

## Payment and Settlement Systems

10.1 Payment system is a set of physical and electronic infrastructures with associated procedures and protocols for the transfer and settlement of financial obligations arising from the exchange of goods and services. Safe and efficient payment systems are fundamental to promote financial stability. It facilitates the Central Banks for conducting efficient monetary policy by allowing better use of market-based instruments to achieve its objectives, enhancing the efficiency of the financial system and the economy as a whole.

10.2 Considering the importance of having a state-of-the-art payment and settlement system, Bangladesh Bank (BB) has been actively working to implement a modern payment and settlement system in Bangladesh. With the technical and financial assistance from DFID, UK, Bangladesh Bank has already started live operation of Bangladesh Automated Clearing House (BACH), the first electronic clearing house in the country very soon.

10.3 Payment Systems Division (PSD) under the Department of Currency Management & Payment Systems is working on the essentials to put into operation a modern National Payment and Settlement Systems. The PSD is working on the following core areas –

- Payment Systems Strategy,
- Automated Clearing House,
- National Payment Switch and e-Payment System,
- Legal & Regulatory Framework, and
- Remittance Issues.

10.4 The National Payment Systems Council (NPSC), an essential central institution for formulating strategies and policies for modernising the country's payment systems for national and public interests, is made up of representatives from the banking industry and Government offices with the Deputy Governor in charge of the Department of Currency Management & Payment Systems as Chair. Terms of Reference (TOR) of NPSC are–

- To review, discuss and approve strategic documents for the national payment system,
- To promote common initiatives towards the implementation of the payment system infrastructure,
- To promote specific or new payment system channels which will ultimately lead to broadening the access of people to the financial system,
- To endorse the priority and the development and implementation schedule of payment system projects, and
- To promote cooperation among all institutions active in payment, clearing and settlement systems within the region and at the international level.

10.5 In alignment with the vision, mission, strategies and objectives published by BB, key strategies for developing payment systems of the country to be implemented phase by phase are shown in Table 10.1.

**Table 10.1 : 'Strategic Plan 2010-2014' for Payment Systems**

Objectives	Key Performance Area	Time Frame
1. Implement Bangladesh Automated Clearing House (BACH) comprised of automated cheque processing systems and Electronic Fund Transfer (EFT)	• MICR Cheque printing and circulation.	Near Term
	• Established Communication link between BB and participating banks.	Near Term
	• Install software on each bank's end and test the same.	Near Term
	• Test the central system and integrate with the participating bank's Cheque Processing System.	Near Term
	• Awareness building/ sensitisation	Near Term
2. Established required legal and regulatory framework for efficient payment system	• Implement Bangladesh Payment and Settlement Systems Regulations, 2009	Near Term
	• Implement Operating Rules and Procedures of Bangladesh Automated Cheque Processing Systems (BACPS).	Near Term
	• Assess suggestions and feedback on Bangladesh Electronic Fund Transfer Network (BEFTN) Rules and BEFTN Risk Management Guidelines and make ready to distribute to the BACH Participants.	Medium Term
	• Review and modify the payment and settlement system regulations continuously as needed.	Medium Term
3. Promote and encourage online banking,, e-commerce, e-payments, shared ATMs, POS, mobile payments, etc.	• Formulate regulatory measures for electronic and m-payments.	Near Term
	• Diversify the delivery channels for online banking and e-commerce.	Near Term
	• Promote Core Banking Application (CBS) and Centralised Accounting Systems (CAS) for commercial banks.	Medium Term
	• Establishment of a National Payment Switch (NPS) bringing about interoperability of the existing e-payment networks in liaison with the Government.	Medium Term

10.6 Bangladesh Automated Clearing House (BACH), the Electronic Clearing House, has two components—the Automated Cheque Processing System and the Electronic Funds Transfer. Both the systems will operate in batch processing mode—transactions received from the banks during the day will be processed at a pre-fixed time and be settled through a single multilateral netting figure on each individual bank's respective books maintained with the Bangladesh Bank.

