Report Number: ICRR0021776

1. Project Data

Project ID	Project Name
P102000	GH-Transport Project SIL (FY09)
Country	**Practice Area(Lead)**
Ghana	Transport

L/C/TF Number(s)	Closing Date (Original)	Total Project Cost (USD)
IDA-46000,IDA-55490	30-Jun-2015	243,000,033.37
Bank Approval Date	**Closing Date (Actual)**	
30-Jun-2009	31-Dec-2018	

	IBRD/IDA (USD)	Grants (USD)
Original Commitment	225,000,000.00	0.00
Revised Commitment	249,995,112.75	0.00
Actual	243,000,033.37	0.00

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2. Project Objectives and Components

a. Objectives

The project development objective (PDO) in the Financial Agreement [FA] (page 5) was to improve the mobility of goods and passengers through reductions in travel time and vehicle operating costs, and to improve road safety standards.

The PDO was revised at the time of additional finance (AF) approval of November 4, 2014 to read "to improve mobility of goods and passengers on selected roads through reduction in travel time, reduction in vehicle operating costs and enhanced road safety awareness." For ease of assessment, the revised objective is parsed into the following two parts: (i) to improve mobility of goods and passengers on selected roads through reduction in travel time and vehicle operating costs (this is basically identical to the first original objective) and (ii) to improve mobility of goods and passengers on selected roads through enhanced road safety awareness.

b. Were the project objectives/key associated outcome targets revised during implementation?
Yes

Did the Board approve the revised objectives/key associated outcome targets?
Yes

Date of Board Approval
04-Nov-2014

c. Will a split evaluation be undertaken?
Yes

d. Components

A – Support to Ministry of Roads & Highways (MRH): a) Integration of geographic information systems (GIS) of Road Agencies; b) Organization of development partners' conference to exchange ideas and ensure coordination; c) Preparation of feasibility studies such as improved axle load control and strengthening of the Road Fund; d) Capacity building including strengthening management information systems and development of a human resource development strategy. Original cost US$ 4.200 million; at AF US$ 4.200 million; at project closure US$ 4.127 million.

B - Support to Road Sector and Educational Entities: Support to the a) Driver and Vehicle Licensing Authority (DVLA) to develop improved licencing methods, b) National Road Safety Commission (NRSC) for road safety equipment, educational road safety materials, provision of facilities for emergency response services and training in road safety audits, c) Kwame Nkrumah University of Science and Technology (KNUST) for laboratory equipment, computers, additional classrooms and visits by specialist presenters, and d) Government Technical Training Center (GTTC) for classrooms, a hostel and workshop, the setting up of a pilot driving academy and the introduction of training in vehicle maintenance standards. Original US$ 6.500 million; at AF US$ 6.140 million; at closure US$ 5.238 million.

C - Improvement of Trunk Roads: a) Rehabilitation of the Ayamfuri-Asawinso Road; b) Supervision (including environmental and social safeguards), and c) Capacity building and equipment. Original US$ 64.000 million; at AF US$ 71.640 million; at closure US$ 86.965 million.

D - Improvement of Urban Roads and Infrastructure: a) Provision of urban transport infrastructure; b) Rehabilitation of Burma Camp Road; c) Rehabilitation of Giffard Road; d) Capacity building; e) Supervision (including environmental and social safeguards). Original US$ 78.000 million; at AF US$ 95.860 million; at closure US$ 79.442 million.

E - Improvement of Feeder Roads: a) Improvement/rehabilitation of feeder roads; b) Supervision (including environmental and social safeguards); c) capacity building. Original US$ 50.500 million; at AF US$ 50.000 million; at closure US$ 46.763 million.

F - Support to Ministry of Transport (MoT) and other transport entities: Support to a) MoT to make the Ghana Railway Development Authority (GRDA) operational; b) Ghana Airports Company Ltd (GACL) to carry out studies for the adaptation of Takoradi airport for civilian purposes and to prepare a master plan for the development of regional airports; c) Ghana Civil Aviation Authority (GCAA) to develop regulations for the aviation industry and carry out studies on aviation sector development; d) Ghana Maritime Authority (GMA) for a feasibility study for the improvement of transport on Lake Volta; e) the Volta Lake Transport Company (VLTC) concerning the development of landing stages and reception facilities on Lake Volta; f) Ghana Ports and and Harbors Authority (GPHA) on the potential to double the carriageway on the Meridian road in Tema; and g) the Regional Maritime University (RMU) to improve capacity to provide maritime training services for the West Africa region.Original US$ 13.500 million; at AF US$ 13.500 million; at closure US$ 12.145 million.

G - Project Management: Procurement of vehicles and equipment, human resource development. Original US$ 8.300 million; at AF US$ 8.660 million; at closure US$ 8.320 million.

