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BRINGING BROADBAND ACCESS TO RURAL AREAS

A Step-by-step approach for regulators,
policy makers and universal access program
administrators

11th, November, Beirut, Lebanon



Edwin San Roman



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Video

**From
mototaxi
driver ...**



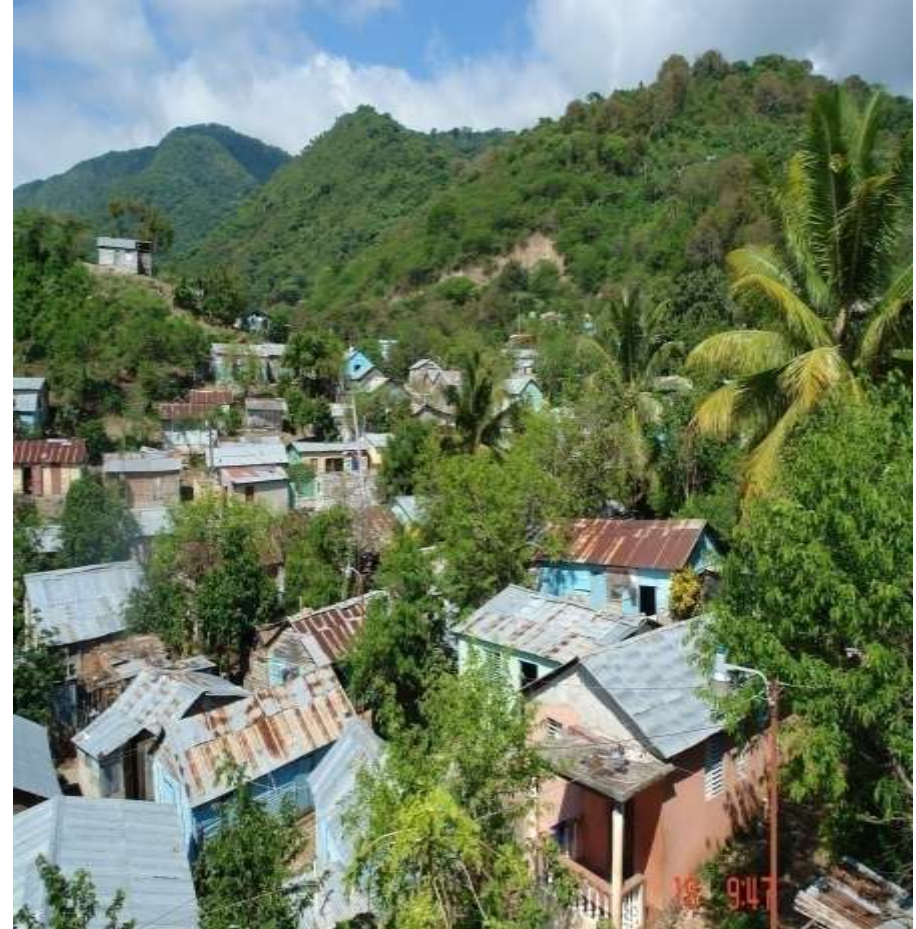
**... To basic computing
instructor**



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Bringing telecommunications to the rural areas

- Telecommunications, today's the principal means of delivering ICT applications.
- Broadband and telephony are considered to be a basic service, like water, electricity, health, education.



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Bringing telecommunications to the rural areas

Experience has shown that the arrival of basic telephony (in any form, such as public payphones, fixed residential or mobile lines) and broadband Internet constitutes a critical take off point in a community's path to economic and social development.



Bringing telecommunications to the rural areas

The impact is even greater in rural communities where local institutions, NGOs and young people quickly become the main users of ICTs opening the way to what could be considered to be a virtuous circle of development.



Bringing broadband to the rural areas

In the communities with limited or no access to basic voice services, the Internet becomes a less expensive alternative, often serving as a substitute for the former.



