LEVERAGING ICT AND E-GOVERNANCE SOLUTIONS IN IMPROVING PUBLIC FINANCIAL MANAGEMENT IN SOUTH ASIA: LESSONS LEARNED

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## TREASURY AND DEBT MANAGEMENT

### Integrated Financial Management System (IFMS) in West Bengal, India

- Provision of real time data on cash balances and requirements
- Budget-treasury interface across drawing and disbursement offices, improving efficiency of public resource allocation
- Approval of funds by Finance Department to spending agencies within 2 days, which could take up to 3 months under the manual system
- Improvement of transparency in government agency spending

### IFMS also implemented in Sri Lanka, Mizoram and Assam in India

## Automated debt recording and management system and a consolidated debt database in West Bengal, India

Monthly up-to-date public debt records, improving transparency of on and off-budget borrowing and contingent liabilities on SOEs, salary and pension arrears and funding requirements of state schemes
Standardize debt management including repayment and restructuring processes
Analyze cost of borrowing, debt related transactions, and loan agreements and guarantees, and associated risks

### CSDRMS also implemented in Mizoram, India



#### **iFMS Modules**



### EXPENDITURE MANAGEMENT AND PROCUREMENT

#### Computerization of Salary Accounts (COSA) for Secondary School Teachers in West Bengal, India

- Digitization of Pensioner and Employee database
- Accurate estimation of salary and pension liabilities, improving accountability and transparency
- Linking of salary payments directly to employee bank accounts instead of cash payments.

#### Online store management information system for drug procurement

- E-tendering system tripled purchasing power of the drug procurement budget, benefitting poor using public health

### Agriculture Power Subsidy Rationalization in Punjab, India

- Use of satellite imaging and GIS mapping for surveying agriculture land to design a crop-specific action plan for water and electricity use

### Integrated Human Resource Management System (iHRMS) for employee and pension database



#### Nation-wide Rollout of E-Government Procurement System in Nepal

- Received South Asia Procurement Innovation Awards in 2016
- Time and cost savings up to 20% in public procurement
- Significant improvements in competition, reduction of collusion



### **REVENUE ADMINISTRATION AND TAXPAYER SERVICES**

#### Tax Information Management System (TIMS) in Assam, India

-With electronic tax services, VAT revenue increase by an average of 15% annually, and state excise tax revenue by 22% against a nominal GSDP growth of 12% during FY2006-FY2012.

- With online tax filing, the administrative burden of the tax department and taxpayers was reduced

(RAMIS and Integrated Tax Administration System also implemented in Sri Lanka and Bangladesh)

#### Tax Information Management System (TIMS) in West Bengal, India

- Finance Department received 2013—2014 CSI-Nihilent award for citizen friendly tax reforms using ICT. - In 2014, the Department of Industrial Policy and Promotion of the Ministry of Commerce and Industries recognized the GOWB for improving the

business environment using single window tax clearances.

#### Excise Management System in West Bengal, India

2014 Skotch digital inclusion award for the e-Abgari, introducing an online excise administration and tax filing system for the first time in India.
 System covers 6000 excise licensees and tracks production, distribution, and sale of liquor in real time using barcodes, eliminating tax leakages throughout the supply chain, expanding the revenue base to small retail outlets, and speeding the processing of permits through e-licensing.
 The Directorate of Commercial Taxes under the GOWB Finance Department received the 2014–2015 GOI National Award and a silver award for excellence in government process reengineering.





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### **RAMIS BHUTAN**

### Rollout of Revenue Administration and Management Information System (RAMIS)

- Automated direct tax and sales tax collection
- Online taxpayers increased by 74% during FY2014-FY2016

- RAMIS improved domestic revenue mobilization from Nu16.2 billion in FY2014 (pre-RAMIS) to 21.7 billion in FY2017.