It should be noted that the components were not changed but that there were some changes to project activities introduced with the restructurings.

e. Comments on Project Cost, Financing, Borrower Contribution, and Dates

Project cost: The original project cost in 2009 was US$225.00 million. This amount was increased to US$250 million in 2014 by adding US$25.00 million AF to fund a financing gap created as a result of cost overruns on the rehabilitation of the Ayamfuri-Asawinso road and targeted urban roads in the Accra East corridor. The actual final project cost was US$243.00 million or 108 percent of the original amount approved. It was 7 percent lower than the total cost at AF because of the devaluation of the SDR against the Ghanaian Cedi (the contracts were mostly in the local currency).

Financing: It comprised a Credit of SDR 150.5 million (US$225.00 million equivalent) [IDA-46000] and a further Credit of additional finance of SDR 16.2 million (US$25.00 million equivalent) [IDA-55490]. The Credits were fully disbursed.

Borrower contribution: No contribution was provided.

Dates: The project was approved on June 30, 2009 and became effective on November 12, 2009. The original closing date was June 30, 2015. At AF the closing date was extended by three years to June 30, 2018 but later further extended for six months to December 31, 2018 due to delays in the payment of resettlement compensation for the Ayamfuri-Asawinso road works.

Restructuring: Two level 2 restructurings occurred. In April 2010, two thirds of the US$3 million allocated to Volta Lake Transport Co (VLTC) was earmarked for studies and to purchase engines for ferries operated by VLTC. The June 29, 2018 restructuring extended the loan closing date by six months for the reasons mentioned. It included a reallocation between disbursement categories and a change in the implementation schedule.

Additional Financing (AF) and level one restructuring: This was approved by the Board on November 4 2014. The main purpose was to provide an additional US$25.00 million funding to complete the project in accordance with the original scope because of the above-mentioned cost overruns. The PDO was revised to clarify that mobility improvements targeted project funded roads and not roads for the country as a whole. It also introduced a notable change that road safety interventions supported were aimed at improving mobility of goods and passengers through enhanced road safety *awareness* and not at improving road safety *standards*. The AF and restructuring also included the dropping of two studies under component F, changes in the cost by component, and changes to the results framework.

Note: The ten percent increase in funding during the AF was not because of changes to the scope but due to a financing gap as a result of cost overruns. In this case, a split rating should be applied because the objective to improve road safety standards was dropped and road safety awareness was added to the objective of improving mobility. This downgraded the level of ambition of road safety and the respective outcome indicator, the fatality rate, became an intermediate indicator (ICR paragraph 15). Disbursements prior to the approval date were 46.4 percent and for the remainder of the project were 53.6 per cent. Although the Board approved the indicator changes proposed, they were, however, not activated in the operations portal and thus the revisions were not monitored during the remainder of the implementation period.

3. Relevance of Objectives

Rationale

In 2009, when the project was under preparation, Ghana's vision of attaining middle income status was underpinned by strengthening the provision of infrastructure services and improving the country's business environment to sustain broad-based growth. The importance of transport infrastructure was highlighted in Ghana's Growth and Poverty Reduction Strategy (GPRS II) as an enabler for economic growth and poverty reduction (PAD, para 2).

Roads were the predominant mode of transport, but the transport sector issues were multi-modal in nature. According to the PAD (paras 7 to 10), the roads sector received the highest budget allocations and this led to concerns that this funding imbalance could cause uncoordinated inter-modal planning and the predominance of roads over other transport modes. The country faced several institutional and policy challenges in the transport sector that included the need for (i) policy formulation and planning, (ii) the clarification of the roles of the sector agencies, (iii) a proper regulatory environment for the rail sector, (iv) better management and financing of road maintenance, (v) the implementation of axle load control, and (vi) the promotion of private sector involvement. Road safety was a concern and the country launched its second five-year national road safety strategy in 2006 (PAD, para 24).

Although the development problem described in the PAD had a strong multi-modal and institutional dimension, this was not reflected in the original and revised PDOs, which focused on mobility improvements through reduced travel time and vehicle operating costs in the road sector and road safety. It was, however, reflected in the project components and, an earlier version of the PAD dated May 15, 2009, actually included an additional objective of "*Strengthen the institutional management of the transport sector.*" However, this was dropped in the final version sent to the Board.

The country and Bank strategies at project close continued with a multi-modal focus even though road transport and safety were important. The Ghana Shared Growth and Development Agenda II, 2014-2017 (according to the Bank task team, this is still the latest articulation of transport strategy) sees transport as an enabler to economic growth and poverty reduction. According to this document, the main constraints for the sector are the premature deterioration of the road network; poor quality and inadequate road transport networks; growing traffic congestion on the roads, especially in the urban areas; increasing road traffic accidents; a limited and poor rail network, and the declining rail traffic, both in goods and in passengers; inadequate facilities at existing sea ports; and the inability to progressively improve air transport infrastructure and facilities to meet appropriate international standards to make Accra a West African hub and gateway.

