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INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT PAPER

ON A

PROPOSED ADDITIONAL CREDIT

IN THE AMOUNT OF SDR 16.20 MILLION
(US\$25 MILLION EQUIVALENT)

TO THE

REPUBLIC OF GHANA

FOR A

TRANSPORT SECTOR PROJECT

October 14, 2014

Transport & ICT Global Practice
Country Department AFCW1
Africa Region

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CURRENCY EQUIVALENTS

(Exchange Rate Effective April 30, 2014)

Currency Unit = Ghanaian Cedi (GHc)
GHS 2.83 = US\$1
US\$1 = SDR0.64529035

FISCAL YEAR

January 1 – December 31

ABBREVIATIONS AND ACRONYMS

AF	Additional Financing
CPS	Country Partnership Strategy
DUR	Department of Urban Roads
DVLA	Driver and Vehicle Licensing Authority
ESIA	Environmental and Social Impacts Assessment
ESMPs	Environmental and Social Management Plans
GACL	Ghana Airports Company Limited
GDP	Gross Domestic Product
GIS	Geographical Information System
GHA	Ghana Highway Authority
GSGDA	Ghana Shared Growth and Development Agenda
GTTC	Government Technical Training Center
GRDA	Ghana Railway Development Authority
ITP	Integrated Transport Plan
IAS	Implementing Agencies
KNUST	Kwame Nkrumah University of Science and Technology
M&E	Monitoring and Evaluation
MOT	Ministry of Transport
MRH	Ministry of Roads and Highways
NRSC	National Roads Safety Commission
NPV	Net Present Value
PDO	Project Development Objective
RAI	Rural Accessibility Index
RAP	Resettlement Action Plan
RF	Road Fund
TSP	Transport Sector Project
VLTC	Volta Lake Transport Company

Country Director:	Yusupha B. Crookes
Senior Director:	Pierre Guislain
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Task Team Leader:	Kavita Sethi

THE REPUBLIC OF GHANA
GHANA TRANSPORT SECTOR PROJECT ADDITIONAL FINANCING
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THE REPUBLIC OF GHANA

GHANA TRANSPORT SECTOR PROJECT ADDITIONAL FINANCING

ADDITIONAL FINANCING DATA SHEET

Basic Information - Additional Financing (AF)	
Country Director: Yusupha B. Crookes	Sectors: Roads and highways (75%);
Senior Director : Pierre Guislain	General Transportation Sector (15%);
Practice Manager: Supee Teravaninthorn	Central Government Administration
Team Leader: Kavita Sethi	(10%)
Project ID: P149444	Environmental category: A- Full
Expected Effectiveness Date: March 4, 2015	Assessment
Lending Instrument: IPF	Expected Closing Date: June 30, 2018
Additional Financing Type: Financing Gap	Joint IFC:
	Joint Level:
Basic Information - Original Project	
Project ID: P102000	Environmental Category: A – Full
	Assessment
Project Name: Transport Sector Project	Expected Closing Date: June 30, 2015
Lending Instrument: SIL	Joint IFC:
	Joint Level:
AF Project Financing Data	
<input type="checkbox"/> Loan <input checked="" type="checkbox"/> Credit <input type="checkbox"/> Grant <input type="checkbox"/> Guarantee <input type="checkbox"/> Other:	
Proposed terms:	
AF Financing Plan (US\$m)	
Source	Total Amount (US \$m)
Total Project Cost:	25.00
Co-financing :	0.00
Borrower:	0.00
Total Bank Financing:	
IBRD	0.00
IDA	
New	25.00
Recommitted	0.0
Client Information	
Recipient: Republic of Ghana Responsible Agency: Ministry of Roads and Highways and Ministry of Transport Contact Person: Dr. D. D. Darku Telephone No.: +233 302 661575 Fax No.: N/A Email: duaquaye@yahoo.com	

AF Estimated Disbursements (Bank FY/US\$m)				
FY	FY15	FY16	FY17	FY18
Annual	10	10	3	2
Cumulative	10	20	23	25
Project Development Objective and Description				
<p>Original project development objective: The project development objective is to improve mobility of goods and passengers through reduction in travel time and vehicle operating cost, and to improve road safety standards.</p> <p>The revised project development objective is 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.</p> <p>Project description: The project has seven components which are briefly summarized below:</p> <p>Component A. Support to Ministry of Roads and Highways (MRH)</p> <p>Component B. Support to Road Sector and Educational Entities</p> <p>Component C. Improvement of Trunk Roads</p> <p>Component D. Improvement of Urban Roads and infrastructure</p> <p>Component E. Improvement of Feeder Roads</p> <p>Component F. Support to Ministry of Transport (MOT) and Other Transport Sector Entities and</p> <p>Component G. Project Management</p>				
Safeguard and Exception to Policies				
Safeguard policies triggered: Environmental Assessment (OP/BP 4.01) Natural Habitats (OP/BP 4.04) Forests (OP/BP 4.36) Pest Management (OP 4.09) Physical Cultural Resources (OP/BP 4.11) Indigenous Peoples (OP/BP 4.10) Involuntary Resettlement (OP/BP 4.12) Safety of Dams (OP/BP 4.37) Projects on International Waterways (OP/BP 7.50) Projects in Disputed Areas (OP/BP 7.60)			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Does the project require any waivers of Bank policies? Have these been endorsed or approved by Bank management?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Conditions and Legal Covenants:				
Financing Agreement Reference	Description of Covenant		Date Due	
None	None		None	

I. Introduction

1. This Project Paper seeks the approval of the Executive Directors to provide an Additional International Development Association (IDA) Credit in an amount of SDR 16.20 (US\$25 million equivalent) to the Republic of Ghana to support the Transport Sector Project (TSP, Cr. 4600-GH / Project ID P10200). The additional IDA Credit will be used to fund a financing gap on the Ayamfuri-Asawinso road rehabilitation and construction of selected roads in the Accra East Corridor that would otherwise be jeopardized by cost overruns. In order to allow the completion of these activities, the proposed Additional Financing (AF) will extend the project's closing date by 36 months from June 30, 2015 to June 30, 2018. The cumulative extension of the closing date would thus be 36 months.

2. The Project Development Objective (PDO) has been revised. The original PDO is to improve mobility of goods and passengers through reduction in travel time and vehicle operating cost, and to improve road safety standards. The revised PDO is *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*. The wording of the revised PDO clarifies that mobility improvements are targeted for project funded roads and not the country as a whole; and that project interventions support enhanced road safety awareness rather than road safety standards. The revised objective will continue to be achieved through strengthening the capacity of transport institutions in planning, regulation, operations and maintenance, and through infrastructure investments.

3. The proposed AF would help finance unforeseen cost increases on the key civil works on (a) the Ayamfuri-Asawinso Road and (b) the Accra east Corridor under Components C and D, respectively. The AF would also include: (a) modifying the studies included under Component F; (b) refining the project's results framework to better capture the results and demonstrate the achievement of the revised PDO; (c) reallocating funds within Component D and (d) an extension of the project closing date to accommodate the completion of all activities.

II. Background and Rationale for Additional Financing

A. Country Context

4. Ghana has experienced rapid economic growth over the past several years resulting in substantial progress in reducing poverty. Gross Domestic Product (GDP) growth rose from 8.0 percent in 2010 to about 14.5 percent in 2011, and in July 2011, Ghana transitioned into Lower Middle Income Country status. This transition has been accompanied by a steady decline in the number of people classified as poor, which dropped from slightly more than 50 percent of the population in 1992 to about 23.6 percent in 2012. However, inequalities remain widespread and are reflected in significant disparities in access to economic, social and political opportunities. The northern savannah regions (with 25 percent of the country's population) recorded an average poverty rate of 58 percent, compared to 19 percent in the rest of the country¹.

¹ Country Partnership Strategy, August 20, 2013. IDA Report No. 76369-GH

5. Despite this impressive progress, recent macroeconomic challenges are putting at risk the gains realized in poverty reduction. Ghana had a fiscal deficit of 11.5 percent of GDP in 2012 and 10.1 percent in 2013, and the current account deficit reached 12 percent of GDP in both years. Ghana's medium-term economic framework, the Ghana Shared Growth and Development Agenda, (GSGDA), 2010-2013, as well as the draft GSGDA II, 2014-17, define the Government's development priorities and outline the Government's strategies to address some of these challenges.

