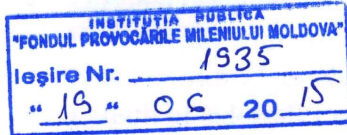




MILLENNIUM CHALLENGE
ACCOUNT MOLDOVA



MILLENNIUM
CHALLENGE CORPORATION
UNITED STATES OF AMERICA



Project Description for FIDIC 2015 Awards

Background

On January 22, 2010, the Government of the Republic of Moldova (GoM) and the Millennium Challenge Corporation (MCC), on behalf of the United States Government, signed a Compact Agreement for a US \$262 million grant to be implemented over a 5 year period with Compact implementation commencing on September 1, 2010. The Compact Program goal is to reduce poverty through economic growth in Moldova with the objectives of improving incomes through increased agricultural productivity and expanded access to markets and services through improved roads. The Compact Program consisted of two projects: Transition of High Value Agriculture and the Road Rehabilitation Project. The compact is expected to end on September 1, 2015 with no possibility of extension. An accountable entity called the Millennium Challenge Account - Moldova (MCA-M), was established to implement the compact, reporting to the Prime Minister and governed by a public/private steering committee.

Description of the Road Rehabilitation Project

The objectives of the Road Rehabilitation Project (RRP) were to: a) increase incomes of the local population by reducing the cost of transport, goods and services; b) reduce losses to the national economy resulting from the deteriorated road conditions; and, c) reduce the number of road accidents through improved road safety conditions.

The RRP includes the rehabilitation of a section of the M2 road from Srateni to Soroca, and an additional section of the R7 from Soroca to the Drochia junction, both serving as arterial highways from the Moldovan capital, Chisinau, through the city of Soroca, to the Ukrainian border and beyond to Kyiv, the Ukrainian capital. These road sections have significant traffic flows serving as a major link between Moldova and Ukraine for private, passenger and commercial traffic, and had been prioritized by the GoM for rehabilitation in their Land Transport Infrastructure Strategy.

Key Figures at a Glance

- Final Estimated Budget: ~\$110.24 million
- Committed to date: ~\$110.24 million
- Disbursed to date: ~\$106.44 million
- Contingencies: ~\$ 0.17 million
- Original Project Budget: ~\$132.8 million
- Savings released to other Compact activities: ~\$22 million

Metrics and Other Achievements

- Original designed length ~ 93 km
- Final length with project additions ~ 96 KM
- Number of bridges constructed/rehabilitated – 15
- Length of sidewalks constructed ~ 22 km
- Illumination systems in the villages ~ 20 km
- Guardrails installed ~ 12 km
- Average International Roughness Indicator (IRI) reduced from about 12 m/km to about 1.5 m/km
- Average travel time has been reduced by about 2.3 times: from 3.5 hours to 1.5 hours
- Total of additional access roads connecting to the main road ~ 20 km
- Community infrastructure such as school and community access roads, drainage works, and wells included in the project ~\$2.3 million
- The project also includes a 450 m extension of the M2 and an access road and yard works for the Soroca Fire and Rescue Station as a result of MCC cooperation with US Department of Defense.
- Works Contracts signed: June 4, 2012
- Works commenced: June 22, 2012
- Works substantially completed: September 30, 2014
- Defects Liability Period until: October 1, 2015

Services Provided by the Firm – Universinij for the RRP

Universinij is a full service consulting, design and engineering company, specialized in highways, bridges, structural and civil constructions, based in Chisinau, Moldova. For the RRP, Universinij served as a sub-contractor to Nathan Associates-URS Group, the American-based consortium that developed the RRP design for the Moldovan Compact.

During the RRP implementation, Universinij was contracted by MCA-M as a stand-by, local design firm and was deployed during construction works to address variations, inconsistencies, and additions to the original design which were necessary due to changes in road conditions and project needs, and to provide technical assistance with timely implementation of those design changes.

Universinij is part of the Moldovan Association of Civil Engineers, a FIDIC member, which is submitting this project for FIDIC's consideration.

Innovations Incorporated in the RRP

The RRP included several innovative technical and social features, particularly in the context of Moldova; these innovations contributed significantly to the success of the project not only from a technical stand point, but also from a social and development perspective as well, as follows:

- Road Safety Improvements Integrated into Project Design. The Moldovan Ministry of Transport and Road Infrastructure (MTRI), with the help of the International Financial

Institutions (IFIs) Joint Team for Transport in Moldova coordinated by MCC, undertook a comprehensive review of road safety of most of the Moldovan national road network in 2011. The assessment was performed by the European Road Assessment Program (EuroRAP), and the recommendations made by EuroRAP were fully integrated into the RRP project design.

- Community Participation in the RRP Design. The large scale of public consultations and discussions were implemented during pre-design stage with the Local Authorities and Regional Administrations. The MCC and MCA-M implemented a participatory design process whereby the communities adjacent to the road were consulted extensively at three stages of the design process (30%, 60% and 90% completion). This was done to ensure that the interests of the affected communities were adequately addressed in the design.
- Community Social Development Projects. All the communities adjacent to the road benefited from small social improvement projects that were included in the RRP design and were constructed by the RRP works contractors, such as paved access roads to schools, kindergartens and health centers; community sidewalks; water wells; and, lighting and road signage to improve road safety.
- Community Social Committees. MCC and MCA-M instituted formal social community groups, consisting of local leaders and including mandatory female representation. The groups were created as a communication mechanism with contractors, MCA-M and other parties to ensure that community interests, grievances, and disagreements were taken into account during the implementation period. The role of these groups in the community life expanded beyond the road project as they received leadership and project management training by the program. These groups delivered, with the help of MCA-M, a number of trainings for community residents and school children on road safety, HIV prevention and domestic violence, and are expected to play a significant role in ensuring the sustainability of the RRP investment locally.
- Use of Asphalt Cold Recycling. The M2 project was the first road rehabilitation project in Moldova to use the asphalt cold recycling methodology. This led to important cost-savings and environmental benefits.

