

## Written questions to the Ministry of Education

### *Issue 1: E-library*

The Hon'ble Prime Minister of India, H.E. Sri Narendra Modi spoke of access to large database of e-library for education institutions in Bhutan during his visit to Bhutan in mid-2014. This was later reiterated by our own Prime Minister at several occasions. However, there has been no visible development concerning e-library. Therefore, the National Council would like to ask the Royal Government concerning developments, progress, reach and connectivity of e-library.

### **Answers:**

#### **Background**

Hon'ble Prime Minister of India Shri Narendra Modi announced Government of India's assistance for establishment of e-Library across the country during His Excellency's State Visit to Bhutan in June 2014. His Excellency stated that e-Library will make the educational contents accessible to students across nation in a reliable way with implementation of the modern IT Technologies.

The Centre for Development of Advanced Computing (CDAC), a Scientific Society under Ministry of Communications and Information Technology, Government of India is entrusted to implement the Project with the following deliverables:

1. Development of e-Library Portal (website)
2. Provisioning of e-contents from NCERT for K-12 Education
3. Creation of e-Libraries in 49 Central Schools and 12 colleges (Supply and installation of hardware)
4. Setup e-Library Studio in Bhutan
5. Training on use and management of e-Library for schools and colleges
6. Training on creation and management of e-contents
7. Handover to Bhutan side after three years of support and training

Since the announcement in 2014, the Royal Government of Bhutan has been facilitating CDAC in implementing this project. Central and relevant agencies such as the Ministry of Education, the Royal University of Bhutan, the Royal Institute of Management, the Department of Information Technology and Telecom and the Gross National Happiness Commission have been assisting CDAC in coordinating and facilitating the project whenever necessary, through the Embassy of India, Thimphu.

This is a non-plan project that is being implemented by the GoI at a project cost of Nu. 148 million. The main beneficiaries are the Ministry of Education, the Royal University of Bhutan and the Royal Institute of Management. This project is a gift from the GoI to the people of Bhutan and the main component that is being provided to Bhutan is in terms of hardware and e-Library portal website.

The e-Library, Bhutan project envisages setting up e-Libraries network across Bhutan to access knowledge with the help of modern ICT technologies. The e-Library would be a focused collection of digital objects that will include text, visuals, video, audio, etc. stored as standardized and customized electronic media formats (as opposed to print, micro form, or other media), along with means for organizing, storing, and retrieving the contents from the e-library repository.

## **Progress**

### **1. Brief Chronology of Events:**

Between June, 2014 and June, 2015, a task force was created within the RGoB and a concept note was prepared and submitted through the Embassy of India. CDAC made their first official visit on 16<sup>th</sup> October, 2014 and the task force submitted a preliminary proposal on 26<sup>th</sup> November, 2014. On December, 2014, CDAC submitted their own detailed project proposal to the RGoB. Consolidated views were submitted on January, 2015. On 17<sup>th</sup> February, 2015, at the Ministry of Foreign Affairs, a meeting was conducted between RGoB officials and Embassy of India officials on expediting the project. The MoE and RUB were requested to submit information on existing digital availability, existing bandwidth and infrastructure and on content. This information was prepared and submitted by 31<sup>st</sup> March, 2015, using a format shared by Embassy of India (EoI). CDAC's second subsequent visit was on 12<sup>th</sup> April, 2015. The bilateral meeting that was held decided that CDAC would formulate a proposal and forward to EoI. CDAC would modify their initial DPR/Implementation Report, so that scoping and structure is well defined. Focal points from the various RGoB agencies were also identified. The possibility of launching the project with framework and content at the earliest was also emphasized. The CDAC delegation also called upon the HPM.

CDAC submitted their Project Implementation Plan on 4<sup>th</sup> June, 2015. In response, RGOB acknowledged the priority placed on this project at the highest level by both the Governments and endorsed the various activities outlined in the implementation plan for the 49 schools and 12 colleges. In this letter, several issues raised by sectors and pertaining to internet connectivity, provision of affordable and portable devices to schools, recording of culture and history at the latter stage of the project and capacity building of local staff for sustainability of the project were also highlighted, requesting for provision of changes during the implementation of the project in order to address the bottlenecks and to ensure successful outcomes.