Impact in economic growth

- For every 10-percentage-point increase in penetrations of:
 - Broadband services, there is an increase in economic growth of 1.3 percentage points in GDP
 - Mobile services, there is an increase in economic growth of 0.5 percentage points in GDP



Source: bloomberg.com



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Los Botados, Monte Plata

Thanks to broadband, hundreds of kids, young people and adults have gained expertise in computer usage and have graduated from training courses.



La Yautía Los Botados, Yamasa



Creative and enthusiastic young people are now using broadband Internet...



even using “pots” placed on top of coconut trees as antennas.

10 La República

CONECTADOS: Para Jean Carlos de León y Wilfrido de Paula, dos jóvenes de La Yautía, en Los Botados, la tecnología no es exclusiva de las grandes ciudades ni de los más acomodados.

Se conectan a la internet con calderos



La primera olla que Jean Carlos usó para hacer la señal. La antena.

QUERÍAN INTERNET Y LO OBTUVIERON CON OLLAS VIEJAS, CABLES Y PEDAZOS DE COBRE



Challenges and lessons learned

- The following are challenges and lessons learnt in the development of rural broadband projects including the ones in the Dominican Republic and Peru which have been referred to in [this background paper](#):
 - It is essential that political support exists at all levels for a project to be successful.
 - Local operators may underestimate demand, willingness to pay for telecommunications services and technological knowledge in the use of computers in rural areas.
 - The regulator has to review the continuity and quality requirements for rural areas and modify them if necessary because providing telecommunications services in these areas with the same quality as in the cities can be very expensive.

Challenges and lessons learned

- Instability and lack of a reliable electricity supply is a major problem for rural telecommunications projects and can significantly add to the overall cost of a project. Fluctuations of the energy supply are dangerous and often cause damage to the equipment resulting in expensive repairs and loss of service.
- It is very important to become familiar with the social and economic situations of the targeted communities as well as their idiosyncrasies. Misunderstandings with local populations can often cause unnecessary delays in project implementation.



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Challenges and lessons learned

- The regulator and/or Universal Access Fund administrator has to be very active in promoting the development of networks and the provision of telecommunication services in unserved and underserved areas. Pilot projects are a very useful way of demonstrating to operators and other potential investors that it is possible to provide the services at costs which are lower than they may have envisaged and that there is definitely a market and willingness to pay for these.
- There are many clever and creative people in rural communities who are already providing some forms of telephone and internet services in their communities. The project has to embrace their experiences and encourage them to get involved in the planning and implementation of the project in hand.



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Challenges and lessons learned

- In the absence of reliable data for estimating demand and given the high cost of conducting surveys, the regulator and/or fund administrator should consider various types of approximations for estimating demand.
- Getting the large telecommunications operators to participate in tenders for rural broadband projects is often a big challenge because they do not see them as viable. In this case, the regulator and/or Fund administrator has an important role to play in convincing them of the potential benefits of such projects.
- Small broadcast cable operators in rural areas can be very good and cost effective broadband network and service providers; however, high interconnection costs with existing networks present a barrier for them. The regulator has a role to play in bringing down these barriers.



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Best practice guidelines

- There should be no barriers to implementing rural broadband connectivity projects when national policy supports such projects and when the regulator is committed to promoting them and providing its resources and facilities to demonstrate their viability and help in their realization.
- It is important for the regulator to share its vision of rural broadband projects with telecommunication operators and service providers in the country. The industry must be informed and involved in the development of policies for rural broadband projects and the plans for implementing projects to achieve the objectives of these policies. The views and opinions of network operators and service providers, who are potential partners in realizing these projects, have to be taken into account at all stages in the process.





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Best practice guidelines

- Offering available spectrum as part of the tender can serve as a useful incentive to get operators to participate in the process for awarding rural broadband licences. This has the added benefit of reducing the amount of subsidy that is requested in the minimum subsidy tenders.
- Rural areas are full of young people who are anxious to embrace the arrival of broadband and all the services that broadband can deliver.
- Given the particularities of the telecommunications sector, official public approval processes should treat projects in this sector differently from other public infrastructure projects in order to avoid unnecessary delays in implementation.



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Stealing signal ?



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Thank you

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