

## BMZ/GTZ Conference on ICT and Rural Development

*Keynote Remarks of Valerie D'Costa,  
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Today, I would like to speak about the potential impact that innovation and entrepreneurship in the developing world can have in helping to address the challenges of rural development. As networks of information and communication technologies - or ICTs - spread across the globe, a new platform is emerging through which entrepreneurs can innovate, find partners and work to scale their solutions. This is not necessarily the typical way in which development is always viewed. It leverages local actors, local markets, local solutions. It can be bottom-up, and it involves partnership and the co-creation of solutions. It evidences what Robert Zoellick, the President of the World Bank, recently called "*open and democratized development.*"

Innovation can come from unlikely places. In fact, innovation is disruptive precisely because it comes from unpredictable sources, whether a patent clerk in Bonn or a villager in Mozambique. In Stephen Johnson's new book, "*Where Good Ideas Come From*", he emphasizes the need for a network or "ecosystem" to support innovation. The watchwords for an innovation ecosystem are "borrow, recycle and reinvent". Innovation thrives through learning acquired from the ebb and flow of incremental improvement. Innovation is adaptive and responsive to need.

One poster child for this type of ICT-enabled innovation is of course M-PESA, the mobile payments service offered by Kenya's Safaricom. M-PESA is a prime example

of the benefit of watching local custom closely. Mobile money transfers did not start with Safaricom. Rather, ever since mobile airtime began being offered in prepaid amounts, individuals have been texting credit to friends and relatives who then resell the airtime. Safaricom took its local insight of user-driven activity, added value through trust and ease-of-use, and made a profitable business out of it. M-PESA now boasts some ten million users. Safaricom benefited greatly from the support of DFID and Vodafone. But the real success of M-PESA is due to careful observation and understanding of demand drivers, including those of rural users.

M-PESA also structured a business model to meet a growing local need, namely, domestic and international remittances, and in doing so, it has significantly increased access to financial services for millions of users. As it now expands its offerings to savings accounts, utility bill payment and insurance, we are really witnessing business model innovation that builds upon the ease and pervasiveness of the mobile communications platform.

The last thing I want to note about M-PESA is that this innovation required the assistance of regulators, both financial and telecom, to provide the space for Safaricom to act. It is this enabling environment to which I'd like to now turn our attention.

## **Lessons in Creating an Enabling Environment**

An enabling environment is essential for technology to take root and grow and for entrepreneurs and enterprises to innovate. Such an environment should be built upon the rule of law and be accompanied by a supportive, transparent, pro-competitive, technologically neutral, light-touch and predictable policy and regulatory framework.

Innovative technology solutions are iterative, meaning that with the emergence of each new offering, new business and consumer possibilities make themselves present. This acceleration is obvious in our own lives – our phones and laptops from five years ago look ancient in comparison to what we have in our hands today. The complexity of modern technology means that developing country regulators must be equipped with up-to-date knowledge and must possess the mandate to structure the rules of the game appropriately. Here, sharing experience, forming communities of practice and facilitating peer-to-peer learning on what works and what doesn't is invaluable. The ICT Regulatory Toolkit supported by *infoDev*, the World Bank and the ITU, help plug the real-time knowledge gaps that regulators have.

For example, developing countries and the development practitioners who serve them can learn much about the use of ICT for rural development from Chile, where many parts of the country are unprofitable to reach. In five years, Chile has succeeded in lowering the portion of its population without access to telephony

from 15% to 1%. It prioritized competitive service delivery, fashioned appropriate private sector incentives through competitive bidding between incumbents and new entrants, took special steps to determine demand at the local level and it left the technical architecture and business models to the private sector to decide.

In other countries, government policies have been less than successful. Nepal Wireless, a community effort started by a teacher in rural Nepal, knows this first-hand. Limits on the use of spectrum and wireless equipment have meant that local level connectivity initiatives like Nepal Wireless have stepped in to address rural connectivity needs with perseverance and dedication. Nepal Wireless has now built an impressive network for rural education and health purposes.

