1. **Country and Sector Background.**
After many years of economic stagnation, Zambia begun to take advantage of its immense untapped potential and, as a result, the economy is changing rapidly. As its export market for copper boomed and its debt burdens eased under debt relief initiatives, the economy moved from stagnation and dependence on aid, towards steadier growth, greater prosperity, and readier access to domestic and foreign investment. Mining, construction, and service sectors drove the expansion of its gross domestic product (GDP) at five to six percent a year since 2000. Tight monetary policy and lower food prices, due to a recovery in food production after the 2004/2005 drought, reduced inflation to a single digit in both 2006 and 2007 (8.2 and 8.8 percent, respectively) for the first time in over three decades.

2. However, despite almost a decade of growth and an even longer experience with peaceful democratic government, almost two-thirds of Zambians were still living in poverty in 2009. Indeed, rural people continue to lag behind urban dwellers in most measures of social welfare with rural areas suffering from years of development neglect. According to the latest available data, over 50 percent of rural households still live more than five kilometers from the nearest health facility; only eight percent are within five kilometers of a secondary school; and about half have to travel more than 25 kilometers to reach a market.
3. The weakness of the economy’s heavy dependence on mining was evidenced by the pronounced effects of the slump in the world commodity market following the world economic crisis. Copper price dropped by more than 60 percent in 2008 from a high of US$9,020/ton to around US$3,300/ton in 2009. The consequential reduction in government revenues affected its ability to finance infrastructure development even where such investments have high returns. It has been noted that the start of the recovery process in the later parts of 2009 brought about an upturn in the copper prices, and copper output increased due to ongoing investments. However, this has still not resulted in noticeably higher fiscal revenues mainly because new mining activity is partially exempt of taxes, together with the effect of the sharp depreciation of the exchange rate on imports. Other bottlenecks cited as existing prior to the economic crisis and which continue to impact negatively on the mining industry include low ore grades, high fuel and electricity costs as well as inadequate transport facilities. In addition lack of economic diversity means that the country continues to be subjected to the effects of fluctuations in the world market commodity prices.

4. **Sectoral Issues**

GRZ is currently implementing the second phase of their Road Sector Investment Program (ROADSIP II), aiming to remove the maintenance backlog over a period of 10 years from 2004 to 2013. ROADSIP II includes all maintenance, rehabilitation and upgrading activities planned for the total road network. The ROADSIP II Program details the identified activities and includes a financing strategy to achieve the removal of this maintenance backlog.

5. The Bank is supporting ROADSIP II through the three-phased Road Rehabilitation and Maintenance Adaptable Program Lending (APL) instrument. Phase I which was approved on March 9, 2003 for US$50 million, the Road Rehabilitation and Maintenance Project (RRMP I) currently under implementation. An additional financing AF1 for US$25 million was approved on March 29, 2007 to enable government repair flood damaged road structures. The credit would also cover the construction of a new bridge at Chiwa. In September 2009, Bank approved the second phase of the APL in the amount of U$75 million, the Road Rehabilitation Project Phase II (RRMP II) scheduled to close on June 20, 2014. In order to finalize the construction of the underfunded Chiawa Bridge and to rehabilitate a section of Lusaka–Chirundu Road, government has requested for US$15 million as a second additional financing together with the extension of the closing date for the APL1 and the first additional financing from June 30, 2010 to June 30, 2012.

6. ROADSIP II includes a comprehensive road reform initiative implementing the recommendations of the 2002 Transport Policy. The government has made excellent progress with the implementation of the road reform initiative. Three Agencies have been established, all management and mid-level positions have been filled. The three agencies are:

   a. The National Road Fund Agency (NRFA) is responsible for mobilizing resources for funding the road sector and administering the Road Fund. It is also the Coordinator for all Bank-funded support in the road sector.
b. The Roads Development Agency (RDA) is responsible for planning and management of the core / proclaimed road network. It will be responsible for all procurement and implementation of the activities to be supported under the additional financing.

c. The Road Transport and Safety Agency (RTSA) is responsible for road safety issues, traffic management, motor vehicle registration and drivers’ licensing.

7. **Objectives**
The development objective of the ongoing Phase I of the Road Rehabilitation and Maintenance Project (RRMP) will remain unchanged. It is to support the Government in implementing the ROADSIP II Program, including: (a) preserving its public core road network; (b) development of adequate institutional capacity for effective, efficient, equitable and sustainable management of the public road infrastructure, and road safety; (c) extension of urban and rural transport infrastructure and services for increased accessibility; and (d) extension of community transport infrastructure.

8. **Rationale for Bank Involvement**
Due to fiscal deficits, a significant proportion of infrastructure investments are being funded by donors. IDA has invested significantly in improving the road network in Zambia. During the past decade total investments in the roads sector have amounted to US$120 million. This financing has resulted in the upgrading of national highways and rehabilitating community roads, which has helped reduce commuting time and has made it possible for rural communities to access markets. IDA has also supported significant institutional reforms in the road sector through the formation and the enactment of the Public Road Act of 2002, which resulted in establishment of the Road Development Agency (RDA), National Road Fund Agency (NRFA) and the Road Transport and Safety Agency (RTSA).

9. The additional financing will finance additional activities that will strengthen and enhance the impact of RRMP and its development effectiveness; especially given the urgent nature of the works and that the planned support has both complete consistency with the RRMP development objectives and implementation arrangements.

