Community Owned NETWORKS: FAQ

A. What are Community-Networks?

1. What does 'community-owned' Mean in practice?

'Community-owned' means that the local community has a significant degree of control over key characteristics of a network, such as the nature of services offered, tariffs charged, and disposal of surplus income. Furthermore, the primary goal of the network is to serve the needs of all members of the community, including poorer and marginalised members.

In some cases, this means direct community ownership in the form, for instance, of a cooperative. In others the community may be part-owner, along with others such as local entrepreneurs or the public sector. But the right of the community to decision-making may also derive not from legal ownership *per se*, but be guaranteed in the legal constitution of an entity. Local authorities or municipalities, too, may own and run networks on behalf of communities.

What all have in common is that services are deployed explicitly with the *goal of serving the community*, and that the community has a *strong and ongoing* influence and commitment.

2. Does the community also operate the network?

Not necessarily. In some cases communities may be directly involved in operating the network. A community cooperative, for instance, usually elects the Board which employs the staff. In others, network management and maintenance may be the responsibility of a public body, a partnership or even a private entity, though it would be done in the best interests of the community served. Some community-owned networks also use local voluntary labour for specific tasks.

3. Why does community ownership of infrastructure matter?

The World Bank has this to say about community-driven development:

"Experience demonstrates that by directly relying on poor people to drive development activities, community-driven development has the potential to make poverty reduction efforts more responsive to demands, more inclusive, more sustainable, and more cost-effective than traditional centrally led programs."[1]

Community owned networks take this principle and translate it into practical benefits for ICT networks. Community ownership means the service is cheaper to provide, better focused on real needs, supported by the community and can enhance other development activities.

4. Are there examples of community-owned networks?

The idea has a surprisingly long history.

For over seventy years, community owned rural telephony networks have flourished in the USA and about 1,000 exist today. Among our Case Studies are two rural Polish cooperatives that modelled themselves on this experience in the early 1990s, and are doing very well, offering higher quality services than their private counterparts and contributing to local development efforts. (Case Study 1) There are also recent cases of local authority ownership with strong community input. The first telephony cooperatives in Argentina were established in 1960 in communities that the state monopoly declared unprofitable. Following privatisation of the state telephone company in 1989 they continue to play a vital role. Today more than 350 cooperatives provide 600,000 telephone lines, serving 8% of Argentina's population. Many, such as TELPIN, (Case Study 2) provide additional services such as broadband internet at prices much lower than those charged by national telecom companies. In Peru, a wireless network that links 13 rural villages is operated by a farmers' organisation whose main activity is coordinating irrigation and water use. (Case Study 3).

Other recent examples in India, the Akshaya and TeNeT/Dhan initiatives (Case Study 5 and 6), focus not just on access but on ICT service development and provision. These are 'hybrid' public, community and local enterprise efforts, but incorporating a strong, often determining, level of community influence.

B. Rationale & Advantages

5. Where is the approach likely to be most needed?

The impressive ICT growth in recent years has largely failed to reach poorer villages and towns in rural and remote areas. To the conventional investor, they generate the least return and require the highest investment. Yet ICTs can contribute significantly to poverty alleviation and social and economic development of these areas. New approaches are needed to provide access and affordable and relevant services to these communities.

Given the presence of certain factors, community-ownership is well suited to application in such environments and can make effective use of such communities' own limited resources.

6. What are the advantages of community-ownership?

Community ownership can offer a number of advantages:

- It can mobilise cost-cutting community resources, including labour, public commons and community institutions;
- Services are tailored to actual local needs, and are geared to maximise overall community benefit, not focused on specific groups such as the well off;

- The infrastructure tends to be more highly valued by the community, better cared for and maintained;
- High rates of return demanded by private investment are avoided, and the enterprise is focused on providing the services not on extracting profits;
- Profits generated are reinvested in the community, in ICT services or in more general development;
- The enterprise itself can act as a catalyst for local development and empowerment, building up skills and institutional capacities.

