



1. Project Data

Project ID

P101745

Project Name

High Priority Reopening & Maintenance

Country

Congo, Democratic Republic of

Practice Area(Lead)

Transport

L/C/TF Number(s)

IDA-57630,IDA-H3590,IDA-H7050,TF-92300,TF-99492

Closing Date (Original)

30-Sep-2013

Total Project Cost (USD)

315,782,007.14

Bank Approval Date

18-Mar-2008

Closing Date (Actual)

30-Jun-2020

IBRD/IDA (USD)
Grants (USD)

Original Commitment

50,000,000.00

119,000,000.00

Revised Commitment

320,691,798.60

93,684,092.42

Actual

315,782,007.14

93,684,092.42

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2. Project Objectives and Components

a. Objectives

The Project Development Objective (PDO) as stated in the Financing Agreement dated July 8, 2008 (schedule 1, page 6) and in the Project Appraisal Document (PAD, paragraph 17) are similar.



"To re-establish lasting road access between provincial capitals, districts and territories in three provinces (Province Orientale, Katanga and Sud Kivu) in a way that is sustainable for people and the natural environment in the area of influence of the project".

Two Additional Financing (AF) were approved for the project. The PDO as stated in the first AF approved for the project on May 17, 2011 showed that an additional province was added:

"To re-establish lasting road access between provincial capitals, districts and territories in four provinces (Province Orientale, Katanga, Sud Kivu and Equateur) in a way that is sustainable for people and the natural environment in the area of influence of the project".

The PDO as stated in the second AF approved for the project on March 8, 2016 dropped the references to specific provinces:

"To re-establish lasting road access between provincial capitals, districts and territories in the project impact area that is sustainable to the natural environment".

This review is based on the two PDOs as stated in the second AF.

1. To re-establish lasting road access between provincial capitals, districts and territories in the project impact area; and,
2. To re-establish lasting road in the project impact area that is sustainable to the natural environment.

The revised PDO dropped the reference to "sustainable for people" and the number of provinces. **This review is not based on a split rating of objectives for two reasons.** One, given the increased number of provinces, this represented an expansion of the project scope, and two, the words "sustainable for people" in the original PDO was framed in consideration of the preservation of indigenous people in some project areas. The specific reference to people was removed and since the words "natural environment" provided for a broader definition, this review considers that the revised PDO remained consistent with the original PDO.

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

Yes

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

No

c. Will a split evaluation be undertaken?

No

d. Components

There were four components (PAD, pages 9 - 11).



1. Road Reopening and Maintenance. The estimated cost at appraisal was US\$79.5 million. The actual cost was US\$233.6 million. The original component financed road connections in three provinces (Sud Kivu, Katanga and Orientale of the Democratic Republic of Congo (DRC)).

Activities in this component: (i) reopening about 1,800 kilometer (km) of high priority, national roads, including 620 km on the Kisangani - Buta - Bongo - Bonduki axis within the Orientale province which connects to the Province de l'Equateur, and about 1,180 km on the Uvira - Kalemie - Kasomeno axis which crosses the provinces of Sud Kivu and Katanga; (ii) providing equipment for two road brigades on the Kalemie - Kasomeno axis, three bridges and ferry bridges; and (iii) maintenance of the activities mentioned above.

The project scope was expanded to roads in four provinces (Equateur), and the target for reopening roads was expanded (to reopen total of 2,176 km and maintain 2,917 km of high priority roads). With the second AF, the target was further expanded to 2,762 km.

2. Institutional Building. The estimated cost at appraisal was US\$24.1 million. The actual cost was US\$51.8 million.

This component aimed to strengthen the institutional capacities of the Ministry of Infrastructure, Public Works and Reconstruction (MIPWR), and other road agencies (the *Cellule Infrastructures* (CI - the Infrastructure Unit Delegated Body of the MIPWR), and the *Office des Routes* (OdR, the Roads Office).

Activities in this component comprised: (i) assisting the MIPWR in formulating sector policy, strategy, and updating its decentralization framework; (ii) funding the core team of CI; (iii) technical assistance to CI, OdR and the Road Management Fund (RMF) under creation; (iv) support to an in-house training program for CI and OdR; and (v) support of a program to develop the local road construction industry.

3. Environmental and Social Program. The estimated cost at appraisal was US\$18.7 million. The actual cost was US\$44.8 million.

This component aimed to support public institutions such as the Congolese Institute for Nature Conservation (ICCN), and the Ministry of Environment, Nature Conservation and Tourism (MECNT) for protecting natural habitats, biodiversity, and forests.

4. Monitoring and Evaluation (M&E). The estimated cost at appraisal was US\$0.7 million. The actual cost was US\$1.8 million.

This component planned to support M&E activities in the CI and OdR, and to establish an environmentally specific M&E system for monitoring the effect of the project on transporting environmentally sensitive products such as logs and bushmeat.

