



ལྷོ་ཕན་རིག་སྒྲེལ།

Enabling a Society.  
Empowering a Nation

## 'Chiphen Rigpel'

*A friendship project between the  
Government of Bhutan and Government of India*



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Enabling a Society.  
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**Chiphen Rigpel Project office**

2 Gyaltzen Penor House, Changzamtok, Thimphu, Bhutan

Ph: + 975-17556315

Implementation partner

**NIT**



## Glimpses



## Chiphen Rigpel – An overview

‘Chiphen Rigpel - Enabling a Society, Empowering a Nation’ – is the ambitious Human Capacity Building project introduced by The Royal Government of Bhutan in partnership with Government of India. Chiphen Rigpel has been designed to help Bhutan successfully transition to a modern IT-enabled Knowledge Society. The Government of India supported project was launched on April 30, 2010, on the sidelines of the SAARC summit in Bhutan. NIIT is implementing the Project in Bhutan.

A wholly inclusive project that reaches out to all sections of Bhutanese society, Chiphen Rigpel is expected to provide ICT skills to about a fifth of the population of Bhutan and help them become empowered citizens of an IT-enabled society. The programs offered under the project encompass training of the country’s leadership in preparing for e-governance, bringing ICT and ICT-enabled education to schools, training of teachers, training of youth with employable IT skills and creating Minimally Invasive education opportunities for the unreached Bhutanese population across the length and breadth of the country.

Chiphen Rigpel, has been quietly transforming teaching and learning across Bhutan. Since its inception the project has provided IT training to over 1,00,000 school children and youth, thereby IT-enabling over 50% of the country’s entire population in this category. The project has, further, directly impacted 100% of all students in government secondary schools. As a result, IT is now an integral part of the curriculum for students in Bhutan from class 7th to 12th. Children who pass out from secondary schools are IT proficient, just as they are proficient in other conventional subjects like Math, Science and English, thus paving the way for a truly IT-literate society !

Chiphen Rigpel is also changing the way education is delivered by making ICT an essential part of the educational process. With IT-enabled learning aids like Smart Science Station, Geometer’s Sketchpad and Computer Aided Learning, classrooms are far more exciting and interactive. Each of the 168 government secondary schools across Bhutan has already introduced ICT-enabled teaching-learning aids under the Chiphen Rigpel project being implemented by NIIT.

ICT significantly enhances the capability of teachers & increases the impact of textbooks. It can be harnessed as a powerful modern-world tool to enrich the teaching-learning experience and enhance the motivation of both teachers and students to do better. The day is not far when other countries will look at Bhutan as a model for creating an IT-savvy generation and for effectively integrating ICT into their Educational Systems.

# 100,000 trained in four years

*This is how the Chiphen Rigpel project quantifies its contribution to the society*

**Gyalsten K Dorji**

More than 100,000 Bhutanese were trained under the Chiphen Rigpel project so far.

## ICT

This was announced at an event marking the project's fourth year yesterday.

Chiphen Rigpel is a project designed to help Bhutanese society transition to an IT-enabled knowledge society.

Funded by the Indian government, it was launched in 2010. The Nu 2.05B project is scheduled to end next year.

The project has six components of bringing information communications technology (ICT) to schools, empowering teachers, enhancing employability, enabling e-governance, reaching the unreached and managing e-waste.

In the first component, project officials said more than 95,000 school students received an IT education since 2010. The project ensured that all students who complete secondary education in the country were "fully" IT literate, with a strong foundation of IT skills.

Besides providing IT training, educational tools that enable simulated science experiments, exploration of mathematical concepts and learning of geography have been given to each school.

ICT learning centres, it was said had been established in 168 government secondary schools.

Project officials also said

the students were examined on their skills twice a year and that 96 percent passed, while the average mark was 82 percent.

Coming to empowering teachers, more than 5,200 teachers were trained and seven teacher-training centres established.

The training program provided teachers with IT skills to help them integrate ICT in teaching and learning process.

In ensuring all youth entering the job market acquired the necessary IT skills, 16 IT learning centres were established to enhance their employability.