10.7 Bangladesh Automated Cheque Processing Systems (BACPS), the electronic cheque processing of paper item, will use Cheque

Imaging and Truncation (CIT) technology. In this system, cheque-leaves submitted for clearing will not be carried physically to the clearing house as it is done now. Instead, banks will capture images and corresponding information of the submitted cheque leaves and will send them to the BACPS via a secured communication link. BACPS participants, i.e. commercial banks & related Government offices have been sensitised. All the clearing instruments, i.e. cheques, drafts, payment orders, dividend and refund warrants, etc. have been standardised. The new cheques will contain Magnetic Ink Character Recognition (MICR) line which includes information on the amount,

transaction code clients account information, routing number and the cheque leaf's serial number. Specially schemed routing numbers have been assigned to the bank branches for easy identification of origin and destination of instruments. The system will support both intra-regional and inter-regional clearings and is based on a centralised processing centre located in Dhaka and in designated clearing regions. The proposed processes and systems will conform to the international best practices and will also represent the most cost effective solution for cheque processing. The systems Integration Test (SIT) and the Live Simulation Test (LST) has been completed successfully utilising the state of the art Data Center (DC) at Motijheel Bank premise and Disaster Recovery (DR) Site at Mirpur. BACPS has already started 'Live' operation in Dhaka Clearing Region. All participants are instructed to issue country wide MICR encoded cheques. Establishment of DC and DR sites in other clearing regions are already completed and automated cheque processing in those regions will start soon.

10.8 Bangladesh Electronic Funds Transfer Network (BEFTN) is the processing and delivery centre for the distribution and settlement of electronic debit and credit transactions among its participants. The BEFTN is envisaged as a system of participating banks connected with the EFT Operator via communication links. This network will facilitate the transmission of payments between the banks electronically, which will make faster and efficient means of inter-bank clearing than the existing paper-based system. The Network will start with credit transactions and gradually progress to debit transactions. This will dramatically bring down the operational cost, reduce risk and will increase the efficiency of the payments process. "Operation of BEFTN will start soon after successful completion of all necessary testing of the system"

10.9 The Bangladesh Bank has taken initiative to establish National Payment Switch (NPS) in order to facilitate interbank electronic payments originating from different delivery channels e.g. Automated Teller Machines (ATM), Point of Sales (POS), Internet, Mobile Applications, etc. The main objective of NPS is to create a common platform among the existing shared switches already built-up by different private sector operators. NPS will facilitate the expansion of the card based payment networks substantially and promote e-commerce throughout the country. Online payment of Government dues, using cards and account number information through Internet will greatly be enhanced using NPS. Payment Systems Division (PSD), Department of Currency Management & Payment Systems (DCMPS), BB will implement this World Bank (WB) funded initiative.

10.10 **Legal & Regulatory Framework:** In order to give legal and regulatory support to such electronic exchange of images of paper items and electronic transfer of funds, Bangladesh Bank has approved and assigned the Bangladesh Payment and Settlement Systems Regulations (BPSSR), 2009. This regulation is the bedrock of modern payment systems in Bangladesh. BACPS Operating Rules & Procedures and BEFTN Operating Rules have already been published. Guidelines on mobile-technology based financial transactions for the banks have also been published. Moreover, for providing comprehensive legal backing to the operation of Electronic Clearing House, BB has taken steps to bring amendment in certain provision of the existing Negotiable Instruments Act, 1881 and Bankers Book of Evidence Act, 1891. PSD in cooperation with IFC-BICF is going to draft Payment Systems Act, review the existing BPSSR, frame rules for electronic payments (ATM, POS, Internet based and M-Payment) and guidelines for consumer protection related to electronic payments.

10.11 **Remittance Issues:** Remittance being the major source for foreign exchange has drawn attention of decision makers for encouraging the remitters to use formal channels instead of risky informal channels. The scheme of PSD for improving the current scenario is to implement a country-wide safe and efficient payment system to expedite faster delivery of remittances across the country. The PSD is also working on simplifying the procedure of sending remittances both domestically and internationally.

10.12 **Remittances and Payments Challenge Fund (RPCF):** For stimulating and catalysing innovation of new remittance transfer products, improving existing remittance infrastructure and ensuring the best use of remittances -DFID, UK has provided a £2.6 million risk-sharing grant facility named Remittances and Payments Challenge Fund (RPCF). The Challenge Fund (CF) invited proposals in four rounds eliciting 204 concept notes out of which the Challenge Fund Assessment Panel has nominated 20 proposals to award grants.

10.13 In order to raise awareness among the migrant workers and their families on

sending remittances through formal channel and to ensure best use of remittances, Refugee and Migratory Movement Research Unit (RMMRU) & International Organisation for Migration (IOM) have launched media campaign (electronic/print). A household survey has also been launched by the IOM to collect information on migrant families and use of remittances.

10.14 Increasing trade and investment flows are already putting pressure on the demand for financial services to exceed the present performing levels of efficiency. So, need for an efficient and cost-effective payment system, is gaining amplified importance. The initiative of Bangladesh Bank to modernise country's payment and settlement system will significantly change the financial landscape of Bangladesh. The convergence of paper and electronic modes of payment, improvement in operational efficiency and flexibility through adoption of IT intensive processes will result in a sound National Payment and Settlement System consistent with its neighbours and international standards.