

# Ghana

## Joint Evaluation of the Road Sub-Sector Programme 1996-2000

### 1 Introduction

At the Donor Conference of November 1999 the Government of Ghana (GoG) and donors active in the Ghanaian road sub-sector agreed on a Joint Evaluation of the Road Sub-sector Programme (1996-2000) in Ghana. The 1996-2000 Road Sub-sector Expenditure Programme (RSEP) formed the basis for the evaluation. The objectives of the evaluation were formulated as: to assess the achievements of the sub-sector objectives with focus on sustainability, to identify key issues, constraints, problems, strengths, weaknesses, and successes and to formulate lessons learned in order to improve future interventions in the sub-sector.

### 2 Methodology

The core evaluation criteria used in the evaluation of the road sub-sector are efficiency, effectiveness, impact, relevance and sustainability. These criteria are internationally commonly used, a fact underwritten by Danida's Evaluation Guidelines. The Danida guidelines are the methodological basis for this evaluation.

The evaluation period is 1996-2000. The evaluation is based upon information and documentation up to June 2000.

An important change in the level of arrears, a fundamental aspect in the road sub-sector, has taken place after the evaluation period.

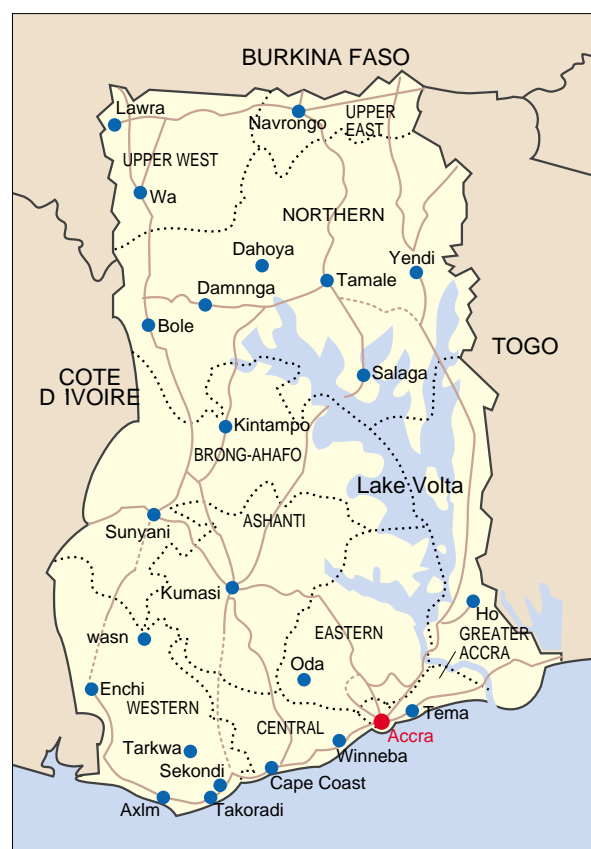
### 3 Results-evaluation criteria

#### Relevance

The interventions in the road sector during the evaluation period have been highly relevant. The investments in the road network, its maintenance and the associated strengthening of institutions and organisations have all supported the growth strategy of the GoG and at the same time contributed to the need of society for lower transport costs and improved accessibility.

Attention to rural development has been shown in the feeder road interventions.

The strategy of outsourcing maintenance and construction



works has induced the development of a private sector with its associated employment and income generation in both rural and urban areas.

Donors are generally interested in the reduction of transport costs, because of the positive effect on economic development. This is to be achieved by creating an environment in which maintenance is assured and by investing in major reconstruction and development works. In addition, donors have to a varying degree set priorities in terms of rural areas (poverty alleviation), environmental impact, safety, non-motorised transport, institutional capacity etc. In spite of the varying emphasis by individual donors, the donor-supported interventions were in line with Ghanaian society needs and the GoG's stated policies.

## Effectiveness

The effectiveness of the road sub-sector programme is related to the extent to which the principal objective of clearing the backlog in a long-term sustainable manner and the specific objectives have been realised. Table S.1 gives an overview of the achievements.

