



Canadian International
Development Agency

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Canada's Railway Program in Mali

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Canada 

Executive Summary

Introduction

This report discusses the results of the impact assessment of Canada's railway program in Mali, which extended over a period of twenty years from 1977 to 1996. The assessment was performed by a team of four Canadian consultants, aided by two local colleagues. In addition to an extended desk research, the team conducted in-depth interviews with some forty stakeholders and observers who were involved in the program, in both Canada and Mali. Fieldwork for this evaluation was carried out in March 1999.

Program Description

Since the early 1960s, Mali's railway transport sector has received over \$Can150 million in assistance. Of this, \$Can40 million came from Canada, a major player in the sector. The first of Canada's three projects, *Réforme administrative de la Régie du chemin de fer*, began in March 1977 and was completed in December 1986, with a total budget of \$2,385,000. Its intent was to support the administrative reform of the *Régie de chemin de fer du Mali* (RCFM), the body responsible for managing the country's railway services, through the provision of technical assistance aimed at restructuring the organisation and training its staff. Canac Consultants Ltd (CANAC), a private company, was selected to carry out this assignment. Part of a large initiative funded by the World Bank, the second project, named *Équipement ferroviaire au Mali*, was launched in May 1978 and completed in November 1986, with a total budget of \$6,000,000. Its intent was to supply the RCFM with new equipment and tools, in an effort to modernise Mali's railways—an assignment which was also given to CANAC. Finally, the third project, named *Appui à la Régie du chemin de fer du Mali – Phase II*, was launched in September 1984 and completed in September 1996, with a total budget of \$32,600,000. Its intent was to supply the RCFM with modern railroad facilities, including engines and railway cars, and to train staff on how to maintain these facilities. The assignment was conducted by CANAC and by CANARAIL, another private firm.

Development Environment

One of the world's poorest countries, Mali ranks 171th on the Human Development Index (HDI) scale. Highly dependent on agriculture, its economy is chronically skewed, as witnessed by a weak secondary sector that is incapable of generating significant wealth. Even though its economy has grown annually by an average of 3% over the last ten years, Mali still performs poorly in terms of life expectancy (46.6 years), adult literacy rate (29.3%), gross enrolment rate (17%), and infant mortality rate (161 deaths per 1,000 births). In Mali, the ratio of doctors to the total population is 1:20,000, and only 46% of citizens in urban areas (10% in rural areas) have access to drinking water.

Because it is a large, landlocked country, Mali places a great deal of importance on transportation. Its infrastructure systems include 50,000 km of road (including earth roads), 729 km of railway and 2,334 km of water route, as well as thirty-five airports and five marine

warehouses. In terms of transportation, providing access to the sea and improving the sector's effectiveness and competitiveness are the two primary strategic thrusts set by the Malian government. Railways play a major role in this respect, although they have clearly declined (in favour of road transport) since the country proclaimed its independence in 1960. Mali's railway system consists of a line that runs from the capital city of Bamako to the western border, passing through the country's largest administrative district: Kayes, a poor and isolated region that has become a new development centre in the natural resources industries (textile, mining, etc.). Beyond the border, the line extends westward toward Dakar, capital city of neighbouring Senegal.

Through the years, the RCFM has had to deal not only with the country's climate and geography, but also with political conditions that have greatly impeded its operations and development. With the declaration of independence in 1960, the organisation was stripped of most of its human and physical assets, following the departure of the French and the split of shared railway facilities between Mali and Senegal—leading to the shutdown of the Dakar-Bamako train from 1960 to 1963. Following that period, and recently still (i.e. the 1991 coup), the RCFM has had to deal with government interference in strategic and administrative decision making, not to mention several questionable political appointments.

Results

Generally speaking, the objectives of the three projects were only partially met. At the “macro” level, Canada was instrumental in the establishment of a new rapport between the RCFM and its counterpart from Senegal, the *Société nationale des chemins de fer du Sénégal* (SNCS), which resulted in: (a) improved traffic and streamlined engine utilisation for both parties; (b) the creation in 1995 of the *Organisme commun de gestion du trafic international* (OCGTI), a body responsible for managing all traffic on the Dakar-Bamako line; and (c) the recent decision to replace the OCGTI, in December 1999, with a private corporation made of partners from Mali, Senegal and other countries, which will be responsible for managing all international traffic on the Dakar-Bamako line. Canada also introduced the notion of “balancing subsidy”, a financial contribution made by the government to partially offset the deficit imposed upon the RCFM by the authorities' traditional concern for maintaining low rail rates. Furthermore, it encouraged the development of “program contracts” that specify and regulate the relationship between government and the RCFM. Finally, Canada played a major part in the coordination of efforts made by bilateral and multilateral donors in order to support Mali's railways.