6. The 2013 Country Partnership Strategy (CPS) seeks to respond to the Government's priorities of more inclusive economic growth, job creation, delivery of decentralized public services, better accountability to citizens, and provision of skills and education to the population and it is aligned with the World Bank twin goals of ending extreme poverty and creating shared prosperity. More efficient delivery of infrastructure services is required to support Pillar 2 of the CPS, improving Competitiveness and Job Creation, and the CPS calls for processes and systems to ensure adequate monitoring, oversight and implementation support for all major public infrastructure projects with roads and energy sectors in the lead.

B. Sector Context

7. Transportation infrastructure is identified as a key focus area to drive economic growth and sustainable poverty reduction in the GSGDA which centers on: (a) ensuring competitiveness and employment; (b) reducing vulnerability and resilience; and (c) improving governance and public sector capacity. Over the last decade, Ghana's transport sector has moved from short and medium-term planning to a comprehensive, long term transport perspective with due attention to the quantity and quality of the road infrastructure. The 71,419 km road network carries more than 95 percent of all freight and passenger traffic in the country and receives about 99 percent of government investments in the transport sector. Prioritising the maintenance of existing road infrastructure to reduce vehicle operating costs (VOC) and future rehabilitation costs is a key element of the government's medium-term strategy for an efficient and sustainable transport system.

8. The medium and long-term plans for transport sector investment and growth are detailed in the Integrated Transport Plan (ITP) for Ghana, 2011-2015, which responds to the Cabinet approved National Transport Policy (NTP), and has been coordinated by the Ministry of Finance and Economic Planning (MOFEP). The TSP supports the policy principles articulated in the NTP, and finances part of a broad program addressing the improvement of the road network, in coordination with other donors active in the sector. While addressing the sector as a whole, for the roads sub-sector, the ITP identifies challenges relating to: (a) inadequate project preparation and inappropriate packaging of works; (b) inconsistent application of procurement procedures; (c) shortfalls in contract administration; (d) delays in works execution due to scarcity of materials and capacity constraints of contractors; (e) ineffective supervision and monitoring of works due to over commitment, (f) inadequate capacity of agency staff; (g) delays in payments for works; and (h) lack of management and supervision of construction works by contractors, consultants and the supervising agencies, inter alia. A road map to address these issues is also provided and GoG is now implementing a range of institutional, regulatory and oversight measures aimed at improving the effectiveness of expenditures in the sub-sector.

C. Rationale for Additional Financing

9. The main rationale for the additional credit is to provide the additional resources necessary to ensure achievement of the PDO while modifying some activities due to the evolution of priorities over time.

10. Through a letter dated February 13, 2014, the Government requested financial assistance for completion of the ongoing activities on the Ayamfuri-Asawinso Road Rehabilitation and Construction of Selected Roads in the Accra East Corridor which also require an extension of the project closing date. As the contracts are under implementation, unless adequate financing is available, the pace of project execution could slow down while delays in paying contractors and consultants in a timely manner could result in claims and be costly to the GoG. The Borrower's commitment to quickly implement the ongoing activities is strong as evidenced by their detailed review of options and adoption of cost saving modifications during the design update process for Accra East as well as Ayamfuri-Asawinso roads. Each implementing agency has hired a contract management specialist, funded by the project, and implemented action plans for stronger on-site supervision and timely reporting. There are no other sources of funding available and this additional credit is the most efficient way of meeting the funding gap.

11. Subsequent to award, one of the contracted firms has been debarred for one year effective April 18th, 2014. The debarment resulted from an INT investigation in a different project in the Sector---the West Africa Transport and Transit Facilitation Project. The debarred firm has two ongoing contracts: Lot 3 on the Accra East corridor and Lot 1 on the Ayamfuri-Asawinso road. Modifications to these contracts were required to remedy unforeseen ground conditions which were found by the supervising engineer after the contracts were signed and implementation had started. The additional works are essentially a natural continuation and integral part of the existing contracts that have appropriate provisions for addressing unforeseen conditions. As part of the project due diligence, and as per Bank Procedures, the contract amendments were reviewed by the Operations Procurement Review Committee (OPRC). The OPRC cleared the amendments based on its determination that the modifications were not material (ref Paragraph 8 in Appendix 1 of the Bank's Procurement Guidelines). The final contract value for Lot 3, Accra East Corridor, is US\$15.06 million, (cost increase of 18.4 percent) with a scheduled completion date of November 28, 2014 and the final contract value for Lot 1, Ayamfuri-Asawinso Road is US\$35.08 million (cost increase of 17.03 percent), with a scheduled completion of September 1, 2015. Both contract amendments are being funded from the original project. If, going forward, any additional modifications are proposed to the contracts, these will be submitted to the OPRC for its due diligence and review. In the event the modifications are material, funding from the ongoing project or the Additional Financing will not be used for the same.

12. The TSP which was approved in the amount of US\$225 million by the Board on June 30, 2009, and became effective on November 12, 2009 is in compliance with legal covenants as specified in the legal agreement. In April 2010, the project was restructured to reallocate US\$2 million out of US\$3 million of project funds allocated to the Volta Lake Transport Company (VLTC) for studies and to purchase engines for ferries operated by VLTC. This was expected to

improve safety and reliability of services for communities along the Volta Lake who depend solely on the ferries for their social-economic activities.

Project Implementation progress

13. The original PDO is to improve mobility of goods and passengers through reduction in travel time and vehicle operating cost, and to improve road safety standards. The achievement of the PDO is currently Satisfactory. As of December 31, 2013, half the Project Outcome Indicators have already been achieved: (a) Fatality rate per 10,000 vehicles reduced (17.9 as against a target value of 19); (b) percentage of the rural population within 2 kilometers of an all-season classified road (Rural Accessibility Index [RAI], 66.6 percent against a target of 57 percent); and (c) share of road network in good and fair condition (57 percent as against a target of 50 percent).

14. The Implementation Progress (IP) rating was upgraded to Moderately Satisfactory (MS) on February 11, 2014, from Moderately Unsatisfactory (MU) in the ISR of October 2013. The June 2013 implementation support mission noted that for all contracts for the Accra East corridor and Ayamfuri-Asawinso road, designs would need to be revised to address deficiencies which had emerged in the course of implementation. Cost increases for all contracts were also expected in relation to the design revisions. This led to the IP being rated MU. The Client has since prepared the updated designs and cost estimates for these roads. The revised designs are acceptable and the Client has made a serious effort to contain costs where possible, allowing the IP rating to be upgraded to MS.

15. As the project had not been considered MS or better for IP continually during the past 12 months, the team requested a waiver to the application of OP 10.00 paragraph 26 to allow the Republic of Ghana to benefit from the additional financing operation. The waiver request was approved on April 2, 2014.

16. 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 to affected people. These funds have now been transferred to the project and the payment process has been initiated allowing the rating to be upgraded to Moderately Satisfactory.

17. The Financial Management and Procurement performance ratings remain Moderately Satisfactory due to the delays and observed inconsistencies in processing procurement transactions and challenges related to improving financial management by the Ministry of Roads and Highways (MRH), Ghana Highway Authority (GHA), Department of Feeder Roads (DFR) and the Department of Urban roads (DUR). An Action Plan for improved financial management and procurement transactions has been developed and integrated in the restructured project. The project does not have any unresolved fiduciary, environmental, social or other safeguard problems.

18. Disbursements. Cumulative disbursements to date represent 46.4 percent of project commitment after five years and three months of implementation. The slower than anticipated disbursements have been primarily due to: (a) the mainstreaming of project implementation within GoG's transport sector agencies which has had the advantage of internal capacity building

but also presented challenges in procurement and contract processing particularly for the major civil works contracts; and (b) delays in the release of funds for the Resettlement Action Plan (RAP) implementation prior to commencement of civil works. However, with all the large value contracts committed, and contract amendments under way, the disbursement rate over the next eighteen months is expected to achieve about 72 percent of original credit and AF commitments totaling US\$250million.