Table S.1 Level of realisation programme objectives

Objective	Summarised achievements	Score
Institutional Capacity Human Resource Management	Institutional structures are in place, implementation (partly) behind. Human Resource Management dependent on donors.	Medium
Clearing the backlog	Programme objectives not fully achieved but condition mix improved considerably.	Medium
Investment priorities	Increasing role for economic principles in project selection; priority to maintenance over reconstruction and development not fully achieved.	Medium
Cost recovery	Ghana Road Fund (GRF) has successfully developed into main provider of maintenance funds.	High
Private sector participation and financing	Participation targets met except for financing.	Medium-High
Dependence on Foreign	Dependence on FTA still strong and perhaps	Low-Medium
Technical Assistance (FTA)	increasing role of FTA.	Low-Medium
Environment and safety assessment	Lack of progress to institutionalise and strengthen environment and safety aspects. Environmental and safety unit established.	Low-Medium
Expenditure management and control	Contract management procedures have improved; arrears problem not solved.	Low-Medium
Road transport regulations	Axle load control programme not realised; operations considered mediocre.	Low-Medium
Non-motorised transport (NMT)	NMT is not a major item in road programme, limited development and promotion.	Low-Medium
Donor co-ordination	Co-ordination at strategic and operational level in place, but few common procedures and arrangements.	Medium-High

(1) Non-Motorized Transport (NMT) refers to cyclists and pedestrians. Because the main users of rural roads in Ghana are truck drivers and pedestrians, constructions of roads for NMT will promote traffic security and activate traffic.

(2) Overloading is a serious problem in Ghana. Therefore, MRT has drawn up the master plan which advocates reinforcement of axle load control by reducing the present regulated load and increasing the number of installation of axle loads. (Axle loads are weighbridges installed at selected locations on the trunk roads, aiming to regulate the overloaded vehicle surpassing and to prevent damage to the surface of the pavements.)

The effectiveness of the road sub-sector achievements, as presented in Table S.1, is directly related to the overall effectiveness of the road sub-sector programme. The principal objective of clearing the backlog on a long-term sustainable basis can be read as repairing the roads and keeping them in good shape. This objective has to a large extent been realised by the programme. Some programme elements that are considered very important to realising the principle objective have been met to a large extent (e.g. improving institutional capacity and human resource management, cost recovery, expenditure management and control); at the same time other objectives, some of them less crucial to realising the principle objective (e.g. non-motorised transport), have only been partly met. As a result, the overall weighted score for the programme is higher than the sum of the individual scores.

## Efficiency

When assessing the efficiency of the programme the main focus is how the objectives were realised, emphasising the process towards their realisation. Two main efficiency clusters are differentiated, financial and organisational.

The creation of the Road Fund has contributed to providing resources for maintenance. At the same time, fund flow has not yet been reliable with fund releases taking place on an ad hoc basis, resulting from the Road Fund bank account being temporarily frozen.

Delays in payments have resulted in contractors stopping work, thus impeding programme progress. Another delaying factor in paying the contractors is the many parties involved in payment authorisation. An overall delaying factor in the road programme is the slow release of funds by the GoG through the Consolidated Fund and notably by donors. Delays in payments are most obvious in the arrears problem and have resulted in higher unit rates as contractors add premiums for payment delays.

High interest charges change the input/output ratio negatively. Although the road programme has suffered from problems such as those above, improvements have been made, e.g. in improving contract management and trying to bring the arrears problem to a halt.

At the 2000 Donor Conference that took place in the period 15-17 November 2000 new information on the arrears situation was provided. It appeared that the GoG had made large-scale arrears payments and that arrears levels had dropped consequently. Arrears levels decreased from US\$98 million in January 2000, to US\$69 million in May 2000 and to US\$28 million in October 2000.

The Evaluation Report is based on findings up to June 2000. As a result, the significant reduction of the arrears as recorded in October 2000 is not incorporated in the Evaluation Report.

The policy of priority spending has not totally been achieved and this is not considered efficient. The policy of focusing on a maintainable network (and gradually increasing the size of this network) has maximised output at minimal input and therefore constitutes good practice.