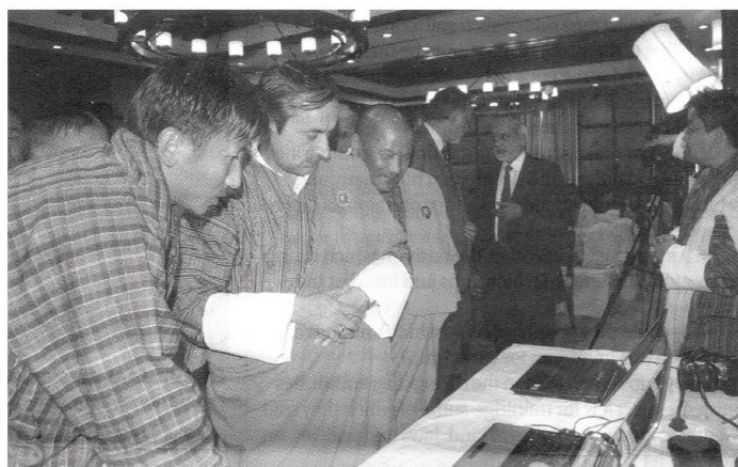
The centres were established in colleges, technical training institutes, Royal Institute of Management, and the Youth Development Fund. Over 19,000 youth have been certified through these centres.

More than 7,300 civil servants, including 300 monks, were trained and seven e-governance training centres established under the enabling e-governance aspect.

In efforts to bridge the digital divide, 131 playground learning stations were established under Reaching the Unreached project.

On e-waste, workshops and surveys have been carried out to develop rules and regulations and a guide manual for national e-waste management.

Speaking at the event, NIIT chairman Rajendra S Pawar said the project was now in transition. The government chose NIIT, an In-



**Visible benefits: MOIC minister DN Dungyel and education minister Mingbo Dukpa watch a documentary some teachers made, thanks to Chiphen Rigpel**

dian company, to implement the project.

He said it was important to now take stock of the project's impact. While quantitative targets were met, the qualitative impact of the project needed to be closely studied.

Speaking at the event, Indian ambassador VP Haran said the project was an "outstanding example of cooperation between India and Bhutan."

He said the project

brought together India's strengths in IT with the needs and resources of Bhutan.

However, the ambassador also pointed out issues that needed to be addressed. He said some the playground learning stations were underused given their locations and he suggested they be relocated to schools.

He also said some IT learning centres that NIIT established lacked internet access and that it required

addressing.

Information and communications minister DN Dhungyel explained they were exploring relocation of underused playground learning stations.

He said the Chiphen Rigpel project had benefitted all sections of Bhutanese society.

He said the country was committed to providing ICT not as a facility, but as a right to the people.

## Chiphen Rigpel family: Walking together on a path to an IT enabled society



*The Chiphen Rigpel Family of - Lopen Tshering Dorji, Photo Created and provided by Lekzin Palden Lhamo*

'Inclusive Growth' has now become a catch phrase and including all sections of the society in any development project is indeed the real yardstick of its success! Most Government initiatives and projects today are planned in a manner to include the entire society - irrespective of age, economic, cultural or educational background. It is indeed encouraging to note that the Chiphen Rigpel Project which has been designed to be a broad-based inclusive project has several such instances where people from across the society have benefited from its various programs. Perhaps the best example for this is where the entire family has become IT literate by undertaking training programs offered under the project. The Chiphen

Rigpel, as we all know, is the ambitious Human Capacity Building project introduced by the Royal Government of Bhutan in partnership with the Government of India with the aim to help Bhutan successfully transition to a modern IT-enabled Knowledge Society.

In one case, in a family of three - both the parents and the son underwent different training programs under the project, customized and tailored to suit their specific roles and needs. The mother, who is a teacher at a primary school, went through a 10-day training program especially designed for teachers. The father, who is a civil servant, went through a 5-day training program in Program Management for e-Governance. And the son, a middle school student, has been studying IT as part of the curriculum that has been

developed under the Chiphen Rigpel project, being implemented by NIIT.