Thus on the one side, it can reduce the cost of service provision; on the other it enhances the development dynamic and capacities of the community served. The benefits are not just to communities. Local businesses benefit from having the service available, and in some cases may play a direct entrepreneurial role in providing the services. Similarly, local or municipal government can use the services for a variety of purposes, from provision of services to attracting economic activity, and may also be directly involved.

7. What is the emerging evidence of impact on the local economy?

The Poland cooperatives offer clear evidence of knock on effects in the local economy. Not alone is the existence of high quality ICT services a significant factors in attracting business, the cooperatives themselves have acted as a catalyst for other local enterprises. The experience gained by the community has been an important ingredient in improving the general local economic capabilities.

Argentina's 350 cooperatives directly employ 3,500 people and manage more than US$3 billion dollars in assets. Originally established when their communities were declared unprofitable by the former state monopoly, the cooperatives not only proved their economic viability, but the telecommunication services they provide also contibute to the development and economic vitality of their communities. The quality services provided by its telecommunication cooperative made the town of Pinamar more attractive to tourists from the city and contributed to its development as a major tourist destination (Case Study 2).

8. Are such networks a good use of public/community/development cooperation resources?

ICT are increasingly recognised as an enabler of a wide range of development activities, from supporting small scale economic activity, to providing transparent and efficient public services, to improving health and education.

However, such benefits are not inevitable. Adopting a community-ownership approach is more likely to result in real benefits to the community, since it is the community that determines need and priorities.

The community-ownership model also ensures that surplus revenues generated by the network will be reinvested in the local community rather than distributed as profits to distant shareholders.

C. Financing & Mobilization of Resources

9. Through what mechanisms have community-owned networks been financed?

Community owned networks do not attract conventional investment, seeking to maximise returns. In practice, however, they are supported by a diversity of mechanisms. These include:

- Membership subscription: Although this depends on the disposable income of the community, it can generate considerable amounts in some cases.
- Conventional bank loans: Community-owned networks usually operate as businesses and loan repayment is scheduled in.
- State grants: In the USA, rural cooperative receive federal grants in recognition of the high cost of providing telephony in rural areas and to expand into services such as broadband. Polish cooperatives received grants for ongoing technical assistance, funded by USAID.
- Local authorities may also provide funding, recognising the value that ICT services will add to the potential of the area. In Poland, about 30% of funding came from local authorities, though they gained no formal voting power.

10. What are some additional possibilities for financing?

Universal access funds, given their goal of extending access, could support community owned networks in areas beyond the reach of the market. At present these are often utilised to subsidise the provision of services by private companies. However, where local factors favour a community-owned network, there is every reasons to devote some funds to this solution. It can have a significantly higher development impact. In Peru both of the projects examined in the case studies were supported by FITEL, the universal access fund.

Community ownership may also open other funding possibilities, because of its development orientation and non-profit operation. The Argentinean cooperative, TELPIN, was able to get a significant amount of start up capital donated by a private firm.

11. If community-owned networks can be sustainable, why doesn't the private sector typically see the benefits of providing access and services?

Private sector investors generally require a high rate of return on investment. The experience in Poland offered a direct comparison between investor-led companies and the cooperative approach, and the latter had a significant advantage since they could reinvest all their profits in the business. Many of the investor-led local networks were forced to sell.

Community owned networks can also reduce costs, through deploying the resources of the community, and this too adds a margin of viability above that available to the private sector.

However, in some cases local entrepreneurs and private sector can collaborate with communities to provide services, in a community-driven approach, as in the India case studies.

The entrepreneur makes a reasonable return and the community is provides with the services it needs.

D. Success Factors

14. Are some technologies better suited for community-owned networks?

Emerging technologies may soon significantly enhance the potential applicability of community owned networks, in terms of their economic feasibility and the types of environment in which they can be deployed. Certain characteristics especially of wireless technologies, such as WiFi, WiMax, corDECT and others, are especially suitable.