The downsizing process is ongoing and has resulted in leaner organisations. Yet the process is behind schedule and especially Ghana Highway Authority is still employing large numbers of junior staff because the government stopped financing the retrenchment programme. At the same time the road agencies have insufficient professional staff, because the government does not approve recruitment of additional staff and the agencies are unable to match private sector salaries, causing staff outflow (especially the well-trained staff). Notwithstanding the overmanning by junior staff, the development of institutional capacity and human resources is jeopardised by the inability to retain trained staff and to recruit new staff.

Training private contractors is considered an example of best practice in developing a private sector. In-house training programmes, e.g. the Department of Urban Roads training of young engineers for a job in the District Units, are considered an efficient approach. International training programmes are relatively expensive, although it is realised that these programmes are an incentive to remain a GoG employee.

The decentralisation process is underway. A cautious approach is being followed. The decentralisation process within the road sub-sector is considered potentially inefficient depending on the level of decentralisation. Diseconomies of scale could emerge if decentralisation is pursued at an administrative level as low as the current district assemblies.

Relatively limited efforts are being made on improving institutions dealing with environment and safety, consequently resulting in limited results. While structures are in place, understaffing and funding are common problems. Potential gains are possible at relatively minor cost.

The axle load control programme is failing. The current procedure operating on a non-24-hour basis and with the possibility of avoiding weighbridges is not efficient. Given the damage to the road network this is considered a serious shortcoming.

The co-ordination between the GoG and donors is efficient. Regular meetings and a Donor Co-ordination Unit operating on limited resources are ensuring progress in co-ordination between activities. Introducing common procedures for implementation, monitoring, accounting and reporting would further improve efficiency. However, it is questionable to what extent donors would be willing to harmonise their specific procedures.

## **Sustainability**

Donor interventions are crucial for the programme's sustainability as there is no doubt that if donor interventions were to be halted immediately, the road sector would be hard hit. Whereas maintenance activities can continue on basis of Road Fund financing, financing new development would be difficult. Human resource development, safety, environmental and non-motorised transport aspects are also largely dependent on donor actions.

This indicates the long-term nature of building capacity for road network management.

It also understates the credit for achievements in the evaluation period. During this period the reform of the Ministry of Roads and Transport (MRT), the successful introduction of the Road Fund, the reduction in executive agency staff and building up the private sector road maintenance and construction capacity, inter alia, will definitely have a lasting effect on the quality of the road network of Ghana. Even more so because there is a firm commitment of the GoG to improving the road network, though in some areas greater commitment is required (i.e. training, environment and safety issues, enforcement of axle load regulations).

## **Impact**

The impact assessment has suffered from lack of available documentation. Poverty alleviation is an important objective of the GoG and is supported by the international donors. However, the project selection process by donors is mainly based on quantifiable cost-benefit aspects and less on poverty alleviation and regional development aspects. This implies a bias to select projects in the more densely populated, and often richer, areas. Unfortunately, no studies are available which differentiate among regions by poverty and therefore no answer can be given whether feeder road improvements in different regions have different impact on poverty alleviation and rural development.

Available impact studies indicate that feeder road improvements have a positive impact on rural poverty. Road improvement in itself is not sufficient to maximise socio-economic impact and should be supported by other measures such as agricultural credits, availability and finance of vehicles, as well as long-term maintenance of the roads. Therefore,

a more integrated and co-ordinated rural development could increase the impact on (rural) poverty alleviation.

The impact of transport infrastructure on women can be profound. Women play a crucial role in transport activities; e.g. the share of female participation in domestic transport activities is estimated at 70 percent. Reducing the transport burden on women would create more time and energy to be spent on other activities.

## 4 Lessons learned

This evaluation can be characterised as innovative and groundbreaking in some respects.

The GoG and all donors active in the Ghanaian road sub-sector have joined forces and called for a joint evaluation of their 1996-2000 performance. This is a clear break from individual, often project-based evaluations and reflects a tendency towards a more co-ordinated approach. The co-ordination can also be seen in other fields, such as the Donor Co-ordination Unit, the annual Donor Conferences and the preparation of the new Road Sector Development Programme (RSDP).

One of the lessons learned is that the completion of the evaluation of RSEP provides an excellent opportunity to prepare for the monitoring and evaluation of the progress and performance of RSDP. To facilitate this process, RSDP objectives should be set as clear as possible, where possible with clear, measurable and achievable targets. By doing so a set of performance indicators can be developed allowing for monitoring and evaluation of the programme. The performance indicators can be used in baseline studies serving as reference points for future performance.

