

# Reconnecting a community in the aftermath of cyclone Seniang

Bridging Case Study



## Dumlog Bridge, Philippines

**Customer:** Department of Agrarian Reform (DAR) for Department of Public Works & Highways (DPWH)

**Solution:** Mabey Compact 200™



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### The Challenge

When tropical cyclone Seniang hit the Philippines in late December, it was the last of the 23 named storms of the 2014 typhoon season. The people of the Philippines are all too familiar with natural disasters, and, as well as tropical storms, the region is also prone to severe earthquakes. In such a dramatic part of the world, the ongoing challenge is to ensure that communities affected by natural events can be rescued, reconnected and restored as soon as possible to minimise the social effects of these disasters.

The island province of Cebu was particularly hard hit by tropical storm Seniang, which, while not as strong as previous storms, featured very heavy rainfall, causing the worst flooding for 30 years as well as landslides that together claimed 66 lives.

Amongst the widespread damage to Cebu's infrastructure, the approach to the concrete Dumlog Bridge in Sibonga town was washed out by the force of the overflowing Simala River, leaving the bridge structure unreachable and unusable. As a result, the local community was forced to take a long detour to get to the other side until a temporary repair solution could be installed.

### The Solution

The government of the Philippines has long relied on Mabey modular bridging for emergency use following natural disasters. The speed and ease of installation of the bridging has, on many occasions, ensured hard hit communities are reconnected as soon as possible and disruption is minimised.

The two-lane, three-span Mabey Compact 200™ (Mabey C200™) temporary solution at Dumlog Bridge was assembled from components already held in stock for just such an emergency. Mabey has supplied modular bridging to the Philippines for many years as part of the President's Bridge Programme to improve the country's infrastructure. To date over 1600 bridges have been installed across the country for both infrastructure improvement and disaster relief.

Preparatory work for the Dumlog replacement bridge began 1st January, just two days after the permanent bridge was rendered unusable. Mabey C200™ bridge components were delivered over a six day period and installation started on the 8th January, with the structure completed just eight days later. There was added imperative to reopen the route quickly as the Sinulog Grand Parade was scheduled to take place two days after the bridge was opened.

With a width of 7.35 metres allowing two lanes of traffic, the bridge is able to accommodate cars, buses and other heavy traffic. The 59 metre bridge has been installed over the existing concrete bridge and features 35 metre approaches on either side. Work to install the bridge was conducted 24 hours a day.



### The Result

The communities of Cebu were severely disrupted by tropical storm Seniang, and the town of Sibonga suffered both tragic loss of life as well as critical infrastructure damage. The Dumlog Bridge is vital as it connects Sibonga to Argao and the rest of south-eastern Cebu. The critical importance of the bridge was reflected by the urgency with which the Department of Public Works & Highways (DPWH) tackled its replacement.

Mabey C200™ is an ideal solution for emergency bridging in these situations, and once components had arrived at site the assembly and launching of the temporary bridge was conducted with ease. Less than a month after the permanent Dumlog bridge was deemed unusable, the people of Sibonga were reconnected with the rest of the province; commuters could once again go about their business with ease, and the local community could start to rebuild itself, following the devastating tropical storm.

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