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## Summary of the Operation Performance Evaluation Review (February 2007)

### THE PROJECT

#### Background

Owing to the country's geographical position and the long distances for most commodities, including coal, ore, steel, and crude oil to travel, railways have become the main mode of freight transport. Where the railway is maintained, passenger services are cross-subsidised by freight services.

The state railways company's increasingly desolate financial situation, deteriorating physical conditions, and the economic decline of regional markets in the mid-1990s upon which the country was heavily reliant, were the main instigators for a major restructuring programme in which the Bank has been involved since 1996.

#### The Bank's involvement

In support of this restructuring endeavour the Bank had approved five different technical cooperation (TC) operations during 1997-2001 that were also meant to facilitate a potential investment operation.

In support of a broader restructuring plan – initially amounting to under US\$ 2 billion, but eventually scaled down to a more realistic core programme of about US\$ 1 billion – the Bank approved in 1999 a sovereign loan to the state railway company for approximately US\$ 70 million. The project was to finance:

- the foreign exchange cost for track maintenance equipment to introduce state of the art production equipment for track renewal and selective maintenance and repair work, starting in the pilot corridor between two major cities of the country and, later, to be extended to cover the entire country; and
- a pilot staff retrenchment initiative that would provide severance packages and re-training for those made redundant as a result of improved track renewal processes.

It is important to reiterate that the Bank's investment was a relatively small part of the client's overall restructuring endeavour, and also that the Bank-funded track rehabilitation measures were of a pilot nature only (but there was a clear intention to extend the rehabilitation works to cover the entire network eventually). The corridor between the two cities that was chosen for the pilot project was selected because (a) it had the greatest maintenance needs and (b) testing the machinery in a confined area was considered sensible so as to improve familiarity with the equipment and rectify any initial problems.

Early on in the process, the client went back to the Bank – after the loan was approved and the project scope agreed upon – with a request for a change. They wanted to re-programme the loan secured for staff retrenchment funds to purchase more machines. The client assured the Bank that it would pay for staff retrenchment and re-training itself.

#### Recent developments

The loan was prepaid in full in 2005, thus well ahead of the agreed last repayment date after 2010. Also, the government decided in 2006 to transfer the assets of key state-owned enterprises to a state holding company.

### ACHIEVEMENT OF OBJECTIVES

The more specific purpose of the loan was to facilitate the client's purchase of track maintenance heavy production equipment and track machinery, in order to introduce improved and more efficient track maintenance technology in a demonstration project. This would later be replicated across the network, with the aim of improving productivity, reducing track renewal costs,

introducing state-of-the-art maintenance management practices and maximising the useful life of track components.

Overall, EvD assigned a rating of *satisfactory*, but notes that this assessment is likely to result in a more favourable rating in future once adoption of and adaptation to the project-induced changes have been given more time to spread. Some highlights are described below:

### ***Track maintenance equipment***

- **Procurement.** All items were eventually procured as planned and in line with the Bank's Procurement Policies and Rules (PP&Rs). Thanks to cost savings through the open tendering process, the amount of machinery and equipment procured was increased to cater for the needs of the entire network, rather than just the demonstration corridor initially intended. However, owing to a 36-month delay in the delivery schedule and the failure of tender documentation to specify an appropriate stock of critical spare parts and components, the procurement performance was less than expected.
- **Productivity enhancement.** The productivity enhancement picture is mixed. While the client fully met appraisal expectations in terms of staff/operation productivity (traffic units per employee), its performance record in physical terms (for example, track rehabilitation per time unit) is less convincing.
- **Operation productivity.** At appraisal it was anticipated that the ratio of passenger-km plus freight tonne-km to employee would be at least 850,000 in 2000, 950,000 in 2001, and beyond 1.0 million thereafter. These expectations were over-fulfilled. The ratio of 1 million had already been met by 2000 and has been increasing further since. This initial record of performance excellence, however, is not surprising since it would appear that the performance bar was set too low at appraisal, thus rendering this indicator useless. More indicative to demonstrating productivity improvements is the 12 per cent increase in average speed of train movements on the section between two major cities for ordinary trains and of 37 per cent for high-speed trains. This is a substantial achievement and particularly benefits railway customers, but that also enhances the client's competitiveness.
- **Track rehabilitation productivity.** EvD conducted spot-checks in the field to verify that the machinery and equipment is being used and working well. The intention of the loan was to improve the client's track productivity and realise cost savings from improved track renewal and maintenance, but no benchmarks were set. The full extent of expected productivity gains has yet to materialise. While the management show commitment to business process improvement, they have not been exposed to state-of-the-art maintenance management methods and thus current performance is (still) behind expectations. In order to support its productivity enhancement ambitions, the client has established five training centres across the country for all railway trades. However, in spite of the training that has been received, some workers have resisted working with the new track machinery. To some extent this appears to reflect fears of redundancy in association with the application of new (and more efficient) advanced technology. Finally, the client is currently conducting a major push to remove all of the 800 slow orders (that is, speed reductions/restrictions) suffered by the entire network a few years ago. At the time of the evaluation field visit the client's management reported about only 100 slow orders remaining and that it expects to close them this year.
- **Operation cost reduction.** The working ratio, defined as operating costs excluding depreciation and overhead, divided by operating revenue, was anticipated at appraisal not to exceed 0.90 in 2000, 0.85 in 2001, and 0.80 thereafter. The client initially remained comfortably below these benchmarks, but at a value of 0.81 in 2004, slightly exceeded it.