19. A summary of the implementation progress by component is presented below:

Component A: Support to MRH (US\$4.2 million)

20. Capacity building activities have been implemented as per the agreed annual plans covering areas such as preparation and evaluation of PPP projects, monitoring and evaluation, sector planning and policy development, and procurement. Procurement of consultants for Integration of Geographical Information Systems (GIS) for the transport sector and the development of a Monitoring and Evaluation (M&E) system has also been completed and the work is under way. These are two key studies for the strengthening of the planning and maintenance of the transport sector. Technical Assistance (TA) in the form of contract management specialists for DFR, DUR & GHA have been engaged to provide the needed technical support to the respective implementing agencies.

Component B: Support to Road Sector and Educational Entities (US\$6.5 million)

21. This component supports activities of the Driver and Vehicle Licensing Authority (DVLA), National Road Safety Commission (NRSC), Kwame Nkrumah University of Science and Technology (KNUST) and Ghana Technical Training Centre (GTTC). A needs assessment study to improve capacity for emergency response services for road traffic crash victims has been completed, and locations have been selected for development of pilot emergency response centers. Road safety education and awareness programs are ongoing while works to develop driver testing grounds in regional locations are ready to be bid out. The Road and Transport Engineering Master's degree program at KNUST is under way with support of visiting scholars provided under the project. The designs for the laboratory at KNUST will be developed on completion of the procurement for design consultants. A four story classroom block for GTTC is under construction and on schedule for completion by October 2014.

Component C: Improvement of Trunk Roads (US\$64 million)

22. This component is implemented by the Ghana Highway Authority (GHA) and focuses mainly on the construction of the Ayamfuri-Asawinso Road (52.2 km). The Ayamfuri-Asawinso Road is part of a South-North transport corridor linking western Ghana, the timber and mineral rich areas, and neighboring countries to the deep water port of Takoradi. The implementation of the works is through two civil works contracts both of which commenced on May 2, 2013: Lot 1, 26 km long, and Lot 2, 26.2 km long, at a contract price of US\$58.3 million. The contract sum did not include pavement works for the last 5km of Lot 2 due to funding limitations under the project. This will now be resolved through the additional financing.

23. Traffic levels (average annual daily traffic) along the Ayamfuri-Asawinso road have gone up by more than 300 percent since the design and bid documents were completed in 2005. It has been necessary therefore to modify the contracts and the pavement has been strengthened with an additional 100 mm of crushed rock base. The drainage and pavement structures also needed to be reviewed, and adequate provision made for slope stabilization. These changes have led to an overall additional cost of US\$7.64 million, including contingencies, and an extension of the implementation period by at least one year.

24. Mobile axle load weighing vans and automatic traffic counters have also been procured under this component and are operational.

Component D: Improvement of Urban Roads and Infrastructure (US\$78.0 million)

25. Component D is managed by the Department of Urban Roads (DUR) and includes the development of selected roads in the Accra East corridor and provision of urban transport infrastructure.

26. Construction of Selected Roads in the Accra East Corridor. About 15 kms of roads (dual carriageways) are being constructed under three separate contracts: rehabilitation of Giffard Road (Lot 1) and rehabilitation of Burma Camp Roads Phase 1, and Phase 2, (Lots 2 and 3). The roads are part of a network of arterials that link the suburban areas in the eastern part of Accra to the Central Business District and to critical facilities including the Accra International Airport and 37 Military Hospital. All three contracts have been awarded (at a total contract price of US\$46.64 million) and are at different stages of implementation since September 2012. However, project implementation in this urban environment has been fairly challenging, and has required modifications to the original contracts. These include: (a) reviewing the provisions for relocation of utilities on Lot 1 with necessary modifications to the road alignment; (b) modifying the design of the railway bridge leading to the Spintex Road on Lot 2; and (c) providing for ground improvements along 1.6 km of soft soil with modifications to the alignment on Lot 3. The updated project cost is now US\$77.69 million, inclusive of contingencies. The cost overrun of US\$31.05 million is partially offset by savings of US\$4.9 million on the original project allocation for the works and supervision and reallocation of funds from Urban Transport Infrastructure subcomponent. An additional amount of US\$17.36 million and about one year of additional time is required to complete the contracted works. The works are currently at about 65 percent of physical progress overall.

27. There was a delay on the part of the supervising consultants in raising some of the issues driving the cost over runs. The Client has agreed on an Action Plan to be implemented by the Consultants. A Contract management specialist has also been hired to strengthen oversight and address contractual issues.

28. Urban Transport Infrastructure in Accra (US\$15.67 million). Implementation of this sub-component was pending confirmation of additional IDA funds for the cost overruns under ongoing contracts. Pursuant to the availability of additional funds, the component will continue to fund urban transport infrastructure in Accra (including investments along tributaries to the Bus Rapid Transport Corridor, bus stations, terminals, depots and studies, as needed); and financing

the preparation of a public transport management plan for central Accra. The scope of activities to be funded under this sub-component will be adjusted in line with the activities being implemented under the Urban Transport Project and supported by this sub-component. The component would also cover cost of consultancies for construction supervision, supervision of environmental and social safeguards, and to strengthen the technical capacity of DUR for improvement of the urban road network. These works would be completed within the extended project closing date

Component E: Improvement of Feeder Roads (US\$50.5 million)

29. The component is being implemented in two phases. The first phase was completed in 2013 with minor rehabilitation of 84 feeder road sections, totaling 226 kms, and spot improvement on 449 kilometers spread throughout the country. The second phase of this program targets improvements on roads in regions with commercial agriculture. The first tranche of the second phase comprising spot improvement (12.4 km), gravel rehabilitation (64.8 km) and bituminous surfacing (58.7 km) in the Volta and Central regions has been awarded and the second tranche is being prepared for implementation.

Component F: Support to the Ministry of Transport (MoT) and Other Transport Sector Entities (US\$13.5 million).

30. Ten studies, eight of which are currently on-going, are supported under component F. The remaining two, related to adaptation of Takoradi Airport for civilian use, and design review of selected Arterial Roads and Utility Services to the Devanning Area at Tema, are being dropped from the project. Laboratory equipment for the Regional Maritime University has been delivered, installed and has been in use since May 2013. Marine engines for VLTC vessels have also been delivered. A technical advisor for MOT has also been engaged.

Component G: Project management (US\$8.3 million)

31. This component includes technical assistance and operational support to the Implementing Agencies for coordination, administration, monitoring, evaluation and auditing activities under the Project. An external financial auditor is in place and audit reports have been submitted as required. Vehicles for operational support to the agencies have been procured.

III. Proposed Changes

32. The revised PDO is *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*. The proposed AF will require an extension of the current closing date from June 30, 2015, to June 30, 2018.

33. The proposed AF will support the following activities:

a. Component C: Rehabilitation of Ayamfuri-Asawinso Road.

As discussed in paragraph 23 above, the works contracts had to be modified to address unforeseen ground conditions encountered during actual implementation. The revisions included updated drainage and pavement structures, and provision for slope stabilization and reinstatement of the omitted 5km stretch of Lot 2, leading to an overall additional cost of US\$7.64 million, including contingencies.

b. Component D: Construction of Selected Roads in the Accra East Corridor.

As discussed in paragraph 26 above, implementation of the contracts for rehabilitation of Giffard Road (Lot 1) and the rehabilitation of Burma Camp Roads Phase 1 and Phase 2, i.e. (Lots 2 and 3) identified unforeseen modifications to the ongoing contracts which increased the total cost of the project by US\$17.36 million.

34. There will also be modifications to Components E and F, see below.

c. Component E: Improvement of Feeder Roads

The feeder roads component is being implemented in 2 phases. Implementation of the first phase has been completed, and implementation of the second phase, targeted at areas of commercial agriculture, is on-going. There is an overall saving of US\$0.5 million in this component and these contribute to the mitigation of cost overruns under the project.

d. Component F: Support to MOT and other Transport Sector Entities

This component focuses mainly on provision of critical equipment, as well as feasibility studies and plans for the transport sector. All the equipment has been procured and eight out of ten studies are ongoing. The studies and equipment procured to date are now at about US\$0.84 million in excess of originally planned costs. GoG has indicated its decision to implement the feasibility study for the dualization of the Tema Meridian Port Road (estimated at US\$0.5 million) under a different source of funding and therefore, this activity has been dropped from the project releasing funds to cover cost increases on existing project activities. Detailed design work for the Takoradi airport (estimated at US\$0.5 million) has also been dropped due to challenges with reaching agreement with the military on the modifications to the existing infrastructure. These changes are cost neutral and savings absorbed by the ongoing studies.