### Taxpayer Information Call Center

Establishment of Government-to-Citizen (G2C) system
- 75 government services were offered under a common portal

Linking G2C e-governance portal to RAMIS



.drc.gov.bt/drc/





### MALDIVES INLAND REVENUE AUTHORITY (MIRA)



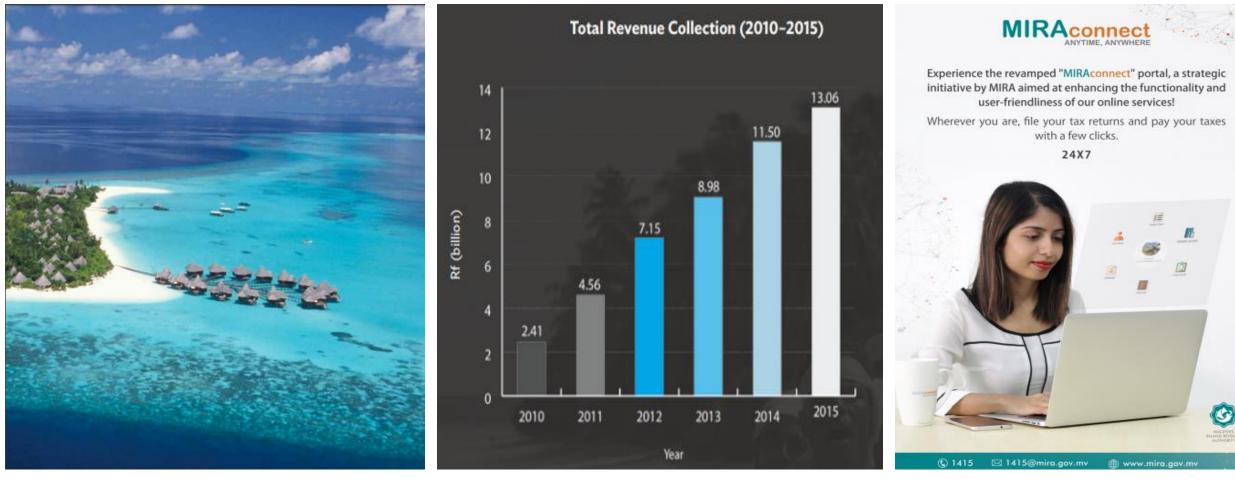
### **Electronic Tax Administration Platforms for Maldives Inland Revenue Authority (MIRA)**

- MIRAconnect: an online portal for taxpayers, providing online registration, filing of returns and payment of taxes that helps overcome geographic barriers in Maldives and improve taxpayer compliance

ADB

- Faster data exchange between agencies that were previously operating manual and disintegrated systems.
- Enables risk-based tax audits and monitoring of tax compliance

### MALDIVES INLAND REVENUE AUTHORITY (MIRA)



Electronic Tax Administration Platforms for Maldives Inland Revenue Authority (MIRA)

- MIRA's tax collection cost declined from (Rf) 0.8 spent per Rf100 collected in 2011 to Rf0.51 in 2014.
- When MIRA was established in 2010, the total revenue collection was 8.1% of GDP.

After operationalization of RAMIS, tax revenue increased from 18.4% of GDP in 2012 to 24.7% of GDP in 2014.



### MUNICIPAL FINANCE

Computerization of Property Registration and Property Tax Records in Assam, India

- Recipient of e-Governance Gold Icon National Award in 2012-2013 from Union Department of Administrative Reforms and Public Grievances

#### Property Registration Management System in West Bengal, India

Online process for property registration and valuation
 E-stamp can be issued within 5 minutes of a one-stop visit at the registration office, preventing leakages and ensuring timely receipt of registration and mutation fees.

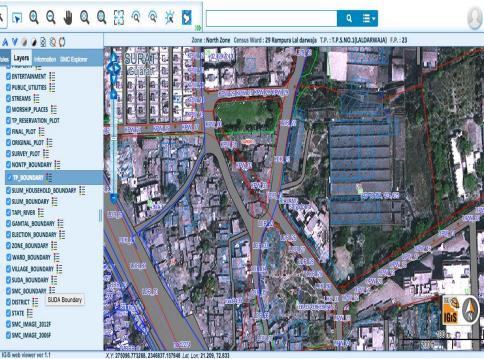
#### Digital Land Management System in Bangladesh

- Digitization of land records, improved access to tax and land information centers