### ***Staff retrenchment***

Through a change of project scope early on in the implementation process, this component was re-assigned to the client and to be paid for from its own resources. The resultant “savings” were reallocated for the purchase of more machinery and equipment. The expanded monitoring report notes, and the client’s management corroborated, that by September 2005 the number of employees in the company was reduced to about 80,000 mainly through natural attrition and staffing transfers to non-core operations, some of which were meanwhile privatised with the remainder still being under the client’s umbrella until later privatisation. The cost of this retrenchment was paid for by the client. Although loan financing for this component was diverted, the Bank nonetheless monitored its progress through borrower reporting.

## OVERALL ASSESSMENT

The Evaluation Team assigns an overall rating of *Successful* to this project. The achievement of objectives was *Satisfactory*. All tasks were fulfilled, albeit at mixed rates of performance. The new machinery and equipment procured, and thus incorporating state-of-the-art technology advancement, are not yet used to their fullest potential. Staff retrenchment, a project component of the Bank that subsequently was adopted by the Client, was carried out lacking assertiveness, i.e. only using natural attrition as an action parameter and by shifting the Client’s core staff to its subsidiaries. The Project was in full compliance with the pertinent country strategy and also with the transport sector policy of the Bank. Its additionality is *Verified in All Respects*; it is hardly conceivable that a private sector financier would have emerged, particularly in mind of the grant-funding of project related TCs. The environmental performance of the Bank and the client is regarded as *Satisfactory* and the extent of environmental change as *Some*. The danger associated with the cleaning of potentially asbestos-contaminated ballast is a serious matter of concern that needs attention. The transition impact achieved is rated *Satisfactory*. Some progress was made in spinning-off the client’s former activities, but no further progress along the privatisation path was intended under the project. Associated with the procurement of modern machinery and equipment, know-how and technology transfer took place and also contributed to some demonstration effects, as well as the adoption of new standards for business conduct. Transition impacts that reached out beyond the client’s included efficiency gains from track rehabilitation for passenger and freight transport in general.

The Bank’s overall performance in handling this project is assessed as *Good*. Much of this credit is attributable to the Bank stepping in when procurement was in danger of losing momentum. Whether a more transition impact-oriented project approach and design would have been possible (for example, in terms of privatising the client’s spin-offs), is difficult to argue with hindsight. The project was conceived during the late 1990s, only shortly after the Bank had gained inroads in the sector in the country. Also, this needs to be judged against a background of a client sector (railways), which traditionally is regarded as resilient towards change, let alone that this investment brought about the client’s first major encounter with western technology and international tender procedures.

## MAIN OPER ISSUES AND LESSONS LEARNED

**To observe potential trade-offs when linking unrelated project components to achieve leverage effects.** In this case, it is unclear whether, indeed, the providing of procurement financing had a substantive leverage on bringing about or accelerating a change in sector legislation. What became clear, however, was that delays at both ends can accumulate.

**Inventory planning, management and training are important ingredients for physical infrastructure projects with substantial procurement components.** The importance of spare-part inventory is often under-appreciated in project design. Cost savings at project design stage can easily turn into their opposite further downstream when implementation and operation processes become disrupted by the non-availability of critical spare-parts at the right time.

**Apart from financing considerations, the assigning of project components to project parties, and their eventual subsequent reallocations, needs to consider each party's comparative advantage in terms of delivery strength.** In many instances the critical nature of foreign exchange resources and their funding sources determine the distribution of project components among lender and borrower/project implementing agent. There are other considerations as well, such as delivery strength, particularly in the context of socio-politically controversial components. It could be argued that in this project, the Bank should have maintained the original allocation of components and possibly have resisted the transfer of the staff retrenchment component to the client in lieu of a widened scope of machinery and equipment (foreign exchange) financing. Thus, a more effective approach towards staff retrenchment would have been possible.

**For track maintenance and rehabilitation projects the existence of an asbestos problem, and mitigating measures, need specific attention.** Infrastructure rehabilitation projects are often perceived as environmentally less sensitive, since they mostly entail replacement of "old" by "new" components. Or, if environmental damage exists, it has occurred "before" (for example, tracks passing through sensitive wildlife areas), and the rehabilitation work cannot change this retrospectively. But, the danger of asbestosis is a railway-specific subject that must be addressed during environmental due diligence at appraisal.

**Where consultant performance deficiencies start giving rise to concerns, early contract termination should be seriously considered.** Consultant performance needs close monitoring and early signs of deficiencies need to be met with decisive action. Where timely warnings fail to impact, early termination of the contract, penalty payments, and "blacklisting" of the consultant should be considered.