It is also interesting to note that not only did they attend different courses, but they also attended training at different locations. The Chiphen Rigpel project has provided training at more than 200 locations across Bhutan to people from different walks of life including civil servants, teachers, schoolchildren, youth and the monastic body to ensure its avowed goal of bringing IT education to all sections of the

society.

The family of Lopen Tshering Dorji is another such family that has benefited from the Chiphen Rigpel project. Both parents who are teachers underwent the Teacher Training provided under the project and the two daughters who are in Class X and Class VII are also receiving training under the project. The mother, Kezang Choden, said, "This was a special experience for us as we were one of the first batches to receive the training that made a huge difference to

our confidence levels and removed our fear for computers. The training motivated us to buy a laptop for our whole family and we have also given our elder daughter a laptop. Thanks to Chiphen Rigpel we now use computers for a variety of tasks like making lesson plans in schools." The elder daughter Lekzin Palden Lhamo a student of Class X said "The Chiphen Rigpel training has taught me to use my laptop effectively. I now use internet to download information for my school projects."

In an interesting twist, the daughter Lekzin has now joined the school IT Club as a part of which she provides basic computer training to friends and poor children who cannot afford computers. In her own way she is giving back to the children the benefits that she received under the program. This is indeed an encouraging trend as it will go a long way in making the program sustainable, for the power now rests with Bhutanese population to enlighten and illuminate the newer generation!

## Chiphen Rigpel: Spreading the light of IT in Bhutan

Contributed by Upasana Dahal

**Thimphu** - It is 4:00pm at the Youth Development Fund (YDF) and a group of small children between the ages of 5 to 11 are gathered around a small centre near the YDF entrance. This is a familiar sight across Bhutan in more than 130 locations. The children are drawn to the two yellow and red boxes located adjacent to the YDF gate. These are the Hiwel Playground Learning Stations or more simply put the PLS. Implemented under the Chiphen Rigpel project, these Playground Learning Stations are unique systems designed to educate young children by harnessing their natural enthusiasm for learning through playing.

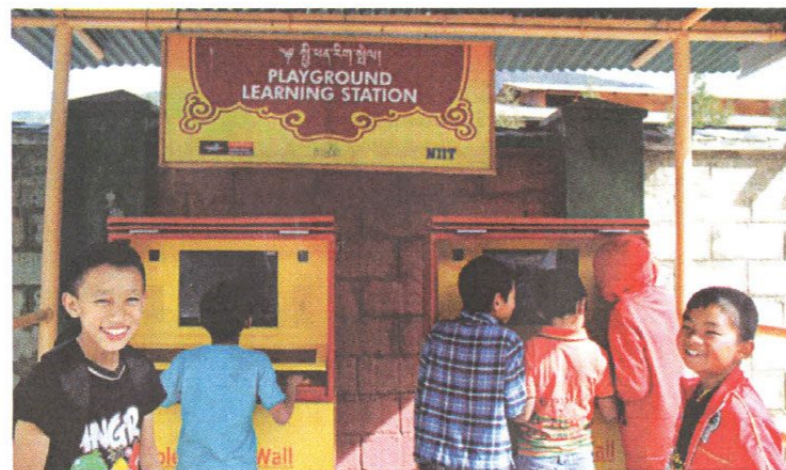
The Hiwel Playground Learning Station, the result of a path breaking experiment pioneered by NIIT's R&D and financed by the International Finance Corporation, is an initiative which encourages natural learning through an innovative methodology - Minimally Invasive Education. The PLS is an activity based e-learning initiative for improving elementary education by offering exciting and effective education and learning experiences through novel technologies beyond the classroom.

One of the enthusiastic children from the group, Sonam Tenzin, a Class four student from Rinchen Kuenphen School says, "It is with the help of PLS that I learned how

to use a Computer". He likes to play Brain Games, one of the popular games at the PLS as it has lot of animation that children find exciting. Some of the other popular contents that the PLS offers to the students of Rinchen Kuenphen School are reading, mathematics, painting & science.

The PLS is an attractive set of computer kiosks which enquires about the age of the learners and provides them with age appropriate topics and games. The other parameters which the PLS uses are class and language. However, the PLS also provides children an opportunity to explore beyond the material provided by enabling them to select additional options. For example a student of Class 7 can not only explore materials related to his own age group but can also access additional materials meant for 8th standard kids.