Quality and Professional Excellence

This Project has been an example of successful application of FIDIC Redbook-based work contracts resulting in quality, cost-effective, and timely completion. Several aspects of this successful project should be noted by FIDIC, as follows:

- Ensuring Quality during Procurement. Given the strict timeframe for project implementation under the MCC Compact, MCA-M used a co-qualification bidding process that was different from other IFIs active in the transport sector in Moldova. The procurement procedures were initiated with a well-advertised pre-bid conference in order to ensure that a high number of potential bidders are fully informed about the procurement procedures and about the works that had to be executed. To maximize

cost-effectiveness and flexibility, and reduce the risk of potential non-performers, the project was divided into four works lots, stipulating a maximum of two connected lots forming a southern and northern parts, where no more than one such part could be awarded to a single contractor based on the most advantageous cost combination by qualified bidders for the entire project (all four lots combined). MCC insisted on thorough interpretation of the selection criteria in evaluating participating bidders, including strict consideration of contractor's past performance and a robust cost-reasonableness analysis of the bids. As a result of this comprehensive bidding process the project works contracts were awarded to two technically competent and financially sound companies, the Turkish joint venture Onur-Summa for the two lots of the southern part and the Austrian Strabag for the two lots of the northern part. At the same time, MCA-M (The Employer) has procured, by an internationally competitive process, the construction supervision (Engineer) services for these two respective RRP parts with the southern two lots awarded to the Italian firm IRD, and the northern two lots to the French firm Louis Berger SAS.

- Quality Assurance Process at Implementation. Both works and supervision contracts required the contractors and the supervising engineers to submit quality assurance plans that were closely monitored by the MCA-M. Each such plan had five control elements: 1) approval of sources for construction materials, such as quarries; 2) approval of the construction materials brought to the site; 3) approval of produced materials; 4) clear definition of inspection methodology and testing plans; and, 5) approval of in-place materials following their use in the construction works. Regular weekly and monthly performance monitoring meetings with all parties, including senior managerial staff of MCA-M and MCC took place during the entire period of construction works and allowed to identify the quality associated risks and technical problems at early stages. MCC also deployed its Independent Engineer firm periodically to inspect works progress and partake in certain progress meetings.
- Effective Use of Dispute Adjudication Boards (DABs). MCA-M (the Employer) has established early on DABs for the two contractors (each including two works lots) in accordance with the relevant FIDIC-based provisions of the contracts. These DABs were effective in helping to avoid claim risks by periodic site visitation and outreach to the contractors and supervising engineers.
- Employment of Contract Managers. MCA-M hired two technical contract managers with significant technical and FIDIC experience to help closely and consistently represent Employer's interests both with the contractors and the supervising engineering firms.

Principles of Transparency and Integrity

- Regular International Audits. The RRP project was subject, as part of the entire Moldovan Compact, to a semi-annual and later annual international audit. All the audits were clean. All the audits were also cleared by the US Office of Inspector General.

- Anti-corruption Arrangements. MCC and MCA-M held anti-fraud and corruption training for all contractors including the RRP. Both MCC and MCA-M had telephone hotlines with the contact information distributed freely at construction sites, and the offices of the contractors and supervising engineer.
- Media Outreach and MCA-M's Steering Committee Site Visits. MCA-M organized regular public outreach events and site visits for Steering Committee members and mass media representatives to discuss RRP progress and the quality assurance processes put in place. MCA-M also provided periodic and transparent media releases about the RRP progress.

Sustainability

The policy dialogue with the GoM, led by MCC in cooperation with the Joint Team of IFIs involved in the transport sector in Moldova, focused, among other things, on reforming road maintenance in Moldova, to ensure appropriate, sustainable funding, and to improve operations. The multi-year road maintenance budget allocations were agreed on with the GoM in close cooperation with the IFIs and IMF back in 2009, and in accordance with the Transport and Logistics Strategy (LTS) developed by the GoM with the IFIs in 2013 (coordinated by MCC); the GoM has been meeting those road maintenance obligations consistently since 2010.

Respect for Environment

MCC and MCA-M integrated and addressed environmental concerns at each step of the RRP preparations. The extensive consultations held with Environmental NGOs ensured also that environmental protection was one of key indicators for assessment of project's performance and success. Works contractors were contractually obliged to prepare Environmental and Social Management Plans (ESMPs) in compliance with the Moldovan environmental legislation and the MCC Environmental and Social Guidelines and Gender Policy. The contractors were unable to commence works prior to approval of these documents both by MCA-M (the Employer) and MCC (the donor). These documents were subsequently regularly updated. All works and supervision contracts required that the teams of contractors and supervising engineers alike were appropriately staffed to meet the environmental requirements of the project, and MCA-M hired consultants to monitor compliance to these plans.

Best regards,

Valentina Badrajan

/ Executive Director