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

Project cost. The estimated cost at appraisal was US\$123.0 million (including contingencies but excluding administration and supervision costs). With the AFs, the estimated project cost was US\$357.3 million. The actual project cost was US\$315.7 million.



Project financing. A multi donor Trust Fund (MDTF) of US\$123.0 million administered by the World Bank, financed the project [(including IDA funding of US\$50.0 million and US\$73.0 million from the Department for International Development, United Kingdom (DFID)).] An AF of US\$63.3 million and a Trust Fund Grant of US\$46.0 million were approved on May 17, 2011. A second AF of US\$125.0 million was approved on January 27, 2016. With this the total financing was US\$357.3 million. Of this, the Bank disbursed US\$315.7 million.

Recipient contribution. A Recipient contribution was not planned at appraisal. The Recipient, however, contributed US\$55.1 million through the RMF during implementation.

Dates. The project was approved on March 18, 2008, and became effective on October 7, 2008, with a planned closing date of September 30, 2013. With the two AFs for the project, the project closed on June 30, 2020.

Other changes. The following changes were made through two Level 1 restructurings with the AFs and four Level 2 restructurings.

The first AF on May 17, 2011, supported the following changes.

- The expected support of US\$73.0 million from DFID did not materialize and funding was also necessary to cover the financing gap (ICR, paragraph 73).
- The PDO was revised.
- As discussed in section 2d, the project scope was expanded to four provinces, and the targets for re-opening roads and maintaining roads were increased. Some intermediate indicators were revised.
- The scope of institutional strengthening activities to the MIPWR was expanded.
- Funding was allocated for satellite imagery monitoring of forest and protected areas and providing additional support for safeguards compliance.

The second AF on January 27, 2016 supported the following changes.

- The PDO was further revised.
- As discussed in section 2d, the project scope and the target for reopening roads was expanded. One indicator - the number of people with access to health care facilities - in the project intervened areas was dropped.
- The AF was to cover a financing gap due to a combination of factors, including withdrawal of DFID funding in 2014, foreign exchange losses due to exchange rate changes between the Special Drawing Rights (SDRs) and US\$, and cost overruns of some planned road works.

The Bank supported the following changes through the first Level 2 restructuring on September 27, 2013.

- The closing date for the project was extended by 20 months from September 30, 2013, to June 30, 2016, to coincide with the closing date for the first AF.
- Funding was reallocated between disbursement categories.



The Bank supported the following changes through the second Level 2 restructuring on March 1, 2018.

- The closing date for the AF1 project was extended by a year from February 18, 2018 to February 18, 2019, for completing ongoing activities that had been delayed following the Inspection Panel Investigation Report. On November 27, 2017, the Bank suspended its disbursements for road works due to the Borrower's noncompliance with environmental and social standards, and managing gender-based violence. The suspension of IDA disbursements was lifted on December 10, 2018, following a review that the agreed conditions set were met for resuming activities.
- The ongoing efforts to mitigate the spread of the Ebola virus were supported through strengthening works on the road between Kasindi and Beni (the main area affected by the virus).

The Bank supported the following changes through a third Level 2 restructuring on February 28, 2019.

- The closing date for AF2 project was extended by a year from February 28, 2019, to February 29, 2020 for completing the ongoing activities and for completing the measures identified in the Inspection Panel Report.

The Bank supported the following changes through the fourth Level 2 restructuring on February 22, 2020.

- The closing date was extended by four months from February 28, 2020, to June 30, 2020, for completion of the remaining works and for completing the required safeguards actions.

3. Relevance of Objectives

Rationale

Country and sector context. DRC is one of the poorest countries in the world, with a Gross Domestic Product (GDP) per capita of US\$120 prior to appraisal in 2005. It was impacted by war and prolonged conflicts so that for a decade the World Bank Group suspended activities (ICR, paragraph 3). In 2001, the Bank began to reengage with limited emergency assistance and budgetary support operations, but the country remained fragile with poor institutional capacity.

Due to many years of neglect, mismanagement and the civil war, most of DRC's physical infrastructure was in a poor state. In a country as large as the Eastern Europe, only 1.8% of the road network was paved, and only one provincial capital was connected by road to the capital Kinshasa, and almost all provincial capitals lacked connection to their hinterlands. The majority of the roads was impassable even during the dry season. The collapse of the transport system in DRC was the combined result of the deterioration of physical infrastructure and the weak performance of the technical institutions in charge of road management and maintenance.



This project addressed two related development challenges facing DRC: One, to reestablish lasting road access between provincial capitals, districts and territories in provinces; and two, because the reopening roads was likely to increase access for extractive industries, the forests and other natural economic systems, it was necessary to combine post-conflict recovery with protection of the country's ecosystems and pygmy populations.

