



The Development Impact of Broadband

June 2009

Summary

Early in 2009, the number of broadband subscribers worldwide will pass the one billion mark with just under half being on fixed-line broadband (e.g., xDSL, fibre, cable modem) and the rest having high-speed internet access via third generation mobile phones. Thus, the conversion from a narrowband telecom world to a broadband one is now well underway and there are already a critical mass of broadband users, at least in developed countries. But the developmental impact of broadband is less well understood than, say, mobile communications or the internet. Furthermore, those studies that have been carried out tend to be focused on Europe and North America whereas Asia and most of the developing world has been under-researched. This project aims to building on earlier World Bank research of the development impact of broadband which appears to indicate that the link between information and communication technologies (ICTs) and economic development is much stronger for broadband technologies than for their narrowband equivalents (see Figure 1).

Purpose and objectives

The aim of this project is to explore the potential of broadband, on both fixed and mobile networks, to be a driver of economic, social and cultural development. Specifically, the project will examine the modalities by which broadband spurs growth, the evidence that this is already taking place, in particular in developing Asia, and the implications for policy-makers. A particular focus will be on knowledge creation and dissemination.

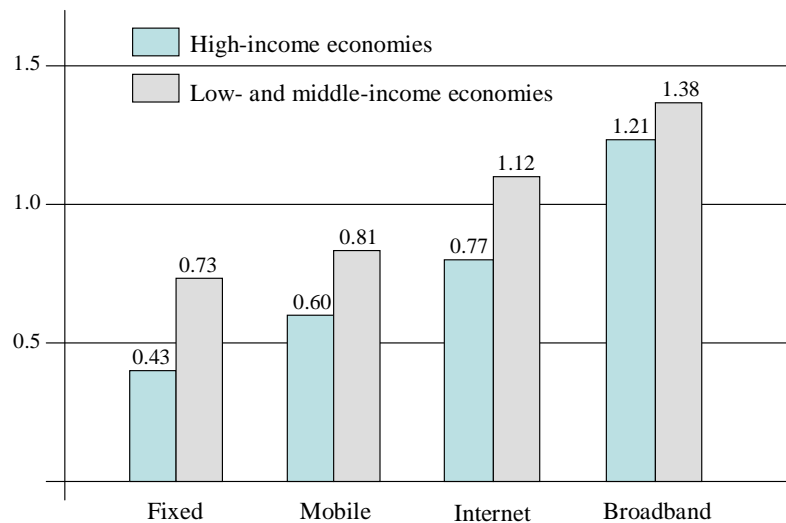
Project description

This project, on the developmental impact of broadband, will have three main components:

1. A comprehensive literature review (**knowledge map**) to examine the links between broadband and growth, both from a theoretical perspective and in terms of actual studies and applications. Much of the evidence to date is anecdotal and comes from North America and Western Europe. This project will attempt to document research from across the world, but with a particular focus on developing Asia, to look at examples of broadband as an economic driver. In particular, it will examine the early pioneers of broadband development, such as the Republic of Korea, where there is a longer history of the availability of high-performance, relatively cheap broadband.

Figure 1: Growth effects of ICTs

Percentage point increase in GDP per capita for every ten percentage point increase in ICT penetration, 1980-2006



Source: Qiang and Rossotto, World Bank Information and Communication for Development Report 2009.

2. On the basis of this knowledge map, and of the detailed case study of broadband in Korea (being undertaken under the auspices of the Korean Trust Fund), it is planned to hold a **workshop on the developmental impact of broadband**, during the second half of 2009 in developing Asia. This workshop, to be organized jointly by *infoDev* and the OECD, will bring together researchers and practitioners, alongside policy-makers and regulators, to present a range of experiences in linking broadband with development goals.
3. The knowledge map and the workshop will be complemented by a desk research project that will examine in more detail the **macro-economic linkages between broadband and development**. This project will take, as its starting point, the proven linkage between growth in broadband and GDP per capita (Figure 1) and will examine in which countries this is strongest. It will examine what factors can be put forward to explain this linkage, for instance, is the linkage dependent on the price of broadband, the speed of connection, or the level of competition?. One outcome of this more detailed study will be the identification of a set of policy tools that seem to be proving successful.

Indicative Budget

Depending upon the level of funding and the interest among the donor community, the following indicative budget, in US\$, could be proposed for this activity during the period 2009-2011 (three years).

Item	Duration	Location	Cost
1. Knowledge map	2009-2010	Global	US\$80K
2. Joint infoDev/OECD workshop on the developmental impact of broadband	2 nd half of 2009	Developing Asia	infoDev contribution US\$70K
3. Macro-economic study	2010-2011	Global	US\$50K
Total Cost	2009-2011	Regional and Global	US\$200K

Project principal partners

The principal partners for this project are the OECD, which conducted the 2008 ministerial on the [Future of the Internet Economy](#), and the government of Korea, which hosted that meeting and which is sponsoring the Korean Trust Fund. This event will also build upon the joint OECD/Bank [conference on innovation and sustainable growth in a globalized world](#), held in Paris, 18-19 November 2008. Within the World Bank, *infoDev* will partner with the World Bank Institute in organizing the workshop and with DECDG on the macro-economic study.

Key risks to implementation and sustainability

The biggest potential problem here is a lack of actual research on the topic under consideration. While there have been many studies of the developmental impact of the internet and of mobile communications, there is relatively little work to date on broadband. That is precisely why this project is important. A second risk is that the interests of the partners may prove too divergent or that this could turn into a propaganda exercise. The focus on research should help to offset that risk.