Lesotho: Labour-Intensive Road Construction IV-V

Ex-post evaluation

OECD sector	21020/Road transport	
BMZ project ID	1) Labour-Intensive Road Construction IV BMZ Project ID 1994 65 741 2) Labour-Intensive Road Construction V BMZ Project ID 1996 66 025	
Project-executing agency	1-2) Department of Rural Roads – DRR (formerly Labour Construction Unit – LCU)	
Consultant	--	
Year of ex-post evaluation	**2005**	
	Project appraisal (planned)	**Ex-post evaluation (actual)**
Start of implementation	1) December 1994 2) January 1998	1) May 1995 2) August 1998
Period of implementation	(1) 24 months (2) 36 months	(1) 40 months (2) 60 months
Start of operation	1) November 1996 2) January 2001	1) September 1998 2) August 2003
Total cost	(1) EUR 1.5 million (2) EUR 2.7 million	1) EUR 1.5 million 2) EUR 2.8 million
Counterpart contribution	1) EUR 0.0 million 2) EUR 0.0 million	1) EUR 0.0 million 2) EUR 0.0 million
Financing, of which Financial Cooperation (FC) funds	(1) EUR 1.5 million (2) EUR 2.7 million	1) EUR 1.5 million* 2) EUR 2.8 million **
Other institutions/donors involved	1) -2) none	1) -2) none
Performance rating: 1 and 2	4	
• Significance/Relevance 1 and 2	4	
• Effectiveness 1 and 2	5	
• Efficiency 1 and 2	4	

***** EUR 8,000 was used to finance measures under Project V.

** Including funds of EUR 81,000 remaining from Phase III.

Brief description, overall objectives and project objectives with indicators

In the project, gravel roads were extended or constructed in the district of Butha-Buthe, Leribe (northern uplands), Mafeteng (southern lowlands), Mohale's Hoek (southwestern uplands) and Thaba-Tseka (central highlands) in Lesotho on the foundation of existing earthen roads. Construction equipment was also obtained for the project executing agency and erosion control measures carried out along a road. Thanks to favourable foreign exchange rates and savings in procurements, seven roads measuring a total length of 109.6 km could be financed (5 roads totalling 84.6 km at project appraisal).

The project objective was to improve transport services in the project regions.

Project objective indicators: (a) meeting the forecast traffic volume; (b) all-year trafficability of project roads; (c) setting up a bus service running at least twice a day. Indicators (b) and (c) only applied for the roads in Phase V.

The following traffic figures had been determined for indicator a) at project appraisal:

Road	Km	Appraisal forecast for 2005, motor vehicles per day	Actual motor vehicles per day 2005
BB 07. Phase IV	11.8	50	13
MH 03. Phase IV	14.9	39	18
MH135. Phase IV	11.7	49	40
LB18. Phase V	11.8	39	68
MF13. Phase V	14.9	46	51
TT03. Phase V	26.5	33	19
TT17. Phase V	18.0	69	11
Total	109.6		

Overall objective: Contribution to the increased use of social facilities in the project regions and raising agricultural production. No indicator for the overall objective was defined at project appraisal.

Programme Design/Major Deviations from Original Programme Planning and Main Causes

The roads financed by the project were selected on the basis of the proposals made by the project executing agency. The order of priority was drawn up applying the criteria of anticipated poverty impacts and better access to mountain regions. These in turn were based on the preferences of the districts, the number of beneficiaries and traffic density.

The roadworks were carried out under public direction applying labour-intensive methods. Small entrepreneurs were not assigned to construct the project roads, because the project executing agency did not consider them capable of carrying out these kinds of measures on their own yet. Instead, they were engaged in road maintenance, which entailed less complicated activities.

The start of contruction work was delayed in Phase IV due to a government crisis in Lesotho. Owing to difficult terrain, problems with transport capacity and the inclusion of another road in the project, the implementation period was extended. Problems in mobilizing the construction units delayed the start of implementation in Phase V. The main reason for the longer implementation period was the inclusion of an additional road in the project that had not been planned at project appraisal. Because of the delay and the more difficult terrain, additional costs were incurred in domestic currency but these were more than offset by the depreciation of the LSL against the euro. The extension of the two additional roads was financed from the residual funds.

The construction measures were laid out to the usual standard of the project executing agency (generally 6 m crown width, 15 cm gravel depth). In Phase V of the project large scale works

were performed to alleviate or remedy erosion damage along the MF 13 by constructing gabions, digging sloped ditches and planting vegetation. Where necessary, erosion control measures were also carried on other stretches of road.

