The experience of the Dominican Republic in the development of innovative strategies for the promotion of information and communication technologies

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The task of narrowing the digital divide in the Dominican Republic involves enormous challenges in terms of the availability of telecommunication network infrastructure, access to the Internet and the population's proficiency in the use of these technologies, all of which are crucial aspects of the digital divide. To measure these variables, an information and communication technology (ICT) empowerment index has been calculated for the country's provinces, using ITU's ICT Opportunity Index as the methodological basis.

FIGURE 1
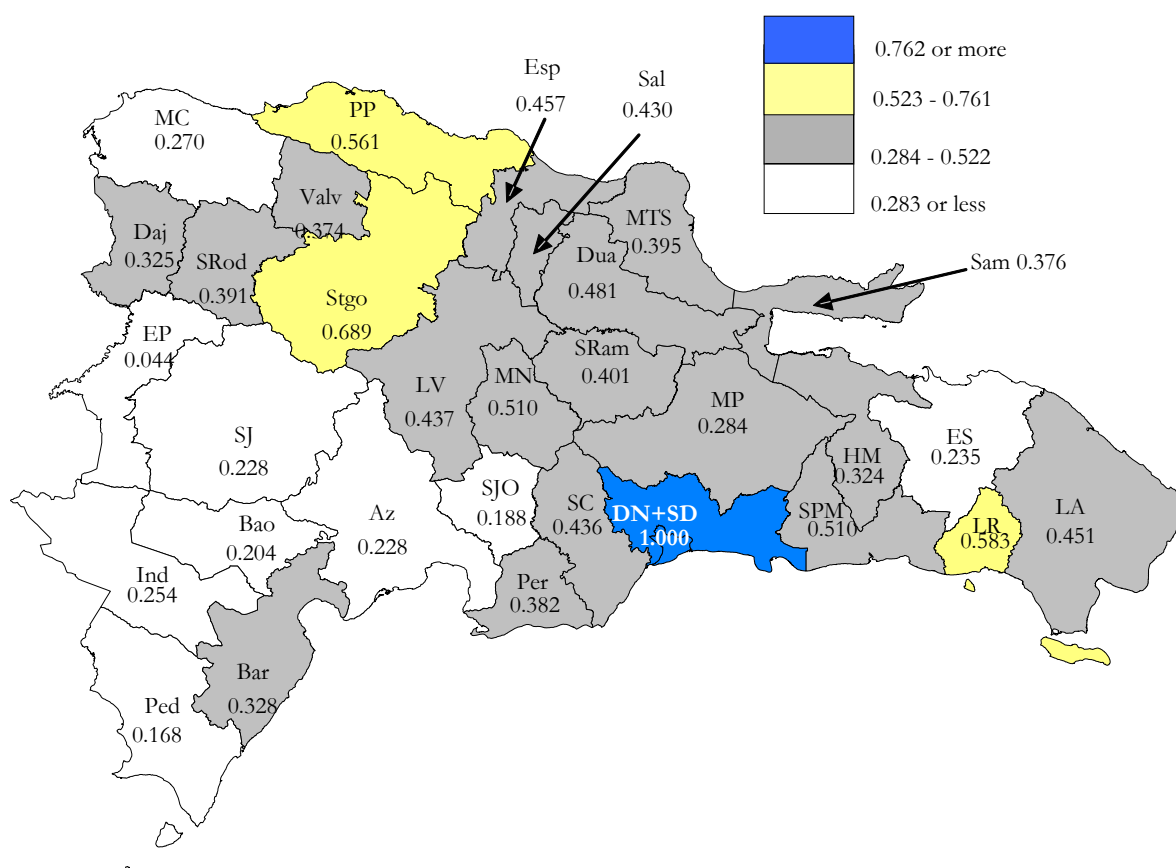
The results of the survey show a large imbalance among the 32 provinces that make up the national territory of the Dominican Republic. This can be seen in Figure 1. The province that has the greatest degree of ICT empowerment is the Distrito Nacional (the capital region, including the province of Santo Domingo). Only three of the provinces are in the "medium-to-high" range, namely Santiago, La Romana and Puerto Plata, **corresponding to the telecommunication infrastructure put in place by the country's main providers**. The remaining 27 provinces are in the "low-to-medium"
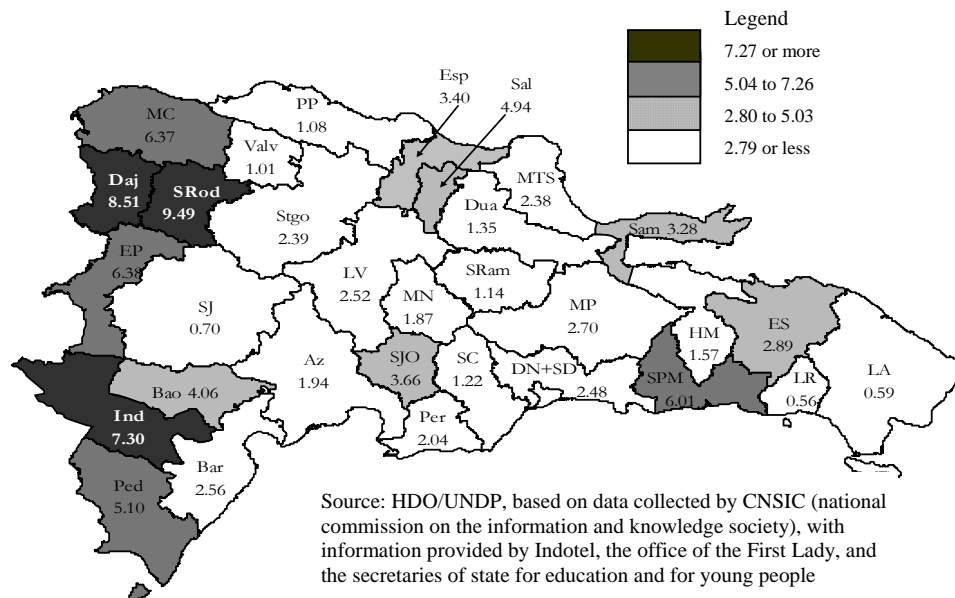
or "low" range, and correspond essentially to the poorest provinces with the lowest level of human development (the lowest is Elías Piña, followed by Pedernales, San José de Ocoa and Bahoruco).

