

**Namibia: Labour-Based Road Construction Northern Central Region**

**Ex-post evaluation**

<b>OECD sector</b>	21020 / Road transit	
<b>BMZ project number</b>	1994 66 103	
<b>Project-executing agency</b>	Department of Transport (MWTC) / Roads Authority	
<b>Consultant</b>	Bicon Namibia Inc.	
<b>Year of evaluation</b>	<b>2002</b>	
	<b>Project appraisal (planned)</b>	<b>Ex-post evaluation (actual)</b>
<b>Start of implementation</b>	Q 1/1995	Q 3/1995
<b>Period of implementation</b>	29 months	43 months
<b>Investment costs</b>	EUR 5.11 million	EUR 5.70 million
<b>Counterpart contribution</b>	None	None
<b>Financing, of which Financial Cooperation funds</b>	EUR 5.11 million	EUR 5.70 million
<b>Other institutions/donors involved</b>	None	None
<b>Performance rating</b>	2	
• <b>Significance / relevance</b>	2	
• <b>Effectiveness</b>	3	
• <b>Efficiency</b>	2	

**Brief Description, Overall Objective and Project Purposes with Indicators**

Under the project, in the Northern Central area three district roads with a total length of 40 km were rebuilt as gravel roads and one existing 22-km-long gravel road was rehabilitated and sealed with a bitumen layer. The construction works were conducted labour-intensively, i.e. chiefly manually with a reduced machine input. This created employment for people in the region to the tune of approx. 12,000 worker-months. Overall, these workers earned income amounting to some EUR 1.4 million.

The project purposes were the cost-efficient and rapid handling of the expected road traffic on the project roads (1), the temporary employment of unskilled workers, a high percentage of whom were to be women (2) as well as a reduction in environmental damages through a decrease in off-road traffic in the project region (3). This was to contribute to improving the socio-economic living conditions for the population (4) and also to improving access to roads in the Northern Central region (5).

The following indicators were defined to measure achievement of the project purposes:

- (1) The volume of traffic and the state of maintenance of the roads/ the reduction in road user costs and (only for the road that was rehabilitated) maintenance costs;
- (2) The number of worker-months performed by women is at least 30%;
- (3) The elimination of the numerous off-road tracks.

Indicators for the achievement of the overall objective are:

- (4) The use of the income to cover basic needs;
- (5) The improvement of the passenger and freight transport possibilities offered year-round.

### **Major Deviations from the original Project Planning and their main Causes**

The completion of the roads was delayed beyond the estimate made in the project appraisal by 21 months. This was due mainly to the difficulties experienced by the consultant in setting up a large labour-based road construction project in which the construction work is under the responsibility of private contractors. This approach was an innovation for Namibia where road construction works were monopolized by the state owned Roads Construction Company before. Another cause for the delay was the initial lack of knowledge on the part of the private Namibian contractors concerning labour-based construction methods. Yet ultimately they succeeded in building the technically demanding roads with the same quality as roads built via machine-intensive techniques.

The reduction in environmental damages through the decrease in off-road traffic in the project region (project purpose no. 3) did not occur to the desired extent. The roads are being used as connecting roads between the main roads and the villages connected to the project roads. In particular, the roads are still crossed by tracks needed to access remote homesteads. Since it is not possible to connect all of the individual homes to the road via an extended path, it is next to impossible to reduce the number of such off-road tracks more significantly.

### **Key Results of the Impact Analysis and Performance Rating**

The development of traffic on the project roads has, for the most part, progressed within the framework of and occasionally beyond the estimates made in the project appraisal report. The roads give the target group better access to centrally located and social facilities. In this way the project contributes to improving the socio-economic living conditions of the population above and beyond the income effects resulting from the employment.

This project marked the first time that labour-based construction techniques were applied to a construction project in Namibia on a broad scale. The overall positive experiences of the MWTC and later of the RA with the project contributed to the acceptance and application of labour-based techniques in Namibia, not only in road construction but also in other areas. Labour-intensive methods have since become the standard approach, especially for the construction of gravel roads – assuming there is sufficient labour available (i.e. above all in the densely populated north).

In terms of development policy, the project was a success. Its developmental effectiveness was satisfactory (rating 2). This assessment is the result of the following individual assessments:

Apart from a few concessions, the project purposes have been achieved. The cost-efficient and rapid handling of the expected volume of traffic on the project roads has been realized. Yet, the desired level of temporary employment of unskilled workers was just barely achieved – and that of women not exactly to the extent desired (although a distinct positive trend in terms of labour-based road construction in ensuing projects can be noted). Environmental damages were reduced only minimally (owing to the lack of quantification of the target indicator, a precise assessment is not possible). Overall, the project’s effectiveness is still satisfactory (rating 3).

From today’s point of view the overall objective was almost fully achieved. However, one prerequisite for a sustainable improvement in how traffic is handled in the project region is the provision of adequate funds to maintain the roads. This involves a certain sustainability risk. The project gave off important developmental impulses for the target group and the project region (among others, the construction of shops, the extension of water and power supply along the project roads). Additionally, the project had positive structural effects worth mentioning in that it introduced labour-based methods to road construction (and, in the future, also road maintenance) as well as acceptance of women in the field of road construction. Therefore, we consider the significance and relevance of the project to be satisfactory (rating 2).

**General Conclusions applicable to all Projects**

None.

**Legend**

Developmentally successful: Ratings 1 to 3	
Rating 1	Very high or high degree of developmental effectiveness
Rating 2	Satisfactory degree of 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 a project’s “developmental effectiveness” and its assignment during the final evaluation to one of the various levels of success described below in more detail 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, organizational and/or technical support has come to an end.