Key Results of the Impact Analysis and Performance Rating

At project appraisal, agricultural production in the project regions was based on livestock breeding (cattle, sheep, goats) and the cultivation of maize, sorghum and wheat, largely for subsistence. This situation has not basically changed since that time. At best, rudimentary market integration has taken place on parts of the BB07, LB 18 and MF 13 with impacts on local farming and trade (sale of grain, cattle, wool, small trading, wage labour in nearby towns). At project appraisal the local population had limited or no access to the social infrastructure in more central locations because of the poor connections and high transport costs. Added to this was the inadequate supply of economic and social infrastructure (health stations, rural water supply, primary schools). At project appraisal, the local population had no access to services essential for economic development, particularly agricultural extension. No detailed data is available on the development of the economic and social infrastructure near the project roads. The qualitative information gained in ex-post evaluation suggests only partial improvements have occurred. There is still a considerable lack of economic and social infrastructure in the regions adjacent to the project roads. Altogether, the projects addressed an essentially relevant area for the social and economic development in the project regions, the lack of transport links. In hindsight, though, this alone has not turned out to be sufficient to make a marked improvement in the economic and social development in the project regions. Additional measures (agricultural extension, improvement of social infrastructure, etc.) would have been needed. So the decision to include roads in comparatively remote rural regions with low agricultural potential in the programme has proved in retrospect to be of limited developmental efficacy.

The general conditions for the project roads under the purview of the DRR are unsatisfactory. In 2004/2005 funds amounting to LSL 31.3 million were requested for road maintenance and rehabilitation by the DRR but it only actually received LSL 20.5 milllion. Based on the LSL 8,000/km in annual maintenance costs for gravel roads or the LSL 7,237/km for earthen roads as estimated by DRR, routine upkeep alone costs LSL 25.8 million. If we account for the DRR estimates of LSL 100,000/km for the periodic maintenance and repair of gravel roads, after an average of seven years (the periodic upkeep of earthen roads does not usually take place) the additional financial requirements amount to LSL 34.6 million. So DRR only has 1/3 of the necessary funds at its disposal. If the appropriations to DRR are not raised by a large margin, the long-term existence of the rural road grid on the present scale is in serious jeopardy.

After 8 years in operation, the condition of 13% of all the extended roadways is already so poor that their use is seriously restricted. Even on stretches of roadway whose condition is described as sufficient (altogether 53 km or 54%), licensed transport operators have already restricted their services. As funding is likely to remain inadequate, the trafficability of the roads can be expected to deteriorate in the foreseeable future. The roads' actual lifespan will fall far short of the 15 -20 years forecast at project appraisal, probably amounting to approx. 10 years.

The objectives achievement in the projects is as follows: On only 2 project roads (total length 26.7 km) was the volume of traffic forecast at project appraisal exceeded. Actual traffic on the remaining roads (82.9 km) fell well short of the figures forecast at project appraisal. Six of the seven project roads are still passable all year round. The MH 03 is already in too poor a condition for this. Licensed (mini)busses also drive on the 4 roads from Phase V although passenger transport is predominantly operated by unlicensed pickups. Passenger transport does not follow set timetables so that travellers cannot rely on leaving on a certain date or arriving at a certain time. Measured against the indicators, the project did not achieve the objective for the most part. The anticipated impacts for the overall objective were only achieved in limited measure. Agricultural production has only increased by a very small amount near three roads (BB 07, LB 18 and MF 13). Of 29 schools in the area of the project roads only six were established after the roadworks. In water supply, 33 of the 61 present systems have been installed since the project roads were built, but these are not clearly attributable to them.

Altogether then, the overall objective was not achieved for the most part. Due to the insufficient funds for road maintenance, there is also a very high risk that the volume of transport will decrease further with the resultant adverse consequences for project and overall objective achievement.

We assess the developmental efficacy of the projects as follows:

- For the most part, the project objectives have not been met. The volume of traffic on the project roads is much smaller than expected. Most of the anticipated improvements in passenger transport have not occurred. Transportation here is predominantly run by unlicensed operators with considerable disadvantages for the users (irregular transport, low comfort and security). Insufficient repair and maintenance impairs the conditions of the project roads so much that their lifespan will end up far shorter than planned at project appraisal. We assess the effectiveness of the projects as clearly insufficient (**Subrating 5**).
- In view of the small agro-ecological potential, the premise that improving transport facilities could help develop the economic resources of agricultural in the project regions in particular and thus remove a relevant constraint on economic and social development was implausible (relevance). The actual impacts on promoting agricultural development were much smaller than expected (significance). Nor is there a discernible improvement in the use of the available social infrastructure as a whole. The income effects achieved through the labour-intensive implementation were temporary. They did not result in startup finance for any durable earning opportunities. We assess the developmental relevance/significance of the projects overall as slightly insufficient (**Subrating: 4**).
- We judge the specific investment costs for the roads constructed as reasonable (production efficiency). Looking at the utilization of built capacity, in view of the much smaller traffic density than planned the savings on operating costs cannot be expected to offset the investment costs (negative return). On the other hand, the roads have had far less effect than expected in improving agriculture and the use of social infrastructure (allocative efficiency). Altogether, we assess the efficiency of the projects as slightly insufficient (**Subrating 4**).

We assess the developmental impact of the projects as slightly insufficient.

One economic impact of the projects were the temporary employment effects. For the labour-intensive construction of the roads, these amounted to 1,850 person-years, well above the estimates at appraisal (1,380). The labour-intensive upkeep measures generate further employment largely benefitting unskilled and jobless poor women and men recruited locally. However, the employment effects are less than originally planned due to the meagre repair and maintenance funds. The population (target group) around the roads benefitting from the projects is predominantly poor (> 50%). At project appraisal the assumption was that the projects would improve the conditions of life for the target group in particular through beneficial effects on agricultural production. This proved to be the case to a limited extent only. The projects did not aim at improving the situation of women. Women were involved in the labour-intensive building measures (share: 30%). The projects did not aim at improving governance or participation. The projects carried out erosion control measures in erosion-prone areas in the South of the country. These aimed at preventing additional erosion damage along the MF13 due to routing. The roadworks did not cause any significant environmental damage.

General Conclusions and Recommendations

If the primary rationale for a road transport project is not economizing on vehicle running costs but generating additional development effects in the region (access to sales/supply markets and social services), a baseline survey should if possible also be conducted as part of the feasibility study to be able to assess these impacts in an ex-post evaluation.

If a pure rural road construction project is to make a contribution to removing a constraint on agricultural development in a region, the feasilbility study should examine in detail whether the project region is suitable enough for this. Regions whose agricultural development is hampered

by constraints in addition to transport links (adverse agro-ecological conditions, lack of sales markets, lack of finance facilities for inputs, no agricultural extension services), they should only be targeted in a project of this type if parallel activities can be expected to effectively alleviate these impediments.

As the case of Lesotho shows, where inadequate funds are available for road maintenance in the sector this has a particularly adverse effect on roads with only a local function. When appraising projects therefore the viability of reform plans for improving sector finance (including road funds) needs to be subjected to particular scrutiny on the one hand. On the other, the feasibility study should ascertain whether at least part of the responsibility for repair and maintenance can be realistically assigned to the target group so as to reduce sustainability risks.

Key

Developmentally successful: Ratings 1 to 3	
Rating 1	**Very high or high degree of developmental effectiveness**
Rating 2	**Satisfactory developmental effectiveness**
Rating 3	**Overall sufficient degree of developmental effectiveness**
Developmental failures: Ratings 4 to 6	
Rating 4	**Overall slightly insufficient degree of developmental effectiveness**
Rating 5	**Clearly insufficient degree of developmental effectiveness**
Rating 6	**The project is a total failure**

Criteria for the Evaluation of Project Success

The evaluation of the "developmental effectiveness" of a project and its classification during the ex-post evaluation into one of the various levels of success described in more detail below concentrate on the following fundamental questions:

- Are the **project objectives** reached to a sufficient degree (aspect of project **effectiveness**)?
- Does the project generate sufficient **significant developmental effects** (project **relevance** and **significance** measured by the achievement of the overall development-policy objective defined beforehand and its effects in political, institutional, socio-economic and socio-cultural as well as ecological terms)?
- Are the **funds/expenses** that were and are being employed/incurred to reach the objectives **appropriate** and how can the project's microeconomic and macroeconomic impact be measured (aspect of **efficiency** of the project conception)?
- To the extent that undesired **(side) effects** occur, are these tolerable?

We do not treat **sustainability**, a key aspect to consider for project evaluation, as a separate category of evaluation but instead as a cross-cutting element of all four fundamental questions on project success. A project is sustainable if the project-executing agency and/or the target group are able to continue to use the project facilities that have been built for a period of time that is, overall, adequate in economic terms, or to carry on with the project activities on their own and generate positive results after the financial, organisational and/or technical support has come to an end.