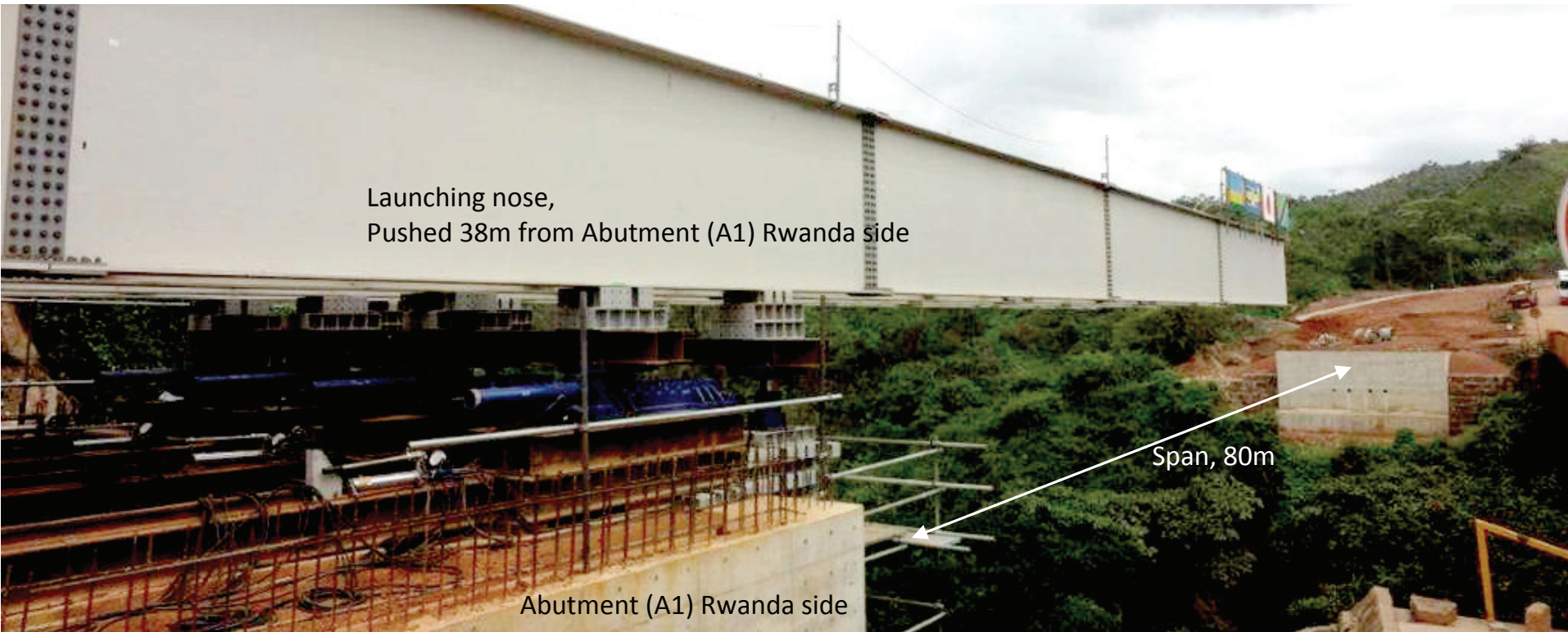


Connecting the Countries and the Region



New Rusumo bridge launched



Launching nose,
Pushed 38m from Abutment (A1) Rwanda side

Span, 80m

Abutment (A1) Rwanda side

Increment Launching of Rusumo Bridge (span 80m).

The construction of the new Rusumo International Bridge and One-Stop Border Post (OSBP) facilities is funded by the Government of Japan and it is implemented by Japan International Cooperation Agency (JICA). The financial grant aide to both Rwanda and Tanzania Government is amounting to USD 38 million. It is anticipated that upon the completion of the Rusumo International bridge and OSBP will have significant impact on boosting trade between Rwanda and Tanzania and enhancing regional integration.