The Ghana-World Bank Group Country Partnership Strategy (CPS) for FY2013-16 (later extended to FY18) recognizes transport as one of the sectors to improve competitiveness and job creation, and cites the potential for road, rail, air, maritime and inland water transport to open up access to markets through better connectivity. The CPS also recommends the promotion of investments targeted at the decongestion of urban roads; modernization of existing main corridors linking major regional centers and the capital as well as neighboring countries; rehabilitation of major ports and airports; and improving roads to better serve rural communities. The CPS's main transport outcome is improved mobility of goods and passengers with the related indicator being the condition of trunk roads in fair and good condition.

The PDO's focus on mobility in the roads sector and road safety were and are highly relevant for country. However, the PAD and the country strategies highlight significant other transport challenges, which this project was meant to tackle. In addition, the exclusion of the multi-modal and institutional dimension in the last minute did not sit well with the components, which included many outputs related to capacity building in other transport modes. The concept of improving the mobility of goods and passengers was also not defined and the original and revised objectives were both structured around reducing vehicle operating costs and travel times with supporting indicators to measure such reductions in the road sector. Because of these shortcomings, the relevance of the project's original and revised objectives is rated substantial.

Rating

Substantial

4. Achievement of Objectives (Efficacy)

OBJECTIVE 1

Objective

To improve the mobility of goods and passengers through a reduction in travel time and vehicle operating costs.

Rationale

The Theory of Change (ToC) was not a requirement at the time of project preparation. Based on the information in the PAD, IEG understands that the ToC for the first objective was that the rehabilitation of roads and certain technical assistance activities in the road sector, such as the preparation and implementation of an axle load control action plan, would lead to better road conditions, reductions in travel time and vehicle operating costs and enhanced capacity of transport institutions. This, in turn, was expected to lead to improved mobility for goods and passengers.

Outputs:

- *Rural roads rehabilitated*. Target 52 km, at the closure of the project 52.2 km had been rehabilitated. Target achieved.
- *Urban roads rehabilitated*. Target 14.8 km, at closure 14.8 km had been rehabilitated. Target achieved.
- *Feeder roads improved* (spot improvements). Target 300 km, at closure 462 km had been rehabilitated. Target exceeded.
- *Feeder roads rehabilitated*. Target 250 km, at closure 309.7 km had been rehabilitated. Target exceeded.
- *Two upgraded bus terminals.*
- *Axle load control policy action plan*. The ICR (paragraph 36) notes that the study recommendations on axle load control have been incorporated into the MRH's decision-making process. However, it is not clear if axle load control was enforced by project close.
- *Studies undertaken for the Ministry of Roads and Highways.* These included a review of Ghana's tolling policy, a monitoring and evaluation system for roads and a human resource strategy, and a GIS integration pilot for road agencies. There is no discussion in the ICR as to the potential outcomes of these studies.
- Under component A, the organization of a *development partners' conference* was listed but the ICR does not indicate whether this took place. The TTL confirmed that this was an omission and that the conference was held. However, details of the discussion or decisions made at the conference were not provided.
- *For the Ministry of Transport a public expenditure and institutional review for the transport sector* as a whole was undertaken but no information was provided on the findings or whether the review might lead to any changes in policy.
- T*he Kwame Nkrumah University of Science and Technology, Transport Research Center*, was provided with laboratory equipment, computers, classrooms, an asphalt laboratory and support for the graduate training program. Higher learning links in transport technology were established with overseas tertiary institutions in Munich and Lausanne.
- *At the Government Technical Training Center* a four-story classroom block was completed and learning materials were provided on vehicle maintenance including a vehicle maintenance simulator. This raised the profile of the institution and fostered collaboration with the private sector firm Scania, a truck manufacturer.
- *A feasibility study for the dual lanes on the Meridian Road in Tema* was not carried out. The study was dropped because the GoG decided to transfer the preparation of studies and works to funding from the China Development Fund.
- *Increase the share of road funds to meet 80 percent of road maintenance needs*. Not achieved - the baseline was 60 percent and no further progress had been made by the time the project closed. This meant that there remained doubts over the sustainability of the road system. *The management of the Road Fund* was to have been evaluated. Very little is said about this in the ICR other than an acknowledgement under risk to development outcome that the income to the Road Fund did not

increase under the project and as a consequence the condition of the roads would suffer eventually contributing to less mobility for both goods and passengers.

Note: It should be observed that certain outputs related to marine, rail, and aviation have not been included above as they have no relevance to the original or the revised PDOs as stated.

