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## Networking for Sustainable Development: Innovative Approaches Outside the "Global Village"

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This chapter reviews novel initiatives for improving the content of information on sustainable development and novel initiatives for increasing access to this information with an emphasis on outreach to rural areas in developing countries. Improving information content and improving the outreach of the network are the two key elements of any successful communications project. The combination of communications services and other development activities create an opportunity for co-capacity building in that the implementation of one builds capacity for more successful implementation of the other. Some of the incongruous objectives of a global communications network are explored, as well as the associated opportunities to encourage more informed decision-making for information technology investments and sustainable development endeavors.

Not long ago, if you wanted to seize political power in a country, you had merely to control the army and the police," writes Umberto Eco. Now power belongs to those that have privileged access to information. "The day after the fall of Krushchev," Eco goes on, "the editors of the Pravda, Izvestiia, the heads of the radio and television were replaced; the army wasn't called out" (Eco, 1986). This power shift has been prophesied in every context from undermining authority, particularly governments' (see for example Matthews, 1997; Shapiro and Leone, 1999) to turning the industrial world on its head (see for example Downes and Mui, 1998; Kelly, 1998; Shapiro and Varian, 1999). It is difficult to deny that fundamental changes are taking shape among individuals and institutions that increasingly rely on the Internet in their day-to-day lives. Real-time communication sets this era apart from previous waves of globalization, such as the mobilization of unskilled labor, distributed manufacturing or the dawn of asynchronous dialogue over e-mail.

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The Internet could even empower communities in developing countries to make informed decisions on their development paths. As highlighted in the 1999 UN Human Development Report, however, "new information and communications technologies are driving globalization—but polarizing the world into the connected and the isolated" (UN 1999, p. 5). Not surprisingly, the UN reports that it is the rich and educated who have access, while others are left with unavailable, unaffordable, and/or unreliable connections. When competing side-by-side, those with easy access will have a voice overpowering the marginalized billions.

The connectivity challenge is not insurmountable, however. A communications network can go beyond exchanging electronic bits of data among digitally connected users to outreach into more remote communities using traditional communications conventions. We shall see that combining old technology with modern technology can be an effective method to increase information sharing with rural communities of developing countries. This in turn allows information and ideas to recombine among both sophisticated Internet users as well as remote populations, promoting educated, adaptive collaboration for appropriate development.

A twofold approach is needed to advance communications for sustainable development. On one level, there is the information content, which can either provide information where it was not formerly available, or facilitate information sharing among those who have access to it anyway. The other equally important issue is the outreach of the network so that the information conveys knowledge to those who need it most, not just to those with highspeed access to the Internet. Choucri (1997) groups these considerations into three distinct and convenient concepts: connectivity, content, and capacity, or the "3 Cs."

Connectivity means the ability for users to tap into a communications network (via email, real-time direct links, message store-and-forward, or even manual procedures) and the technical expanse of the network itself.

Content refers to the quality and function of this information. The information must be relevant and logically organized to be useful. Content is more functional if it can accommodate continuous and dynamic information sharing.

Capacity is the synthesis of communications, connectivity and information content to both increase the breadth and depth of information exchange among peoples, and to provide support for actual sustainable development projects.

There are almost countless projects and initiatives concerning connectivity and content for rural communities in developing countries. A comprehensive list has not been attempted. The intention here is to summarize a few successful connectivity and content endeavors that have become important development instruments both within regional and among international communities. We begin with a discussion of a United Nations-led initiative designed to provide populations in developing countries connectivity with Broup Inc. information related to sustain able development.

#### CONNECTIVITY

#### The Sustainable Development Networking Program

Under the auspices of the United Nations Development Programme (UNDP) and Agenda 21,1 the Sustainable Development Networking Program (SDNP) was established in

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