35. Table 1 below summarizes the allocation of the additional financing within the project.

Table 1: Additional Project Cost by Project Activity

	Agency/Activity	Original (US\$m)	Updated Estimate/ Actual (US\$m)	Realloc ation (US\$m)	Additional Financing (US\$m)
A	Ministry of Roads and Highways (MRH)				
	Integration of GIS of Road Agencies	0.40	0.77	0.37	0.00
	Organization of Development Partners' Conference	0.20	0.20		0.00
	Preparation of feasibility studies	2.50	2.13	-0.37	0.00
	Capacity Building	1.10	1.10		0.00

	Agency/Activity	Original (US\$m)	Updated Estimate/ Actual (US\$m)	Realloc ation (US\$m)	Additional Financing (US\$m)
	Sub-total	4.20	4.20		0.00
B	Support to Road Sector and Educational Entities DVLA, NRSC, KNUST, GTTC	6.50	6.14	-0.36	0.00
	Sub-Total	6.50	6.14		
C	Improvement of Trunk Roads Construction of Ayamfuri-Asawinso Road	58.5	35.08 (Lot 1) ² 31.06 (Lot 2)		0.00 7.64
	Supervision (including environmental and social safeguards)	3.00	3.00		0.00
	Capacity building and equipment	2.50	2.50		0.00
	Sub-Total	64.00	71.64		7.64
D	Improvement of Urban Roads and infrastructure Urban Transport Infrastructure	24.00	15.67	-8.33	0.00
	Rehabilitation of Burma Camp Road (Phase 1) (Lot 2)	17.05	32.49	7.73	7.71
	Rehabilitation of Burma Camp Road (Phase 2) (Lot 3) ³	19.45	15.05	-4.4	0.00
	Rehabilitation of Giffard Road (Lot 1)	13.00	30.15	7.50	9.65
	Capacity building	0.50	0.50		0.00
	Supervision (including environmental and social safeguards)	4.00	2.00	-2.00	0.00
	Sub-Total	78.00	95.86	0.50	17.36
E	Improvement of Feeder Roads Improvement/Rehabilitation of Feeder Roads	47.50	47.00	-0.50	0.00
	Supervision (including environmental and social safeguards)	2.50	2.50		0.00
	Capacity building	0.50	0.50		0.00
	Sub-total	50.50	50.00	-0.50	0.00
	Sub-Total MRH, Department, Agencies & Entities	203.20	227.84		25.00
F	MOT and Other Transport Sector Entities F.1 Support to MOT	4.00	3.12	-0.88	0.00
	F.2 Support to Ghana Airports Company Limited	2.00	2.00		0.00
	F.3 Support to Ghana Civil Aviation Authority	1.50	1.50		0.00
	F.4 Support to Ghana Maritime Authority	1.50	1.50		0.00
	F.5 Support to VLTC	3.00	3.00		0.00
	F.6 Support to Ghana Ports and Harbours Authority	0.50	0.50		0.00
	F.7 Support to Regional Maritime University	1.00	1.88	0.88	0.00
	Sub-Total	13.50	13.50		0.00
G	Project Management Sub-total	8.30 8.30	8.66 8.66	0.36	0.00 0.00

² Lot 1: China Jiangxi Corporation for Technical and Economic Cooperation

³ Lot 3: China Jiangxi Corporation for Technical and Economic Cooperation

	Agency/Activity	Original (US\$m)	Updated Estimate/ Actual (US\$m)	Realloc ation (US\$m)	Additional Financing (US\$m)
	GRAND TOTAL	225.00	250.00		25.00

36. The total project cost will increase to US\$250 million.

Results Framework

37. The current results framework, agreed during the first project restructuring, has been modified based on the observed progress of the project and the expected outputs and outcomes of the project activities. As mentioned above, the revised PDO is 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. At the PDO level, the core indicator for direct project beneficiaries has been added while the indicator on vehicle operating costs has been updated to specify its application to project-financed roads. The indicator related to road safety has been moved to the intermediate level to reflect the revision of the PDO.

38. At the intermediate outcome level, two indicators have been revised. The indicator on deployment of mobile axle load vans provides more specificity to the earlier indicator which referred to the Axle Load Control Action Plan. The indicator on the contribution of the RF to planned, annual maintenance expenditures (as per the annual budget exercise and submission of maintenance needs by Implementing Agencies (IAs) to MRH) is a better measure of improved financing of road maintenance.

39. Four of the thirteen intermediate outcome indicators have been dropped. These include: (i) strengthened Road Fund management (dropped due to measurement issues, and impact of better RF management is expected to be captured by the indicator on RF contribution to maintenance expenditures); (ii) feasibility studies for dualization of the Tema Meridian Road (dropped as GoG has transferred the preparation of the studies and the works to funding from the China Development Fund); (iii) operationalization of GRDA (dropped as the project supports the preparation of institutional and regulatory studies and not operationalization of recommendations) and (iv) completion of detailed design and safeguard reports for Takoradi airport (dropped as GACL has not reached agreement with the military on the adaptation of the airport for civilian use).

IV. Appraisal Summary

Economic and Financial Analyses

40. The civil works including contingencies represents about 82 percent of total project costs. The economic analysis has been updated based on the revised scope and costs of the civil works, which consist of reconstruction, rehabilitation, and upgrading of the: (a) Ayamfuri-Asawinso (GHA sub-component); and (b) urban road network (DUR subcomponent), all currently under implementation. The results shown in Table 2 below indicate that the urban roads investments

remain justified with the Economic Internal Rate of return (EIRR) well above 12 percent in all cases and positive Net Present Values (NPV).

Table 2: Results of the Economic Analysis

Component/Activity	NPV (at 12%) /US\$million	EIRR
Trunk Roads		
Ayamfuri – Asawinso road	16.07	15.01
-Ayamfuri – New Obuase (26.0km)	25.50	21.1
-New Obuase – Asawinso (26.2km)	-10.48	7.6
Urban Roads		
-Burma Camp Road 1	8.76	21.7
-Burma Camp Road 2	24.88	60.8
-Giffard Road	23.82	48.4

41. The main benefits on the Accra East corridor (Giffard Road and Burma Camp Road) accrue from savings in vehicle operating costs (VOC), travel time and road maintenance. A design life of 27 years has been assumed for the analysis and the base year is 2012. Robustness of the results to changes in assumed traffic growth was tested for traffic variations of 10 and 20 percent in either direction. The Net Present Value (NPV) was positive in all cases except for a twenty percent decline in traffic on Burma Camp Road 1 where the NPV declined to a negative US\$0.28 million.

42. The economic analysis for Ayamfuri-Asawinso assumed completion of the works in 2016, and a design life of 15 years. The main benefits of rehabilitation are due to savings in VOC, travel time and road maintenance expenditures. The traffic volume along the 350 km South-North corridor route varies considerably, with lower volumes on one of the sections to be rehabilitated (New Obuase-Asawinso). The bulk of the traffic considered was local, and the traffic mix will be updated on completion of the rehabilitation. Improvement of the route is expected to help stimulate economic development of the resource rich western area of the economy and to improve its integration with the rest of the economy by providing an alternative to the North-South transit traffic. The sensitivity analysis at the project level (for both sections combined) showed the EIRR was more robust with respect to changes in traffic and cost than the NPV though the NPV remains positive in all cases where either costs or traffic move adversely.

Technical

43. The technical aspects of the revised scope of work for the major civil works were subjected to an in-depth review. The main reasons for the costs overruns on the Ayamfuri-Asawinso road are unforeseen ground conditions as well as the higher than expected growth in traffic since preparation of the designs, resulting in a need for modified designs. The detailed designs for Ayamfuri-Asawinso were completed in 2006. Since then average annual daily traffic (AADT) has gone up by almost 300 percent, from 800 to 2,364 vehicles per day; and much more

than the 1,304 vehicles per day projected for 2013. The 2006 projections were premised on zero generated traffic for the first six years and an overall traffic growth rate of 5.9-6.3% subsequently. The change in traffic levels is accounted for by the expansion of localized mining activities in the Awaso area. The pavement has been strengthened to take into account the higher traffic growth rate of 6.5% and the updated traffic levels which include generated traffic: this led to a strengthening of the pavement structure with an additional 100 mm of crushed rock base. Drainage requirements have simultaneously been impacted and updated with additional provisions for slope stabilization (previously not considered critical) to prevent premature failure of about 13km of deep cut sections ranging from 5-15m in height. The 5 km section initially omitted will also be reinstated (in accordance to the new pavement structure) to enhance the impact of the investment, leading to an overall additional cost of US\$7.64 million, including contingencies, and an extension of the implementation period by at least one year.