- They cost less to implement in rural areas, as compared to wired or cellular based solutions;
- They have a flat cost curves, offering only limited economies of scale, and are thus suited to small scale implementation;
- They are scaleable, in that they can be expanded incrementally;
- They are relatively easily maintained;
- They are flexible in terms of the services they can provide, including data and voice;
- They use open standards, and low-cost open source network management software is now available.

All of these favour deployment in rural communities, with relatively limited investment and technical experience, but capable of leveraging local resources.

15. In what situations are such networks likely to work best? Are there alternatives?

Certain characteristics are conducive to a community owned network. Experience suggests that these include the following:

- The presence of *well-organised community development institutions* is important. Unless these already exist in some form, the level of commitment and organisation required to be successful is unlikely to be sustained. They can comprise anything from teacher-parent committees (as in a case in Laos), to community enterprises, to development committees, to local NGO, or local government that works genuinely with the citizenry.
- As is so often the case in community development activities, *strong local leadership* for the initiative is an important ingredient in motivating change, generating a sense of ownership and steering the entity through the stages of development.
- If *communities themselves identify a need for specific ICT services*, arising in the context of broader social or economic factors, an impetus is more likely to build up to see the process through. This will underpin local investment, willingness to pay, and sustainability of the service. Although some subsidy may be required, the community must also be able ultimately to afford the services.

- Community ownership of networks breaks new ground, and existing rules, regulation and practices have seldom been devised with them in mind. The *support of local or regional political leaders* can prove decisive in negotiating locally and with national authorities regarding licensing, regulatory, interconnection and other aspects.

Some of these factors can be reinforced with the right support. In circumstances where these factors are weak, local SMEs might be in a position to take the lead role, and engage closely with the community in various aspects of the service. However, as a general rule, the more influence, participation and responsibility of the community, the better the initiative will suit the development needs of the community as a whole.

16. What are the regulatory and other requirements for community-owned networks to succeed?

Some or all of the following measures would support the emergence of community owned networks.

- Given the range of obstacles and requirements, a *policy strand at national level* would offer a good framework. It could identify and designate the areas that could benefit most, develop appropriate legal structures and tax exemptions for non-profit enterprises, and perhaps consider a centre or unit of some kind to design, provide and oversee support policies and actions.
- A *friendly regulatory environment* would need a number of elements. Technologically neutral licenses, cost-free license exempt spectrum (e.g. WiFi), flexibility in license award conditions, and fair or 'asymmetrical' interconnections fees or an 'open access' approach to backbone would all help. Universal service funds should also be opened to community owned networks, including for the service and content development end.
- *Investment and financing mechanisms*, both nationally and internationally, could be refined to suit community ownership, giving them ready access to existing development and investment funds, low-cost loans and donor funding; and creating structures designed to attract investment from the local area, from users and others.
- *Capacity building* is essential, including through establishing national pools of expertise, exchanges with and visits to experience elsewhere, general business and management training and technical assistance, and specific ICT-related actions.

17. What are some of the obstacles to community ownership of ICTs?

The main obstacles include the following:

- Regulatory restrictions on the use of low-cost technologies to provide ICT services represent a major obstacle to innovative ICT development.
- The lack of appropriate legal structures for community enterprises makes it difficult for them to establish and to reinvest their resources in the community.
- Opposition from mainstream telecoms operators, for instance in relation to affordable interconnection charges, can cause significant delays and difficulties.
- The absence of tailored financing arrangements, from pubic investment, loans and donor funded programmes.

- The absence of a 'champion' in national or international ICT policy. The main thrust of international ICT policy is for the opening of markets for FDI and introducing competition. Community ownership does not figure highly in their priorities.

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[1] Community-Driven Development, Philippe Dongier, Julie Van Domelen, Elinor Ostrom, Andrea Ryan, Wendy Wakeman, Anthony Bebbington, Sabina Alkire, Talib Esmail, and Margaret Polski. World Bank 2002.