Outcomes:

- *Road Condition:* (Note: The condition reports are based on all roads in the country, ICR pages 11 and 12).
  - *Condition of trunk network in good and fair condition.* Baseline 83%. Target 88%; at completion 93%. Target exceeded.
  - *Condition of urban roads in good and fair condition*. Baseline 35%. Target 50%; at completion 54%. Target exceeded.
  - *Condition of feeder roads in good and fair condition*. Baseline 72%. Target 85%; at completion 75%. Target not met due to restrictions on available government funds for road maintenance.
- *Average travel time for the Ayamfuri-Asawinso Road*: Baseline 90 minutes. Target 65 minutes; at completion 50 minutes. Target exceeded.
- *Average time for the Burma Road:* Baseline 60 minutes. Target 45 minutes; at completion 45 minutes. Target achieved.
- *Average time for the Giffard Road*: Baseline 40 minutes. Target 30 minutes; at completion 30 minutes. Target achieved.
- *Average vehicle operating costs reduced* (US$/vehicle km): Baseline 0.20. Target 0.17; at completion 0.23. Target not achieved. Note: These data according to the project team refer to the project roads.
- *Rural Accessibility Index for project roads*: Baseline 53%. Target 57%; at completion 66.6%. Target exceeded.

For this review, IEG understands mobility of goods and passengers as referring to ease of movement of road users and ease of conveyance of goods and passengers by road. The limitation to roads is justified by the fact that the PDO includes a reference to vehicle operating costs and travel time reductions and the outcome indicators only cover the road sector.

The project partially achieved the first objective. The improvement in the urban and trunk roads condition caused significant time savings on the urban and rural [trunk] roads rehabilitated under the project, which enhanced mobility for road users on these roads. However, the ICR does not provide evidence if these mobility improvements occurred in the same way for goods and passengers. The two upgraded bus terminals enhanced the mobility of bus users and drivers (ICR, para 30). According to the task team, the accessibility improvements for individuals and communities living within two km from an all-season roads measured through the Rural Accessibility Index refer to the country as a whole, and therefore the project's contribution to mobility improvements was relatively small. Mobility for users of feeder roads decreased because the gravel feeder roads improved under the project deteriorated again before project end because of lack of maintenance. This caused an increase in the vehicle operating costs compared to the baseline.

Rating
Modest

OBJECTIVE 1 REVISION 1

Revised Objective

To improve mobility of goods and passengers on selected roads through reduction in travel time and vehicle operating costs.

Revised Rationale

The revision of objective 1 consisted in the limitation of its scope to "specific project roads". This limitation was already implicit in the original objective because the outcome indicator referred to specific project roads. Therefore, the revised objective 1 was basically identical to the original objective 1 and the outputs, outcomes, assessment, and ratings were the same. The attempt made in the ICR to articulate the ToC for the project was based on the revised PDO after restructuring. In this articulation, it was not clear how certain multi-modal activities were expected to lead to the reduction in travel time and vehicle operating costs.

Revised Rating

Modest

OBJECTIVE 2

Objective

To improve road safety standards.

Rationale

For the purpose of this review, IEG interprets "improving road safety standards" in the original PDO as establishing national traffic rules and road and vehicle specifications from a road safety perspective. With this interpretation in mind, the ToC was that the road safety related activities under the project would lead, among others, to improved driver and vehicle licensing methods, standardized licensing procedures, permits and associated revenue collection, improved enforcement procedures, and improved traffic rules. This, in turn, would lead to the reduction in road fatalities.

Outputs:

- *Road Traffic Regulations* were enacted on June 30 2015. The Bank's role in this is unclear from the ICR. It is important to have up-to-date traffic regulations but their efficacy depends on a good enforcement system. No details were provided on the nature or enforcement aspects of the regulations.
- *Eight road accident emergency response centers* were established. These enabled immediate first aid to be given to accident victims prior to transfer to nearby hospitals.
- *Vehicle driving test grounds* at Tema completed and in use. However, the test ground at Kumasi was only 85 per cent complete at closure. These driving testing grounds were important to improve the safety of driving teachers, new trainees, and road users.
- *Provision of road safety equipment for compliance monitoring.* The ICR does not specify if this equipment is used and compliance improved.

- *Extensive road safety campaigns throughout the country,* including the production of pamphlets and production and distribution of road safety information materials.
- *Training of National Road Safety Commission staff* in identifying black spots, and conducting road safety audits undertaken. This knowledge is essential for reducing road accidents at high frequency accident sites.

Outcomes:

- *Fatality rate reduced (per 10,000 vehicles):* Baseline 22. Target 19. At the AF, the fatality rate had reduced to 14 per 10,000 vehicles. By completion it had reduced further to 9.74.

The ICR does not provide evidence that road safety standards improved. The only project output that might have contributed to enhance road safety standards are the Road Traffic Regulations, but the ICR does not explain if and how this occurred. There is also no information in the ICR on the attribution of the reduction in road fatalities to improved road safety standards. Therefore, this objective is rated modest.

Rating
Modest

OBJECTIVE 2 REVISION 1
Revised Objective
To improve mobility of goods and passengers on selected roads through enhanced road safety awareness.