Safeguards

44. The proposed AF requires no changes in the safeguards risk management or categorization. The environmental assessment category of the project will remain category “A”. The Resettlement Policy Framework and the Environmental and Social Management Framework prepared for the original project will continue to be used for the AF. Due to potential impacts of a 2 km section of the road on the Anhwiaso Forest Reserve, OP 4.36 on Forests will be applied. The compliance with OP 4.36 will be ensured through the ongoing update and implementation of the ESIA/ESMP for the Ayamfuri-Asawinso Road.

45. Under the existing safeguards policy frameworks (ESMF and RPF), a number of safeguards documents have been prepared and disclosed for the various civil works. Status of environmental and social safeguards instruments is summarized below; (additional details on implementation of safeguards instruments for each project component are provided in Annex 3).

46. Ayamfuri-Asawinso Road (Component C). An Environmental and Social Impacts Assessment (ESIA) was prepared, consulted upon and disclosed in 2009. The ESIA was subsequently reviewed and updated in February 2014 to address proposed re-alignment of the road along a 2 km stretch passing through the Anhwiaso Forest Reserve that necessitates removal of 79 trees of economic value, and needed to be agreed, together with adequate mitigation measures, with the Forestry Commission. The revised ESIA was re-disclosed in the Recipient’s territory in November 29, 2013, and in the Association’s InfoShop May 5, 2014. A resettlement Action Plan was prepared in 2008 and subsequently disclosed in-country and in the Infoshop. Due to delays in implementation and changes in road design the RAP is being revised. The Ghana Highway Authority (GHA), which is implementing the RAP has prepared a revised RAP list. A revised RAP with an updated PAP list will be implemented during July– October 2014.

47. Accra East Corridor (Giffard Road and Burma Camp Roads Phase 1 and 2 - Component D). An Environmental and Social Impact Assessment including the Environmental and Social Management Plan for three urban road sections (Giffard, Burma and Teshie) was prepared in June 2008 to guide management of environmental and social risks in the built-up urban environs of Eastern Accra. A RAP was prepared for the Accra East Corridor which was prepared in 2008 and was subsequently disclosed in December 2009. Following the creation of new assemblies in La Dadekotopon Municipal Assembly, Accra Metropolitan Assembly and Ledzokuku Krowor

Municipal Assembly – the RAP has been disseminated and disclosed at these locations. As per Ghanaian law, an environmental permit was renewed in 2012 and a revision to the list of PAPs, reflecting changes in design, was prepared on September 12, 2012.

48. There was an initial delay in the release of compensation funds from the Ministry of Finance towards the Accra East corridor roads. However, MOF has released all funds and payment has been effected to all PAPs with the exception of one. A revaluation is on-going and payment will be effected when completed.

49. Execution of the contracts has brought about some unforeseen changes that have an impact (reductions/additions) to the original RAP. A revised RAP with an updated PAP list has been prepared by DUR and is under review by the Bank prior to disclosure expected before end of October 2014.

50. Improvement of Feeder Roads (Year 1) (Component E). Eighty-four Environmental and Social Management Plans (ESMPs) were prepared and disclosed, including the: (a) ESMP for Wet Semi-Equatorial Zone (August 2011); (b) ESMP for South Western Equatorial Zone (August 2011); and (c) ESMP for Tropical Continental Zone (August 2011). An Abbreviated Resettlement Action Plan (ARAP) was prepared during project preparation, after the discovery of OP 4.12 impacts on community members. The ARAP was disclosed in-country on December 5, 2012 and in the Bank's Infoshop on December 6, 2012. The implementation of the ARAP has been completed.

51. Improvement of Feeder Roads (Year 2) (Component E). ESMPs for Year 2 were prepared and disclosed November 29, 2013. These included: (a) ESMP for the Volta Region; and (b) ESMP for the Central Region guiding environmental and social mitigation measures for surfacing, rehabilitation and spot improvement on eighteen feeder roads in the two regions. An ARAP was prepared and approved by the Bank. The ARAP was disclosed on February 27, 2013 in-country and on March 6, 2013 in the Infoshop. The ARAP covers the rehabilitation of 18 sub-projects in Central and Volta regions—specifically, it provides for compensation payments for 26 farmers for compensation of crops and compensation for nine structures. The implementation of the ARAP has commenced.

Financial Management

52. The financial management arrangements for the additional financing have been reviewed as part of project supervision on the original project. The most recent FM Review conducted in April 2014 concluded that financial management arrangements at MRH are adequate and meet the minimum requirements as per Bank Policy OP 10.00. However, FM performance is rated Moderately Satisfactory (MS) with a number of recommendations made to improve the quality, content and details of FM Reports. This observation reflects the fact that the adequate financial management systems in place have not been effectively utilized to support project implementation. The overall FM risk rating is therefore rated Substantial.

53. Compliance with the financial covenants as per the Financing Agreement is Satisfactory albeit with occasional delays in submission of acceptable interim financial statements and annual

audited financial reports. Reviews of the unqualified audit reports have not highlighted any adverse opinions or significant lapses in internal controls.

54. The arrangements for financial management of the original project will remain the same and will apply for the additional financing. On account of financial reporting challenges which have rendered FM performance Moderately Satisfactory, MRH has agreed to hire an experienced project accountant for at least one year to support the FM function at MRH and at the IAs.

Procurement

55. The bulk of the procurement under the project has been executed. As such the approved procurement plan will be implemented with virtually no introduction of new major procurement. The existing Implementing agencies (namely MRH, GHA, DFR, DUR, and MOT) in the on-going project remain the same, and the AF of US\$25 million, will be allocated to these IAs to fill the financing gap of planned and on-going procurements.

56. The procurement performance of the Implementing Agencies performance has been assessed over the period with the current risk rating being substantial and the procurement performance Moderately Satisfactory.

57. Procurement arrangements, systems and procedures continue to be the same as the original project, with the following updates; Procurement will be carried out in accordance with World Bank's: (a) "Guidelines: Procurement of Goods, Works and Non-Consulting Services under IBRD Loans and IDA Credits and Grants by World Bank Borrowers" dated January 2011; (b) "Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits and Grants by World Bank Borrowers" dated January 2011, and the provisions stipulated in the Legal Agreement; and (c) "Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants", dated October 15, 2006, as revised in January 2011 and the provisions stipulated in the Legal Agreement. Furthermore the new Bank prior review and method thresholds distributed to the project which relates to the current procurement risk rating remain applicable. The latest guidelines will affect contracts wholly or partly financed under the AF and for which procurement started on or after February 03, 2014.

58. Contract amendments have been processed for the ongoing works contracts for the Accra East corridor and the Ayamfuri-Asawinso road. Subsequent to award, one of the contracted firms has been debarred for one year effective April 18th, 2014. The debarment resulted from an INT investigation in a different project in the Sector---the West Africa Transport and Transit Facilitation Project. The debarred firm has two ongoing contracts: Lot 3 on the Accra East corridor and Lot 1 on the Ayamfuri-Asawinso road. Modifications to these contracts were required to remedy unforeseen ground conditions which were found by the supervising engineer after the contracts were signed and implementation had started. The additional works are essentially a natural continuation and integral part of the existing contracts that have appropriate provisions for addressing unforeseen conditions. As part of the project due diligence, and as per Bank Procedures, the contract amendments were reviewed by the Operations Procurement Review Committee (OPRC). The OPRC cleared the amendments based on its determination that

the modifications were not material (ref Paragraph 8 in Appendix 1 of the Bank's Procurement Guidelines). The final contract value for Lot 3, Accra East Corridor, is US\$15.06 million, (cost increase of 18.4 percent) with a scheduled completion date of November 28, 2014 and the final contract value for Lot 1, Ayamfuri-Asawinso Road is US\$35.08 million (cost increase of 17.03 percent), with a scheduled completion of September 1, 2015. Both contract amendments are being funded from the original project. If, going forward, any additional modifications are proposed to the contracts, these will be submitted to the OPRC for its due diligence and review. In the event the modifications are material, funding from the ongoing project or the Additional Financing will not be used for the same.

