

Guatemala: Rural Road Construction I

Ex-post evaluation

OECD sector	21020 / Road traffic	
BMZ Programme Number	1987 65 927	
Programme-executing agency	Ministerio de Comunicaciones, Infraestructura y Vivienda (MICIVI) / Dirección General de Caminos (DGC)	
Consultant	GITEC, Düsseldorf	
Year of evaluation	2002	
	Project appraisal (planned)	Ex-post evaluation (actual)
Start of implementation	03/88	09/89
Period of implementation	3.75 years	12.7 years
Investment costs	EUR 8.8 million	EUR 9.8 million
Counterpart contribution	EUR 1.2 million	EUR 2.1 million
Financing, of which FC funds	EUR 7.7 million	EUR 7.7 million
Other institutions/donors involved	None	None
Performance rating	3	
• Significance / relevance	2	
• Effectiveness	3	
• Efficiency	4	

Brief Description, Overall Objective and Programme Purposes with Indicators

The overall developmental objective of the programme was to combat the extreme economic and social underdevelopment of the population living in isolated villages in the Departamento Alta Verapaz by connecting those villages to the existing road network via the construction of about 220 km of rural roads – later reduced to about 175 km. The indicator of achievement of the overall objective was the increased use of services in the small towns by the connected villages. The programme purposes were (a) to connect villages and their population to the road network in order to unlock their development potential and (b) to improve the population's access to services offered in the central town and to facilitate the supply of the villages with public and private services. The indicators of achievement of the programme purposes, which were revised during the final inspection, were (a) the number of villages and inhabitants benefiting from the programme, (b) a satisfactory condition of the programme roads after 5 years of use, (c) the reduction of distances and driving times to the next larger town, (d) the volume of traffic, (e) a regular connection to the small towns via public and private local transport, (f) the increase in the number of visits from advisers on agriculture, health and other matters in the village, (g) the construction of new schools or the improvement of existing ones (equipment/staffing) and the improvement of water supply and sanitation and (h) the change in the type of transport used for surplus products (at the time of programme appraisal by the farmers themselves or pack animals))

Major Deviations from the original Programme Planning and their main Causes

Due to cost increases it was impossible to implement the full extent of the road construction programme that had been estimated at 224 km at the time of project appraisal. In 1995 and 1997 it was successively reduced to 174.7 km.

Key Results of the Impact Analysis and Performance Rating

The developmental effects brought about by the construction of the roads are numerous and far-reaching. There is no doubt that the opening of the roads provided a key impulse for economic and social development in the programme region, where most of the population is still living in great poverty. Many of these effects are irreversible. Therefore the risk of failing to attain the overall developmental objective in the long term is low. The significance and relevance of the project are rated satisfactory.

The programme purposes and the overall objective have been achieved, even though the financed roads need improvement due to the fact that they have been inadequately maintained. Thus there are certain sustainability risks. As the construction of the road had numerous positive socio-economic effects and as it is unlikely that the roads will at some point in time no more fulfil their function as transport network the effectiveness of the project can be rated as altogether adequate.

Regarding overall economic profitability of the individual programme roads or of the overall programme, rough calculations show that the goal set during programme appraisal of at least 6% has been reached. However, the macroeconomic rate of return of the programme could have been much better if the programme had been implemented more efficiently. Thus, the project was implemented at a much higher cost and with considerable delays due to the topographic conditions in the region (unexpectedly hard soil) in combination with the labour-intensive implementation concept, but also due to the weaknesses of the project-executing agency and organizational deficiencies in the implementation of the labour-intensive construction concept. As a result, the individual kilometre of road became much more expensive than expected and the overall length of the programme roads had to be reduced. Maintenance is so inadequate that the Guatemalan government will have to spend large amounts of money for the rehabilitation of the roads in the foreseeable future in order to ensure the positive economic and socio-economic effects in the long term. Therefore the programme's efficiency is rated inadequate.

In summary, taking into account the above mentioned criteria for the evaluation of project success, the developmental effectiveness of the programme is adequate (rating 3) in particular due to its high developmental relevance and significance.

General Conclusions applicable to all Programmes

The participatory and labour-intensive programme implementation concept had very positive socio-economic effects (income improvements for the population engaged in road construction with downstream effects on employment and revenues resulting from the purchasing power thus created), but it finally led to higher specific costs per km than expected and consequently to the reduction of the overall length of the constructed roads from 224 km, as initially planned, to only about 175 km. The advantages and disadvantages of such a trade-off will have to be carefully examined in further projects of this kind.

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.