Government strategy. At appraisal, the PDO was in line with the Government's strategy, articulated in the Poverty Reduction Strategy Paper (PRSP) of 2006. The PRSP underscored the need for road investments to sustain economic growth, protecting the environment, and rebuilding economic integration in the country. The government at appraisal had identified 15,800 km of the total road network as the high priority network. In 2007, the Government presented to the National Assembly a bill for establishing a RMF to ensure a secure basis of funding for road maintenance activities. This legislation became effective in March 2008.

Bank strategy. The PDO was well-aligned with the World Bank strategy at appraisal. The Bank's Country Assistance Strategy (CAS) of 2007, underscored the need for rehabilitating roads for achieving sustained growth through the revival of the agricultural sector. The CAS also highlighted the need for coupling road infrastructure investments with policy and institutional reforms to ensure maintenance of the infrastructure rebuilt under the first-generation emergency reconstruction projects financed by the World Bank in DRC (discussed below). The CAS also set targets for improving forest management, protection of biodiversity and consistent land use planning. The Bank strategy was to attract other financial institutions and accordingly a Trust Fund was established. DFID intended to contribute to this project through the Trust Fund. However, in the end no other institution joined the Bank in their endeavor.

The PDO continues to be well-aligned with the two focus areas of the current Country Partnership Framework (CPF) for the 2020 - 2024 period. The first focus area articulated the need for strengthening economic management and creating an improved climate for private sector led growth through among other things, improving road infrastructure. The second focus area underscored the need for building human capital and sustaining growth through improving quality and access to health and education services and improving sustainable management of natural systems (CPF, paragraphs 60, pages 20 - 22).

Prior Bank experience. The World Bank has financed rehabilitating road infrastructure as part of the first-generation emergency reconstruction projects (The Emergency Multisector Rehabilitation and Reconstruction project, the Emergency Economic and Social Reunification Project, and the Emergency Living Conditions project). These projects were designed to meet emergency situations and did not address institutional issues in the road sector.

Unlike the previous Bank-financed projects, this project focused exclusively on the road sector. The project design combined road rehabilitation activities with reforms in road maintenance, and environmental, social and fiduciary safeguard mechanisms. Given that the outputs of the project activities were expected to aid in the development outcome of sustainability of the road network for the people and the natural environment, the project reach was appropriate. Consequently, the relevance of the revised PDO is assessed as High.

Rating

High



4. Achievement of Objectives (Efficacy)

OBJECTIVE 1

Objective

To reestablish lasting road access between provincial capital, district and territories in the project impact area.

Rationale

Theory of change. The outputs such as rehabilitating the high priority national road network, annual maintenance of roads, technical assistance (TA) to the road agencies (MIPWR, OdR and CI), operationalizing the RMF and support for the local construction industry, were expected to reestablish lasting road access between provincial capital, districts and territories, and strengthen the capacities of the road agencies to manage the roads. The causal links between the activities, outputs, and outcomes were logical. The intended outcomes were monitorable. The outcomes were expected to contribute to the long term development outcome of physical reunification, thereby contributing to economic growth and poverty reduction.

Outputs (ICR, pages 15 - 16).

- 2,752 km of roads were reopened at project closure, slightly short of the target of 2,762 km. The activities included, levelling unpaved and earth roads, building drainage canals and restoring 41 metallic bridges and 56 concrete bridges.
- 3,335 km of roads were maintained in total, slightly short of the target of 3,345 km.
- 55% of the high priority national road network was reported to be in good and fair condition when the project closed, as compared to 16% at the baseline. This exceeded the original target of 39% but was well short of the revised target of 91%.
- TA was provided as targeted for establishing the Road Management Fund (RMF) for funding road maintenance activities. The RMF was operational in 2009 and its resources increased from US\$60 million in 2009 to US\$120 million in 2014. Resources mobilized by the RMF were allocated for funding maintenance activities according to a multiannual program implemented by OdR. The ICR (paragraph 36) however acknowledges that there is still not a proper maintenance schedule and transparent budgeting for funds raised by the RMF.
- TA was provided for establishing the Infrastructure Unit (CI) in the MIPWR. CI was established through competitive recruitment of staff from the private sector. When the project closed, CI had seventy staff and was preparing the new Transport and Connectivity Project to be financed by the World Bank.
- The Project Implementation Unit (PIU) deployed resources for implementing activities to address gender-based violence (GBV), which emerged as a critical issue in the wake of the finding of the Inspection Panel Report in 2017 (discussed in section 10). The CI conducted a survey in 2019 and based on these results, implemented sensitization campaigns along reopened roads, trained communities and individuals, provided medical and other support to victims of GBV, and ensured that the affected people were adequately compensated.
- The road transport strategy was completed as targeted.



- The OdR was provided with monitoring and surveillance equipment as targeted (upgrading their equipment with new technologies for road condition survey and mapping tools (Mapillary).
- 4,400 direct jobs were created for the private sector.
- The local construction staff were trained as targeted through educational workshops, on-site training, information meetings and exchanges with small and medium enterprises (SMEs).

Outcomes.

