

## TECHNICAL ASSISTANCE COMPLETION REPORT

Division: SAFM

<b>TA No., Country and Name</b>			<b>Amount Approved:</b> \$275,000	
TA 4386- BHU: Strengthening of the Payment and Settlement System			<b>Revised Amount:</b> \$605,000	
<b>Executing Agency:</b> Department of Aid and Debt Management, Ministry of Finance		<b>Source of Funding:</b> Technical Assistance Special Fund	<b>Amount Undisbursed:</b> \$776.42	<b>Amount Utilized:</b> \$604,223.58
<b>TA Approval Date:</b>  7 Sep 2004	<b>TA Signing Date:</b>  14 Oct 2004	<b>Fielding of First Consultant:</b>  13 Feb 2005	<b>TA Completion Date</b> <b>Original:</b> 30 Nov 2005 <b>Actual:</b> 30 Nov 2008  <b>Account Closing Date</b> <b>Original:</b> 30 Nov 2005 <b>Actual:</b> 24 Mar 2009	
<b>Description</b>  The technical assistance (TA) responded to the request of the Government of Bhutan (the Government) to develop a national automated payment and settlement system. The TA was included in ADB's Country Strategy and Program Update 2004-2006 for Bhutan and was in conformity with the Government's priority for private sector development.  Checks are the main means of settlement in Bhutan. A nation-wide, secure and efficient payment and settlement system is essential for the development of a robust financial sector and private sector. As part of its efforts to develop the private sector in Bhutan, the Government took the initiative to introduce a payment and settlement system in the 1990s. Clearinghouses were established in Thimphu and Phuntsholing to facilitate efficient payment and settlement of growing interbank transactions. Despite the high volume of transactions handled, <sup>1</sup> the basic, manual check clearing system at these two clearinghouses fell short of meeting the market demand adequately. Delays were accentuated because of mountainous terrain, limited road network, and slow physical movement of paper checks.  To address these constraints, the TA was designed to help establish an integrated payment and settlement system in Thimphu and Phuentsholing. Subsequently, based on the recommendations in the TA interim report, a major change in scope was made to (i) introduce check forms of international standards, including MICR encoding, to allow automatic sorting, verification, and data capture; (ii) introduce an electronic clearing and settlement system to reduce the movement of physical paper for improving operational efficiency and service delivery; and (iii) establish additional regional clearing houses for country-wide coverage. Accordingly, the recommended system proposed one central clearing house at Royal Monetary Authority (RMA) in Thimphu, supported by five regional clearing centers in Thimphu, Phuntsholing, Gelephu, Samdrup Jonkhar and Mongar.  <b>Expected Impact, Outcome and Outputs</b>  The expected impact of the TA is to establish an integrated and automated payment and settlement system throughout Bhutan to promote financial market and private sector development. The outcome is to design and operate a comprehensive computerized payment and settlement system. The outputs of the TA are to (i) support the development of the institutional and regulatory aspects of the proposed system; (ii) implement the system by procuring necessary equipment and computer software; and (iii) train staff adequately for proficient use of automated check clearing and payment system.				

<sup>1</sup> In 2004, the average daily volume was around 170 cheques valued at USD350,000 in the Thimphu clearinghouse and 50 cheques valued at USD220,000 in the Phuntsholing clearinghouse.

## **Delivery of Inputs and Conduct of Activities**

An international Central Bank Financial Specialist was engaged through a consulting firm in accordance with ADB's *Guidelines on the Use of Consultants*, to provide the required consulting services for a total of 3 person-months, delivered intermittently. However, after the first kick-off mission, the first consultant found that he couldn't finish the assignment in accordance with the Terms of Reference (TOR), which was quite broad, as per the implementation schedule. Thus additional international System Information Technology (SIT) Expert was recruited as a Resource Person for a period of 0.25 person-months to carry out the SIT-related tasks of the original TOR. During the project implementation, the need for further extending the engagement period of the second expert was felt. However, at the time of contract extension, the second consultant sought a two fold increase in billing. This led to failure of contract extension and resulted in nullification of ADB's contract offer. The performance of the first two consultants was rated as generally satisfactory and unsatisfactory respectively since they could not complete their assignments. ADB later contracted a third consultant, an international Payment System Technology Expert for a period of 30 calendar days to complete the remaining work. The third expert i) assisted the Government in monitoring the installation and supervising the implementation of the automated payment system; ii) provided advice and problem solving solutions to the Government and the vendor; iii) assisted in completing the User Acceptance Test (UAT); iv) recommended techniques to reduce the number of keystrokes by 30 percent for data capture; v) familiarized the staff with processes designed for efficiency; vi) drafted final report for the TA and finalized the report after incorporating the comments from the Government and ADB. His outputs were rated as satisfactory by both the executing agency (EA) and ADB.