Revised Rationale
IEG understand that the ToC for this revised objective 2 was that the road safety awareness campaign and related activities would enhance road safety awareness. This would make roads safer and, in turn, improve the mobility of goods and passengers.

Outputs:

The outputs were the same as listed under the original objective 2.

Outcomes:

The project had no outcome indicators to measure enhanced road safety awareness or improved mobility of goods and passengers on selected roads through enhanced road safety awareness. The ICR reports that outputs related to this objective, such as the production of pamphlets and production and distribution of road safety information materials and the organization of safety awareness campaigns, were achieved. The enforcement equipment, if used, would have also helped to make the public more aware of safety issues. However, the ICR does not provide evidence on the achievement of this objective or on the contribution of the project to reduce road fatalities. Therefore, the efficacy of this objective is rated modest.

Revised Rating
Modest

OVERALL EFFICACY

Rationale

The original objective 1 of improving the mobility of goods and passengers through a reduction in travel time and vehicle operating costs was only partially achieved, and for the original objective 2 of improving road safety standards the ICR provides no evidence. Therefore, the overall efficacy of the original PDO is rated modest.

Similarly, the revised objective 1 of improving mobility of goods and passengers on selected roads through reduction in travel time and vehicle operating costs was only partially achieved, and for the revised objective 2 of improving mobility of goods and passengers on selected roads through enhanced road safety awareness the ICR lacks evidence of its achievement. Therefore, the overall efficacy of the revised PDO is rated modest.

Overall Efficacy Rating	Primary Reason
Modest	Insufficient evidence

5. Efficiency

Economic analyses were undertaken for the Ayamfuri-Asawinso trunk road and the Burma Camp and Giffard urban roads at appraisal, at AF, and at project close. The costs involved for these three roads represented about 63 per cent of the project costs at appraisal and 60 per cent of the final project costs at completion. While this was adequate it would have been better for analysis purposes if the feeder roads had also been included based on their average costs for upgrading. The Highway Development and Management Model (HDM-4) was used applying a 12 percent discount rate. The design life of the rural trunk road was deemed to be 15 years and that of the urban roads 20 years. In IEG's view these assumptions were reasonable and the analysis was satisfactory.

An overall economic rate of return (ERR) for the three sub-projects would have been fairly meaningless because the characteristics of the rural and urban roads were completely different, so it was important to compare the rural and urban roads separately.

The rural trunk road from Ayamfuri to Asawinso was 52.2 km long. At appraisal the ERR was 17.9 percent and the Net Present Value (NPV) was US$55 million. At AF the ERR was still 15.0 percent and the NPV was US$16.07 million, but by completion the ERR had fallen to 1.9 percent, well below the discount rate of 12 percent and the NPV was negative (-15.275 US$ million). The main reason was cost overruns associated with the rehabilitation. Actual costs in 2018 exceeded the 2008 cost estimate by 36 percent; and they exceeded the 2015 AF cost estimate by 21 percent. The overruns occurred because of unforeseen ground conditions as well as higher than expected growth in traffic after preparation of road designs, resulting in a need for design modifications. The annual average daily traffic grew by almost 300 percent between road design completion and commencement of construction. This change in traffic levels necessitated the strengthening of the pavement structure with an additional 100 mm of crushed rock base. Drainage requirements were also impacted and updated with additional provisions for slope stabilization (previously not considered critical) to prevent premature failure of specific cut sections (ICR par. 46).

The urban roads, on the other hand, performed much better. At appraisal the Giffard Road had an ERR of 20 percent and a NPV of US$2.5 million. The Burma Camp Road had an ERR of 15 percent and a NPV of 2.7 million. At AF the Giffard Road ERR had improved to 48.4 percent and the NPV was US$23.82, while the Burma Camp Road was divided into two sections of 4.86 km and 3.4 km and presented ERRs of 21.7 percent and 60.8 percent, respectively. The NPVs were US$8.76 million and US$24.88 million, respectively. The ex post analysis showed the Giffard Road with an ERR of 12.9 percent and a NPV of US$2.80 million. The Burma Camp for its two sections yielded ERRs of 33.1 percent and 40.0 percent, respectively (NPVs US$84.85 million and US$45.82 million). Traffic volumes were higher than anticipated on the urban sections leading to further savings in vehicle operating costs and time savings but without the necessity for major design changes.

Operational and Administrative Efficiency: The project was extended twice for a total of 42 months due to implementation delays. Procurement of major activities was slow and procurement documents required several clarifications before contracts could be cleared for signature. Anticipated traffic on the trunk road had increased due to revival of mining activities in the area, while the alignment of the urban roads had been encroached upon by the time of contract signature and there were issues associated with the location of utilities. Compensation payments to project affected persons also caused further delays. Additional resources to cover overruns had to be obtained through AF in 2015. Cost increases for civil works were largely caused by an absence of due diligence in infrastructure design (ICR par. 64) and unforeseen technical occurrences. The negative foreign exchange movements meanwhile reduced the funding envelope.