To deal with this situation, the Dominican Republic has, within the framework of its national strategy for the development of the information and knowledge society (e-Dominicana), set in motion a policy for public investment focusing on the long-term promotion of universal access to ICTs, with particular emphasis on sustainable economic growth and the development of human capital under conditions of social equity, with the aim of ensuring that the country's entire population has the skills needed to use ICTs and enjoys the necessary physical conditions – in terms of a reasonable distance from the place of residence – and affordable prices.

Three strategic projects have been carried out in the framework of this national strategy, under the responsibility of INDOTEL through the Telecommunication Development Fund and with public-private alliances involving the private sector and civil society. The period 2001-2005 saw the implementation of the rural public telephony project, which had an impact on 31 of the country's 32 provinces and benefited 2 250 small rural communities that had previously had no access whatsoever to telecommunication services. It is estimated that almost the entire rural population is now able to obtain access to domestic and international communications within a radius of ten kilometres. It is worth noting that, for the rural inhabitants of the Dominican Republic, the availability of not only domestic, but also international communications is of vital importance, given the significant levels of emigration, and the fact that the largest number of emigrants come from the country's rural areas.

FIGURE 2

Public ICT access centres per 10 000 inhabitants

Legend
7.27 or more
5.04 to 7.26
2.80 to 5.03
2.79 or less

Source: HDO/UNDP, based on data collected by CNSIC (national commission on the information and knowledge society), with information provided by Indotel, the office of the First Lady, and the secretaries of state for education and for young people

The second major initiative has to do with the installation of public ICT access centres (PIAC), in a strategic joint venture with Dominican civil society entities such as community-based organizations, religious institutions, development NGOs, municipalities, colleges, public libraries, universities, healthcare centres and so on. By December 2007, the number of PIACs countrywide was estimated at 616, for an average of 2.1 centres for every 10 000 inhabitants, or one for every 5 336 inhabitants. This has had an impact on the country's 32 provinces, it being noteworthy that the highest concentration of PIACs is to be found in the poorest provinces, directly benefiting 40 per cent of the country's municipalities and municipal districts – a potentially-served population of 2.5 million people, or 36 per cent of the total population over the age of five. In other words, these centres are giving the poorest one-third or so of the population the possibility to use computers and the Internet and hence an opportunity to gain digital literacy, making ICTs a genuine tool for promoting the social and economic development of the citizens, male and female alike, of our country's rural towns and localities.

The third strategic project for the Dominican Republic focuses on broadband rural connectivity. It was launched in 2007 with two pilot projects in two rural communities without any form of connectivity, and with the determined support of the private sector, which agreed to carry out the project without any funding from the Telecommunication Development Fund. Through this initiative, the backbone and the access network for small cable operators will be installed, using existing optical fibre cable, in order to meet the broadband Internet access and basic residential telephony service needs of the 319 municipalities and municipal districts (84 per cent of the total) that currently lack such services. That figure includes 189 rural communities, many of which are already benefiting from the IT training centres and community technology centres that are being set up within the framework of the PIAC project. A second component of this project concerns capacity-building for the launching of new ICT-based business models. To this end, small cable companies and other small-scale operators are being given training in technical and regulatory aspects, with the involvement of university students and engineers capable of contributing to the development of successful business models for the provisioning and management of the new local operators.

On the regulatory side, it is to be noted that INDOTEL has declared free access to the international submarine cable network capacity and landing points to be a "vital resource". This decision will have the effect of lowering the cost of delivering Internet access to the various companies competing on the national market, thereby fostering competition and ensuring more affordable prices for the user community.

The universal access model pursued by the Dominican Republic, which serves as an overall action framework for the above-mentioned projects, can be summarized as follows:

• Reducing the distance to the nearest public telephone for rural and low-income populations.

• Providing the country's population with the skill-sets necessary for making effective use of computers, the Internet, and other strategic resources to make ICTs into a tool for social and economic development for the benefit of young people and people with low incomes.

• Financing service infrastructure so as to improve broadband access.

• Using regulation to foster competition, and declaring any service infrastructures that it would be uneconomical to duplicate as "vital resources".

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