Special Joint Meeting of the Second and Third Committees of the UNGA dedicated to

"Communication for Development: Using ICT and Broadband to Accelerate Social and Economic Development"

12 November 2011, 3:00 – 6:00 p.m. Venue: ECOSOC Chamber, NLB

Mr. Darrell E. Owen, Senior ICT Consultant, United States Agency for International Development

Draft Remarks: Darrell Owen from USAID

Distinguished Committee Members, thank you for this opportunity to participate in this Special Joint Meeting. I would like to take a few minutes to share with you, a short glimpse into the U.S. Agency for International Development in information and communications technologies -- "ICTs" — initiatives, including broadband telecommunications, into its social and economic development portfolio.

Over the last two decades, USAID has increasingly come to acknowledge the critical role played by ICTs in enhancing the quality of all of our programs.

<u>Leland Initiative</u>: During the 1990s, USAID's "Leland" Initiative undertook a focused undertaking to introduce the Internet to some 20 African countries. This Initiative targeted the country-to-country aspect of the "Digital Divide," and focused on the Internet.

Last Mile Initiative: During the 2000s, USAID undertook the "Last Mile Initiative" with a focus on the urban-to-rural aspect of the "Digital Divide," the so-called "last mile" of access. This initiative explored optional approaches for extending access to rural and poor communities, undertaken nearly with projects in 30 countries. Key elements included; 1) engaging public-private partnerships—working with the public sector on legal and regulatory reform and leveraging the power of the private sector for their expertise and investments, 2) seeking sustainable and scalable solutions that would reach beyond our projects, 3) adopting new innovative technology solutions, and 4) linking ICT with the Agency's development portfolio. A few examples:

Example 1: In Macedonia the project led to the establishment of a nation-wide broadband wireless network with bringing the Internet into every school across Macedonia as the anchor tenant in each community.

LMI Example 2: In Vietnam the project worked to operationalize their universal service fund and implemented two rural broadband wireless networks to demonstrate how these funds could be used to reach the last mile with voice and data services.

LMI Examples 3 & 4: In Sri Lanka the project developed a sustainable rural cyber café franchise model. And in Mongolia the project demonstrated extending sustainable low-cost and sustainable telecommunication services into four small rural communities.

<u>Global Broadband and Innovations</u>: In 2010, USAID launched a new "Global Broadband and Innovation" or "GBI" program. This program: 1) built off of successes coming out of the LMI; 2) factored in the market liberalization and the explosion of mobile build out; and 3) focused on the importance of broadband. The GBI is precisely aligned with the topic of this session. We are currently in the process of exploring future engagements in several countries, including: Kenya, Nigeria, Ghana, Colombia, Indonesia, Philippines, Tanzania, Dominican Republic, Jamaica, Peru, Burma have been completed or planned.

Permit me to outline for you three broad themes of USAID's current engagement in this arena.

National Broadband Strategies: With the focus on broadband there is the need for countries to have a well thought-out National Broadband Strategy, and several of our projects include this component. With the explosion of mobiles, the carriers themselves could economically build their own tower-to-tower backbone to handle the traffic. Two adjustments are needed: 1) as the shift toward broadband takes place, the level of capital required for the backbone infrastructure requires a collective national approach, and 2) as broadband is increasingly viewed within the context of socioeconomic development be viewed within the context of, and feed a larger national development agenda.

Reconstructing Universal Service Funds: We are finding that with the need for building a national broadband network, where countries have universal service funds in place, there is the need for migrating them from a subsidy model that focuses on voice, to seed capital model that focuses on building a national broadband network.

New Technologies: While there is the need for a national broadband network, increasingly the distribution to the users is accomplished by wireless. It's quicker, less expensive, and has potential for greater reach. And here there are some very exiting innovations taking place that impact expanding access (back to last mile) as well as making it affordable (via lower capital and operating expense). A couple key dynamics of special importance:

Small Cells—in addition to mobile networks expanding their broadband capacity with the migration of 3G to 4G/LTE, there is a major shift underway in the mobile environment and that is a shift from larger macro cells to small cells. This is largely out of necessity for managing limited spectrum relative to exploding broadband demands.

But these low-cost low-power solutions also provide rich solutions for extending broadband to lower density, lower income rural populations. These small cells are a natural fit for serving smaller rural communities with voice and broadband services that are off-grid, as they are substantially lower in cost. These can be powered by clean energy such as solar, wind, picohydro, even biofuels as the power requirements are substantially less.

Digital Dividend—another promising dynamic for extending broadband comes from the migration of TV broadcasting from analog to digital. A critically important by-product of this migration is the freeing up of critical sub-1GigaHertz frequencies that have characteristics of reaching longer distances and being non-line-of-sight—bending over hills, going through walls, etc.

Freeing up these frequencies provides an expanded amount of frequencies for licensed operators, but perhaps even more important, the setting aside of unlicensed frequencies in this sub-1GHz range, for wireless broadband. Think of this in the context of Wi-Fi, only with significantly longer distances—10 kilometer radius off of a single access point. This may well be the single most promising wireless broadband technology to come along for some time.

GBI Examples: We are actively engaged in a project in the Philippines, where USAID, in conjunction with the government and Microsoft, we are pursuing two tracks: 1) deploying a small trial within a USAID project called, "ECO-FISH" for gaining in-country hands-on experience; and 2) exploring with the government, the potential for setting aside selected frequencies for non-exclusive unlicensed use. We are also in discussions for similar projects in Kenya and several other countries.

Nurturing Innovation: I'll finish with this, as there is another essential component—nurturing innovative uses of broadband. The above focused on broadband—extending the access. But ultimately there is the need to develop locally-relevant innovative applications that leverage broadband for adding value to those with the access. Here is where the value-add applies across the socioeconomic spectrum—education, health, agriculture, financial services, trade, economic growth, etc. We've seen this take root in mobile voice and text-based services, even before the arrival of broadband. mMoney is largely a text-based service with significant impact. In a similar manner there are mHealth applications, and mEducation and mAgriculture applications are there as well. With broadband these become more comprehensive, and add even more value. A couple highlights:

Locally-Relevant and Locally-Built—a quick survey shows instantly that the new computer is a smart phone, not a desktop or laptop computer. And with this shift there is heightened focus on applications—most of which have value due to their local relevance. Socioeconomic development is local, and there is the need for expanding local applications and content. We're seeing success in a growing number of countries with innovation laboratories—creating opportunities for local youth and startups. We are at but the front-end of this very promising dynamic.

Locally-Hosted Cloud Services—two issues that continue to surface are: 1) the Internet's predominance of having English language content; and 2) the asymmetrical international broadband traffic. Here too there is tremendous opportunity that is directly linked to the above topic. Here the thrust should be on going local...yes, this Internet revolution may have started in the U.S. and Europe, but now it's increasingly available in all countries—first with the access to affordable broadband access, but as we look forward, also with the development and hosting of local content.

This is our new frontier in this space that will ultimately allow all of us to realize the social and economic development value that broadband brings to our people.

And with that I'll close my talk. Again, I want to thank you for the opportunity to be here and trust sharing our experiences in this space contributes to our journey forward.

Thank you.