10. **Description**
In support of the objectives, the ongoing RRMP I has the following four components: (a) Civil works for road maintenance, rehabilitation and upgrading. Under the component, four activities have been successfully completed: (i) the rehabilitation of 44.5 km of Chingola-Kasumbalesa road, (ii) the rehabilitation of 32.4 km of Kakulafuta-Luanshya road, (iii) the rehabilitation of 35 km of the escarpment section of Lusaka-Chirundu road, and (iv) the implementation of the road safety program developed under a previous IDA road project; (b) Engineering and other technical services for carrying out feasibility studies, engineering design and supervision of civil works under component 1 above; (c) Institutional Development and Capacity Building including technical assistance and training in the area of policy implementation; and (d) Accessibility and mobility improvement aimed at providing physical access for the poor in order to promote their economic and social development, which mainly include community transport infrastructure and intermediate means of transport. The second additional financing is intended to finance the works associated with the two activities described below.
11. **Lusaka-Chirundu road** was assessed in 2003 as part of the preparation of APL1, and some sections of the road especially those near Chirundu were found less damaged and were therefore not considered a priority for intervention. Based on the “worst first” principle, the credit made provision for rehabilitation of the critically damaged 35 km of the escarpment section. During the preparation of APL2 in 2008, Link 3 (a 20 km section from Turnpike to start of escarpment) had deteriorated considerably but the credit was not adequate to include this section. Instead, the credit made provision for the worst 51 km section from Makeni to Turnpike. The additional financing being proposed now, which is limited to US$9 million, will be used to rehabilitate about 12 km of the 20 km Link 3, thus increasing the project output in terms of rehabilitated road length by 34 percent and thereby contributing towards the achievement of the PDO relating to the condition of the road network. Further technical review to determine the extent of rehabilitation necessary as well as the preparation of bidding documents is ongoing.

12. **Chiawa Bridge** was part of the activities to be funded out of AF1. The budget estimate for the bridge was US$8.7 million but after the tendering process in May 2009, the lowest bid amounted to US$17.2 million, US$8.5 million above the available funds. The engineer’s estimate, based on historical rates, turned out to be conservative but the bids were also uncompetitive. The volatile market situation including the effects of the FIFA World Cup preparations in South Africa were understood to also have contributed to the unrealistically high bids. The situation necessitated cancelation of the procurement process, review of the designs, and rebidding. The revised cost of the bridge is US$14.7 million, and the US$6 million gap (including price escalation) is to be provided through the proposed AF2.

**13. Financing**

<table>
<thead>
<tr>
<th>Source: BORROWER/RECIPIENT</th>
<th>($m.)</th>
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</thead>
<tbody>
<tr>
<td>International Development Association (IDA)</td>
<td>15</td>
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<tr>
<td>Total</td>
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14. **Implementation**

The implementation arrangements, operational processes and financial terms and conditions remain the same as in the original Development Credit Agreement.

15. **Sustainability**

Clarified institutional roles, improved inter-relationship among the three road agencies, and adequate funding for the road maintenance are key factors to achieving sustainable results under RRMP. Accordingly, the various phases of the APL will continue to support GRZ in the implementation of its transport policy that provides the basis for sustainable financing for road maintenance and for strengthening management of the road sector. While RDA will address the sustainability of core road network through coordinated planning, programming, budgeting, and improving efficiency of the road investments, RTSA will tackle the sustainability of traffic management, road safety and enforcement of road regulations. In parallel, NRFA will ensure the sustainability of road funding by ensuring greater regularity and predictability of financial flows to the sector based on a pre-determined financial strategy.
16. Lessons Learned from Past Operations in the Country/Sector
The project has drawn the following lessons from previous and the current on-going Bank-supported road sector projects. These are incorporated in the project design.

- Zambia developed substantial implementation capacity in the road sector and, especially, in the Roads Agencies. The outcome of this capacity development is the ongoing satisfactory implementation of RRMP. This will be utilized during implementation of the additional financing, as the same implementation arrangements would be applied.

- During the on-going RRMP, the Bank and Government agreed that counterpart financing would not be required for RRMP. The existing Country Financing Parameters for the project activities is 100 percent from the credit proceeds. The additional financing will also finance 100 percent of the value of the agreed project activities.

17. Safeguard Policies
All environmental and social safeguard policy concerns relating to the original project (RRMP I) and the first additional financing have already been addressed and are not considered under the proposed second additional financing. The proposed additional financing triggers OP 4.01 for Environmental Assessment due to anticipated impacts during the rehabilitation of the section of Lusaka-Chirundu Road and the construction of the Chiawa Bridge. The environmental assessment (EA) category for the proposed additional financing is classified as ‘B’- partial assessment, the same as for RRMP I and the first additional financing. The environmental safeguard tool prepared specifically for RRMP I and AF1 was an Environmental Impact Statement (EIS). The EIS describes potential adverse impacts during the various stages of project implementation and presented mitigation measures for those impacts. Examples of such impacts include impacts associated with the construction phase like air pollution due to increases dust and fuel fumes for vehicles, noise and vibrations from machinery, soil erosion as a result of stripping of the topsoil for quarries and burrow pits, and poor water quality for downstream users along Chiawa River during bridge construction. All the identified impacts are reversible and proposed mitigation measures are expected to reduce the negative effects. The EIS that was prepared for the Chiawa Bridge and the Lusaka-Chirundu Road section to be rehabilitated was published in Bank’s InfoShop on February 02, 2007 during the appraisal of the AF1 and was disclosed in-country on May 14, 2009 as evidenced from RDA’s letter of May 22, 2009. A site inspection conducted in May 2010 confirmed that there will be no additional impacts as a result of AF2 activities as there are no additional activities to those of AF1.

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