

## Ghana – sectoral adjustment programme - roads

### Ex post evaluation report

OECD sector	Transport infrastructure	
BMZ project ID	1995 66 332	
Project executing agency	Ghana Highways Authority (GHA)	
Consultant	Kocks Consult, Koblenz	
Year of ex post evaluation	2010 (2010 random sample)	
	Project appraisal (planned)	Ex post evaluation (actual)
Start of implementation	Q1 1996	Q4 1999
Period of implementation	3 ½ years	7 years
Investment costs	EUR 29.14 million	EUR 43.76 million
Counterpart contribution	EUR 3.96 million	EUR 20.1 million
Financing, of which FC funds	EUR 25.56 million	EUR 23.66 million
Other institutions/donors involved	World Bank, JICA	World Bank, JICA
Performance rating	3	
• Relevance	2	
• Effectiveness	3	
• Efficiency	3	
• Overarching- developmental impact	2	
• Sustainability	3	

### **Brief description, overall objective and project objectives with indicators**

This project formed part of a programme, co-financed by various donors, to support major reforms in the Ghanaian road transport sector. It was conceived in 1995 by the Government of Ghana together with the World Bank, Japan and German FC ('*The Highway Sector Improvement Programme*'/ HSIP). In return for implementing the planned reforms, donor funds totalling USD 238 million were to be deployed (over a programme period originally planned at three years' duration), primarily for periodic maintenance works on selected highway sections.

The project's overall objective was to contribute to greater, more dynamic economic growth on a broader regional basis by improving the quality of the road network. The objective formulated at the programme level was the implementation of a series of political reforms aimed at improving conditions in the road transport sector, namely:

- Developing the *Ghana Road Fund* (GRF) into an efficient fiscal instrument providing sustainable, budget-independent finance for recurrent and periodic road maintenance;
- Reducing expenditure on road maintenance by the systematic introduction of axle load limits;

- Restructuring the responsible ministry (MRH) and the highways authority (GHA);
- Aligning Ghanaian expenditure policy toward road maintenance and repair as a priority.

In terms of physical investments, FC funds financed periodic maintenance works on six highway sections in the Ashanti and Brong Ahafo regions, with a total length of 294 km. The works were carried out between 2001 and 2008 by local construction companies. This element incurred total costs of EUR 43.76 million, of which EUR 23.66 million were financed out of the FC loan.

This project forms part of a long-standing FC involvement in the Ghanaian road sector, which is now coming to a close. In view of the priority changes which have taken place meanwhile, no new projects are planned for this sector at present.

### **Project design / major deviations from original planning and their causes**

From a sectoral viewpoint, the concept was set out in a '*policy letter*' sent by the Ghanaian Government to the World Bank and all other donors. This was based on the following reforms:

- Higher counterpart funding for road maintenance, by increasing the amounts allocated out of fuel taxation;
- Restructuring the GRF into a financing mechanism – with the private sector and civil society both involved in its supervisory structure;
- Institutional reform of the GHA, and strengthening of its control and performance capabilities;
- The introduction of axle load limits and appropriate control mechanisms.

Of the above reforms, only the items referring to the rise in fuel levy and the reorganisation of the GHA and the GRF were conditional to disbursement as negotiated between the World Bank and Ghana. In contrast, no similarly binding arrangements were neither agreed for specific measures to limit axle loads, nor for improving performance efficiency of the responsible sector institutions (particularly the GHA). Accordingly, the reforms agreed in the *policy letter* were implemented, primarily as far as they were tied to the disbursement of donor funds: both the restructuring of the GRF in line with the terms negotiated with the World Bank and the increase in fuel duties were completed by the end of 1997. In the areas of reorganisation and axle load controls, a much weaker dynamic was to be noted.

The HSIP identified specific technical intervention areas: the need to reduce the backlog of scheduled road maintenance that had accumulated in Ghana since the end of the eighties. Here, selected sections of routes in the Ashanti and Brong Ahafo regions would be repaired using the German FC contribution. The consultant had developed a decision matrix for this purpose which took into account, amongst other things, the respective section's traffic volumes and its significance to the national road network. A total of 23 route sections with a combined length of 700 km were '*short listed*' on this basis. Finally the sections from Aframso to Nkoranza, Bekwai to Ejisu, Ejura to Nkoranza, Mankranso to Tepa, Sunyani to Akyerensua and Wenchi to Bamboi were chosen, giving a total length of 294 km. In terms of construction standards, the original plan was maintain the previous gravel standard, and only provide bitumen surfacing on critical sections (mostly slopes and main routes through villages), which was also in keeping with the available funding. However, due to the delays in starting the project, traffic volumes had risen to an extent that GHA considered bitumen surfacing necessary for all road sections listed above. From a technical point of view,

this was justified: by the year 2000, traffic volumes of at least 170 vehicles per day (and significantly more in some places) had been recorded on all of these stretches<sup>1</sup>. Finally, the GHA decided to defray the costs of this increased construction standard out of additional counterpart funds.

