



# Technology Transfer and Sustainable Development

## The Diffusion of the Internet in Jamaica

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Figure 1. Submarine cable networks in Latin America.

### Methods

The GDI Framework uses six dimensions to conceptualize the state of Internet diffusion in a country. Three of these dimensions — Sophistication of Use, Connectivity Infrastructure, and Organizational Infrastructure— evaluate the scope of Internet use; while the remaining dimensions — Geographic Dispersion, Pervasiveness, and Sectoral Absorption— focus on network diffusion. The GDI Framework is a concept similar to e-readiness assessment tools created by non-governmental organizations such as InfoDev, the World Bank's Information for Development program. However, the GDI is distinguished by the continual and rigorous refinement of scholars. In this study, the GDI synthesized an overall assessment of the Internet in Jamaica based on data from interviews, email correspondence, and electronic references.

### Background

A mounting body of literature highlights the Internet's potential to promote economic, social and political progress within the developing world's emerging economies (Meso et al., 2007; Mbarika et al., 2005). For countries such as the Jamaica, the diffusion of information and communication technologies (ICT) has fostered the growth of e-commerce, e-government, telemedicine and distance learning, as well as general communication betterment. This research examines the current status of Internet penetration in Jamaica along the six dimensions of the Global Diffusion Index (GDI) developed by Wolcott et al. (2001). The GDI assessment serves as a baseline for examining Internet progress, chronicling the outcomes and unintended consequences of Internet diffusion and, ostensibly, clarifying the issues that the policy makers, private companies, researchers and other stakeholders must address through synergistic efforts. to develop initiatives to realize the maximum potential benefits of the Internet and related applications.

### JAMAICA Fast Facts



<b>Population/Households</b>	2.67m/750,000	<b>Government</b>	Parliamentary democracy
<b>GDP</b>	US\$10.6 billion	<b>Internet users (est.)</b>	1.2m (43%)
<b>Real GDP growth rate</b>	2.8%	<b>Mobile phone subscribers (est.)</b>	2.6m (97%)
<b>GDP per capita</b>	US\$3,979	<b>Fixed-line teledensity</b>	14.3%
<b>Major industries</b>	Tourism Agricultural exports Aluminum mining	<b>Operating Internet Service Providers (ISPs)</b>	10

#### Market Share by Connection Type

Connection type	Residential	Business	Total
Dial-up	54%	36%	50%
DSL	26%	48%	33%
Cable modem	3%	6%	4%
Wireless	18%	10%	13%

### Conclusion

Like much of developing world, Jamaica faced a series of economic obstacles that hindered the expansion of ICT infrastructure during the nation's first decade of network growth efforts. Despite these challenges, Jamaica has emerged as one of the most "e-ready" nations in Latin America and the Caribbean, second only to Barbados. The success of Jamaican networks is illustrated by the blue hexagon in Figure 2. The most salient trait of Internet diffusion in Jamaica has been the unwavering support of the government; from the liberalization of the telecommunications sector in the late 1990s, to e-learning programs, and current initiatives that encourage synergistic partnerships between the government, private firms, citizens, and other stakeholders. The tourism industry and foreign investors are the other driving forces behind the Internet in Jamaica. Additionally, primary and secondary schools, as well as the agricultural sector, are undergoing a staunch growth period. In June 2007, the government drafted its report, *E-Powering Jamaica*, that outlines plans to substantially increase Internet connectivity in rural areas by 2012. The report emphasizes the potential advantages of ICT in the academic, commercial, financial, agricultural, and health sectors. The ultimate goal of ICT diffusion in Jamaica is the transition to knowledge-based society and thereafter, developed country status.

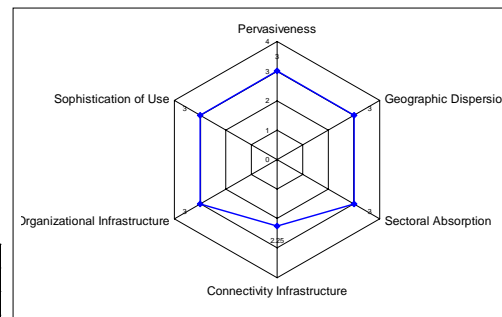


Figure 2. A graphic representation of Jamaica's GDI score. The relatively large hexagonal outline (in blue) denotes successful network expansion for a developing country.