

INNOVATIVE GEOSPATIAL TECHNOLOGY IN BURKINA FASO

Breaking the Grip of Poverty



Burkina Faso has a population of 17.5 million and is one of the poorest countries in the world. During the colonial period and after independence, land was vested in the state and hence there was no legal recognition of customary land rights. Several years ago, the country recognised the adverse impact of the lack of land tenure security on promoting investment and consequently increasing production in the agricultural sector. New approaches in registration have since been developed with the support of modern technology.

In 2008, the government of Burkina Faso entered into a compact with the Millennium Challenge Corporation (MCC) of the United States that aimed to reduce poverty through economic growth. When defining the objectives of the compact, a participatory country

ownership approach was adopted to ensure that it addressed the needs considered by the government. In particular the compact seeks to improve rural land governance in order to enhance agricultural investment, improve access to markets by rehabilitating vital corridors of the road networks, and enhance rural agricultural production through irrigation and accessibility of improved extension services. The lack of legal foundation for the – predominant – customary tenure system for rural agricultural lands constitutes an inherent risk that deters the investment needed to produce the growth required to ameliorate the high incidence of abject poverty prevalent in the country.

Land Registration and Cadastre

Prior to implementation of the rural land governance project, the process of land registration was not decentralised to the provinces, which is where most of the poor, peasant farmers reside. That meant that any effort to register land potentially involved a considerable amount of travel to regional centres often distant from the farming communities and at a great expense. Any attempt to improve and streamline the process of registration of rural lands therefore needs to decentralise the registration process in order to make rural land administration more accessible to its intended beneficiaries.

A critical component of a functional land registration system is a cadastral plan that delineates the land that is to be registered. It captures the boundaries of registered land in terms of an unambiguous system of reference that supports demarcation of the boundaries of the registered parcels, should a boundary dispute arise.

Burkina Faso's existing geodetic infrastructure is underpinned by a network of 54 primary control points based on the Clark 1880 ellipsoid and a UTM projection. Rampant disturbance and destruction of the control points within the network from the primary to tertiary level meant that producing cadastral maps tied to the national control network was an expensive enterprise. As a result of the sparse density of control points, the process involved extensive traversing with conventional optical instruments to long baselines requiring high-accuracy GNSS receivers and long occupation times using satellite positioning techniques. Hence most cadastral plans were tied to local coordinate systems, making it impracticable to create a homogenous record of all land transactions data using the existing spatial data. The rural land reforms envisaged under the MCA Burkina Faso rural land governance project include upgrading the existing geodetic infrastructure in order to reduce the cost and complexity of determining positioning.

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