Given the poor ERR for the rural trunk roads and the issues associated with the operational and administrative efficiency, the rating for efficiency is modest.

*Note that the efficiency rating and point value below is for the rural trunk road only as it was the most expensive section. A weighted average figure for all three roads would not be useful because of the greatly differing nature of the roads in question.

Efficiency Rating

Modest

a. If available, enter the Economic Rate of Return (ERR) and/or Financial Rate of Return (FRR) at appraisal and the re-estimated value at evaluation:

	Rate Available?	Point value (%)	*Coverage/Scope (%)
Appraisal	✓	17.90	28.00 ☐ Not Applicable
ICR Estimate	✓	1.90	34.78 ☐ Not Applicable

* Refers to percent of total project cost for which ERR/FRR was calculated.

6. Outcome

Under the original PDO, considering the substantial relevance of the PDO, the partial achievement of the objectives of improving the mobility of goods and passengers through a reduction in travel time and vehicle operating costs and of improving road safety standards, and the modest efficiency, the outcome is rated moderately unsatisfactory (3).

Under the revised PDO, based on the substantial relevance, the modest efficacy of the PDO, and the modest efficiency, the outcome is rated moderately unsatisfactory (3).

The overall outcome rating is moderately unsatisfactory (3). For a split-rating purpose, the disbursements before and after the AF on November 4, 2014 were 46.4 percent and 53.6 percent.

a. Outcome Rating

Moderately Unsatisfactory

7. Risk to Development Outcome

There are three main areas where the development outcome is at risk:

Insufficient funding for road maintenance: The indicator to measure an improvement in road maintenance funding was not met because there was no increase in contributions to the Ghana Road Fund during the implementation of the project. A negative impact on the project is inevitable because of reduced life of the funded roads due to lack of maintenance. Country dialogue on the shortfall in the Road Fund took place between the World Bank and the Government but failed to prevent the over-commitment of the Road Fund due to the funding of too many new capital investment projects.

Level of political and institutional motivation to put in place inter-agency coordination: The project began the groundwork for cooperation among the various transport sector agencies. However, this platform needs to be utilized and extended considerably by the GoG through the key agencies involved to lead to proper coordination and prevent a reversion to the fragmented decision-making that existed prior to the project's inception. There remains a small risk that some project activities not directly related to inter agency coordination will fail to be implemented and hence not lead to the expected mobility improvements.

Risk of rising road accident rate: While there has been success in reducing the road accident fatality rate, the rapid increase in vehicles on Ghana's roads means that additional resources must be invested in road safety to prevent a relapse in the progress made.

8. Assessment of Bank Performance

a. Quality-at-Entry

Because an underlying goal of improving the capacity of transport institutions was not articulated as part of the formally approved objectives, the capacity building aspects were subsumed as outputs in the results framework, which in several cases involving non-road modes did not easily fit into a structure where outcomes were specifically focused on reduced travel time, vehicle operating savings, and improved road safety standards.

More time and resources could also have been focused on the preparation stage (ICR par 93). In particular more attention could have been given to the readiness of the procurement and financial management teams to mitigate the shortcomings of cumbersome procurement approval procedures and inadequate financial reporting. In addition more effort could have been made in respect of the robustness of the designs, which revealed several weaknesses once implementation began. Although arrangements were made to ensure coordination between the various entities in the transport sector with a stake in the project, an important omission was to not ensure the involvement of the Land Evaluation Division in project implementation at an early stage, which led to delays in approving compensation payments for project affected persons. The rapidly increasing rate of motorization in Ghana and plans to expand mining activities were also given insufficient attention.

As seen below, the M&E framework had also shortcomings.

On the positive side, the structure used for inter-agency collaboration as a whole was sound because it allowed agencies with experience of Bank-funded projects to guide agencies with no or limited experience. The risk mitigation due diligence was adequately performed and a good relationship was established with the appropriate government officials enhanced by the presence of in-country staff. The Bank also gave support to the selection of the appropriate lending instrument and the compliance with safeguards, as required. Overall, the quality at entry is rated moderately unsatisfactory.

Quality-at-Entry Rating

Moderately Unsatisfactory

b. Quality of supervision

The weaknesses identified in quality at entry manifested in the form of delays during implementation, which in turn led to cost overruns. This required close supervision and frequent missions supported by local office staff.

At AF, recognizing the difficulties of inter-agency coordination, the Bank supported dropping the inter-agency procurement and financial management teams in favor of contract management specialists and a project accountant. The Bank team, however, failed to notice that some changes made to the indicators at AF were not being monitored. Although the project team urged the government to increase the available funds for road maintenance, the country's macroeconomic situation gradually deteriorated during implementation, and this worked against the project team's advice. The Bank team met with high level officials of the LDV and GHA to agree a way forward following significant delays in payments of compensation to project affected persons, while at the Country Management Unit level, the Country

Director engaged with the Minister of Finance to ensure that the funds for compensation would be available once the bottlenecks had been resolved.