As monitoring and evaluation are considered to become increasingly important in time, the GoG could, in co-ordination with the donors, consider initiating the development of a self-monitoring system. This would facilitate the policy-making procedure and would prepare the GoG for future evaluations.

Below an overview is presented of some lessons learned per objective as specified in the GoG policy letter of February 1996.

### **Institutional Capacity and Human Resource Development**

The GoG should proceed with the reorganisation of the road sub-sector institutions.

The agencies should be further brought down in size and focus on core activities. A retrenchment programme for staff previously involved in force account needs to be put in place to allow organisations to downsize. Although it is realised that raising salaries is not directly within the scope of MRT, but is dependent on governmental guidelines, efforts should be made to bring salaries more in line with salaries paid in the private sector, in order to avoid outflow of qualified staff.

The need for training remains high, especially given the current demand for qualified staff. Donor assistance will remain important in this respect. A gradual transfer of training capacity from the donor community to the GoG should be realised and the training budgets need to be increased. Overseas training is far more expensive compared to domestic training programmes. A large share of the donor funds available for training is spent on overseas training. Domestic training programmes should be improved and given priority over overseas training.

The cautious approach followed in the decentralisation process within the road sub-sector is considered good practice. A sector-wide debate on the optimal level of decentralisation is recommended, keeping in mind potential diseconomies of scale.

### **Clearing the Backlog**

The road sub-sector programme under RSEP is considered quite ambitious and has only been partly realised. In developing a new programme it is recommended taking into account the developing needs of the road sub-sector,

the funding capacity of GoG and donors and the absorption capacity of MRT, the agencies and other organisations involved in the sector. The fact that GoG is still faced with considerable arrears payments and has limited funding capacity other than the GRF, implies that the ambition of realising a 70-20-10 condition mix in 2005 may be overoptimistic and that the ambition level needs to be consequently moderated. The policy of giving priority to maintenance should be respected.

### **Investment Priorities**

As investments in the road sub-sector are based on different criteria, MRT could play a facilitating role in developing a common approach, e.g. through defining a framework of standards, including unit cost of construction/rehabilitation, vehicle operating costs, value of time, opportunity cost of capital and environmental, safety and additional socio-economic impact.

Balancing equitable regional distribution, including investments in low-volume traffic roads and investments based on sound economic principles needs to be further focused on. Both issues could possibly be combined through a multi-criteria approach.

Road standards should be harmonised. Given road conditions and traffic, the combination of these standards with typical unit prices for maintenance provides a method for determining annual budgets in a systematic way.

### **Cost Recovery**

The GRF should continue to provide a financial basis for maintenance and rehabilitation works. Efforts should be made to further safeguard timely releases of funds. If future releases remain problematic a transfer of the funds to an account at a commercial bank should be considered.

Furthermore, revenues should be increased according to schedule with emphasis on raising fuel levies. With the increasing financial basis of the GRF a debate should be initiated on future allocation of GRF funds. The (future) benefits of the GRF should be communicated to the public to create support for the fund and for the principle of road user charging.

### **Private Sector Contracting and Financing**

The private sector has come a long way under RSEP and currently a large share of the road works is done by the private sector. The GoG should continue to facilitate the development of the private sector in order to create a maturer private sector that is able to compete on a domestic and international level.

Private sector financing is still marginal. If GoG want to pursue in this field it is necessary to develop an enabling environment, e.g. though developing capacity to deal with procurement and the necessary legislation.

### **Foreign Technical Assistance**

Instead of a reduction in the amount of FTA, the evaluation period has indicated a consolidation or even an increase in FTA as a result of the shortage of skilled engineering and accounting staff, the need for further training of employees and the departure of engineers to the private sector. Also relatively new aspects such as safety and environment, as well as issues such as poverty alleviation and gender issues, increases the need for FTA.

FTA should clearly provide an added value. Some of the FTA activities can be done through local experts. For this purpose it could be considered to establish a database of local experts. In all instances but especially in the new fields emphasis should be on transfer of knowledge. Therefore it is required to provide counterpart staff that can take over tasks and responsibilities once FTA determinates. It should be considered to monitor and evaluate the process of FTA related

knowledge transfer.