The new bridge, which is the major link on the central corridor crossing the Akagera River will replace the old bridge with 40years old and limited carrying capacity. The construction of new Rusumo bridge aims at facilitating safe and steady traffic flow on the central corridor by means of lift restrictions on passing vehicles and to eliminate the traffic congestion caused by slow moving of large vehicles at the Rusumo border between Rwanda and Tanzania.

The Resident Engineer Eng. Kameda Hitoshi says "Since the commencement of works in March 2012 on both sites (Rwanda and Tanzania), the works have been progressing well. The works completed until end of November 2013 is measured at 65.0% above 62.8% on the planned schedule, which means the project is 2.2% ahead of the planned schedule."

Currently about 250 trucks pass through this border post per day, but once the double lane is complete, the traffic growth will increase to about 500-700 vehicles per day; even the dwelling time at the border will be drastically reduced. Trend of traffic growth is anticipated to be at 5-6% annually with economic growth of 11%-11.5% as predicted by EAC countries in the coming 5 years.

Appropriate Bridge Technologies

The constructed bridge will have 80m length/ span and 11.3m width the bridge is made of steel girder beams with allowable carrying capacity of 19000tonnes. The bridge has two lanes of 3.75m each and 1.5m pedestrian walkway on each side

of the lane. It will increase the axle load restriction from the present 8 tons to 20 tons and the speed limit from the present 5 km to 30 km per hour.

The bridge materials of 36 elements were manufacture, pre-fabricated and tested for quality control in Japan and later transported to the site. The main advantages are to save time, easy to assembly on site especially at a deep slope to the river, safety of workers and environmental protection.

The installation of the bridge is done by incremental launching method in which the yard is prepared near the abutment on one side of the river and steel girder elements are assembled on rail and bogies and later pushed out sequentially. The launching procedures comprise nose being installed in front to balance the movement of the main steel girder, the difference weight between the nose and girder enable the cantilever movement from one support to another. The pushing of the bridge is done mechanically at 8minutes/meter; however manual push was also tried at 15minutes /meter.

Skills transfer

In corroboration with Rwanda Transport Development Agency (RTDA) the Resident Engineer give an opportunities for the students from Tertiary Institutions i.e. KIST, Umutara Polytechnic and IPRC- Kigali to visit the site in order acquire knowledge on bridge construction methods as well as other civil works. The opportunity will enable civil engineering students to interprit theoretical knowledge on mechanics of materials, civil engineering structures, steel structures and construction methods into real practical works. The total numbers of students who have visited and will visit the site are amounting to 172.

One of the local engineer working with CHODAI Eng. Yves Ntibazigihe as a Building Engineer testifies that "The way that the Japanese engineers work is very different from the one of local companies. Their work is well prepared before, the quality is excellent in everything

and the safety is a must for everybody. My skills were improved in terms of efficient preparation at every stage, quality control and daily safety education on site. Competent and sufficient staffs are present in their work to achieve exactly all targeted goals as required. Reporting and data recording at every step is excellent in their day to day work."

Another Eng. Emile Muhirwa who is working with Japanese company DAIHO says that "My working performance has been improved a lot while working with the Japanese engineers and I am still learning from them. They are good trainers to most of site activities in terms of quality of works and a quick learning of drawings. They are hardworking and have a good team spirit."

Generally, the Japanese Contractor DAIHO has created employment opportunities in both the Rwandan and Tanzanian side for both skilled and unskilled people—which created significant positive transfer of Engineering skills to the Laborers and local Rwandan and

Tanzanian Engineers. 604 males and 150 females are employed by the project.

One Stop Border Post

Upon completion of the construction of One-Stop-Border Post (OSBP), the area will have a new look and improve operations on freight logistics.

Eng. Honoré Munyanshongore, project manager from RTDA explained that "the one border post will provide facilities that are needed to cope with expected increase of traffic volumes in the coming years." He further said that "it will also eliminate the present traffic congestion, greatly improve the efficiency of cargo transportation, clearing and handling, and eventually reduce transportation costs."

The construction activities of the Rusumo New Bridge and the One-Stop Border Post Facilities are set to be completed by November 2014.



Assembled girder elements and launching nose.