It is therefore important to address enabling environment issues by learning from what works and what doesn't and by sharing peer-driven experiences. Following on the success of its ICT Regulation Toolkit, *infoDev* is now developing a Broadband Strategies Toolkit that will provide guidance to regulators, policy makers and development practitioners on how to harness next generation technologies to provide higher speeds and more user-friendly and demand-driven content and services. The capacity of these networks and services to effectively serve users in developing countries, particularly those in rural and remote areas and those who live at the proverbial "base of the pyramid", is unparalleled. Our aim is therefore to build a toolkit that provides reliable and timely information, experience and lessons on how to successfully implement broadband infrastructure and services.

## **Innovation at the grassroots and supporting the technology entrepreneur**

When the enabling environment works well, the scope for the private sector to develop, innovate, compete and flourish, expands.

Today, Kenyan consumers are benefiting from dynamic private sector led product innovation. Mobile network operators are seeing their average revenue per user there decline and are branching out into new businesses, using M-PESA as a platform. When Bharti Airtel completed its purchase of Zain Celtel, which operates in 15 African countries, it quickly slashed prices on SMS and voice calls. Its competitors responded in turn, and today, their customers enjoy some of the lowest prices on the continent. *infoDev* is studying what improved broadband access means to small and medium-sized enterprises in East Africa and Eastern Europe and Central Asia. Coupled with appropriate skills, businesses can upgrade their competitiveness and productivity through enhanced connectivity in these regions and others.

Another way to tap into the entrepreneurial spirit of technology and technology-enabled companies in developing countries is by business accelerators or incubators, an area where *infoDev* has had close to ten years of experience. The *infoDev* network of small business incubators now includes more than 300 incubators in 85 developing countries. These are often physical one-stop-shops where entrepreneurs and SMEs can rent office space, receive mentoring, collaborate

with other tech companies, have uninterrupted connectivity, and source appropriate financing. *infoDev* incubators are all locally owned and operated, and have collectively graduated more than 20,000 companies across the developing world. These companies, and over 105,000 entrepreneurs stay connected to us via a virtual platform, iDISC for shared learning, communities of practice and making business contacts. Some of you may know Voxiva, a mobile-enabled health services company that was among the first to use mobile to deliver healthcare. Voxiva grew from within an *infoDev* incubator. Somewhere in the *infoDev* network are many more Voxivas, all of whom need targeted business support and a healthy enabling environment to grow jobs and revenue and build a business.

In partnership with the Government of Finland and Nokia, *infoDev* is now setting up five more incubators, this time specifically focused on mobile applications. We believe that mobile will become the most pervasive form of digital connectivity in the world, providing the platform for government service delivery, citizen-centric communication, and innovative new products, content and services. Two of these mobile applications laboratories or “m-labs” have already been started in Kenya and South Africa. Others will follow in Eastern Europe, Central Asia and the Asia-Pacific region. The m-labs will support the growth of promising mobile applications entrepreneurs in key areas such as health, agriculture and education. Another innovative development is going to be the creation of mobile social networks, to give these mobile apps entrepreneurs support and guidance to develop business models,

sell their applications and services, and seek collaborative partnerships with one another.

A similar such initiative is about to be launched by *infoDev* with the Government of Canada to use small business incubation to foster the growth of innovative technology SMEs and start-ups in the Caribbean region. A regional MSME Fund will also be established, housed in the incubators to help finance the most promising companies.

## **Conclusion**

It is hard to predict what the next big breakout success is going to be and, frankly, as development practitioners, we don't need to be able to predict where technology is going to take us. Instead, I believe we need to help create the right environments to facilitate their ready uptake. We need to lower barriers for the private sector to innovate and flourish in these countries, as they are closest to the needs of the consumer. We need a listening ear and an inquisitiveness of how developing country markets and consumers are behaving. We need to focus on the frameworks, spaces, partnerships, incentives, and networks that make up a robust innovation ecosystem. This will help us all co-create solutions that are inherently demand-driven. At the same time, we also need to continually learn from experience, and this iterative learning and knowledge sharing will help highlight promising solutions, and help bring them to scale. Today and tomorrow, I look forward to hearing your

feedback on the thoughts I have shared with you today on how best to maximize the impact of technology for rural development.