### **Key results of the impact analysis and performance rating**

Particularly significant effects that were anticipated at programme appraisal included increased mobility, reduced journey times and lower transport costs. The World Bank conducted country-wide studies in this regard within the framework of the HSIP and the RSDP, which assess the impact in rural areas as follows:

- In the areas served by those sections of road which were repaired, visits to health facilities increased by an average of around 100 %, also providing indication of the rise in mobility.
- Journey times in the zones affected have decreased by an average of 20 %, whilst the increase in the costs of freight and transport has stayed well below the inflation rate.

According to the results of the above surveys, the incomes of farming families in the affected areas have grown by an average of 15 %, whilst market prices have recorded a rise of at least 50 %. Even though comparable studies have not taken place in the regions funded by FC investments, it is reasonable to assume, considering the similarity of the situation – i.e., fertile agricultural and/or mining regions – comparable local effects from the FC interventions. Although not statistically verifiable, additional employment and income benefits resulting, at least on a temporary basis, from contracting local construction companies appear equally plausible.

Our assessment of environmental relevance substantially conforms with initial assessments: these assumed limited environmental impacts due to (firstly) emissions associated indirectly with construction activities and (secondly) the consumption of resources, predominantly in zones that already are under intensive for agricultural or mining use. No specific environmental sustainability assessments were required.

According to recent information, the level of poverty in the programme regions is not expected to range much above the national average of 20 %; furthermore, poverty is largely confined to remote areas beyond the reach of the project's impact. As already stated at the time of appraisal, no gender-specific effects have been identified in this programme. With the institutional involvement of the civil society and the private sector in the supervisory boards of the GHA and the GRF, the programme makes a contribution to participatory development.

Relevance At the national level, the programme has addressed key aspects of *governance* in the sector, especially in the area of road maintenance – maintenance financing, the institutional framework and axle load controls. Progress has been achieved in all areas (with least progress evident in axle load controls); further reforms are being planned with major donors in the sector. Maintenance works in the Ashanti and Brong Ahafo regions meet the relevance criteria, considering that traffic growth since the late nineties justifies their selection - some of them also as part of the national highways grid; most of them also connect to areas of economic importance (notably agricultural production and mining sites). The project conforms with the developmental priorities of the BMZ country strategy prevalent at that time. In terms of its design, the

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<sup>1</sup> The traffic threshold value for bitumen surfacing was set at 150-200 vehicles per day.

programme was well integrated into the existing donor landscape (the World Bank and Japan). From an organisational viewpoint, donor coordination suffered from the delayed implementation of the FC portion, largely due to the protracted road selection process (which was also influenced by political considerations). When implementation began in 2001, other donor interventions had already phased out, and coordinated donor dialogue in the sector only resumed again in 2004. Rating: 2

Effectiveness: The following objective indicators were defined at programme appraisal:

- An increase in the GRF's share of fuel duty revenues to US¢ 6 per litre: the Ghanaian currency declined after the agreed 1997 increase, and the duty levied only returned to US¢ 6.5 per litre in 2005; a rise to over US¢ 9, which would equate in real terms to the increase required in 1995, has now been under discussion for over three years.
- The revision of statutes governing the GHA and the establishment of the GRF were accepted as necessary preconditions; however, institutional efficiency still remains below requirements.
- According to GHA documents, revenue development from finances for overloading cannot be tracked in full, confirming the substantial backlog in this area.
- The implementation rate for the agreed investment plans serves more as an indicator of results than objectives; it was achieved, albeit belatedly. The substantial increase in traffic volumes on the relevant road sections since the nineties, and the satisfactory state of repair of roads in the Ashanti and Brong Ahafo regions (and elsewhere) covered by this project, provide alternative parameters that are more firmly based on impact and utilisation.