Institutional Arrangements

59. The institutional arrangements for the proposed AF will remain essentially the same as for the original project. MRH will continue to be responsible for the overall project coordination and management of the project through the Project Implementation Team. Poor intra-agency coordination has been one of the main factors slowing implementation. Based on this experience, the agencies suggested a revival of Agency Implementation Teams (AIT) composed of core technical and safeguards staff, led by a designated team leader. The former inter-agency Procurement Team (PT) and Financial Management team (FMT) have been less effective and will be discontinued. These changes will be reflected in the updated Project Implementation Manual (PIM) which will be submitted prior to effectiveness of the project.

60. In view of the challenges of implementation of a mainstreamed project previously highlighted, MRH and its agencies are being supported by Contract Management Specialists hired in the three Road Agencies⁴ and recruitment of a project accountant at the Ministry of Roads and Highways is proposed for Financial Management. MOT also has in place a long term advisor to assist with supervision of implementation including capacity building.

61. *Benefits and Risks.* A detailed presentation of project risks is reflected in the Risk Identification Worksheet – Operational Risk Assessment Framework (Annex 3). The project risk overall is rated *Substantial*.

⁴ The Contract Management Specialist for GHA is hired under the IDA funded West Africa Transport and Transit Facilitation Project

**Annex 1: Revisions to Results Framework and Monitoring Indicators
GHANA: Transport Sector Project Additional Financing**

Table 1: Revisions to the Results Framework

PDO			Comments/ Rationale for Change
<i>Original</i>	<i>Proposed</i>		
Improve mobility of goods and passengers through reduction in travel time and vehicle operating cost, and improvement in road safety standards.	Improve mobility of goods and passengers on selected roads through reductions in travel time, vehicle operating costs, and enhanced road safety awareness.	Revised	The PDO is being revised to clarify that mobility improvements will be achieved on project- financed roads and not the country as a whole, and that project interventions support road safety awareness rather than road safety standards.
PDO indicators			
<i>Original</i>	<i>Proposed</i>		
<u>Indicator One:</u> Average travel time: - Ayamfuri-Asawinso Road - Burma Camp Road - Giffard Road	<u>Indicator One:</u> Average travel time: - Ayamfuri-Asawinso Road - Burma Camp Road - Giffard Road	Continued	
<u>Indicator Two:</u> Average VOC reduced (in real terms) (US\$/veh-km)	<u>Indicator Two:</u> Average Vehicle Operating Cost (in real terms) on project-financed roads (US\$/veh-km)	Revised	The revised wording specifies that the indicator applies to project-financed roads (listed in indicator one) rather than the country as a whole, as implied by the original wording.
<u>Indicator Three:</u> Fatality rate reduced (per 10,000vehicles)	<u>Indicator Three:</u> Fatality rate reduced (per 10,000vehicles)	Continued and moved to the intermediate level.	With the revision of the PDO, this indicator is no longer relevant at the PDO level and is therefore moved to the intermediate level. Tracking of safety improvements in the country as a whole will continue to be monitored as an indirect indicator of raised safety awareness.
<u>Indicator Four</u> Increase in RAI	<u>Indicator Four</u> Increase in RAI	Continued	
<u>Indicator Five:</u> Condition of road network in good and fair condition	<u>Indicator Five:</u> Share of road network in good and fair	Revised	The first word “condition” is a typing error and this has been

(2007) -Trunk -Urban -Feeder	condition (percentage) -Trunk -Urban -Feeder Length of the classified network (kms)		corrected in the revised indicator.
	<u>Indicator Six:</u> Direct beneficiaries (number), of which female (%)	New	Core Indicator
Intermediate Results indicators			
<i>Component 1: Strengthen capacity of MRH and its agencies in planning, regulation, operations, and maintenance.</i>			
<i>Original</i>	<i>Proposed</i>		
<u>Intermediate Result</u> <u>Indicator One:</u> Enacted Road Traffic regulation Implement axle load control policy action plan	Intermediate Result Indicator One (a): Enacted Road Traffic regulation	Revised	The revision separates the two in one indicator where the second part:” Implement axle load control policy action’ is being replaced by a specific, monitorable action. This specific indicator is shown as a new indicator below.
	Indicator One (b): Mobile Axle Load Vans deployed (number)	New	See comment for indicator above
<u>Intermediate Result</u> <u>Indicator Two:</u> Strengthened Road Fund management		Dropped	To avoid measurement issues, this indicator is replaced by the revised, specific indicator on contribution of road fund to road maintenance expenditures
<u>Intermediate Result</u> <u>Indicator Three:</u> contribution of the RF to planned maintenance expenditures -S	Intermediate Result Indicator Three: Road Fund(RF) share of annual expenditures on road maintenance (percent per annum)	Revised	The wording has been modified to capture the contribution of the RF to maintenance needs and thus improvements in managing road financing.
<u>Intermediate Result</u> <u>Indicator Four:</u> Length of road network rehabilitated - trunk - urban - feeder	Intermediate Result Indicator Four: Length of road network rehabilitated - trunk - urban - feeder	Continued	
Intermediate Result Indicator Five Length of road network improved (spot improvement)	Intermediate Result Indicator Five: Length of road network improved	Continued	

Feeder roads (km)	(spot improvement) - feeder roads (km)		
	<u>Intermediate result</u> <u>Indicator Six:</u> Fatality rate reduced (deaths per 10,000 vehicles)	Moved from PDO level indicators	Originally a PDO level indicator; it has been moved here to serve as indirect indicator of awareness of road safety. .
Component 2: Intermediate Result (Component Two): Strengthen capacity of MOT and its agencies in planning and regulation.			
<i>Original</i>	<i>Proposed</i>		
<u>Intermediate Result</u> <u>Indicator One:</u> GRDA made operational		Dropped	The indicator has been dropped since support to the railway sector is limited to studies and does not include operationalization of GRDA.
<u>Intermediate Result</u> <u>Indicator Two:</u> Completion of Master Plan for Regional Airports	Intermediate Result Indicator Two: Completion of Master Plan for Regional Airports	Continued	
<u>Intermediate Result</u> <u>Indicator Three:</u> Completion of detailed design and safeguard reports for Takoradi airport		Dropped	The indicator has been dropped because the condition for design and addressing safeguards issues, i.e. an agreement between the military (owner of the airport) and the GACL to adapt the existing airport for civilian use, has not been reached; the detailed designs are no longer part of the project.
<u>Intermediate Result</u> <u>Indicator Four:</u> Completion of feasibility studies for development of landing stages and reception facilities along the Volta Lake and a Master Plan for ports development	Intermediate Result Indicator Four: Completion of feasibility studies for development of landing stages and reception facilities along the Volta Lake and a Master Plan for ports development	Continued	
Intermediate Result Indicator Five: Completion of feasibility study for dualization of Meridian road in Tema		Dropped	Both the feasibility study and the dualization of the Meridian road are planned to be funded with a China Development Bank (CDB) loan.
Intermediate Result Indicator Six: Number of courses offered	Intermediate Result Indicator Six: Number of courses	Continued	

by Regional Maritime University	offered by Regional Maritime University		
Intermediate Result Indicator Seven: Procurement of ferry engines (2)	Intermediate Result Indicator Seven: Procurement of ferry engines (2)	Continued	