In terms of institutional development, the three Canadian projects achieved best results at the “meso” level. Thus they helped the RCFM strengthen the capacities of its staff in the fields of corporate management and engine maintenance. They also contributed to the modernisation and expansion of the organisation's engines and rolling stock. Apparently, the supply of eight new engines constructed by General Motors (GM) has played a key role in the survival of Mali's railway service. Indeed, numerous stakeholders believe that the latter would have simply disappeared had it not been for Canada's assistance, combined with that of other donors. Notwithstanding this contribution, however, the RCFM continues to face a number of problems.

Output Level

Outputs of the Canadian projects included the supply of railway equipment to the RCFM (i.e. passenger cars, ballast cars, tank wagons, engines, and spare parts). This equipment—especially the engines—turned out to be adequate and far better suited for Mali's climate (heat and dust) than previous machines dating back to the colonial era. The equipment also proved to be more reliable, sturdy and powerful, thus allowing the RCFM to enhance the quality of service to train users. The supply of spare parts was also fully adequate.

Outputs of the Canadian projects also included technical assistance in the form of support, training, and services rendered by purchasing officers—all of which helped the RCFM undertake a genuine administrative reform. In addition, some fifteen RCFM managers received training in corporate management and/or equipment maintenance, while over sixty technicians received training in the maintenance of GM engines. (Note that one unforeseen result of the projects has been to increase the visibility of the organisation, whose expertise in these subject areas is now recognised throughout the sub-region.) Furthermore, Canada's assistance allowed the RCFM to review and update two of its operating/security guides, and to develop and implement computerised systems that are still used today for accounting, railway management and inventory management purposes.

Purpose Level

To varying degrees, the three Canadian projects shared a common purpose: to improve the effectiveness and efficiency of railway operations in Mali. Unfortunately, none of the projects fulfilled this mission, primarily due to external circumstances beyond their control—deterioration of the railway track, harsh climate and terrain, strategies and measures adopted by the government of Mali, and political environment that hindered RCFM's development. Nevertheless, the *Appui à la Régie du chemin de fer du Mali – Phase II* project managed to stand out as a result of the positive effect that the supply of GM engines and the delivery of technical support and training had on the availability of motive power and rolling stock. Furthermore, Canada was instrumental in the dramatic restoration of RCFM's largely unprofitable operations.

Goal Level

In terms of goals, the three projects sought to: (a) promote the development of effective, viable and profitable railway services; (b) support Mali's foreign trade efforts; (c) boost the country's economy; and (d) facilitate Mali's access to the sea. Unfortunately, as with the above purpose, these results were not achieved. However, by providing significant assistance to the RCFM, the projects probably laid the foundations of future achievements, as witnessed by the significant improvements experienced with Canada's assistance, as well as by the remarkable evolution in the rapport between the RCFM and the SNCS in support of a joint rational management of the Bamako-Dakar line—indeed a key factor in the profitability, if not the survival, of Mali's railways.

Benefits for Canada

In Canada, the three projects have had significant, although modest, benefits. Thus, eleven Canadian businesses signed goods contracts worth nearly \$Can31 million, while nine Canadian businesses signed services contracts worth nearly \$Can8 million. Jointly, the projects created 222 person-months of work for Canadian resources. Furthermore, the delivery of technical services to the RCFM helped both CANAC and CANARAIL launch other successful international business activities.

Key Success Factors

An analysis of key success factors highlights the relevance of Canada's three railway projects from a developmental perspective. Indeed, the projects addressed a fundamental need inasmuch as continued railway services between Bamako and Dakar facilitated Mali's access to the sea while ensuring sustained communications between the capital city and Kayes, in support of this region's economic development. In addition, the projects were entirely consistent with the program framework established by the Canadian International Development Agency (CIDA), which had always treated Mali's access to the sea as a priority. The analysis of success factors also confirms the appropriateness of the three projects, considering the instrumental role played by Canadian equipment in preserving Mali's railways, the successful contribution of Canada's technical assistance to the restructuring of RCFM and the training of its staff, and the quality of support given by professional Canadian resources who helped the RCFM develop the capacity needed to establish its own equipment repair and maintenance service. Finally, to a lesser extent, the analysis demonstrates the efficiency of the three projects—which were all conducted within budget and which had a significant effect on RCFM's financial situation—as well as the viability of Canadian investments in the reinforcement of Mali's railways.