Nevertheless, given the number of entities within the transport sector that needed attention, the team did a creditable job in assisting smooth coordination and this was undoubtedly aided by having a strong presence of in-country Bank staff. The Bank fiduciary and safeguards experts gave regular training on Bank policies to project staff when it became clear that there were serious weaknesses in the performance of these areas and that this was contributing to the delays.

Quality of Supervision Rating

Moderately Satisfactory

Overall Bank Performance Rating

Moderately Unsatisfactory

9. M&E Design, Implementation, & Utilization

a. M&E Design

The project had no appropriate indicators to measure road safety standards. There was also no definition as to what was meant by road safety standards, road safety awareness, and mobility.

For the road elements, conventional practice was followed and measurable indicators were provided.

There were no institutional/regulatory related indicators at the outcome level.

Each participating agency was responsible for the provision of baseline information. Progress was to be monitored annually with extensive consultation among the stakeholders. Coordination was to be undertaken by the project implementation team.

b. M&E Implementation

Implementation proceeded in accordance with the planned results framework and activities such as progress with civil works, procurement activities, and progress in achieving the project development objectives were included in the quarterly project progress reports. Some changes were made at AF including indicators related to the Road Fund and the Axle Load Control Plan. However, because these changes were not incorporated in the M&E framework, they were never put into effect - the recipient continued to report using the previously agreed parameters.

c. M&E Utilization

The M&E progress shared with the stakeholders enabled decisions to be made during implementation and provided information on project progress to the decision-makers. For example, it became clear that funding would be insufficient and an AF would be necessary to complete the project. The M&E also showed where and why delays were being experienced in the areas of construction, procurement and administration.

M&E Quality Rating

Modest

10. Other Issues

a. Safeguards

The Transport Sector Project was classified as category A for environmental assessment purposes (full assessment). Although rehabilitation is usually classified as category B, in this case there was additional building construction and 87 households that were to permanently lose their properties. The following safeguards were triggered at appraisal: OP/BP 4.01 Environmental assessment; OP 4.11 Physical Cultural Resources; and OP/BP 4.12 Involuntary Resettlement. OP 4.36 Forests was added at AF. In addition to environmental impact assessments and resettlement action plans, an Environmental and Social Management Framework and a Resettlement Policy Framework were prepared and disclosed.

Some of the priorities flagged as potential hazards to the environment included: mitigating road construction operations resulting in dust, noise, and temporary loss of flora; opening or re-opening of borrow pits and solid rock quarries; dumping of construction waste and accidental spillage of machine oil and lubricants. Social issues identified included: land acquisition and impacts on social values induced by the influx of construction-related migrant workers.

Physical Cultural Resources were not discussed in the ICR but the interaction with the TTL revealed that the safeguard was triggered due to the occurrence of graves and burial sites within the rights of way for the Ayamfuri-Asawenso road. Since there is no formal mechanism in Ghana for dealing with this situation, the implementing agency negotiated with the local communities to fulfill traditional requirements for relocating the remains of the deceased from the rights of way to the satisfaction of the Bank.

In the AF Project Paper the safeguard OP 4.36 Forests was triggered due to a two km forested section of road. However, the ICR is silent on the outcome of any mitigation measures in this regard. The TTL advised this was an omission. Impacted trees were recorded and evaluated by the Forestry Commission, and replacements were planted.

Safeguard mitigation measures included: prioritizing the use of road alignments with minimal negative social and environmental impacts; inserting social and environmental protection clauses into bidding documents for works contracts; extensive and participatory safeguards consultations with various stakeholders and affected groups; as well as the training of environmental and social safeguards specialists for effective monitoring and supervision.

The main issues in practice were inadequate drainage that led to flooding because of a slow response time in addressing the problem, and delays in paying compensation to project affected persons, which led to significant delays and cost over-runs. According to the ICR (par.63), there was inadequate coordination between the Ghana Highway Authority and the Land Valuation Division, which was the main cause of the failure to pay compensation on time. Moreover, there was inadequate reporting on the safeguards aspects of progress reports, and a general lack of commitment in addressing safeguard issues affecting safeguards ratings. The reason was largely a shortage of government funds that could be allocated for compensation. For example, the overall safeguards rating was downgraded to Moderately Unsatisfactory in June 2013 due mainly to the outstanding release of funds by the Ministry of Finance for compensatory payments for affected people. By the end of the project the final rating rating was Moderately Satisfactory as GoG had resolved most safeguard concerns. Details were not provided in the ICR as to how many people were finally relocated and how much they were compensated.

b. Fiduciary Compliance

Compliance with fiduciary obligations was rated Moderately Satisfactory during the duration of the project. Financial management (FM) arrangements for the project were adequate in that they met the minimum requirements as per Bank Policy. Although finance-related stipulations in the Financing Agreement were followed, concerns were raised by the Bank about the thoroughness of FM reports. As a consequence, the Bank demanded an improvement in the quality, content and detail of those reports. In addition, there were occasional delays in the submission of acceptable interim financial statements and annual audited financial reports.