Rigyel Younten, a Class 4 student shares his experience of PLS with us. He says that PLS has helped him improve his reading skills tremendously to the extent that his classmates who used to tease him in his reading skills now respect him for his improvement. "This has boosted my confidence and I now look forward to going to school every morning". Rigyel enthusiastically adds, "I have also learned mathematics and love doing multiplication, division, subtraction and addition with the help of PLS". Mr. Tek, NIIT Coordinator said,



Sonam and Rigyel enter the fun world of learning with Chiphen Rigpel's Playground Learning Stations

"PLS has made learning an exciting and enjoyable experience for children. Additionally learning along with their friends has helped improve their interpersonal skills."

Since inception, Hiwel Playground Learning Station has played a significant role in improving elementary education and life skills of children across India, Bhutan, Cambodia and countries in the African continent. Breaking the traditional confines of school, the PLS takes Learning Stations to the playgrounds by employing a unique collaborative learning approach that allows children to explore, learn and also enjoy themselves while doing so. With over 300 multimedia titles the PLS covers a range of subjects and has already been adopted by

many schools across Bhutan. The Hiwel PLS initiative is a part of the Chiphen Rigpel project, supported by the Government of India.

### About Chiphen Rigpel Project

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summit in Bhutan. NIIT is implementing the Project in Bhutan.

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Bhutan Today, May 1, 2014

## Offering a new lease of life through IT

Contributed by Upasana Dahal

**Thimphu** - Since its inception in 1999, Bhutan Youth Development Fund (YDF) has been working tirelessly to address the problems and needs of vulnerable young people afflicted by problems related to alcohol and drugs.

Through its 'Drop In Centres' in Bumthang and Thimphu and its Rehabilitation Centre in Serbithang, YDF provides both counseling and training programmes to help recovering youths get back to their normal lives.

In 2011, YDF introduced IT Skills Training Program, under the aegis of the Chiphen Rigpel project, undertaken by the Royal Government of Bhutan in partnership with the Government of India. The YDF Programme aims to come up with skill development programmes to help recovering addicts make their livings. The skill development programmes are offered at three IT Learning Centres spread across Bhutan, and are being implemented by NIIT.

According to Kinley Tenzin, YDF's Program Coordinator, the IT Learning Centres address multiple needs of recovering addicts. "At one level the programme acts as an extended phase of the therapy and engages the clients in productive activities preventing them from indulging in drug abuse."

"The focus is to help these youths regain their concentration, confidence and sense of self-worthiness. More importantly, the IT Skills Programmes play a key role in rehabilitating these youths into the mainstream society by providing them with employment skills. Many of our clients have got jobs after the completion of the programmes and in some cases; they have successfully started their own businesses."

Tashi Dema, 21, who was once a client at one of the centres is now a peer volunteer and speaks highly about Chiphen Rigpel's IT Skills Programmes. She recounts that when she first came in, she did not have any knowledge about computers. However, today, she is at ease with computers and uses them for maintaining records, communication, and presentations. Dechen, a single mother of two, who is a client at the centre, did not even know how to switch on a computer. Today, she is learning MS Office and plans to open a shop after she finishes the programme.

She is confident that what she has learnt would help her immensely in running her shop. Like Dechen, all the clients at the Centre are very excited about their IT classes as they feel that these skills are very important in the modern world.

Kinley (name changed) is another such client who successfully completed her Chiphen Rigpel's IT Skills programme and got a job in a government agency. He says that the program really got him interested in computers, helped him acquire new skills and develop his confidence. Kinley also knows several shopkeepers who had gone through the IT Skills programmes at DIC Bumthang and are now using Excel and Word for accounting and record-keeping at their shops.

Loday Zangpo, Manager of the Rehab Centre says, the Chiphen Rigpel IT skills programme has proved to be useful in her life. The skills provided by the IT Training Centres, give clients at the Rehab a sense of accomplishment and self-worthiness. This is, perhaps, the most important contribution of these centres, which are working tirelessly to help recovering addicts reintegrate into the mainstream society.