From a management perspective, the analysis of key success factors identifies: (a) the Canadian parties' constant concern for ensuring the full participation of Malian counterparts in the conduct of railway reinforcement projects, especially the *Réforme administrative de la Régie du chemin de fer* initiative; (b) the proper use that was made of professional and administrative resources invested in the projects; (c) the cautious and righteous manner in which the latter were managed; (d) the appropriateness of measures that were taken to solve ongoing problems—although the projects generally proceeded uneventfully—; and, to a lesser extent (e) the innovative nature of Canadian interventions (i.e. focus on participation, introduction of the notion of “balancing subsidy”, establishment of a new commercial approach within the RCFM, etc.).

Gender Equality

No women participated directly in the planning or conduct of the three Canadian projects. However, the results of a survey of train users in Mali suggests that the projects have had positive effects on Malian women. Indeed, women were among the prime recipients of Canada's assistance, considering that most traders who travel by train and do business while on board are women. By allowing these women to pursue their petty trade activities—and thus earn an income they would have lost had the railways shut down—the Canadian projects supported the well-being of Malian women and their families. Furthermore, the sustained operation of railway

services allowed women to retain their access to specialised health care services which are only supplied in the capital city of Bamako.

Lessons

Policy Level

- Canada has played a major part in the policy dialogue regarding discussions between Mali and Senegal surrounding the utilisation of the section of the line that runs from Bamako to Ségou, and regarding the general rapport between the RCFM and the Malian government. In addition, by virtue of its strategic and financial contribution to the survival of Malian railways, Canada has played a key mediation and facilitation role.

Development Level

- Via the three Canadian projects, CIDA has effectively and credibly demonstrated its capacity to bring together donors and partner countries. At a time where consensus building becomes increasingly important and where cooperation must be achieved between several donors to conduct large-scale projects, CIDA's role in this respect should be reinforced.

Country Program Level

- For twenty years, Canada has been a key player in Mali's railway transport industry. While helping Mali preserve its primary means of access to the sea, this sustained involvement has also allowed Canada to gain significant credibility in Malian diplomatic circles. Furthermore, it has helped Canada extend its influence and occupy a meaningful position among the group of donors who operate in this country. Finally, in complex industries, extended periods of time are needed to secure the sustainability of investments; therefore, any intervention in the railway transport industry implies a long-term approach and requires considerable financial resources. Only on these conditions can projects aspire to have significant impacts.
- First initiative undertaken to support the RCFM, the *Réforme administrative de la Régie du chemin de fer* project was entirely relevant inasmuch as it allowed the organisation to develop a basic core of qualified human resources and to implement a corporate structure that facilitates the management of railway operations. However, for reasons not on record, CIDA decided not to pursue this effort, leaving the RCFM in a fragile state with regard to its managerial and organisational capacities. By launching a second capacity-building initiative on behalf of the RCFM, CIDA would have probably succeeded in stabilising the outcomes of the first project, while also demonstrating the rationale of the corporate structure originally implemented by CANAC.
- The purpose and goals of the three railway projects were not achieved due to major external factors such as the over-involvement of the Malian government in RCFM's management. These factors were generally underestimated at the planning stage of the various projects.

- The overall outputs of the *Équipements ferroviaires au Mali* and *Appui à la Régie du chemin de fer du Mali – Phase II* projects were achieved through the supply of Canadian engines, railway cars and maintenance equipment. The *Appui à la Régie du chemin de fer du Mali – Phase II* initiative also featured a technical assistance component designed to help consolidate the results of the other two projects. With Canada's technical support, maintenance was performed on the engines in such a way that they are still running today.
- The evaluation concluded that CIDA's interventions in the railway sector in Mali and Senegal have furthered the objectives and strategies of Canada's development assistance program. In addition, based on a study of economic benefits in Canada, it appears that the three projects conducted in Mali have had positive financial and economic consequences. Finally, the projects have strengthened the competitiveness of Canada's own railway industry and opened up new markets for which technologies have already been adapted and used effectively.
- In terms of method, this assessment has ran into major obstacles, including problems in performing comparative analyses due to a lack of baseline data. Furthermore, statistics issued by various Malian departments and agencies often turned out to be incomplete, thus jeopardising the validity and reliability of assessments performed by the evaluators.
- Although CIDA regularly designs country programs, those that deal with different sectors do not necessarily come with a clear and systematic definition of anticipated results in the short, medium and long term, or with matching quantitative/qualitative indicators for ongoing validation of performance against preset objectives. This situation poses a particular problem when it comes to sectorial programs that are embedded in country programs. This deficiency not only constrains long term project planning, but also significantly reduces CIDA's capacity to conduct impact assessments.
- The specific projects evaluated were planned, designed and implemented before CIDA announced its policy statement on Results-Based Management (1996). As a consequence, the results statements related to impacts and outcomes are often optimistic, unrealistic, and not achievable. This makes evaluations difficult, as evaluators must conclude that few results have been achieved, particularly at the outcome and impact levels. Such conclusions do not always reflect the actual achievements of the projects. Since 1996, CIDA has made improvements and learned how to prepare more achievable, measurable, and realistic results statements, including those for women.

