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## Reliable Maps and Surveying Systems Create Opportunities for Burkina Faso

Developing countries face many obstacles in building strong economic foundations—including a lack of clear land property rights. Without clarity about land rights and access, farmers and others are less likely to invest in their land. This creates missed opportunities for greater land productivity, which can spur growth and reduce poverty.

In Burkina Faso, the challenges of producing geographic information to identify boundaries make it hard to clarify land rights.

Most developed countries use precise geographic data from a global satellite system to produce reliable maps and surveying information. In Burkina Faso, the Millennium Challenge Corporation is investing in technology that will help the country's land authorities collect geographic information more easily, quickly, accurately, cheaply, and consistently.

MCC's five-year, \$481 million compact with Burkina Faso includes the \$59.9 million Rural Land Governance Project, aimed at improving land management and land-tenure security. As part of the project, MCC is helping create a national geographic positioning network made up of nine Continuously Operating Reference Stations (CORS) that capture positioning data from the global satellite system and enhance its accuracy on the ground.

Networked together, the nine CORS stations will allow surveyors to move beyond traditional surveying methods to more accurately and efficiently complete survey work and map land parcels. This will enable Burkina Faso's land users to secure more accurate descriptions of both their legal rights and the position of their holdings, as well as reduce boundary disputes resulting from the multiple, localized mapping systems Burkina Faso has used in the past.

This reduction in conflict will give farmers, land developers, businessmen, and others the confidence they need to invest in labor and capital that will lead to higher productivity and more income.



The sun sets on a village in Burkina Faso.

Photo by Jake Lyell

## A Benefit to Burkina Faso's Economy

The CORS network also delivers wider benefits to the economy. The technology can support the mapping and surveying required for the development of roads and other public infrastructure, agricultural development, natural-resource management, mining, and other land-based economic activities.

With its CORS network, Burkina Faso can now boast of having one of the most modern and accessible networks in West Africa.

“This project shows that developing countries can perform a technological leapfrog from conventional to modern systems,” said Stefano Ghielmetti of Trimble Navigation Ltd., the California-based company that provided the Government of Burkina Faso with the technical services to design, install and operationalize the network.

The Government of Burkina Faso's leadership has focused on technical, legal and institutional aspects critical to the technology's use and sustainability—which will increase the impact of MCC's investment for years after compact closeout. For example, decrees were passed in April 2012 requiring all mapping and topographical work to be based on a new national geographic positioning reference system, establishing technical norms for survey-related work and requirements for the protection of mapping-related infrastructure.

The Geographic Institute of Burkina Faso is now responsible for operating and maintaining the CORS network, in coordination with the Ministry of Infrastructure. The institute will also maintain a data center to provide positioning services to government and the private sector. MCC funded the training of 67 local engineers, surveyors and technicians to use and maintain the CORS network.

“This important investment encourages us to effectively manage and protect this network,” said Paul Tapsoba, Millennium Challenge Account-Burkina Faso's land information technology officer. “And this can only be done if everyone is involved.”



MCC funded the training of local engineers, surveyors and technicians to use and maintain the Continuously Operating Reference Stations (CORS).



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