

# Chipole Wireless ICT Project

**Overview:** The digital divide impedes the welfare of developing countries. Improving access to information and enabling communication can contribute toward the United Nation's Millennium Development Goals related to health, social, and economic targets. Information and communication technology (ICT) is an instrument that can help developing countries become a part of the global economy and exercise everyone's right to information.

## **Project Scope:**

- Phase I: Infrastructure  
Basic implementation connecting each entity in the community
- Phase II: Capacity Building  
Additional computers, evolution
- Phase III: Development  
Project identification to promote personal and economic growth
- Phase IV: Maintenance and Sustainability  
Empowering skilled local leaders

**Funding Sought:** \$25,000 (Phase I)

## **Key Strategic Relationships:**

Fiscal Agent: St. Scholastica Monastery  
Technology Vendor: Inveneo  
Tanzania Vendor: Kicheko Ltd

## **Contacts:**

- Nancy Young (US)
- Sr. Marislawa Mwinba (Tanzania)
- Email: [info@chipolestagnes.org](mailto:info@chipolestagnes.org)
- Web: [www.chipolestagnes.org](http://www.chipolestagnes.org)



## **Phase I: Infrastructure**

Chipole is a small community in southwestern Tanzania that includes a dispensary, orphanage, kindergarten, primary school, secondary school, and trade school. The Chipole wireless information and communication technology (ICT) project is intended to empower this community to take advantage of ICT to improve their standard of living, knowledge, and skills to become integrated with the rest of the world in the 21<sup>st</sup> century.

Since October 2006, a hydro dam has provided reliable electricity to the community. The dam is currently managed by a stand-alone system computer. However, connecting the power station to the Internet will enable the suppliers of the power plant to remotely monitor and troubleshoot directly from their office in Switzerland. Incorporating the power station into the wireless ICT grid is a key project element, as this will ensure that the electricity supply is running and well maintained, thereby promoting the entire economic life of the community. It is this dam that affords an opportunity to improve ICT at all facilities in Chipole.

A site survey indicates that the entire community could be networked with a combination of wireless and wired networking. Wireless technology could be used to create a Wide Area Network primarily for backhaul of the Internet from the source location within the main office to the other locations. Visibility for line of sight is good, and the distances are relatively short according to WiFi networking standards. A Local Area Network could be created within each site by using wired networking technology. A hub station could be placed close to the Internet source to facilitate connectivity and internal voice over Internet protocol (VoIP) communication.

The technology offers an ultra low-power, affordable, and easy-to-use desktop computer solution that is designed for use in challenging, rural environments, like Chipole.

Phase I includes one hub station, seven communication stations, two computing stations, and three printers in addition to the necessary networking technology.