Social and Environmental Assessment
Of the Transport Sector

Executive Summary

NOVEMBER 2002
Introduction

The Transport Sectoral Program, named TSP-2, falls in the framework provided by the Burkina Faso government’s new strategy for the development of the transport sector for the decade 2000-2010. The current report presents the Social and Environmental Assessment for this program.

To complete this study, Tecso International Limited first established the current situation of all TSP-2 projects as of 1st October 2002. These 145 projects have been categorized depending on their nature and their potential impacts. Field visits have been carried out in order to precise the nature of some projects in their local context and get a better grasp of their specific construction techniques. From the list of activities supposed to performed under the TSP-2, Tecso determined the significant sources of impact, as well as their related impacts. In the last stage of the study a Social and Environmental Assessment Plan has been elaborated that includes mitigation measures and a methodology to ensure adequate environmental monitoring of the program.

Transport Sector Background

Many institutions and professional organizations interact in Burkina Faso’s transport sector. At Government level, the Ministry of Infrastructure, Transport and Housing has overall responsibility for transport administration and deliver its mandate in collaboration with other ministries. Other active organizations in the sector include the Burkina be Common Carriers Council, the Chamber of Commerce, Industry and Handicraft, the Motor Vehicle Inspection Center, the National Road Safety Committee, ASECNA, the agency responsible for air traffic security in Africa and Madagascar, the National Railways of Burkina Faso (an asset company), Burkina Faso’s Organization of Road Common Carriers, Burkina Faso’s Truckers’ Union, and the National Syndicate of Passenger Carriers in Burkina Faso.

National laws as well as national, sub-regional and international agreements govern Burkina Faso’s transport sector. At the national level, the fundamental law regulating the sector is Decree (called Zatu in Burkina Faso) Nr. ANVI 023/CNR/TRANS of February 6, 1987. Its article 2 states that implementation decrees will determine how to regulate the transport profession, establish different transport categories, lay out rules ensuring security and conditions of transport, create and organize Cargo offices and fix labor conditions.

In the regional West African context, Burkina Faso has signed bi-lateral road and railroad agreements and conventions. In the international context, it has ratified several major conventions, including the 1965 United Nations Convention Relative to Transit Trade of Land Locked Countries, the 1968 United Nations Convention Relative to Maritime Freight Transport, as well as the 1929 Warsaw Convention, and the 1944 Chicago Airfreight Convention.

Four sub-sectors make up the transport sector, each contributing in a different way to move people and goods: road, railroad, sea and air transport. Road transport includes the transport of passengers and goods. Passenger transport includes three components:
urban, inter-urban and international. Sea ports used by Burkina Faso include Abidjan, Lome and Cotonou as well as Tema. Burkina Faso and Côte d’Ivoire share 1,262 km of railroads, of which 622 km are in Burkina Faso, linking Abidjan to Kaya via Bobo-Dioulasso and Ouagadougou. Finally, Burkina Faso has two international airports in its two key cities (Ouagadougou and Bobo-Dioulasso), supplemented by 48 secondary airports with no commercial traffic.

**TSP Description**

The project finance activities resulting from the transport and tourism sector development strategy. The original time frame for these activities was five years, from 2000 to 2004, but it has been extended until 2007. The TSP has the following components:

Component A: Institutional support and sector reform, including the following sub-components:

- A.1: MITH reorganization and restructuring;
- A.2: Promotion of the private transport service industry, aiming at increasing the sector effectiveness and productivity by increased reliance on the private sector in the context of a market economy;
- A.3: Support to the Rural Transport Strategy implementation;
- A.4: Support to DGACM (Civil Air Traffic Administration);
- A.5: Road safety improvements and HIV/AIDS program.

Component B: Road network improvement, including the following sub-components:

- B.1: Main road rehabilitation and periodic maintenance;
- B.2: Local government capitals access roads rehabilitation.

Under the project, sub-projects will be selected on the basis of traditional economic rate of return criteria, competitiveness or complementarities of transport supply, as well as on the need to support sub-regional objectives and land use planning and development.

**Legal and Institutional Framework**

The legal and institutional framework presiding to the TSP-2 environmental and social evaluation study is provided by national laws and major policies governing state intervention. Key legislations include: the Environmental Code, the Agriculture and Land Management Reform, the Forestry Code, the Water Management Act, the Mining Code, and Person and Family Laws. The framework also includes social policies complementing the legislation, as well as international conventions ratified by Burkina Faso and World Bank operational guidelines.

On the other side, a description of key Burkina be ministries involved in the environmental and social areas will provide for an efficient division of labor at the level of strategic management planning.

**Natural Environment Description**

With respect to a strategic environmental evaluation, the different socio-ecological zones in the country, as defined by the national forestry development program provide the best
description of Burkina Faso’s natural environment, highlighting key features of the environment. Main environmental features include climate, geology, topography and hydrography, water resources as well as land resources. There is also a description of the biological environment including vegetation, fauna, as well as wetlands and protected areas.

**Human Environment Description**

Demography, key population features, health and education, standards of living and economic activities are the key features of the human environment. A brief presentation of the country’s history and a description of the evolution of its administrative structures will help provide a sound perspective on the context in which population live.