For procurement management, procurement delivery was in compliance with the project's financing agreement, and the PAD. No ineligible expenses were recorded. An issue, however, was the cumbersome approval procedures for invoices and subsequent payments as this caused delays in project implementation. This factor, in addition to poor filing practices of contracts, invoices and waybills contributed to procurement's moderately satisfactory rating. The quality and detail of procurement documentation had shortcomings, and procurement processes had delays.

c. Unintended impacts (Positive or Negative)

None

d. Other

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11. Ratings

Ratings	ICR	IEG	Reason for Disagreements/Comment

Outcome	Moderately Satisfactory	Moderately Unsatisfactory	The objectives lacked evidence of achievement or were only partially achieved. Efficiency was modest.
Bank Performance	Moderately Satisfactory	Moderately Unsatisfactory	Quality at entry shortcomings due to lack of reflection of multi-modal institutional and capacity building dimension in PDO and design shortcomings in the results framework, procurement, financial management and safeguard aspects.
Quality of M&E	Modest	Modest	
Quality of ICR	---	Modest	

12. Lessons

The following lessons have mostly been derived and summarized from the ICR:

Agencies familiar with World Bank policies and procedures can help build this capacity in other agencies by supporting them. A comprehensive approach to inter-agency coordination in the transport sector in Ghana showed that agencies that have worked with World Bank policies and procedures can successfully support other agencies with little knowledge of such practices.

Rigorous project preparation can reduce the number of challenges faced during implementation. The issues that delayed the project (very commonly found throughout the region), such as cost overruns, faster than expected traffic growth, and non-timely delivery of compensation to project affected persons, deserved more attention prior to project approval.

The early involvement in the project of all resettlement-related stakeholders is important when the project requires resettlement. In this project, which required involuntary resettlement, the Land Valuation Division was not involved at an early stage. This delayed payment to affected people and project implementation. In addition, to involving the Land Valuation Division early, compensation funds should be kept in an ESCROW account until needed. A National Resettlement Law would also bring clarity to the existing legal framework and strengthen protection of affected persons' rights.

Where there are weaknesses in financial management and procurement systems, additional training may be required. Under this project, the financial management systems were not used effectively and the quality and timeliness of financial reporting had shortcomings. In addition to training, while existing systems and procedures are being improved, there may be opportunities to reduce delays by paying contractors directly, thus avoiding cumbersome in-house approval procedures of invoices and certificates.

13. Assessment Recommended?

No

14. Comments on Quality of ICR

On the whole the ICR is generally well-written and fairly candid. However, the level of analysis is not sufficiently critical. For instance, for relevance of objectives, the ICR cites transport-related parts of the Bank and country strategies, which highlight the multi-modal challenges, but there is no discussion as to why the PDO is rated highly relevant.

For the assessment of the achievement of the objectives, the ICR focuses on compliance with outputs and outcomes, rather than with the achievement of the objectives themselves. The objectives were not correctly framed, with the original objective of improving road safety standards, which was dropped at the AF and the respective outcome indicator, the fatality rate, downgraded to an intermediate indicator, not being evaluated. The incorrect framing of the objectives was mostly likely also the reason why the ICR did not consider to apply a split rating.

Because the underlying objective of improving the capacity of transport institutions was not articulated in the PDO, some capacity building aspects did not easily fit into a structure where outcomes were specifically focused on road sector reductions in travel time, vehicle operating cost savings, and enhancements in road safety. Moreover, the capacity building aspects were put forward as a check list (either done or not done), with little emphasis on what they were designed to do and to what extent they impacted or were intended to impact the development issues addressed by the project. Some transport sector project achievements were rather awkwardly discussed under project components. There was relatively little in the ICR that discussed the safety related challenges in the country and the respective project outcomes. On the positive side, the evidence captured through the indicators was complemented by additional qualitative feedback from the field visits.

The economic analysis was good and well articulated. There was, however, a minor typo: paragraph 43 of the ICR said that the design life of the urban roads was 27 years. However, the correct design life shown in the ICR Table 5 was 20 years. The factors that affected implementation and outcomes were detailed and frank. The shortcomings in Bank performance were rather glossed over, but could be gleaned from the lessons and recommendations into which considerable thought had been given. There was no discussion of triggered safeguards OP 4.11 Physical Cultural Resources or OP 4.36 Forests. The ICR could have been improved with more information about the final numbers of people who were relocated and the amounts of compensation paid.

A minor additional point was that the restructuring of April 2010 and the 2015 AF and restructuring were not recorded in the data sheet (this, however, was likely a system problem).

a. Quality of ICR Rating

Modest