Navigating the shifting sands

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Swisscontact M4C: Gaining traction in Bangladesh's chars

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The chars are shifting riverine lands formed from river sand and silt deposition. Most of these are islands, partially or fully submerged at least once or twice each year. As a result, there are almost no permanent roads or docks. When the river subsides, villagers have to cross long stretches of sand-banks and silty land to reach the remaining river channels where two boats can moor.

This land is unsuitable for conventional vehicles, such as bicycles or rickshaws. Farmers are particularly hard hit, spending significantly more time and money transporting goods to markets on the mainland, which reduces their income.

Horse carts and motorcycles are the main transport on the islands. Mechanics with the technical capacity to create effective transport solutions live and work on the mainland. They have no knowledge of the needs of remote char-dwellers, and do not see a viable market for custom designed vehicles.
The government has limited experience with building infrastructure suitable to the chars’ volatile conditions. This fact, combined with a lack of coordination and planning between local and national governments, leaves the islands underserved.

Economists would describe this as a public goods provision market failure.

A new model

M4C, a five-year SDC-funded project implemented by Swisscontact and Practical Action, believed char dwellers could benefit from an improved transportation system, which could enhance mobility and reduce transport costs. It realised that better transport required investments in both road quality and the availability of suitable vehicles. To achieve this, M4C set out to partner with both government and the private sector to develop viable business models that could be adapted across the chars.

Fit for purpose

M4C began implementation in 2012, initially partnering with two local automotive workshops to adapt vehicles to be able to operate in the sandy conditions. These new vehicles, called Charer Gari, had different sized tyres and a special gearbox for extra traction.

The programme then approached interested horse-and-cart and boat owners to help test and further develop the new vehicles, sharing the costs with workshops and entrepreneurial individuals. This helped create legitimate business relationships between workshops and buyers. Workshops were focused on tailoring products to real customers, who would continue to buy their products. They in turn benefitted from branding, as the workshop name was painted on the side of the new vehicles.

M4C also engaged local associations of horse-and-cart owners to develop a new viable business model for road construction and maintenance. Lack of roads had slowed travel times, limited the number of trips they could take, and caused more frequent breakdowns.

The associations proposed piloting new, simple and low cost technology to build a better surface for carts, bicycles and the new specially-adapted motor vehicles. M4C, the local government (Union Parishad) and the association of horse and cart owners shared the costs of a new 4km road, which used a toll to help with maintenance and rebuilding in the dry season.

Cutting travel times in half

The customised vehicles have reduced travel costs by 30 per cent and cut travel time in half. Because the new vehicles are bigger, goods and passengers can now
travel together. Four other entrepreneurs from surrounding islands have bought Charer Gari without M4C support, increasing the likelihood that workshops can expand their business across the chars.

However the new road maintenance model has yet to be fully proven. The pilot started late and with only two months to collect tolls from users, achieved 20 per cent of the income required for sustainability. Both the government and the local association look set to reinvest for a second season. The cost share breakdown between the association, the government and M4C was 30:30:40. M4C plans to identify other local government unions where the pilot may be replicated in the coming years.

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