Human environment data pertains primarily to the 13 administrative regions. However, as sector ministries generally publish data on the basis of their own territorial divisions, data are not always available for all 13 regions. In the annex, synopsis fact sheets for each administrative region summarize key human and natural environment information.

**Classifying Sub-projects in the TSP**

Classifying Sub-projects in the TSP-2 stems from a two-step process: First, according to the nature of work, whether studies, equipment acquisition or work to be carried out on the road network; and second, according to their impact on the natural and human environment, i.e. how sub-projects will affect populations, their standard of living, and natural environment (water, air, land, fauna and flora).

Sub-projects are divided into seven categories: Road maintenance, road rehabilitation, construction and change in the level of improvement, railroads and rail infrastructure rehabilitation and maintenance, improvements, buildings and equipments, as well as institutional capacity building.

Each category will call for a specific set of interventions. In total, 16 distinct types of interventions have been identified, some being common to different categories of project. For each one of these types of interventions, potential activities to be carried out have been described.

**Impact Analysis**

The impact analysis has been carried out in three steps. First, based on the types of interventions and potential activities that had been defined, 35 sources of potentially significant impacts have been identified. Then, a matrix relating environmental components to sources of impacts have been constructed to ensure that all significant impacts have been taken into consideration. Finally, a list of potential impacts has been established for each impact source during each phase—preparation, implementation and operation/application—in order to highlight any potential impact.

Using this approach, the study highlights negative and positive impacts that could affect the natural and human environment components during preparation, implementation and operation of the TSP project. By combining results from the impact analysis and findings from the field, it appears that the environmental or social aspects that are most affected by the TSP-2 are:
• Air quality, which is affected by dust and atmospheric releases;
• Water supply which is not always responsive to the needs of all users despite efforts towards increasing supply (water wells and weirs);
• Soils affected by erosion and compacting, which indirectly increase the loss of land available for agriculture due to road works;
• Degradation and fragmentation of animal habitat;
• Protected areas where work is carried out without tight supervision;
• Population directly affected by works which are not compensated on time;
• Women who are generally excluded from consultation and compensation processes, although their work can be affected by works (positively or negatively);
• The standard of living of population due to disruption in their lifestyle and economic activities (positive as well as negative); and
• Health of population in roadside areas and workers due to increased risks of accident, sexually transmitted diseases (STI and AIDS) and respiratory diseases.

**Strategic Management Plan**

The strategic management plan in this study has four components: (i) mitigation of negative environmental and social impact and improvement of positive ones, (ii) environmental and social monitoring, (iii) institutional dimensions, and (iv) economic aspects of monitoring and follow-up.

In a first phase, the plan recommends mitigation measures for preparation, preparation and operation, to prevent, eliminate, mitigate or compensate negative impacts and improve TSP spill-over. The list of proposed measures is by no means exhaustive. However, measures therein have been selected because they are well adapted to the Burkina be context, they are commonly applied and have proven to be effective in many transport projects.

Proposed measures fall in two categories: Those primarily requiring minor adjustments to current methods or practices, and those requiring in-depth changes in the processes. Implementing the latter usually uses up the bulk of investments. Measures in the first category would include: Identification before work begins of cultivation, grazing and other sensitive areas which will need to be protected; identification of traffic areas for heavy machinery; scheduling work to take into account population and fauna; determination of water supply potential from identified sources; management of toxic materials and potential contaminants; and equal employment for women and men.

Measures requiring more substantial changes measures include primarily living facilities on major construction sites (with 100 or more temporary workers); ensuring safety of all work areas; training workers in the areas of safety and work-related skills; developing better information and consultation processes; protecting rivers, rehabilitating construction sites once section of work is finished; and mitigating the effects of the main pollutants (noise, dust, and landscape).
The strategic management plan includes several measures to improve the MITH processes to compensate displaced and expropriated populations. The implementation directives for these measures are contained in a resettlement policy framework developed to complete this study.

The environmental and social monitoring has three objectives: (i) improving the TSP environment and social performance by integrating mitigation and improvement measures to respond to environmental impacts during the preparation of projects; (ii) ensuring implementation of proposed measures, whether to mitigate negative impact or to increase spill-over effects, with the assistance of an expert to help draft environmental and/or social plans on work sites; and (iii) checking the reliability of impact forecasts in the study and the effectiveness of proposed mitigation measures through scientific monitoring. Finally, the study recommends potential indicators that could be used to ensure TSP projects monitoring.

At the institutional level, the study recommends that MITH capacities be strengthened in order to ensure proper environment and social monitoring in the context of TSP. Proposals to that effect include: training of the Project Management Unit staff; recruiting an environmental expert to participate in supervision missions involving projects requiring an environmental impact study; creating an environmental and social unit in the Ministry; and establishing an Expert Advisory Committee. These proposals represent an initial investment of about CFAF 85 millions, with recurrent costs estimated at CFAF 115 millions per year.

In conclusion, since the current environmental evaluation is of strategic nature and must apply to the TSP-2 as a whole, it is hoped that it will serve as a base not only for the appraisal of specific projects subject to an environmental impact evaluation but also for the preparation of future projects in the transport sector.