The outputs were expected to lead to the outcomes of increasing the number of people with access to an all-season road, reducing the number of traffic disruptions, and increasing attendance in primary schools when the project closed.

- Five million people had access to an all-season road when the project closed as compared to 125,000 at the baseline. This exceeded both the original and revised targets of three and 4.9 million respectively.
- 15.9% of the rural population had access to an all-season road when the project closed in June 30, 2020, as compared to 1.4% at the baseline. This exceeded both the original and revised targets of 10% and 13.5% respectively.
- At the baseline, most of the road sections were not accessible to motor vehicles (4 x 2 vehicles) throughout the year. The target was to reduce the incidence of traffic interruptions (measured in days) for motor vehicles to below the range of 15 to 30 days per year. This outcome was mostly achieved except in three sections: Kisangani - Beni (672 km), Kisangani - Bunduki (620 km), and Uvira - Kasomeno (1,150 km), due to the topography and climatic conditions.
- Based on the household surveys undertaken by the Non-governmental Organizations (NGOs), the school attendance in primary schools increased for boys and girls in the communities along the reopened roads. The attendance for boys increased from 50% to 70% for boys and for girls from 20% to 50% for girls in Province Orientale. The corresponding figures were increase from 30% 40% for boys and from 20% to 30% for girls in Province Katanga, from 20% to 30% for boys and from 20% to 28% for girls in Province Equateur, and from 30% to 40% for boys and from 20% to 30% for girls in Province Sud Kivu. While access to an all-season road throughout the year could be expected to the increase in attendance in primary schools in the project-intervened areas, the ICR does not discuss other factors that could have contributed to the increase in attendance in primary schools (for example, better security, government subsidies).
- 4,640,735 people benefitted from project activities. The beneficiaries included people with access to all season road as access to economic opportunities and social services.

In sum, given that most of the outcomes were realized, efficacy of this objective is assessed as substantial.

Rating
Substantial

OBJECTIVE 2

Objective

To re-establish lasting road in the project impact area that is sustainable to the natural environment.



Rationale

Theory of change. The outputs of activities such as technical assistance to the Ministry of Environment, Nature Conservation and Tourism (MECNT), and the Congolese Institute for Nature Conservation (ICCN), participation of communities in resource management, support for implementing the Resettlement Action Plan, the Indigenous peoples Plan (IPS), monitoring and evaluation, and building checkpoints to control illegal logging and trafficking in protected species, were expected to minimize the adverse impacts of reopening the high priority national roads on the natural environment. The intended outcomes were expected to aid in the long-term development outcome of ensuring that re-establishing road connections between the provincial capital, districts and territories was not at the expense of the unique economic systems of the DRC. The causal links between the project activities, outputs and outcomes were logical. The intended outcomes were monitorable.

Outputs (ICR, pages 17- 18 and pages 37 - 38 and pages 43 - 46).

- 570 MECNT and ICCN staff were trained, exceeding the original and revised targets of 200 and 450 respectively.
- TA was provided for preparing the safeguards instruments (The Environmental and Social Management Plan (ESMP), the Resettlement Policy Framework (RPF) and the Indigenous Peoples Plan (IPP). Equipment was provided for the MECNT in forest protection. A Non-Governmental Organization (BEGES) was recruited to monitor and supervise safeguards.
- In addition to road improvement, the project helped to acquire more than 5,000 hectares of land for the Batwa indigenous people, through negotiations with the local Bantu community.
- The project distributed 2,496,034 condoms along the project areas. This exceeded both the original and revised targets of 1,518,000 and 2,100,000 respectively.
- Eleven checkpoints were installed for preventing trading in illegal timber and protected species like bushmeat (four in province Orientale, three in Sud Kivu, three in Sub Ubangi, and one in Haut Katanga). MIPWR Staff were trained, and unscheduled controls were carried out at markets, river crossing points and forests and protected areas along the project roads. The checkpoints are still operational at the time of the preparation of the ICR.

Outcomes.

The outputs of the activities were expected to increase the preservation of the protected species, to reduce trading in illegal timbers, and control deforestation.

The percentages of protected species in the monthly count of bushmeat checked at the selected border points were as follows:

- On the Akula - Gemena - Zongo border points the percentage of bushmeat checked increased from 78% at the baseline to 81% exceeding the original and revised targets of 75% and 70%.
- On the Kisangani - Dulia - Bongo border point, the percentage increased to 92.85%, exceeding the original and revised targets of 90% and 85%.
- On the Komanda - Bulia - Bongo border point, the percentage increased to 100% as targeted.
- On the Kisangani - Beni border point, the percentage increased to 95% as targeted.
- On the Beni - Kasindi border point, the percentage increased to 95% as targeted.
- On the Bukavu - Goma border point, the percentage increased to 95% as targeted.



- On the Kasomeno - Uvira border point, the percentage increased to 33%, far short of the original and revised targets of 74% and 65%.

In summary, the targets for the preservation of protected species were either realized or exceeded in the selected border points.

