divide”—this is a real issue since most of the population of Cambodia are living in rural settings.
- ? Domestic pricing for telephony high—low land line costs but not many land lines and high wireless costs with most telephony being provided by mobile
- ? International access dominated by use of satellites, also high costs—satellite is simply the most expensive form of communication there is (very costly to get high bandwidth).
- ? Limited use of fiber (domestic & international)—a study is getting underway by ADB, but will be some time before anything is likely to result.

#### Recommendations:

- ? Develop a rural telecom access plan (possibly as part of NIDA's efforts)—with so much of the country's population and economic activity in the rural areas, this simply needs specific attention. The economics are not such that private sector will go in when allowed, so the notion of a Universal Service/Access fund is essential.
- ? Expand awareness, education, and skills in telecom sector—there's the need for more awareness and ongoing education and skill-building here in Cambodia. Something that's architected to fill holes. It is most encouraging to see this Awareness Seminar with such exposure!
- ? Expand fiber within country and for international links—it is simply essential that fiber come into Cambodia as it is the only way to get needed bandwidth at an affordable pricing level.
- ? License 2.5G and 3G for voice and higher data capacity with more data capabilities—wireless will never have the capacity of fiber, but the new 2.5G and 3G wireless solutions do provide broadband capabilities, and as plans are put forward, these could become critical components for reaching rural areas.

Private Sector (focus here is on the IT sector and use of IT by non-ICT and included ICT-related education—creating the high tech workforce):

Findings:

- ? There are several private sector telecom providers in Cambodia, along with MPTC—even though the telecom sector has considerable ambiguities, there are private sector investments, though not clear all will survive in the long run.
- ? There is not what may be considered at IT sector in Cambodia beyond SMEs providing increased services to large as well as SMEs deploying ICTs (e.g., PCs, LANs, training, etc.)—whereas some developing countries have focused attention on growing the IT sector as a lead sector, this isn't the case here, however there certainly is growing use of IT and small businesses using and support the use of IT (e.g., sales, training, installation, maintenance, etc.).
- ? There are some B2C starting to take place in Cambodia, primarily for tourist-related activities and some local products—some business-to-consumer activity is taking place in Cambodia, and clearly tourism is one natural area where it accounts for high-Internet use and taps into purchasing power of other countries. You certainly have exciting and unique historical/cultural sites to market to the world!
- ? Local universities are providing ICT-related trained graduates, but frequently without adequate hands-on experience—this includes access to the most current development tools, access to reference materials and is especially predominant in access to the Internet.
- ? Universities are without adequate Internet access for professors and students—again, it just doesn't exist in any significant way.
- ? Expanding ICT education opportunities by private schools and colleges—there are some private/international schools starting to fill the gap.
- ? Most use of Internet in Cambodia is limited to E-mail due to cost and bandwidth—this is not to diminish the value of e-mail as it is still considered by many to be the “killer application” with a successor not yet obvious.
- ? Locally-issued credit cards beginning to emerge—demand being from those that travel internationally, or want to buy over the Internet

Recommendations:

- ? Undertake a series of awareness-building and educational seminars for SMEs—here again it appears this seminar is a great start.
- ? Expand Internet connectivity to local universities—since the Internet will play such a key role in the future, it is simply essential that it be available and built into course curriculum.
- ? Establish in-country ICT-related certification programs (e.g., Microsoft, CISCO, Oracle, etc.)—students and those seeking certification shouldn't have to go out of country to be tested and certified on various products/tools. It's a way to ensure quality of those in or entering the workforce.
- ? Support increased use of the Internet for targeted Cambodian SMEs (e.g., tourism, ecotourism, handicrafts, etc.)—this is beginning to take place in small ways, but a collective effort would create more Cambodian “branding” and obtain economies of scale/scope.

People (with focus on international development initiatives):

Findings:

- ? Considerable use of Internet e-mail by larger NGOs and smaller NGOs with offices in Phnom Penh—within the development community e-mail is increasingly being used, though frequently restricted to those organizations with offices in Phnom Penh as infrastructure is weak outside of urban areas.
- ? No focal point for program use of ICTs—this has not been a point of concentration within the international development arena, and this Assessment was a fresh outside look
- ? Open Forum of Cambodia provides critical and low cost e-mail/networking to NGO community in Cambodia—The Open Forum is to be congratulated for years of slugging it out here by providing critical support to the NGO community.
- ? Some NGOs starting to build Internet websites and even marketing products o improve sustainability—there is a general trend by the NGO community to move beyond e-mail, especially those with international affiliations.
- ? Lack of Internet connectivity an issue outside of Phnom Penh, but improving somewhat—here we're back to the urban/rural digital divide
- ? Opportunity to support Community Access Points (CAPs) for shared access to NGOs in rural areas.
- ? Need for general & sector-specific Internet related training—awareness and sector-specific training is needed simply to make development professional more aware of the potential uses.
- ? Cell phones becoming common tool for use by NGOs, even in provinces and in some cases for e-mail—through again, limited by coverage and certainly by high costs.

Recommendations:

- ? Pilot CAPs for supporting NGO-related activities in provincial cities—many development activities around the world are beginning to build CAPs into their development agendas, and there appear to be some potential worth examining here in Cambodia.
- ? Expand ICT-related awareness, knowledge, and skill base within NGO community—same theme as mentioned several other places only here the target audience is the NGO community.
- ? Enhance Internet-based services being provided to the NGO community beyond e-mail—some of this is access, some due to artificial restrictions (e.g., hosting Web Sites), some is skills and resources, but all are solvable at some level.
- ? Pilot cyber-mall for NGOs seeking to market products and services to improve their financial sustainability—this is primarily to gain some economies of scale.
- ? Provide targeted ICT-related support within the context of existing and planned NGO-related activities--here the focus is on building ICT-

components into existing programs managed by the various international development agencies.

#### Summary/Closing

In closing, it is important to put this ICT Assessment in context. Again, the primary focus was on the private sector. It is not a cure-all, nor does it even come close to putting forth a comprehensive agenda. Nor does it in anyway reflect a commitment by USAID to undertake any of the recommendations. Rather, it simply puts forward findings and recommendations based on our survey—recommendations that are focused on supporting the growth of the private sector. Hopefully it does provide elements for a shared understanding, and ideally can in some small way it can contribute to the emerging local & regional synergy taking place.

I want to close again with my thanks for the opportunity for being invited to participate in your Seminar.

Thank you!

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