

National road network, Costa Rica



The Challenge

Tropical storms and hurricanes have always affected Costa Rica, especially in coastal and rural regions, where the construction of housing and road infrastructure may not have been as robust; road and pedestrian bridges were prone to collapse, leaving communities isolated for, potentially, weeks. The Costa Rican government realised that these emergencies were increasingly getting more frequent, possibly not helped by the threat of climate change.

The Costa Rican Directorate of Bridges had a commitment to replace bridges destroyed or damaged by storms and hurricanes, and to build new bridges facilitating communication and improving infrastructure in the affected areas.

However, the challenge of tendering for public contracts, through out of date processes, was not facilitating the urgent response needed to the re-connect the communities affected. The geography throughout Costa Rica is varied, meaning that replacement bridges had to be built in coastal and mountainous areas – both a challenge for different reasons. A viable solution was required to allow for shorter times for each project and a more immediate construction of the replacement bridge.

The Solution

With this in mind, the Directorate of Bridges, after considering the Costa Rican people's understanding of the challenges of the local market, decided to use a 'Buy on Demand' concept as an alternative to public procurement. This was based on a transparent tendering process, which included some of the most experienced manufacturers of modular steel bridges. Mabey and their local representative, Titan Representaciones y Servicios S.A ,won the tender by offering the most competitive price and the fastest delivery time.

46 no. Mabey Compact 200™ 18-span bridges were delivered, suitable for both vehicular and pedestrian use. Because modular steel bridges are so versatile, this meant bridges of varied lengths could be built, depending on the needs of each project specification. Training was also provided to the Costa Rican construction teams on the quick assembly of the modular bridges.

The Result

In the end 42 no. new Mabey bridges were installed – these are currently still in use and operating well. The bridges were installed without any problem, enabling the crossings on the affected roads to be re-opened in the fastest possible time. The destroyed bridges had halted communication between towns and communities; after constructing the new bridges the population could once again move about and trade with surrounding communities. Services were also restored and schools and medical services returned to normal.

The programme was so successful that the Ministry launched a second 'Buy on Demand' tender, which Mabey also won. The winning bid this time included the supply of spares and special features of the Mabey Compact 200™ bridge system such as emergency ramps and footwalks.





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