The percentages of illegal timber checked at the selected border points were as follows:

- On the Kalemie - Uvira border point, the percentage increased to 100%, exceeding the target of 80%.
- On the Komanda - Bunia - Goli border point, the percentage increased to 100%, exceeding the target of 95%.
- On the Bukavu - Goma border point, the percentage increased to 100%, exceeding the target of 95%.
- On the Akula - Gemena - Zongo border points the percentage of illegal timber checked increased to 11.51% far short of the original and revised targets of 90% and 85% respectively.
- On the Kisangani - Bunduki border point, the percentage increased to 0.34%, far short of the original and revised targets of 95% and 70%.
- On the Kisangani - Beni border point, the percentage increased to 85%, short of the original and revised targets of 100% and 90%.

In summary, the targets for checking illegal timber were realized, although with wide variations across the selected border points.

- There is no evidence that the project directly contributed to increasing deforestation. The PDO indicator "deforestation rate in bandwidth of 10 km along the reopened roads" was used to monitor this risk. The indicator was calculated by measuring the hectares of deforestation due to agriculture and logging activities along the project roads using satellite imagery combined with field surveys. A satellite imagery analysis carried out once in 2016- 2017 provided evidence of the control of deforestation along four of the five road sections. The values achieved at closure was unknown, due to the costs of such satellite imagery.

In sum, efficacy of this objective is assessed as substantial, although there were some shortcomings in the choice of indicators.

Rating

Substantial

OVERALL EFFICACY

Rationale

Overall efficacy is assessed as substantial. Efficacy of the first PDO were realized. Efficacy for the second PDO were also realized, although there were some issues with the choice of indicators to measure outcomes.



Overall Efficacy Rating

Substantial

5. Efficiency

Economic analysis. A cost-benefit analysis was conducted for selected road segments using the Highway Design and Maintenance Standard Model (HDM - III). The ICR does not provide information why the latest version of the HDM (HDM-IV) was not used for the economic analysis. This component accounted for 65% of the appraisal estimate and 70% of the actual cost. The project benefits were assumed to come from a reduction in vehicle operating costs and travel time savings for road users. The ex post Economic Internal Rate of Return (EIRR) was 27.8%, as compared to the ex-ante EIRR of 24%, using a 12% discount rate (ICR, paragraph 47). The key reason for the robust EIRR was that the baseline traffic was essentially composed of two wheelers because of the poor condition of the road network. The road opening generated substantial amount of traffic and encouraged a modal shift to motorized vehicles.

Administrative and Operational Issues. There were significant delays in commencing the institutional strengthening activities in the initial years due to the poor capacity of the respective road sector agencies, and procurement delays in preparing bid documents for the road works. The delays were exacerbated by the suspension-related delay of about a year (from November 2017 to December 2018), due to the Inspection Panel Report (discussed in section 10). These factors resulted in overall delay of 28 months.

Value for money. The project did not demonstrate good value for money. The actual cost of the institutional component of the project was 18 times higher than estimated at appraisal (from US\$2.95 million at appraisal to US\$51.80 million). The ICR (paragraph 49) notes that this component costs were not detailed at appraisal. The most significant contribution to the cost increase of this component was the support deemed necessary to facilitate the achievement of results such as capacity building and mobilization of international experts.

In sum, efficiency is assessed as modest.

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	✓	20.50	65.00 <input type="checkbox"/> Not Applicable
ICR Estimate	✓	27.00	70.00 <input type="checkbox"/> Not Applicable



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

6. Outcome

The relevance of the PDO to the Government and World Bank strategies is assessed as High. Efficacy of the two PDO's are assessed as substantial. Efficiency is modest. Taking these ratings into account, overall outcome is assessed as moderately satisfactory, reflecting moderate shortcomings in the project's achievements in efficiency.

a. Outcome Rating

Moderately Satisfactory

7. Risk to Development Outcome

Government commitment. There is high risk to development outcome as it is not clear whether adequate resources would be allocated for maintenance of the roads reopened under this project, given the continuing fragility of the country and its economy. Although the Road Management Fund (RMF) has been established to secure funding for road maintenance activities, the ICR (paragraph 56) acknowledges that to date, the financing of the road maintenance program and its monitoring remains an opaque process, and there is still no clear process for fund sharing for road maintenance activities among the central government agencies, provinces and local governments. Likewise, it is not clear whether the institutions in charge of environmental management and conservation will continue to be allocated adequate funding to monitor illegal trade, bushmeat trade and community development along the high priority road network (ICR, paragraph 44).

8. Assessment of Bank Performance

a. Quality-at-Entry

The Bank prepared this project based on the experiences from the Bank financed first-generation emergency response projects (discussed in section 3). Lessons incorporated at design included: (i) Unlike in the previous emergency projects which relied on an institutional setup featuring standalone agencies, the Ministry of Infrastructure, Public Works and Reconstruction (MIPWR), was responsible for implementing the project: (ii) The project activities included funding for road maintenance to ensure sustainability of the reopened roads. (iii) Given that a recent Inspection Panel Report highlighted that mitigation measures to protect indigenous peoples, forests and protected areas were inadequate, this project included measures such as allocating financial resources (15% of the budget) to strengthen the capacities of the local institutions in charge of forests and protected areas through third party monitoring, and contractual partnerships with NGOs (PAD, paragraph 36).

