

Muhuri Irrigation Project : first PPP of Asia?

Arnaud Cauchois, Asian Development Bank, acauchois@adb.org
 Mohammad Shabbudin, Bangladesh Water Development Board, pd.imip.bwdb@gmail.com

1. Overall information of the project

Project title	Irrigation Management Improvement Project (IMIP)
Localization	Bangladesh
Date of operation	Project from September 2014 to December 2020 Estimated starting date of the PPP: October 2015 for 5 years
Public partner	Bangladesh Water Development Board
Private partner	Anticipated to be an association of international and national consulting firms - negotiations on going.
Project size	38,500 hectares (ha) of cultivated land Area under irrigation to be increased from 11,300 ha (without project) to 17,000 ha (with project)
Cost of the project	\$58 million which includes \$6.8 million for feasibility and detailed designs of the modernization of 2 other large irrigation schemes that may also be managed through PPP.
Number of farmers Targeted / Population covered	Approximately 45,000 farms or 283,500 persons.
Short description of production system	Landholdings comprise: (i) 37% are landless or functionally landless with less than 0.2 ha of landholdings; (ii) 47% have small or marginal land holdings ranging from 0.2 ha to 1.0 ha; (iii) 13% have medium landholdings ranging from 1 ha to 3 ha; and (iv) 3% have large landholdings greater than 3 ha. There are 2 main cropping seasons including Kharif and Rabi. The main crop is paddy rice (99% of the cropped area). Other crops include vegetables and pulses. The project will support further development of cash crops including potatoes and vegetables.
Infrastructure / irrigation type	Surface irrigation. The scheme was completed in 1986. Its original design included the construction of a Closure Dam and Regulator downstream. The backwater from the barrage enters the natural khals (channels) and canal network by gravity. From there it was to be lifted by about 800 low-lift diesel pumps to irrigate the fields. IMIP rehabilitation and modernization plan includes: (a) repair of about 460 km of khals and about 23 km of coastal embankments with ancillary facilities; (b) development of about 17,000 ha of a modern and highly efficient piped water distribution system to improve timely water access and reduce water losses; (c) provision of prepaid card meters to allow water allocations to be on a volumetric basis and ensure full and transparent payment and accounting; (d) full electrification of pumping to reduce operating costs and increase management flexibility; and (e) pilot of solar pumping for about 60 ha.

2. Type of contract and term

A private irrigation management operator is contracted through a 5-year performance-based management contract. This construction phase irrigation management operator (C-IMO) will supervise modernization works, establish sustainable management operation and maintenance (MOM), and provide agricultural support services for the Muhuri Irrigation Project (MIP). Efficient management systems will be adopted to maximize water use efficiencies, and develop sustainable and reliable irrigation service delivery. Viable and effective operation and maintenance (O&M) cost recovery mechanisms will be set up to achieve 100% cost recovery. The objective will be to bring MIP scheme to the profitability and sustainability required to enable recruitment of a long-term (15 years lease) management phase irrigation management operator (M-IMO).

