# Construction of Submersible bridges in the Rural Areas of Myanmar



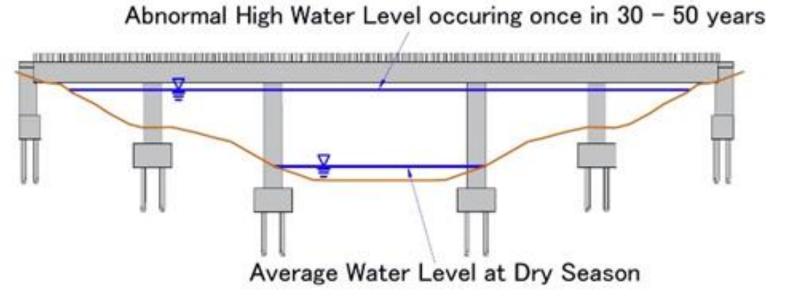
7 VP Non-profit organization Japan Infrastructure Partners www.jip.or.jp

### ➤ What is the Submersible bridge?

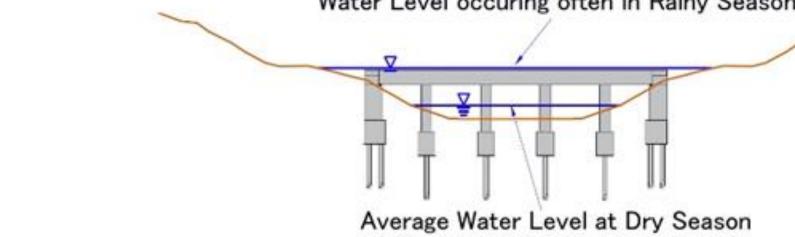
### Submersible bridge construction sites

**Normal bridge** is built above the water level which occurs once in 30 to 50 years during a flood. **Submersible bridge** is built above the normal water level.

Normal Bridge (Always above Water)



Submersible Bridge (Sometimes goes under Water for short Duration) Water Level occuring often in Rainy Season



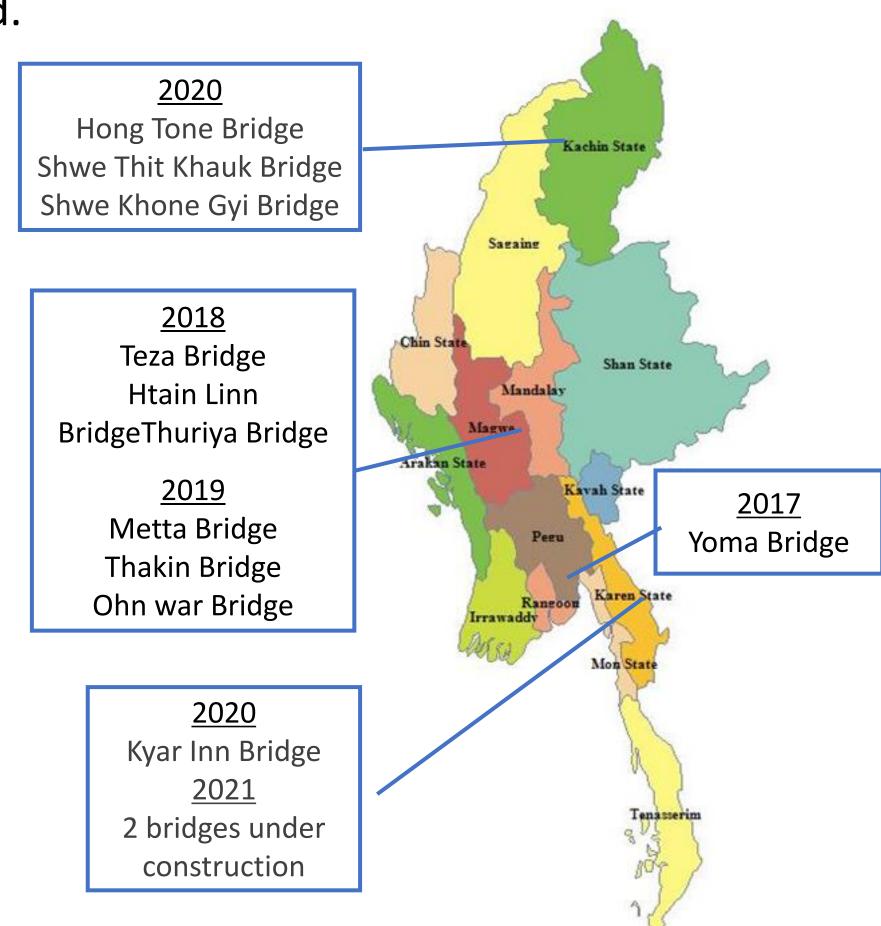
#### Few traffic blockings!

It becomes impassable a few times a year, a few hours a time but soon it becomes passable when a flood is over.

#### **High cost performance!**

Since it is built at a low position, the **foundation becomes** easy and length becomes shorter.

- Simplified structure reduces the resistance of the flood stream.
- 5 or more submersible bridges are to be constructed with the budget of 1 normal bridge.
- Using materials and methods that can be easily procured and adopted in the local area.
- Simple design makes the maintenance easy.



Submersible bridges are suitable for quickly spreading roads in numerous villages across the country.

### > Hard life in rural areas without bridges





Students cross rivers with textbooks over their head. Schools are often closed due to floods.



boats on both banks of a

river during rainy season.

Passengers are waiting for



Locations are determined by field survey from more than 100

Regional governments started the construction on their budget

Groundbreaking ceremony

under the JIP's instruction.

candidate sites.



Opening ceremony with delighted residents





Cast-in-place piling to build foundations firmly

Using materials that are available in rural areas



# > Improvement of life by bridges

Bridges will be no longer washed away.

in floods.







Insured man immediately taken to the hospital saved his life.



Children can go to school safely.

Farmers can ship products to cities stably.



## > Plan, Construction and Maintenance by local people

Residents cleaning driftwoods together after the record flooding in 2018



Hands-on training to local construction workers and students at workshops and construction sites





Spans with same dimension to simplifying the design process