The implementation arrangements proved to be appropriate. The MIPWR in charge of implementing the project, was to be assisted by two state-owned enterprises - , the OdR (the Roads Office, an autonomous



public enterprise which was responsible for managing the national road network), and the CI (the infrastructure unit delegated to the MIPWR and the agency which was currently managing a portfolio of projects funded by other development partners (PAD, pages 14 - 15). At design, a force account was retained to simplify the procurement of the works because of the good performance of OdR in past projects. Under the force account arrangement, the OdR was contracted by the CI, under a performance contract defining annual objectives and measurable indicators (km of reopened roads). The force account was framed by appropriate fiduciary safeguard mechanisms designed to consider the risks associated with the force account activities. This scheme was successful for the original and AF1 project. However, given the extent of works and delays for AF1, the design shifted to a competitive procurement scheme (ICR, paragraph 66).

Several risks were identified at appraisal including high and substantial risks with political commitment and security, the risk that the RMF might not become operational, fiduciary risks, weak implementation capacity, and environmental and social risks. Mitigation measures incorporated at design, included operationalization of the RMF as a condition for project effectiveness, endorsement of an anti-corruption plan, recruitment of OdR and CI staff on a competitive basis and implementation of environmental and social safeguards plan (discussed in section 10). Even with mitigation measures, the project risk was rated as High at appraisal (PAD, page 23). The arrangements made at design for fiduciary compliance were appropriate (discussed in sections 9 and 10).

There were moderate shortcomings at Quality-at-Entry. One, the geographical coverage was ambitious, although prompted by a conscious decision to "reopen as much as possible" (ICR, paragraph 63). However, the geographical coverage was challenging as most of the project-intervened areas could not be visited before the start of the works and later, the geographical coverage also posed issues for supervision. Two, there were M&E design shortcomings (discussed in section 9); and three, the arrangements for environmental and social safeguards were inadequate at appraisal (discussed in section 10a).

Quality-at-Entry Rating Moderately Satisfactory

b. Quality of supervision

The Bank conducted twenty three supervision missions, over the project lifetime of twelve years (implying twice a year on average supervision missions). The support provided by the team aided in fiduciary compliance (discussed in section 10b). According to the clarifications provided by the team, there were four task team leaders during the lifetime of the project.

However, there were significant shortcomings in supervision. The ICR (paragraph 94) notes that the Inspection Panel Report reported serious shortcomings in Bank supervision. For instance, the 2018 investigation report, noted the absence of Bank supervision missions to Road Number 2 from the time of Board Approval in February 2016, until receipt of the request in August 2017. While there was a Mid-Term Review of the project in June 2017 to assess progress, this mission took place in Kinshasa and did not involve a field visit. The Inspection Panel Report noted "the lack of systematic follow-up on issues, including Management follow-up", and that "the absence of relevant Bank policy on security arrangements that may have contributed to harm". The report also noted that "had the management undertaken a robust



risk analysis of the security situation in eastern DRC at the outset and kept itself informed about the situation on the ground field-based supervision, harm relating to use of violence or intimidation could have been uncovered and mitigated earlier". The supervision team also underestimated the security risk for AF2.

In the wake of the Inspection Panel Report, the supervision team guided the Government and CI in preparing documents and evaluation reports, engaging consultants and contractors, and providing feedback on the plans. This aided in resolving the environmental and safeguard issues. The World Bank team commissioned the environmental and social audit of the implementation status of safeguard instruments in the Road Number two area after allegations of non compliance with the World Bank safeguard policies. Following a supervision of the safeguard aspects after 2018, the team helped in correcting the shortcomings in the application of safeguard requirements.

In sum, Bank supervision was assessed as moderately unsatisfactory, given the significant shortcomings in supervision.

Quality of Supervision Rating

Moderately Unsatisfactory

Overall Bank Performance Rating

Moderately Satisfactory

9. M&E Design, Implementation, & Utilization

a. M&E Design

The original results framework was ambitious with nine PDO level indicators and eleven intermediary indicators (with some indicators broken down by road segments or provinces (ICR, paragraph 73). This was particularly so, given the difficulties of absence of land connections and the carrying out of field surveys at appraisal. It is not clear how the targets were set, in the absence of field surveys at appraisal. The first comprehensive table of all indicators were prepared by the CI only in 2016. While the indicators for monitoring PDO 1 were appropriate, given the challenge of measuring deforestation, the relevance of this indicator was at best, modest.