**Digitization of property databases using GIS mapping in Bhutan** - Modification of Revenue Management System (RMS) of Thimphu Municipality to incorporate objective property valuation methodology

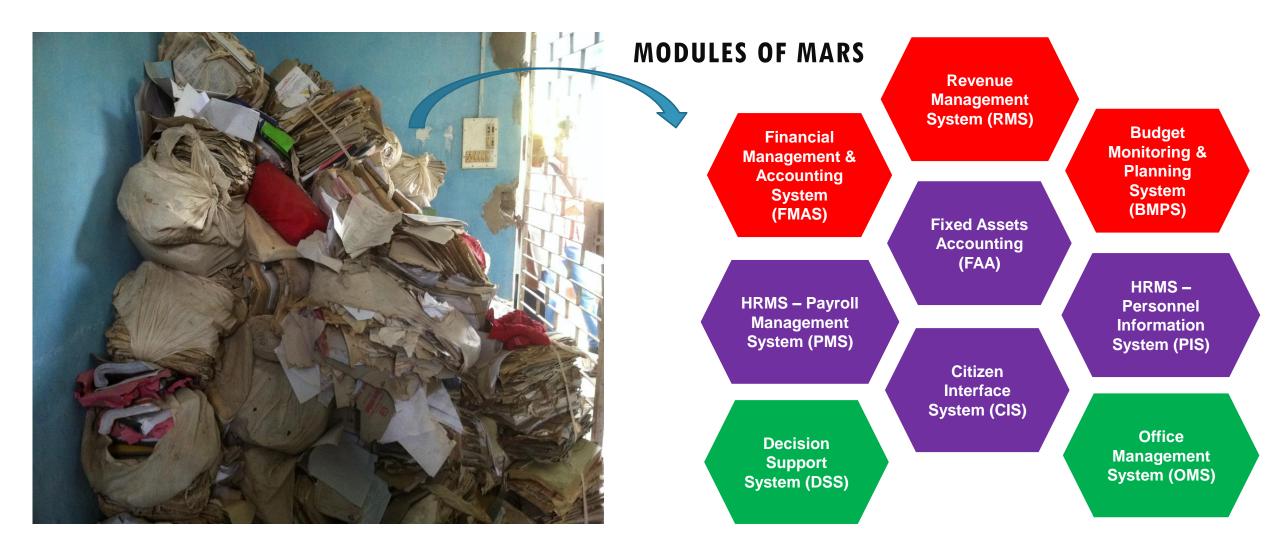
- Property tax collection in Thimphu doubled from Nu19.9 million in FY2015 to Nu41.2 million in FY2017





### MUNICIPAL FINANCE

Municipal Administration and Revenue System (MARS) in Nepal - MARS developed and piloted in Kathmandu Metropolitan Municipality



### FINANCIAL INCLUSION

Strengthening Credit Information Bureau and Central Movable Asset Registry in the Maldives

Automated Surveillance Systems for SEC and Stock Exchanges in Bangladesh

- Detect and prevent fraud and malpractices in Bangladesh

Strengthening Credit Information Bureau in Bhutan

- Improve collection of information on credit history for individuals and MSMEs



#### Finance

#### Credit Information Bureau upgrades its system

Features in the system

solutions

ver Blade

Silver Blade yesterday.

#### Tshering Dorji

To augment the dissemination of credit information to financial institutions, individuals and commercial entities, the Credit Information Bureau (CIB) has upgraded its system to Silver Blade 2.0, which was launched vesterday.

In 2014, the Financial Sector Development Action Plan recommended the CIB to further improve its system to include data from utility providers like the telephone companies, electricity, water and insurance, among others. This was found necessary to

provide more comprehensive information and credit history of the borrowers. An official from the Asian

Development Bank, which provided the technical assistance, said the new system would make access to finance opeior This is viewed as a criti. cal component for financial

inclusion.

The Silver Blade software will facilitate transparent and efficient flow of credit informa tion to both the borrowers and lenders.

