Fiji Roads Authority

MEDIA STATEMENT

BUILDING BRIDGE TO RESILIENCE

08 January 2020

With the projected sea level rise due to climate change, the new Tamavua-i-Wai Bridge deck level is 1.90m higher than the existing bridge to protect against future damages.

The Tamavua-i-Wai Bridge is located on Queens Road approximately 1km to the west of Suva City.

One of the main concern that is at the forefront of discussion at the Fiji Roads Authority, is the pressing need not only to maintain the road infrastructure, but also the need to build resilient infrastructure projects to make it less prone to damages from the impacts of climate change, such as sea level rise and extreme flooding.

The Tamavua River enters Suva Bay at the site of the new bridge and faces an estuary that is subject to hydrographic conditions that include the tide level, sea level rise, and water action. Under such conditions, we have considered 0.70m allowance in the bridge design for the change in sea level rise.

The new Tamavua-i-Wai Bridge project has a design life of 100 years and built with a reinforced concrete deck bridge, precast pre-stressed beams, piled foundations and engineering fill approach roads, located on the seaward side of the existing Tamavua-i-Wai Bridge. The new bridge will accommodate two lane traffic and one walkway for pedestrians. The total width of the bridge is 10.47m comprising of two traffic lanes and is of 7.0m with 2x 0.30m shoulder and 1 x 2.0m walkway. The overall length of the bridge is 91.20m and has in six spans arrangement.

Accounting for these climate impacts on future infrastructure investment will better protect people and the assets, saving taxpayers money.

We have taken into consideration Fiji's climate projection such as an increase in temperature, change in rainfall patterns, sea level rise, and we are likely to have less frequent, but more intense, tropical cyclones among others.

As such, constructing weather resilient infrastructure is vital and we have taken into account the design water levels e.g. sea level rise 0.70m due to climate change, wave height 2.2m due to storm-surge arising from cyclones and tide level deviation 1.20m.

For more information please contact Zafiya Shamim at Zafiya.Shamim@fijiroads.org or call 9275960.

Ensuring that current and future environmental and climate risks are incorporated into the Tamavua-i-Wai Bridge design will safeguard access to basic services and reduce vulnerability to climate-related extreme events and other economic, social and environmental issues.

Once this new bridge is complete, all the existing foundations, substructures and superstructure will be demolished. This will be in preparation for the second bridge to be built within this alignment. The second Tamavua-i-Wai Bridge will also be a two lane bridge which will allow four lanes between Lami and Suva corridor in the near future.

Jonathan Moore
Chief Executive Officer

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