The CI was to build on the existing M&E system (the Geographic Information System (GIS) transferred from a United Nations sponsored project to CI (PAD, paragraph 53). The project also envisioned implementing a Household Income and Expenditure Survey in selected sites both before the start of road works and after completion of road works (paragraphs 53 and 54).

b. M&E Implementation

Although the indicators were simplified with the restructurings of the project, there was lack of indicators for adequately capturing the preservation of the natural environment. The ICR (paragraph 75) notes that collecting data for monitoring was difficult, due to insufficient coordination between MIPWR, OdR, CI and other agencies. Despite these challenges, the major appropriate indicators were collected and available



for timely review. The ICR also notes that from 2016, the M&E reports were prepared and included changes introduced under AF1 and AF2. This included additional indicators for monitoring Gender-Based Violence and HIV/AIDS. The project conducted a Household Income and Expenditure Survey in selected sites both before the start of road works and after completion of road works as envisioned at design.

The project rolled out a road imagery application - Mapillary - for monitoring interventions relating to rehabilitation and maintenance of the road network. The ICR (paragraph 76) notes that this imagery has become a source of technical information and decision-making tool for MIPWR, providing outputs such as maps, graphs and statistics across the country and forming a comprehensive road database. The project allocated resources for contracting two additional experts (international and local) for strengthening the capacity of the CI. The ICR notes that the baseline data for monitoring were collected by the time of AF1, and arrangements were made for remaining data collection during implementation.

c. M&E Utilization

The ICR (paragraph 77) notes that the quarterly progress reports included in Aide Memoires, were shared with the Bank in acceptable format and the quality of the reports improved based on feedback from the Bank. The data was used to assess project progress and identify critical issues during implementation.

Overall, M&E is assessed as modest, especially in view of the shortcomings in M&E design.

M&E Quality Rating

Modest

10. Other Issues

a. Safeguards

The project was classified as a Category A (full assessment) project, triggering six safeguard policies at appraisal: Environmental Assessment (OP/BP 4.01); Physical Cultural Property (OP 4.11); Natural Habitats (OP 4.04); Forests (OP 4.36); Involuntary Resettlement (OP 4.12); and Indigenous Peoples (OP 4.10).

Environmental Assessment, Physical Cultural Property, Natural Habitats and Forests. The PAD (paragraph 100) notes that the project intervened areas included high biodiversity rainforests and highlands. Prior to the reopening of roads, these areas were relatively isolated. The reopening of roads was expected to facilitate access to these areas, and thereby contribute to legal and illegal logging and commercial poaching. An Environmental and Social Management Framework (ESMF) was prepared and publicly-disclosed to address these issues (PAD, paragraph 106). The civil works contracts would include clauses regarding a "chance find procedure", in case physical cultural resources were discovered during the opening of the roads (PAD, paragraph 102). As per the World Bank requirements for a Category A project, an independent, environmental/biodiversity specialist advised the Bank and the government on the content of the environmental and social management component at appraisal (PAD, paragraph 107).



About 15% of the total cost of road works was allocated for activities pertaining to preventing illegal logging and hunting, protecting natural resources and protected areas and indigenous peoples institutions (ICR, paragraph 42). The costs of this component increased from US\$14.8 million at appraisal to US\$44.8 million at closure because of the expansion of the project and gender-based violence (GBV) issues that emerged requiring an extensive work program.

The ICR (paragraph 82) notes that a significant number of safeguards instruments was implemented without major issues. More than twenty Environmental and Social Management Plans (ESMPs) were implemented by contractors and OdR's road crews during implementation. According to the clarifications provided by the team, there was compliance with the safeguards on physical cultural property, forests and natural habitats.

Involuntary Resettlement. An Involuntary Resettlement Framework (RPF) was prepared and publicly-disclosed at appraisal, to address issues pertaining to land acquisition and involuntary resettlement during implementation (PAD, paragraph 108).

The ICR (paragraph 83) notes that 3,887 project affected persons were compensated. A total of 2,891 claims were made in the 157 local Grievance Redressal Mechanisms (GRMs). A total of 1,416 of these claims were found to be legitimate and adjudicated to the satisfaction of the affected parties.

Indigenous Peoples. An Indigenous People Plan (IDP) was prepared and publicly-disclosed at appraisal to address issues pertaining to indigenous peoples during implementation (PAD, paragraph 108). There were issues with respect to indigenous people during implementation (discussed below).

The Inspection Panel Report. The ICR (paragraph 84) notes that on August 3, 2017, there was a request to the Inspection Panel from two individuals living in a location of project-intervened areas. The individuals were connected to a quarry exploited by the contractor. The request included allegations regarding negative impacts on livelihoods through: (i) occupation by the contractor of a quarry that the requestors operated; (ii) excessive use of force by the military personnel deployed to provide security to the contractor; (iii) violence against the community, including Gender-Based Violence (GBV); (iv) employment of young boys as day laborers; and (e) harm to property of indigenous communities.