For instance, the software is capable of facilitating 1 million transactions in less than 30 minutes and instantly up dates it on the repository. This means that if an individual

closes his/her loan account with a bank, in less than 20 minutes the CIB will update the portfolio of that client. The financial institutions

use the CIB services to fetch credit history of their clients. Should a client default borrowers their loan or avail additional loan with any of the banks, the would also allow banks to comnew system will immediately pare their credit portfolio over alert all the banks. certain durations and among

Silver Blade is designed each other, thereby promoting to drastically reduce the time competition. "You can slice and taken to process loans and redice the data and its more of duce the rate of default. a business intelligence tool,"

The new system is also desaid a representative from Dun signed to report risk and stipuand Bradstreet, the developer late the financial horoscope of of the software and a leading global provider of credit bureau The Asian Development

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bank provided a grant of USD ance from ADB in 2009 500,000 to upgrade CIB's system from Credit Verdict to Sil-The finance minister Lyonwith a paid up capital of Nu 25 po Namgay Dorji launched the million. RMA holds 44 percent of the capital and the balance is CIB, meanwhile was estabheld equally by the eight finanlished by the Royal Monetary cial institutions of the country

ADB



Authority (RMA) with all the financial institutions as founding

members with financial assist It was delinked from RMA in 2013 and it is now a fully registered and licensed company

### G2C SERVICES AND MOBILE BANKING

#### Mobile and Branchless Banking in Bhutan

- Access to basic financial services with the use of smart cards on POS terminals in 200 Gewogs through CICs - More than 8,000 customers enrolled









# LESSONS LEARNED: KEY SUCCESS FACTORS TO MAXIMIZE THE EFFECTIVENESS OF ICT AND E-GOVERNANCE SOLUTIONS

- ICT and e-governance systems have transformative impact through effective use of public resources, cost savings, enhancing scope and efficiency of service delivery, minimizing fiduciary risks and corruption, standardizing business processes, transparency and accountability, faster information dissemination and active citizen participation.

### **INSTITUTIONAL:**

\* Empower key agencies with sufficient budget and human resources as drivers of change under a cohesive, coordinated, and integrated strategy

\* Develop the appropriate legal framework and regulations to enable the use and ensure data quality, security and consumer protection before introducing new technologies

\* Engage citizens and key stakeholders through basic ICT literacy and public awareness campaigns to improve the acceptance over time

\* Partner with private sector, NGOs, and communities during implementation to improve stakeholders' buy-in

\* Evaluate effectiveness so systems do not lose relevance and become obsolete over time



# LESSONS LEARNED: KEY SUCCESS FACTORS TO MAXIMIZE THE EFFECTIVENESS OF ICT AND E-GOVERNANCE SOLUTIONS

### **INFRASTRUCTURE:**

\* Implementation of ICT and e-governance systems requires adequate focus on basic enablers:

- **Non-ICT Infrastructure:** basic citizen identification and records, basic literacy, reliable power supply and electrification, workstations / offices / community service centers, trained staff, etc.

- **ICT Infrastructure:** network connectivity, access to internet, computers, mobile phone penetration, vendors for IT-related equipment, etc.

\* The project design and scope should focus on these basic requirements to enhance overall preparedness.

\* Adequate comparative analysis of other country experiences is required to define the functional and technical specifications before obtaining or developing desired solutions.

\* Selected technology should be compatible with legacy systems.



### LESSONS LEARNED: KEY SUCCESS FACTORS TO MAXIMIZE THE EFFECTIVENESS OF ICT AND E-GOVERNANCE SOLUTIONS

### **PROJECT MANAGEMENT:**

\* ICT and e-governance systems become more accepted when supported by clear operating guidelines, necessary physical facilities, sustained training & ICT support to the staff from the central government.

\* Introduction of ICT should be accompanied by total business process reengineering and HR skill development compatible with the new systems

\* Develop an effective project management unit and sufficient in-house capacity to procure, develop, maintain and upgrade these systems. Standardizing the procedures can prevent delays in implementation.

\* Work with third-party experts to verify the quality of ICT development and implementation

\* Develop and update content of e-services in addition to the creation of physical and ICT infrastructure and providing access points.





### QUESTIONS AND ANSWERS