The objectives covered by the 'sector indicators' appear to have been attained in significant areas, albeit with substantial restrictions in the areas of axle load controls and institutional efficiency; moreover, a further rise in the share of the sector budget allocated to maintenance is to be desired. Although no indicator was set for the local aspect of roads maintenance, reference values and traffic data from socio-economic studies by the World Bank suggest that the objectives were satisfactorily achieved. Rating: 3

Efficiency The delays in planning and implementation resulted in increased costs – not least because the increased traffic volumes that occurred in the interim demanded a higher construction standard, especially from the GHA's viewpoint. This had not been envisaged initially, but was justified in hindsight. In view of the delays encountered and the increased costs of construction, the unit costs of EUR 148,000 EUR per kilometre of road maintained are still considered reasonable. From a national economic perspective, the utilisation figures detailed above for the stretches of road selected indicate a positive allocation efficiency. Rating: 3

Overarching developmental impact: Besides contributing to the sector reforms detailed above, the following overarching effects can be pinpointed:

- Sectoral collaboration with the private sector and the civil society, now institutionalised within the supervisory boards of the GHA and the GRF (although scope for improvement still remains);
- Virtually complete outsourcing of roadworks to the private sector (over 1,000 registered construction companies);
- Reduced pressure on the public budget, which, despite the substantial expansion of the highway network, still only needs to allocate 15-20% of its investment budget to the roads sector (at programme appraisal: > 40 %).

Rating: 2

Sustainability The risks to sustainability highlighted during final inspection - namely, the lack of adequate independent financing for road maintenance (independent of the national budget), axle load controls that need to be pursued with greater vigour, as well as the limited capability of the local construction industry - still persist, as does the inadequate institutional capability of the responsible State organisations in this sector. However, these sector issues are being taken up as central topics in discussions between the Ghanaian Government and donors, so further progress may be expected, at least in the medium term. Rating: 3

### **General conclusions and recommendations**

In programmes targeting sectoral reforms (whether erstwhile sector adjustment programmes, or current *Policy Based Lending* schemes), all essential reform aspects should, as far as possible, be the subject of binding agreements (together with appropriate, meaningful indicators). In the programme under review, this aspect received inadequate attention in the area of axle load controls, and was only partially considered in the case of institutional reforms.

Reforms which are bound to generate conflict (e.g. increases in fuel duty, the tightening of controls on axle loads) require a suitable communications strategy. This strategy should receive appropriate support, with civil society involvement at the first possible opportunity.

### Notes on the methods used to evaluate project success (project rating)

Projects are evaluated on a six-point scale, the criteria being relevance, effectiveness (outcome), “overarching developmental impact” and efficiency. The ratings are also used to arrive at a final assessment of a project’s overall developmental efficacy. The scale is as follows:

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|---|---|
| 1 | Very good rating that clearly exceeds expectations  |
| 2 | Good rating fully in line with expectations and without any significant shortcomings  |
| 3 | Satisfactory rating – project falls short of expectations but the positive results dominate                                     |
| 4 | Unsatisfactory rating – significantly below expectations, with negative results dominating despite discernible positive results |
| 5 | Clearly inadequate rating – despite some positive partial results the negative results clearly dominate                         |
| 6 | The project has no positive results or the situation has actually deteriorated  |

A rating of 1 to 3 is a positive assessment and indicates a successful project while a rating of 4 to 6 is a negative assessment and indicates a project which has no sufficiently positive results.

### **Sustainability is evaluated according to the following four-point scale:**

Sustainability level 1 (very good sustainability)

The developmental efficacy of the project (positive to date) is very likely to continue undiminished or even increase.

Sustainability level 2 (good sustainability)

The developmental efficacy of the project (positive to date) is very likely to decline only minimally but remain positive overall. (This is what can normally be expected.)

Sustainability level 3 (satisfactory sustainability)

The developmental efficacy of the project (positive to date) is very likely to decline significantly but remain positive overall. This rating is also assigned if the sustainability of a project is considered inadequate up to the time of the ex post evaluation but is very likely to evolve positively so that the project will ultimately achieve positive developmental efficacy.

Sustainability level 4 (inadequate sustainability)

The developmental efficacy of the project is inadequate up to the time of the ex post evaluation and is very unlikely to improve. This rating is also assigned if the sustainability that has been positively evaluated to date is very likely to deteriorate severely and no longer meet the level 3 criteria.

The overall rating on the six-point scale is compiled from a weighting of all five individual criteria as appropriate to the project in question. A rating of 1 to 3 indicates a “successful” project while a rating of 4 to 6 indicates an “unsuccessful” project. In using (with a project-specific weighting) the five key factors to form an overall rating, it should be noted that a project can generally only be considered developmentally “successful” if the achievement of the project objective (“effectiveness”), the impact on the overall objective (“overarching developmental impact”) and the sustainability are considered at least “satisfactory” (rating 3).