CDAC also indicated through the Embassy of India on the 21<sup>st</sup> of September, 2015 that they would like to hold a two day workshop in Bhutan on awareness and readiness for implementing the project. Dates were proposed by the RGOB, however, the workshop didn't take place. On 3<sup>rd</sup> December, 2015, the RGoB requested for a project update and it was informed on 11<sup>th</sup> December that that the e-library portal was in its final stages at <http://14.139.61.149/elib/> for review and feedback. GoI also proposed establishing a project office during January, 2016 and that an amount of Nu. 59, 396, 251 million was released to CDAC. The GNHC acknowledged the status update from GoI and requested EOI to facilitate the implementation of the project, as well as for a work plan on the way forward for the forthcoming months

As of June, 2016, A **Project Engineer from CDAC** has also been stationed in Thimphu from February, 2016. He is responsible for site verifications and determining the site readiness of the locations along with the school and college authorities. The Project Engineer has visited 49 schools and identified 40 schools for site readiness to implement the project. It was also discussed between RUB, MoE and the Project Engineer on the 15 locations (12 schools and 3 colleges) where the project could be launched and CDAC has been requested to share a timeline of the activities.

## 2. **Development of e-Library Portal & Creation of e-Library Studio in Bhutan**

CDAC has developed e – Library Portal and is functional. It can be viewed <http://14.139.61.149/elib/> and the e-contents from NCERT for K-12 Education will be made available in this portal. From Ministry of Education, Bhutan, the syllabus for all classes from PP-12 along with textbook (PDF format) is shared to CDAC for e-Library.

## 3. **Creation of e-Libraries in 49 Schools and 12 colleges**

**In Schools.** An e-Library section with three Desktops will be provisioned at each of the 49 schools across Bhutan. A local server with storage facility for accessing and storing local contents at each of the e-library which in turn would be connected to the large reservoir of e-contents residing at the Central Repository. Where connectivity is an issue, the contents of the local server would be periodically updated with the use of a movable media such as Hard Disk Drive. The contents could be accessed using the Desktops in e-Library section; in addition, the contents would also be accessible by users on their own devices outside the e-Library section using the available Wi-Fi facility. The e-Libraries would also be facilitated with an LED TV for broadcasting the contents to a group of students.

**In Colleges.** An e-Library section with five Desktops will be provisioned at each of the 12 colleges across Bhutan. A local server with storage facility for accessing and storing local contents at each of the e-library which in turn would be connected to the large reservoir of e-contents residing at the Central Repository. Where connectivity is an issue, the contents of the local server would be periodically updated with the use of a movable media such as Hard Disk Drive. The contents could be accessed using the Desktops in e-Library section as well as by users on their own devices outside the eLibrary section using the provisioned Wi-Fi facility.

**The Studio.** An e-Library Studio would be established to create digital content for digitalizing books, documents, audio-video contents, etc. The Studio would be connected to the Central Repository for uploading the contents to e-Library portal. The content could be uploaded if connectivity is available; if connectivity is not available the content may be uploaded offline using movable media.

**The Central Repository:** A Central Repository is proposed to be at Data Centre in Bhutan (preferably Thimphu Tech Park, Thimphu, Bhutan) for hosting of e-Library portal.

**The Hardware (for schools, college, studio and central repository):**

The Purchase order for supply, installation and commissioning of IT hardware has been placed to the vendor on April 12, 2016 as per approved BOQ for the project.

The vendor has visited Bhutan during May 25-31, 2016 for arrangement of warehouse, coordination with Local vendors for distribution of IT hardware from central Warehouse to end user location across Bhutan and holding meetings with end user and other officials for discussions over implementation.

The Vendor is in process of dispatching hardware from India and Singapore. Delivery and distribution of IT hardware all end locations in Bhutan would be done during June-July' 2016. The MoE is processing custom clearance for the equipment to be used in e-Library

Installation and commissioning of entire Network would be done by end of Aug' 2016.

4. **Training on use and management of e-Library and creation and management of e-contents**

Trainings would be conducted to during September 2016 and content creation for Bhutanese would be initiated in Bhutan in October this year by CDAC.