The TA also entailed procurement of hardware and software for the establishment and operation of the payment and settlement system, i.e. the National Check Truncation System in Bhutan. The procurement contract was awarded to NCR Corporation India Pvt. Ltd. (NCR) in accordance with ADB's *Procurement Guidelines*. NCR's scope of work included i) delivering / licensing and installing hardware and software for customer's image based National Cheque Truncation System in Bhutan; ii) operationalizing the system; and iii) conducting a two-week user training on system administration and operation. The services rendered by NCR were found satisfactory.

The TA was initially approved for \$275,000 in 2004. During TA implementation, a major change in scope was made in accordance with the recommendations of TA interim report, submitted in August 2005, to expand the scope of the TA from the initially envisaged 2 clearing centers to 6 clearing centers. The recommendations of the TA interim report also include amendments to the upcoming laws and regulations for legalizing the country-wide integrated system. As a result, a supplementary amount of \$300,000 was added to the TA to enable the procurement of the automated payment and settlement system in December 2005. In August 2007, due to foreign exchange fluctuation, the TA required additional funds to pay for the balance of the project cost. Therefore, a supplementary amount of \$30,000 was approved to enable full payment for the automated system. In summary, the total project cost was \$605,000, a two fold increase from the sum originally envisaged.

TA implementation was substantially delayed and the completion date had been extended five times from the original closing date of 30 November 2005 to 30 November 2008 due to: (i) the termination of the contract of the first two consultants; (ii) recruiting the third consultant to fully accomplish the remaining activities; (iii) the intensive purchase contract negotiation with the selected system provider, i.e. NCR; (iv) the time required for a proper installation and subsequent acceptance test of the new payment system; and (v) a delay in delivery of equipment, namely, check scanners due to shortage of stocks.

Periodic review missions were conducted to address concerns and facilitate project implementation. Close coordination and cooperation between ADB, EA and the consultant during project implementation contributed to satisfactory outcome of the TA. Hence, the performance of ADB and EA are rated satisfactory.

## **Evaluation of Outputs and Achievement of Outcome**

Despite of the extension of the TA completion date by 36 months and change of consultants during project implementation, the outputs were accomplished due to the following reasons. First, the country-wide automated payment and settlement system was established, namely one central clearing house at RMA in Thimphu, five regional clearing centers in Thimphu, Phuntsholing, Gelephu, Samdrup Jongkhar and Mongar. The UAT was conducted to assure that all features of the system performed properly. The new check clearing system is currently providing clearing service at "T+1"<sup>2</sup> which is a significant improvement compared to the old system. Second, the Government and ADB found the consultant's deliverables satisfactory. The Clearing House Rules and amendments to the draft Financial Services Act and Royal Monetary Authority of Bhutan Act are well drafted. The latter two will be enacted in 2010. Third, the training conducted by NCR in Thimphu was well received by the banks, regional clearing house staff and the management of RMA. Attendees were allowed "hands on" experience with the new equipment. Fourth, consultations carried out with stakeholders during the course of TA implementation helped ensure meeting the TA's objectives. In general, all the outputs and outcome were achieved as expected.

## **Overall Assessment and Rating**

The impact, outcome and outputs of the TA were in line with the Government's development strategy and ADB's country strategy for Bhutan. Although TA implementation was delayed, it is well justified on account of the major change in scope during project implementation that entailed substantial increase in TORs, financing, and workload for all the stakeholders. Both the Government and ADB found the consultants' reports satisfactory. The TA met the target outcome and outputs set out in the TA paper. Overall, the TA is rated satisfactory<sup>3</sup> (see Appendix).

## **Major Lessons**

Instituting a payment and settlement system is a highly specialized aspect of financial sector development. Therefore, additional efforts and careful review of TORs and project costs should be made at an early stage in order to avoid potential disputes and disruptions during project implementation.

## **Recommendations and Follow-Up Actions**

The clearing house in Samdrup Jongkhar was temporarily closed in 2009 because of insufficient usage. According to the Government this was mainly due to limited knowledge of financial products and services including checks among the potential clients. Therefore, there is a need to provide public awareness campaign and financial literacy programs to educate the public to maximize the usage of the current clearing system.

Prepared by: Hongwei Zhang Designation: Economist (Financial Sector)

In preparing any country program or strategy, financing any project, or by making any designation of or reference to a particular territory or geographic area in this document, the Asian Development Bank does not intend to make any judgments as to the legal or other status of any territory or area.

<sup>2</sup> The abbreviation "T+1" refers to the settlement date of the transaction and denotes that the settlement occurs on a transaction date plus one day.

<sup>3</sup> Using OED's criteria for overall project performance based on relevance, effectiveness, efficiency, and sustainability as stated in the *Guidelines for Preparing Performance Evaluation Reports for Public Sector operations*, January 2006 (see Appendix).