In the investigation report, the panel found the World Bank to be in non-compliance with its policies on Environmental Assessment, Involuntary Resettlement, and Investment Project Financing in regard to aspects such as project preparation, consultation and disclosure of information, Grievance Redress Mechanism, impacts on agriculture, community health and safety, working conditions and occupational health and safety, gender-based violence and Bank supervision. In the light of the complaint, the Bank suspended operations and the Bank Management proposed a Management Action Plan (MAP), approved by the Board. The MAP proposed actions to correct instances of noncompliance. Following the completion of the MAP, the Bank resumed operations. The completion of the MAP was presented by the Bank team to local civil society organizations and the affected communities in 2020. The participants expressed their satisfaction that the MAP had been completed.

b. Fiduciary Compliance



Financial management. The Bank conducted a financial assessment of the CI (Infrastructure Unit of the MIPWR at appraisal (PAD, paragraph 84). The assessment revealed weaknesses in terms of staffing arrangements and accounting systems. The overall financial risk was rated as high at appraisal (PAD, paragraph 84). The mitigation measures incorporated at design, included recruitment of a dedicated financial management expert and preparation of a financial management plan.

The ICR (paragraph 89) notes that financial management was satisfactory throughout the project, and there were no significant financial issues during implementation. The quarterly reports, disbursement claims, and internal and external audit reports were submitted in a timely fashion. The ICR also notes that there was compliance with the terms of the Financing Agreements. The team clarified that the audits were unqualified.

Procurement. The Bank conducted a procurement assessment of CI at appraisal. Although CI had executed projects financed by other donors, it had no experience with Bank-financed projects (PAD, page 107). The procurement risk was assessed as high at appraisal. Mitigation measures incorporated at design, included preparation of a procurement plan (PAD, page 108).

The ICR (paragraph 89) observes that procurement management was assessed as moderately satisfactory for most of the project lifetime. There were no significant procurement issues, except for some delays in preparing procurement documents. These delays were rectified and procurement improved in the last phase of implementation after the end of the suspension of disbursement in 2018. The ICR reports no case of mis procurement.

c. Unintended impacts (Positive or Negative)

d. Other

11. Ratings

Ratings	ICR	IEG	Reason for Disagreements/Comment
Outcome	Moderately Satisfactory	Moderately Satisfactory	
Bank Performance	Moderately Satisfactory	Moderately Satisfactory	
Quality of M&E	Modest	Modest	
Quality of ICR	---	Substantial	

12. Lessons



The ICR draws the following four lessons from the experience of implementing this project, with some adaptation of language.

1. Community-based Grievance Redressal Mechanisms (GRMs) should be established at an early stage of implementation. This project had an under- resourced GRM in place before the suspension of the loan. A key lesson from this project is that simple, realistic and community-based GRMs should be in place and operational before the start of works, especially for projects in large areas of intervention in rural areas or with security issues.

2. Specific training is required while using military staff for the protection of project staff and worksites. The use of military personnel to ensure security of project staff in this project highlighted the need to develop a formalized partnership with MONUSCO (the United Nations Organization Stabilization Mission in the DRC). The partnership with MONUSCO aided in training the military personnel assigned to protect the road worksites based on humanitarian law, with training funded by the project.

3. Capacity building activities needs to a core project component in post-conflict and fragile environments. Given the country context at appraisal with post-conflict period and governance issues, this project eventually completed most of its planned activities. This was mainly due to the relatively simple design, identifying weaknesses in institutional arrangements, and providing a large component substantially funded with technical assistance activities aimed at building capacity of the respective road agencies.

4. Strengthening the local construction industry is important in post-conflict settings. This project at an early stage identified the need for strengthening the local construction industry, which had been devastated due to the many years of conflict. The project included several technical assistance activities for the Small and Medium sized enterprises through workshops, hands-on-training and worksite visits that benefitted the project, as well as another project in the urban sector.

13. Assessment Recommended?

No

14. Comments on Quality of ICR

The ICR is clear. The quality of evidence provided in the ICR summarizes the salient points and clearly links evidence to finding. The theory of change provided in the ICR clearly elucidates the logical links between the project activities, their outputs and the intended outcomes. The ICR candidly discusses the issues linked to project preparation and supervision which clearly led to the Inspection Panel Report. The ICR draws reasonably good lessons from the experience of implementing this project. The ICR adheres to the guidelines.

However there were some issues. While access to an all-season road could be expected to increase attendance in primary schools in the project-intervened areas, the ICR does not discuss other factors that could have contributed to this outcome (such as, better security, government subsidies). Likewise, the ICR does not explain why the latest model of the HDM (No.4) was not used for the economic analysis. The ICR does not



explicitly state whether there was compliance with all the safeguards, whether the audits were unqualified, and whether there was continuity of Bank project leadership. The length of the ICR (at approximately 30 pages is about twice the recommended length of 15 - 20 pages). The ICR would have benefitted from better editing.

a. Quality of ICR Rating
Substantial