NIIT's Chairman, Mr. Rajendra S Pawar, receiving a token of appreciation from Her Majesty the Queen Mother Ashi Tshering Pem Wangchuck for the work done by NIIT at YDF under the Chiphen Rigpel project.

Bhutan Today, May 15, 2014



## Multimedia content developed by schools to help learning go beyond the textbook



**Pema Seldon**  
from *Thimphu*

Drukgyel higher secondary school in Paro stood first among five schools during the first local Multimedia Content Development Contest organized by Ministry of Education under the Chiphen Rigpel project.

The Drukgyel Higher Secondary School Principal Karma Tshering said their project was very interactive and it took months to finish the project, done after school hours. "One

of the most important content we had made was learning Dzongkha language in different ways and we made it very easy for students. They can learn it on their own without help from teachers," he said.

Tsaphel Lower Secondary School from Haa bagged the second position, Motithang Higher Secondary School secured the third position, and Gasa Primary School and Punakha Higher Secondary School came in the fourth and fifth positions.

Secretary of the Min-

istry of Education, Sangay Zam said such initiatives will help teachers and students to go beyond regular textbook learning.

Multimedia content development initiative endeavors to encourage development of content rich in local topics, traditions and culture.

The productions touched on areas like how to brush ones teeth, how to wrap a kabney, how to escape from natural disaster like earthquakes, Bhutanese quiz, meaning of national holidays, solar system and

folktales.

"So much interesting material has been generated and now we must see how we might be able to share this with a much larger audience and not just the five schools," said the Secretary.

She further said that students must make most use of technology, under the guidance of teacher and teachers also must see how the students can develop their own.

Content development intends to promote innovation in education and hope to make teaching and learning significantly more interesting and interactive both for teachers and students.

Vivek Manglorkar Rao, the vice president of NIIT said that there is a significant amount of international content available but there is a noticeable dearth of content related to local topics. "The development of local multimedia content can play a key role in providing relevant local information and also in preserving and disseminating local traditions and culture, which otherwise could be lost given the rapid pace of urbanization and rural-to-urban migration in the

country," he said.

In January 2014, the Ministry of Education selected five schools as a part of a pilot project to promote local content development using multimedia. Selected teachers from the schools were provided extensive training on multimedia content development including pedagogical training, and multimedia techniques covering audio, video, graphic creation and editing.

"At the end whatever training we had, it was all worth it. I am so happy with the result. We have been rewarded for our hard work," said Kinga, who teaches at Drukgyel Higher Secondary School.

"Today we are seeing relevant Bhutanese content being produced by teachers. The result has exceeded by expectation and it was a very fantastic start," said the vice president of NIIT.

The Ministry of Education is also evaluating ways in which this pilot project can be leveraged further through dissemination of prize-winning high-quality content to other schools, as well as inclusion of additional schools under the content development program.

## Drukgyel tops Multimedia content contest

The initiative is to promote innovation in education

**Tshering Dorji** /*Thimphu*

**D**rukgyel Higher Secondary School (DHSS), Paro came in first among five schools as a part of a pilot project in the multimedia content development (MCD) contest held on May 8. The contest was organized by the Ministry of Education (MoE), under the Chiphen Rigpel project.

Teachers from five different schools of Gasa Primary School, Punakha HSS, Drukgyel HSS, Motithang HSS and Tsaphel LSS in Haa participated in the unique contest that aims to encourage and inculcate the culture of local content development in Bhutan.

A press release states that MCD helps to promote innovation in education and can make teaching and learning significantly more interesting and interactive, both for teachers and students.

The MCD initiative endeavors to encourage development of content that is rich in local topics, traditions and culture, the press release states.

Vice President, NIIT (Chiphen Rigpel), Vivek Manglorkar Rao, said it is an important initiative which has lot of potential to transform education through innovation and increasing participation of students and teachers.

Rao said, "We want to promote local content (Dzongkha) development in Bhutan. I have a lot of Science, Maths and English content, but no Bhutanese topics. I want to create a system that would create Bhutanese content and this is the reason that I have taken the initiative to train Bhutanese teachers because Bhutanese content should be made by the Bhutanese themselves."