Table 2: Revised Results Framework

	Core	D=Dropped C=Continued N= New R=Revised	Unit of Measureme nt	Baseline (2009)	Current Status (2014)	Target Values (at the end of calendar year)			Data Collection and Reporting		
						YR 6 (2015)	YR7 (2016)	YR8 (2017)	Frequency and Reports	Data Collection Instrument/S ource	Responsibil ity for Data Collection
Original PDO: Improve mobility of goods and passengers through reduction in travel time and vehicle operating cost, and improvement in road safety standards.											
Revised PDO: Improve mobility of goods and passengers on selected roads through reductions in travel time, reduction in vehicle operating costs, and enhanced road safety awareness.											
Project Outcome Indicators											
Indicator One: Average travel time: - Ayamfuri-Asawinso - Burma Camp Road - Giffard Road	<input type="checkbox"/>	C C C	min min min	90 60 40	90 60 40			65 45 30	Annually	Travel time studies along the project roads	MRH/GHA/ DUR/
Indicator Two: Average Vehicle Operating Cost (in real terms) on project-financed roads	<input type="checkbox"/>	R	US\$/ veh- km Trunk Urban Feeder	0.20 0.20 0.20	n/a 0.17(F)			0.17 0.18 0.19	Annually	Socio- economic studies along the project roads	MRH
Indicator Three: Fatality rate reduced (per 10,000 vehicles)	<input type="checkbox"/>	Moved to intermediate level	per 10,000 vehicles	22	17.9						
Indicator Four: Increase in RAI	<input type="checkbox"/>	C	%	53	66.6			68	Typically 4 years	Household Surveys/Tran sport Indicators Database	MRH/DFR
Indicator Five: Share of road network in good and fair condition - Trunk - Urban - Feeder (Length of the classified network)	<input checked="" type="checkbox"/>	C C C km	% % % (67,450)	83 36 72 (71,063)	86 44 73 (71,419)			88 56 80	Annually	Annual Road Condition Survey	MRH/GHA/ DUR/DFR

Indicator Six: Direct beneficiaries (number), of which female (%) ⁵	<input checked="" type="checkbox"/>	N	No., %	n/a	52,140,253, 35%			100,250,00 0, 40%	Annually	Employment Data/Project Supervision Progress Reports	MRH/GHA /DUR/DFR
Intermediate Results											
Intermediate Result (Component one): Strengthen capacity of MRH and its agencies in planning, regulation, operations, and maintenance.											
Revised Intermediate Result (Component one): Remains the same.											
Intermediate Result Indicator One: Enacted Road Traffic Regulation	<input type="checkbox"/>	R	Yes/No	Drafted	Yes	Yes	Yes	Yes	Annually	Annual Reports	MRH/GHA
Intermediate Result Indicator Two: Mobile Axle Load Vans deployed		N	No.	0	5	5	5	5	Annually	Annual Reports	MRH/GHA
Intermediate Result Indicator Two: Strengthened road fund management	<input type="checkbox"/>	D									
Intermediate Result Indicator Three: Contribution of Road Fund (RF) to planned annual expenditures on road maintenance (percent per annum)		R	%	-	53%			65%	Annually	Ghana Road Fund Annual Report	MRH
Intermediate Result Indicator Four: Length of road network rehabilitated - trunk - urban - feeder		C C C	km km km	0 0 0	0 0 226			52 14.8 396	Annually	/Agency Annual Reports	MRH/GHA/ DUR/DFR
Intermediate Result Indicator Five: Length of road network improved (spot improvement) - Feeder roads		C	km	0	449			462	Annually	DFR Annual Report	MRH/DFR

⁵ Direct beneficiaries are computed from expected employment on the road works contracts. A detailed beneficiary table can be found on project files

<u>Intermediate Result Indicator Six:</u> Fatality rate reduced (deaths per 10,000 vehicles) ⁶		C	Deaths per 10,000 vehicles	22	14			10	Annually	BRI Accident Studies	MOT/NRS C
Intermediate Result (Component Two): Strengthen capacity of MOT and its agencies in planning and regulation.											
Revised Intermediate Result (Component Two): The component remains the same except for reallocation of funds for GPHA and GACL											
<u>Intermediate Result Indicator One:</u> GRDA made operational	<input type="checkbox"/>	D	Yes/No	Railway Act passed	GRDA operational						
<u>Intermediate Result Indicator Two:</u> Completion of Master Plan for Regional Airports	<input type="checkbox"/>	C	Yes/No	No	No			Yes	Annually	Annual Reports	MOT
<u>Intermediate Result Indicator Three:</u> Completion of detailed design and safeguard reports for Takoradi airport		D	Yes/No	No	No						
<u>Intermediate Result Indicator Four:</u> Completion of feasibility studies for development of landing stages and reception facilities along the Volta Lake and a Master Plan for ports development		C	Yes/No	No	No			Yes	Annually	Annual Reports	MOT
<u>Intermediate Result Indicator Five:</u> Completion of feasibility study for dualization of Meridian road in Tema		D	Yes/No	No	No						
<u>Intermediate Result Indicator Six:</u> Number of courses offered by Regional Maritime University		C	No.	2	8			8	Annually	Annual Reports	MOT
<u>Intermediate Result Indicator Seven:</u> Procurement of ferry engines (2)		C	No.	0	2			2	Annually	Annual Reports	MOT

⁶ This indicator has been moved from the PDO level to the intermediate indicator level

Annex 2: Operational Risk Assessment Framework (ORAF)
GHANA: Transport Sector Project Additional Financing

Project Stakeholder Risks		Rating	Low		
Description: The project involves multiple stakeholders (GoG, sector agencies, users) with varying degrees of interest in and knowledge of the objectives of the Transport Sector Project.		Risk Management: The ongoing (parent) project has satisfactory performance in terms of coordinating the implementation of the project which is the responsibility of the Ministry of Roads and Highways (MRH). The Implementing Agencies (IAs) have ownership of their respective components and implementation is based on an Annual Work Plan and Budget prepared by MRH. Coordination by MRH has proven reasonably successful in ensuring smooth implementation across beneficiaries and reducing the stakeholder risk. The same coordination arrangements will continue for the additional financing.			
		Resp: Client and the Bank		Stage: IMP	Due Date:
Implementing Agency Risks (including fiduciary)					
Capacity		Rating:	Substantial		
Description: MRH, the overall implementing agency, is well established and has long experience working with the Bank. Past experience with MRH, GHA and DUR has shown that agencies need greater technical and management capacity for appropriate and adequate supervision of complex infrastructure investments which have shown major implementation challenges. Mainstreaming of the project which has resulted in a large number of transactions being managed by the sector agencies and inadequate focus on procurement planning, implementation, monitoring and evaluation, and with consequent delays in procurement processes.		Risk Management: The project has provided TA for procurement/contract management in all the main implementing agencies of MRH and MOT; these support services will be continued to provide assistance in implementing this project. Implementation structure will be refined and additional support will be identified and brought in, as needed. Capacity will continue to be added through training, as well as the assignment of dedicated, experienced and knowledgeable staff to carry out procurements under the approach, and avoid frequent change-overs or transfers of such staff in the midstream of project implementation. To maintain focus, all IAs should be responsible for processing and ensure prompt submission of procurement documents and responses to Bank comments.			
		Resp: Client		Stage: IMP	Due Date:
Governance		Rating:	Moderate		
Description: Governance related issues may negatively impact overall implementation of the project. Inadequate oversight of project activities by the Client could lead to instances of non-compliance with operating procedures and policies.		Risk Management: GoG has established the internal audit function for reviewing internal processes. MRH is responsible for preparing a consolidated Annual Work Plan and budget, identifying expenditures by component and this is used for expenditure tracking during the year; annual technical, financial and procurement audits are part of the risk management strategy and these audits will be continued.			
		Resp: Client and Bank		Stage: IMP	Due Date:
Project Risks					
Design		Rating:	Moderate		
Description: The involvement of multiple agencies and complex urban infrastructure investments could run into implementation challenges and /or delays in implementation of		Risk Management: Project coordination is managed by a project implementation team with supporting Agency Implementation Teams. IAs have prepared design review guidelines to ensure proper institutional sign off on project designs. In parallel, a sector review of systematic issues is			