### **Environmental and Safety Assessment**

Environment and safety should receive greater priority from GoG, especially for staff increases and funding of recurrent expenditures. In addition, limited investments especially in road safety could well result in considerable gains. Environmental impact assessment needs to be applied for all projects and environmental aspects should be monitored during implementation.

### **Expenditure Management and Control**

Disbursement procedures to contractors should be streamlined, amongst others through shortening payment approval procedures. At the same time, donor releases should follow programmed levels.

In order to get more grip on disbursements, all donors must provide MRT periodic status reports on Grants/Loans expenditures. At the same time quarterly reviews of implementation status by both GoG and donors will facilitate procurement and disbursement.

With the phasing out of AMISU an option could be that each agency has staff trained to handle procurement procedures and guidelines of the various donors. The responsible persons can then be fully dedicated to the management of projects and programmes as has been successfully done at the Department of Urban Roads.

### **Road Transport Regulations**

The axle load control programme should receive priority. Putting great effort in improving road conditions is ineffective if at the same time damage caused through overloading is not tackled properly.

### **Non-Motorised Transport**

If NMT promotion is on the agenda, strong efforts should be made in presenting the advantages of NMT to the general public. Also baseline studies should be considered in order to measure the impact of NMT, as is done within the Urban Transport Project.

### **Donor Co-ordination**

Co-operation between GoG and donors should be further pursued. Depending on donor willingness, procedures for implementation, monitoring, accounting and reporting should be harmonised. GoG planning and programming capacity needs to be further developed to move into a situation in which GoG can take programme ownership according to the Comprehensive Development Framework principles.

## Appendix

### ODA Loan Projects in Ghana Road Sub-Sector Outline of Loan Agreement

#### Projects subjected to evaluation

ROAD REHABILITATION PROJECT

KUMASI-PAGA ROAD REHABILITATION PROJECT

HIGHWAY SECTOR INVESTMENT PROJECT

HIGHWAY SECTOR INVESTMENT PROJECT (II)

ACHIMOTA-ANYINAM ROAD IMPROVEMENT PROJECT

	ROAD REHABILITATION PROJECT	KUMASI-PAGA ROAD REHABILITATION PROJECT
Borrower / Executing Agency	The Government of the Republic of Ghana / Ghana Highway Authority	The Government of the Republic of Ghana / Ghana Highway Authority
Loan Amount / Loan Disbursed Amount	·11,091 million / ·11,025 million	· 8,439 million / · 8,437 million
Exchange of Notes / Loan Agreement	May 1987 / September 1987	December 1990 / December 1990
Terms and Conditions	Interest rate: 3% Repayment period: 30years (10years for grace period) Partial Untied	Interest rate: 2.5% Repayment period: 30years (10years for grace period) Partial Untied
Final Disbursement Date	September 1995	February 1999

	HIGHWAY SECTOR INVESTMENT PROJECT	HIGHWAY SECTOR INVESTMENT PROJECT (II)
Borrower / Executing Agency	The Government of the Republic of Ghana / Ghana Highway Authority	The Government of the Republic of Ghana / Ghana Highway Authority
Loan Amount / Loan Disbursed Amount	·2,544 million / · 2,542 million	· 10,287 million / · 679 million
Exchange of Notes / Loan Agreement	March 1996 / March 1996	October 1997 / March 1998
Terms and Conditions	Interest rate: 2.3% Repayment period: 30years (10years for grace period) Partial Untied	Interest rate: 2.3% Repayment period: 30years (10years for grace period) General Untied
Final Disbursement Date		

	ACHIMOTA-ANYINAM ROAD IMPROVEMENT PROJECT
Borrower / Executing Agency	The Government of the Republic of Ghana / Ghana Highway Authority
Loan Amount / Loan Disbursed Amount	· 9,651 million / · 227 million
Exchange of Notes / Loan Agreement	October 1998 / April 1999
Terms and Conditions	Interest rate: 1.8% (Consulting Service Portion: 0.75%) Repayment period: 30years (Consulting Service Portion: 40years) (10 years for grace period) General Untied (Consulting Service Portion: Bilateral Tied)
Final Disbursement Date	