Recommendations

- If it wishes to do so, after conducting relevant studies, Canada should make a significant contribution to sustain its position as a major player in the infrastructure services sector—through its government, public corporations/organisations and private sector. Such a contribution should primarily consist of technical assistance.

- Field-based research should be conducted to investigate the impact of Canadian infrastructure projects on women and to develop new tools to measure if and how Canada increases access of the poor—especially poor women—to infrastructure services, as per the objectives of Canada’s draft infrastructure services policy.
- Taking into account various factors that affect international aid programs, country or sector programs should develop strategies and allocate resources to maintain and strengthen CIDA’s key role as arbitrator and catalyst.
- CIDA’s country program planners and designers should come to realise that efforts to maintain and develop national railways require long-term investments that could potentially extend over a period of over twenty years.
- Notwithstanding relevant economic and developmental needs, CIDA should refrain from intervening in the railway sector unless it is prepared to do so extensively. Timid efforts would only fuel—and ultimately fail to meet—the expectations of donors and Malian authorities.
- CIDA planners and decision-makers should come to realise that it takes more than a few years to implement new management/work methods within an organisation, and that sufficient time and resources must be invested to achieve the desired goal.
- When planning infrastructure services projects, special consideration should be given to the identification of major constraints and to the conduct of detailed assessments of the situation, in order to grasp relevant issues and understand the roles and expectations of all concerned stakeholders.
- In an effort to promote the transfer of knowledge and technical know-how, officers who plan future projects should develop actions strategies that provide for vigilant intervention and continuous aid/technical assistance on the part of Canada.
- CIDA should establish clear standards and procedures regarding the development of baseline data. CIDA should also conduct mandatory pre-project analyses to facilitate the creation of quantitative/qualitative databases.
- Country program planners and decision-makers should progressively define clear, measurable, realistic anticipated results— including results pertaining to gender equality—, and progressively develop indicators that support the monitoring of results achieved at the country or sector level, including results pertaining to gender equality.
- Field support units should be given the necessary means to collect and analyse data for different sex/age/socio-economic status groups, as well as relevant quantitative/qualitative program indicators, including indicators that deal with gender issues.

At the planning and implementation stages, projects that are planned in priority sectors and in country programs should:

- take into account the anticipated results of programs;
- set interdependent results across projects, sector programs and country programs;
- review the indicators associated with country programs and sector programs in order to use those that apply to their specific situation;
- report periodically on the evolution of indicators they use.
- CIDA should continue to develop tools and guidelines to help staff and partners prepare better logical framework analyses for its infrastructure investments, with realistic results statements at all three levels—including gender equality results statements. Such statements should be fully integrated with the country program and take into account resourcing and risks that may affect achievements. Best practices could also be developed, based on CIDA's experiences, in a variety of infrastructure sectors.

Conclusion

By offering an assistance to the RCFM between 1977 and 1996, Canada has made a significant contribution to the survival of Mali's railways. In general, the three projects have achieved significant outputs and notable social and economic effects. However, their purpose and goals were not achieved, mostly due to the negative influence of constraining external factors. Under these circumstances, the projects were nevertheless conducted effectively and efficiently.

In retrospect, one may conclude that, in light of such factors—especially the poor condition of the railway track in Mali—the Canadian projects were too optimistic or unrealistic. However, they still managed to achieve major positive outcomes by significantly supporting the preservation and survival of Mali's railways—an essential means (in the local authorities' view) of providing access to the sea and thus promoting the country's economic development.

Generally speaking, now that investments are beginning to be made to repair the railway track, and now that the management of international traffic is about to be handed out to a private corporation who will probably be in a better position to find funding to complete the work, there is reason to anticipate a significant increase in the reliability of railway transportation services in Mali. Knowing that the train remains an economical mode of transportation in this country, such progress would undoubtedly help the industry regain a significant portion of the market share it has lost in past years.