

# Mapping Tree Cover and Conservation Practices for the Resilience in the Sahel Enhanced (RISE) Programs: Mapping at the commune level to support REGIS-ER

In order to support the U.S. Agency for International Development (USAID) RISE Program and to help USAID geographically target investments, the U.S. Geological Survey Earth Resources Observation and Science Center (EROS) is mapping and monitoring land use, tree cover, and soil, water, and vegetation conservation practices across two RISE Focus Zones in Burkina Faso and Niger. In November, the RISE partners (EROS, USAID/SRO, REGIS-ER, and SAREL) conducted field work in the Tillaberi region in Niger to document the success/failure of soil and water conservation practices, better understand the relationship between practices and the natural, socio-economic, and cultural environments, and understand farmers' motivation in implementing practices.

Within the RISE program, the "Resilience and Economic Growth in Sahel – Enhanced Resilience" (REGIS-ER) Project seeks to understand the diverse, structural causes of chronic vulnerability in the Sahel, in order to reinforce resilience and improve food security in Niger and Burkina Faso. To support these goals, REGIS-ER is working in several communes to help implement *conventions locales*. These conventions are sets of rules and institutions for natural resource management negotiated and agreed by local stakeholders. This broad definition encompasses an enormous diversity of situations, including agro-sylvo-pastoral resources, various resource users (herders, farmers, etc.) and local customary and statutory authorities. In several Sahelian countries, local conventions have been successfully used to legally recognize local resource management systems.

The EROS team, working with the REGIS-ER team, is providing supporting data (satellite imagery, elevation data, and soil maps), advice on mapping approaches, and producing prototype baseline land cover maps that provide standards for continuing the work locally. This mapping effort is part of preparing *conventions locales* for several target communes in Niger and Burkina Faso.

Land cover maps are an important asset for the *conventions locales*. They not only serve as a baseline on the state of resources by showing pasture areas, farmland, livestock corridors, natural water holes, areas of high biodiversity (forested areas; wetlands), but also help locate degraded areas, including fields at high risk of soil erosion in the commune. Land use planners and stakeholders will use the maps for specific discussions on natural resource uses, degraded areas, and what actions are required (and where) to improve natural resources management. These maps will also help community and development workers visualize conflict areas between herders and farmers. The *conventions locales* will lead to action plans for each commune (*Plans d'Action*). The EROS team is also providing historical imagery on an as-needed basis, to help understand landscape dynamics and driving factors of land cover changes in each commune.

In addition, the soil and water conservation practices maps completed in the past few months are of interest to both REGIS and Sahel Resilience Learning Project (SAREL). The maps will contribute to the understanding of why some practices fail while others succeed, and help define the best practices for scaling up across the RISE Focus Zones.

Using the first prototype land use/land cover map of the *Commune Rurale de Tondikandia* (Fig. 1), REGIS-ER facilitated the completion of the first of numerous *conventions locales* last December. Currently, REGIS-ER and EROS are collaborating to complete the *conventions locales* of 5 additional communes in Niger and Burkina Faso by the end of March.

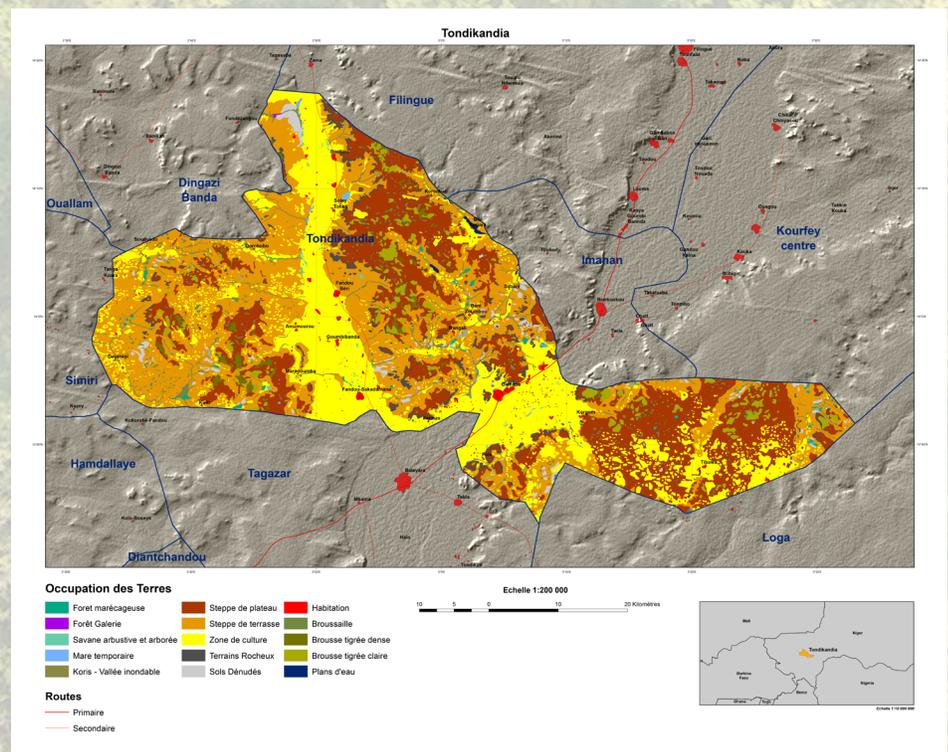


Figure 1. Tondikandia detailed land cover map.