

SOLAR POWERED FLOATING SCHOOLS IN BANGLADESH

The Solar powered floating schools, implemented by [Shidhulai Swanirvar Sangstha](#) organization of Bangladesh, continue to increase their impact in the education of children.

Of the 158 million people living in Bangladesh, around 66% live in rural areas. In 2002, it was estimated that more than one fifth of the country floods annually during the monsoon season, but extreme floods can cover up to two thirds. During the monsoon period, thousands of schools are forced to close, and many children miss school days. In 2007, an estimated 1.5 million students, or about 10 per cent of those enrolled in primary school, were affected by floods. Thanks to solar panels installed on the roofs of the boats, it has been possible to provide villages with important services that have increased the population's life quality.

Results of the solar powered floating schools have been impressive: school boats currently serve around 1,600 students living in hundreds of riverside villages, with the library boats accessed by 15,000 people a year. Children's enrolment in education has increased by 40%, while the dropout ratio has been reduced by 45%.

Shidhulai's Floating schools are an example of [advanced technologies](#) used for solving people's basic problems.

The floating schools have spread across the world and many countries like Cambodia, Nigeria, Philippines, Viet Nam and Zambia are adopting this innovative solution and its building methods to assure children's education for communities in flood-prone regions.

The boats are designed by Shidhulai Swanirvar Sangstha to protect the electronic equipment from inclement weather, even during the height of the monsoon. Working with local boat builders, Shidhulai has built flat-bottom riverboats using local materials and building methods.

PV modules are installed on the boat rooftops, providing between 200 Wp, 600 Wp and 1-2 kWp of power, depending on the electrical demand.



The PV modules charge an array of lead-acid batteries through a charge controller, which prevents the battery from being over-charged or deep-discharged, and also include an inverter to convert dc power to ac, thus allowing the use of the electrical equipment on the boat. Boats have PV-powered lighting. The installation and maintenance of the PV systems are done by Shidhulai's own trained engineer and technicians.

Shidhulai Swanirvar Sangstha, a non-profit organization created by the architect Mohammed Rezwan, has been working since 2002 to improve quality of life in northern Bangladesh river areas by bringing services to people by boats. These services include children's education, libraries, training on sustainable agriculture and waste management, computer education and Internet access. New services include solar powered early flood warning devices, floating flood shelters and floating gardens.

The solar powered floating schools of *Shidhulai* won prestigious international prizes. In particular, in 2007 the experience was awarded with the [Ashden Prize](#), in 2007 with the [UNEP Sasakawa Prize](#) and in 2012 with the [WISE Prize](#), in 2014 with the [Impact Award of the Stars Foundation](#).

To know more

[Shidhulai website](#)

[Shidhulai Photogallery](#)

[Floating Schools in UNDP equatorinitiative.org](#)

[2015 UNICEF Stories in unicef.org](#)

[School boats in archpaper.com](#)

[School boats in starsfoundation.org.uk](#)

[School boats in the guardian.com](#)

[School boats in bestclimatepractices.com](#)

[Article in fastcodesign.com](#)

[Article in wise-qatar.org](#)

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