3. Investment funding source and sharing of the cost

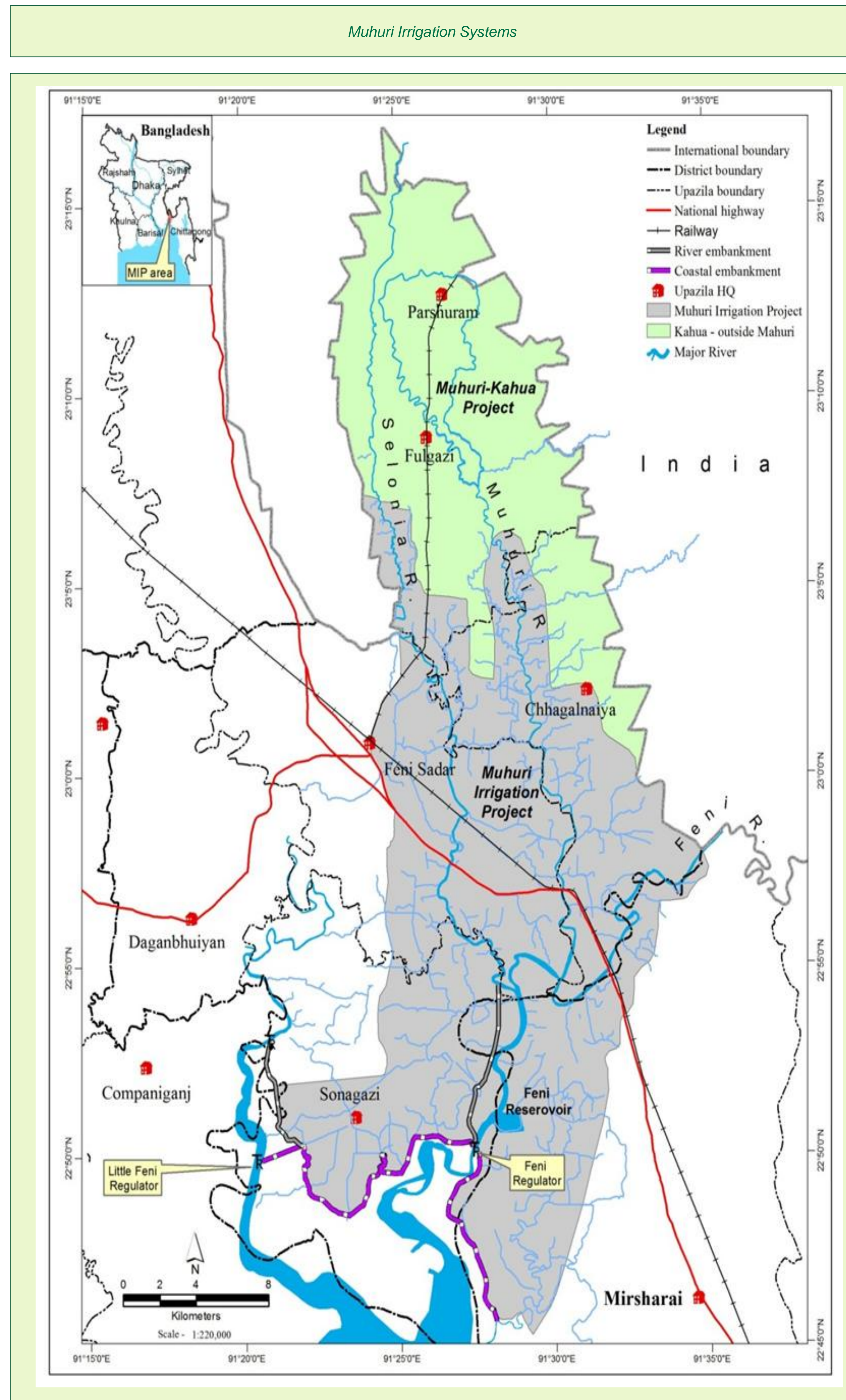
The project financing plan is provided in Table 1 below.
 ADB provides \$ 46 million in soft loan to the Bangladesh Government

Table 1: Financing Plan

Source	Amount (\$ million)	Share of Total (%)
Asian Development Bank	46	79.4
Beneficiaries	4.4	7.6
Government	7.6	13.1
Total	58	100

Note: Numbers may not sum precisely because of rounding.

Source: Asian Development Bank estimates.



4. Paiement of the fees

The C-IMO is paid by the government through the project. The M-IMO will likely be paid by the government.

5. Risk management

Most of the risks are assumed by the government since the government is financing investment cost and paying for IMO-C remuneration. However a risk register is added to the C-IMO contract to strengthen communication between the government and the C-IMO on the occurrence and management of potential risks.

6. Performance evaluation

The project is at its early stage. It is therefore too early to provide information on its performance.

Key lessons learnt

Lessons learned from the PPP design stages include:

1. Farmers have a critical role to play in the acceptance of the PPP approach. Their agreement was instrumental in building government confidence.
2. The visit to the existing irrigation PPP by a wide range of stakeholders (Finance, planning, irrigation, farmers, prime ministers office) was also instrumental in building a constituency in support of the project
3. Continuous dialogue with local private sector was required to secure private operator interest and ensure reasonable competition.