various components. Civil works components are not adequately prepared leading to major changes in concept, design, cost overrun and time extensions		ongoing to highlight the required institutional change to address upstream challenges in project design. The most time consuming procurement processes have been completed and contract addenda are all advanced. These will be closely monitored to avoid delays in signing contact amendments and implementation.			
		Resp: Client and Bank	Stage: IMP	Due Date: June 2014	Status: In progress
Social & Environmental		Rating:	Substantial		
Description: ESIA/ESMPs and RAPs for various works in the project have been prepared, consulted upon and disclosed. However, weak compliance with Bank social and environmental safeguards policies is a risk. Release of funds for RAP implementation, though budgeted and approved is slow.		Risk Management: The ESMPs and RAPs prepared during project implementation include measures for risk mitigation. The agencies implementing civil works included in the project have environmental/social safeguards units with designated staff assigned to oversee and follow up project related safeguards issues. Regular safeguards reporting are ongoing with implementation of these plans being monitored by the supervision consultant, the IAs and the Bank. High level dialogue is ongoing at portfolio level to prioritize fund releases for committed projects.			
		Resp: Client and Bank	Stage: IMP	Due Date:	Status: In progress
Program & Donor		Rating:	Low		
Description: The project does not depend on other donors for funding. However there is the risk of duplication of donor funded projects and activities.		Risk Management: The Bank will continue to foster effective donor coordination by leveraging the existing donor collaboration framework to ensure greater development impact of donor assistance.			
		Resp:	Stage:	Due Date:	Status:
Delivery Monitoring & Sustainability		Rating:	Moderate		
Description: Criteria to evaluate output and performance of the contracting entities may be difficult to measure or not directly related to project outcomes. Inadequate definition of monitoring and evaluation arrangements.		Risk Management: M and E indicators have been reviewed and changes made to align indicators with the revised PDO; the changes have been extensively discussed with MRH and the agencies to assure understanding and ownership of the revised RF. The project is also supporting development of a sector wide M&E system.			
		Resp: Client and Bank	Stage: IMP	Due Date:	Status: In Progress
Overall Risk		Moderate			
Overall Implementation Risk		Rating:	Moderate		
Description: Most of the project activities are sufficiently advanced and processing of major contract addenda either completed or at an advanced stage. Overall risk is therefore rated moderate. .					

Annex 3: Update on Implementation of Safeguards Instruments **GHANA: Transport Sector Project Additional Financing**

1. The Ghana Transport Sector Project (TSP) Additional Financing (AF) follows the safeguards frameworks (ESMP and RPF) prepared, consulted upon and disclosed for the original parent project. The ESMF and RPF provide policy and procedural guidance, institutional arrangements, and capacity measures for identification and mitigation of potential safeguards risks of TSP and TSP AF activities. In addition, ESMF and RPF provide guidance for ensuring compliance with both Bank safeguards policies and national and local environmental and social requirements. The use of ESMF and RPF, and resulting preparation of sub-project specific safeguards instruments, is well established in the Ministry of Roads and Highways (MRH) and the various road agencies and departments. Monitoring of the implementation of the sub-project specific safeguards instruments is also fully integrated in the national regulatory requirements and regularly supervised by the Ghana Environmental Protection Agency (EPA).

2. This Annex summarizes the key information about updates and implementation of the environmental safeguards and resettlement instruments (ESIAs, ESMPs and RAPs) stemming from the application of ESMF and RPF by project implementing entities.

Environmental Safeguards Instruments

Table 1: Component C. Rehabilitation of the Ayanfuri – Asawinso Road (Lot 1 and 2)

Safeguards Instrument: ESIA (including ESMP) Approval	Disclosure Date	Status of Implementation	Notes
19 th December 2008	22 nd December 2008	ESMPs prepared and submitted by the Contractors. ESMP being implemented as part of the road works contracts. Implementation supervised by EPA, Supervising Engineer and the Bank on site.	An updated draft ESIA/ESMP was submitted to the Bank in January 2014. This updated version considers impacts, mitigation and management plans associated with the realignment of a 2 km section of the road within the forest reserve, and will ensure compliance with OP 4.36 on Forests. The ESIA/ ESMP is being revised following Bank comments on the draft, and will be finalized and disclosed before effectiveness of the AF.

Table 2: Component D. Accra East Corridor:Giffard Road, Burma Camp Roads Phase 1 and Phase 2

Safeguards Instrument: ESIA/ (including ESMP) Approval	Disclosure Date	Status of Implementation	Notes
December 2008	December 2008	ESMP prepared and submitted by the Contractors. ESMP being implemented as part of the road works contracts. Implementation supervised by EPA, Supervising Engineer and the Bank on site.	All contractors are required to put in place mitigation measures to minimize the effects of the project on the environment and the community. The contractors are also required to report on their expected impacts and measures to mitigate these impacts in their monthly reports presented at site meetings and the monthly progress reports.

Table 3: Component E. Feeder Roads

Safeguards Instrument: ESMP Approval	Disclosure Date	Status of Implementation	Notes
November 2011 (TSP Year 1)	November 2011 (TSP Year 1)	ESMPs were implemented by the contractors.	Implementation completed.
November 2013 (TSP Year 2)	November 2013 (TSP Year 2)	ESMPs prepared, reviewed by the Bank, and disclosed. Civil works for Year 2 have commenced and implementation of theESMPs is part of the contracts.	All contractors are to implement mitigation measures to minimize the effects of the project on the environment and the project community. The contractors are also required to report on their expected impacts and measures to mitigate these impacts in their monthly reports presented at site meetings and the monthly progress reports.

Resettlement Instruments

Table 4: Component C. Rehabilitation of the Ayanfuri – Asawinso Road (Lot 1 and 2)

Safeguards Instrument: RAP Approval	Disclosure Date	No of Projected Affected Persons (PAPs)	Total Amount of Compensation (GHC)	Status of Implementation		RAP Update
				PAPs	Total (GHC)	
19 th December 2008	22 nd December 2008	473	1,346,417.34	260 (55%)	877,807.20 (65.3%)	PAPs update for the realignment of the design is underway. RAP will be updated as soon as the PAP update is completed and approved (May 2014) by the Land Valuation Board. Updated RAP implementation May – September 2014.

Table 5: Summary of RAP for Rehabilitation of the Ayanfuri – Asawinso Road (Lot 1 and 2)

Category of PAPs	No. of PAPs	Land Value (GHC)	Compensation Amount (GHC)	Total Amount	Notes
Buildings/Structures	64	33,600.00	411,810.42	445,410.42	The PAPs list was based on the expectation that the rehabilitation of the road shall follow the existing road alignment.
Crops	409	300,650.28	600,356.64	900,006.92	
Operational Expenses (2.5%)				33,660.43	
				1,379,077.77	

Table 6: Status of RAP Implementation: Rehabilitation of the Ayanfuri – Asawinso Road (Lot 1 and 2)

Category of PAPs	Total GH¢	No. of PAPs	Amount Comp Paid	PAPs Paid ⁷	Amount GH¢	PAPs Unpaid	Notes
Building/ Structures	807,807.067	158	705,826.27	138	101,980.79	20	PAPs compensated within the critical areas where construction is ongoing
Farms/Crops	211,939.71	158	171,980.93	122	39,958.78	36	
Cemeteries	51,338.13	2	-	-	51,338.13	2	
TOTAL	1,071,084.90	318	877,8072.20	260	193,277.70	58	

Table 7: Component D. Accra East Corridor: Giffard Road, Burma Camp Roads Phase 1 and Phase 2

Phase 2					
Category of PAPs	No. PAPs	Total Compensated	Compensated Amount (GH¢)	Outstanding Amount (GH¢)	Notes
Giffard Road					Updated RAP submitted to World Bank for review. All funds have been released for the payment of cash compensation to PAPs.
Reinstatement of Fence Wall	16	12	40,689.27	40,689.27	
Structures	27	18	896,540.00	266,160.00	
Subtotal	43	30	937,229.27	327,669.27	
Burma Camp Rd 1					The reinstatement is being implemented separately by GoG.
Reinstatement of Military Building	1	1	2,797,161.73	1,255,517.78	
Subtotal	1	1	2,797,161.73	1,255,517.78	
Burma Camp Rd 2					
Farmers (Crops)	13	13	3,997.47	0	
Stone Miners	42	42	12,600	0	
Subtotal	55	55	16,597.47	0	
Grand Total	99	88	3,750,988.47	1,583,187.05	

⁷ As there has been a delay, by MOFEP, in releasing funds, the compensation process for the Accra East Corridor and the Ayamfuri-Asawinso corridor is ongoing and some PAPs still have to be paid.

Table 8: Component E. Feeder Roads

	RAP Approval	Disclosure Date	No of PAPs Persons	Total Amount of Compensation (GHC)	Status of Implementation		Notes
					PAPS	AMOUNT	
Year 1 Projects	26 th November 2012	5 th December 2012	118	97,382.38	118 (100%)	97,382.38 (100%)	All PAPs have been compensated.
Year 2 Projects	7 th February 2013	27 th February 2013	35	38,745.11	N/A	N/A	Implementation of the ARAP has started.