He is eager to start the pilot project in 100 schools around Bhutan.

Secretary, MoE, Sangay Zam, said it is not only about getting content or using multimedia, but the important factor is that teachers now realize that even without multimedia, they can do lot, in terms of developing content on their own and going beyond the text book. She added that although curriculum reforms take a longtime, instead teachers can

update the curriculum and make it more relevant with the changing times.

"From ministry's side, we will see how we might be able to share with much larger audience, not only with five schools. We will put this in the ministry's website. Teacher must be able to accept the facts and encourage children to ask questions. In a lot of cases, there is no right answer. It is only through interaction that we learn more," she said.

"It is very different and challenging, but it's not impossible if we receive the right kinds of skill and training and motivation on time. Learning IT is a journey for me, a process in which we learn new ideas, technical skills and local knowledge, like culture and religion," DHSS teacher, Sangay Tshering said.

The multimedia content development project aims to increase the content related to local topics that are relevant to Bhutan. Hence, the development of local multimedia content can play a key role in providing

local information and also in preserving and disseminating local traditions and culture, which otherwise could be lost, given the rapid pace of urbanization and rural-to-urban migration in the country.

In January 2014, the MoE selected five schools as a part of a pilot project to promote local content development using multimedia. The selected teachers from the schools were provided extensive training on multimedia content development including pedagogical training, and multimedia techniques covering audio, video, graphic creation and editing.

The MoE is also evaluating the ways in which the pilot project can be leveraged further through dissemination of prize-winning high-quality content to other schools, as well as inclusion of additional schools under the content development program.

The multimedia development contest was held under the support of the Chiphen Rigpel project, being implemented by NIIT.

*The Bhutanese, May 10, 2014*

*Business Bhutan, May 10, 2014*



# KUENSEL

THAT THE PEOPLE SHALL BE INFORMED

## Local multimedia content development contest results

Drugyel HSS came first, Gasa PS second and Motithang HSS third in the pilot project

**Sonam Choden**

A team of teachers from Drugyel higher secondary school (HSS) won first place in the local multimedia content development contest yesterday.

### CHIPHEN RIGPHEL

Organised by the education ministry under the Chiphen Rigphel project, the contest was among five schools - Gasa primary school, Punakha HSS, Tsaphel LSS, Haa, Drugyel HSS and Motithang HSS.

The schools that were selected as a part of the pilot project to promote content development using multimedia were given three months to complete the project.

In January, five teachers each from the five schools were provided extensive training on multimedia content development process and multimedia techniques covering audio, video,

graphic creation and editing. The teachers then initiated the project in their schools.

The schools developed a variety of contents that focused on diverse traditional and topical subjects, like prayer flags, brushing teeth, grammar, Gasa tsachu and animal cells, among others. The content were developed using PowerPoint for animation, moviemaker for movie editing, audacity for audio editing and Microsoft picture story for photographs.

Despite time constraints, teachers said it was a good platform to learn something new and different. They could pass on their knowledge from the training over the three months, which, the teachers said, could be used as teaching materials.

With such content development as teaching materials, a teacher at Drugyel HSS, Sangay Tshering, said, learning would be easier, interactive, and fun for



Drugyel HSS presents their product to the guests

students.

"We plan to develop more such contents as teaching materials, which teachers and IT students can develop as well," he said, adding contents could also be in the form of games.

Gasa PS principal Pema Dorji, said more multimedia contents were in the pipeline as they were useful.

"Teachers need to be abreast of the new technologies," he said.

The second position went to

Gasa PS, while Motithang HSS came third.

The participants were presented awards and certificates.

Chiphen Rigphel's project director, Tandri Wangchuk, said the initiative aims to encourage a culture of content development in the educational system, emphasising local content.

"It will also help foster educational innovation and create a substantial local content development," he said.

National institute of information technology's vice president, Vivek Rao, said the contents developed by the first batch of teachers were beyond his expectations.

"Some concepts are really good and the education ministry will now pass it to other schools," he said.

"We have plans to train more teachers," Vivek Rao said, adding teachers were free only during the winter break and the training took almost a month.

Kuensel, May 9, 2014

