

BUILDING ICT CAPACITY TO REDUCE POVERTY IN THE NORTHEAST OF THAILAND: USING ICTS TO SUPPORT EDUCATION MACRO-POLICY

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Abstract

The concept of eLearning has encompassed many diverse technologies. Distance learning is a traditionally accepted form of eLearning, yet it remains a one-way medium. The advent of the world-wide web and especially broadband has opened the door to many new concepts such as interactive and group learning. Yet, away from the public eye, these same technologies have also made possible an exciting new phase application of ICTs in learning that will be presented here.

This paper will outline a current project of the Ministry of Information and Communication entitled “Market-based Mechanisms to Enhance Delivery of Skills and Services in Northeast Thailand”. This is a \$420,000 USD project which aims to increase the ICT capacity of people in the Northeast of Thailand, one of the kingdom’s poorest regions, through enhancing skill delivery institutions through a series of productivity analysis, benchmarking, development of smartcard based systems for targeting delivery and services and capacity building.

In this respect, eLearning is not so much about delivering knowledge to the

end-user, but instead, it is about enhancing traditional skill-delivery mechanisms (colleges, universities) through ICT (benchmarking portals, statistical analysis and smartcard-based monitoring and tracking of their effectiveness). Training will be provided for policy-makers, educational institutions and employers for them to make the best use of the portal.

If successful, the project will be scaled across the country and into Laos and Vietnam as part of the Thailand-Laos-Vietnam ICT Corridor project.

The project was approved by the World Bank and the ASEM in-country committee in February, 2004.

I Background and overview

The Ministry of Information and Communication Technology was established as part of the wide-ranging government reforms in October 2002 with the task of leading Thailand into the knowledge-based society. Much of our efforts are guided by our national ICT masterplan, IT2010, as enshrined by the 5-E strategy: e-Education, e-Commerce, e-Industry, e-Government and e-Society.

The concept of eLearning clearly is part of e-Education, but, as this paper explores, it is also very much related to e-Government policy and e-Industry.

IT 2010 calls for 70% of the workforce to be ICT literate by 2006¹. Our own action plan of 2004 has set a more immediate target for institutions to produce 150,000 knowledge workers a year by 2006².

The poor productivity of Thai firms and a general lack of competitiveness have been largely accepted as causes for the 1997 economic crisis. Thus, Thailand's National Economic and Social Development Board (NESDB) has focused much of its efforts on improving Thailand's competitiveness, especially in the Northeast region. This is an area characterised by poverty (15 of the kingdom's 17 poorest provinces are in the Northeast), sub-optimal natural resources, lack of off-farm employment and lack of public services. For instance, as of 2000, teledensity stood at 8 lines per 100 inhabitants³.

ICT diffusion and competitiveness are closely related to the quality and quantity of tertiary education. Over the past years, there has been considerable effort in making sure that the output of the universities, colleges and vocational schools meet with industry demand. Indeed, during the economic boom of the eighties, many employers found themselves short of skilled staff, while many graduates had to be re-trained immediately after graduation.

2004 is the year in which the Ministry of Information and Communication Technology and the Ministry of Interior have launched a national ID card project based on smartcard technology, arguably one of the largest and highest-profile deployments in the world. As such, the smartcard infrastructure stands a potential tool that may be leveraged for the purposes

of this project.

The World Bank has developed and will share with the Ministry a powerful tool, the "Productivity and Investment Climate Survey (PICS) Instrument"⁴. Originally intended for use in industry, PICS will be adapted for use in an educational context where "firms" are the tertiary institutions and the "consumers" are the employers. Criteria that will be taken into consideration include staff size, location, government, curricula, range of academic disciplines, budget and wages. Output criteria are graduation, placement and wage premium.

II Project details

The project aims at bringing these together in a holistic way to come up with an effective plan of action that is coherent with the ICT Ministry's mandate for development through ICT and the World Bank and ASEM Trust Fund's objectives.

The project aims to create an efficient, information-based tool to link the providers of tertiary education and skills (the public and private vocational colleges and universities of the region) to the demands of industry. This serves the ASEM Trust Fund's and World Bank's goals of poverty reduction through market-based mechanisms. It is an experimental adoption of the tool, intended to boost transparency among technical institutions and, thus, competition. This will increase their performance and effectiveness as well as make their decisions more accountable. It also meets the more general goal of decentralisation as decisions will now reflect local demand rather than centralised planning. In the long-run, this will stimulate market-based competition among institutions for both teachers and students, ultimately increasing the quality of the output.

The information gathered will be valuable for central government as it

would give the decision-makers an updated, true representation of the situation in the region without having to conduct separate surveys.

III Project Activities

In particular, the project's objectives are:

- Identify current status of skills delivery institutions in the Northeast.
- Increase skills and capacity of skills delivery institutions in the Northeast.
- Facilitate competition and transparency among skills delivery institutions.
- Identify areas where shortage of skills exist and hotspots of demand.
- Promote efficient use of public and private resources for education through ICT.

The project is comprised of three major components: Productivity analysis of skill delivery institutions, a benchmarking portal and a capacity building programme through eLearning.

The productivity analysis of skills delivery institutions will provide baseline data as well as a clear picture of the current situation. Data gathered will be the input to the World Bank's PICS tool but may include other, more qualitative information. The results of this first phase will be compiled into a report and the quantitative data fed into the modified PICS. A target of 200 institutions has been set.

The information will be fed into the Benchmarking Portal, as will the results of the PICS tool. The information will be input into a relational database and made publicly accessible over the Internet. This

will facilitate the transparency, competition and information outlined above. The portal will be aimed not just at the managers of the tertiary institutions for them to see how they fare against their competition, but also at the firms and employers who use the output and the students so that they can choose to go to the best institutions.

Over time, the portal will be continually updated and data regarding career, placement and wage premiums will be added. It is hoped that, with all privacy issues properly addressed, the smartcard ID card project can act as a valuable tool in anonymously tracking aggregate data of graduates without having to collect any personally identifiable information.

The final component is capacity building through eLearning. This will target the trainers and managers of the tertiary institutions, allowing them to understand the system, the portal and how the effort in collecting and entering this data will help them in the long-run.

As a secondary objective, the curricula will also be aimed at developing ICT skills which are a prerequisite to any further development and accessing eLearning programmes. Due to the huge geographical area that the Northeast region covers, the only way that it can be done in a cost-effective manner would for it to be conducted through eLearning with a strictly limited number of workshops used to develop the eLearning content.

Upon completion of the project, at least as far as the initial ASEM Trust Fund grant is concerned, the expected deliverables are:

- A completed survey of 200 educational and training institutions in the Northeast of Thailand.
- An analytical report of the findings.
- A relational database containing the survey findings.

- An internet-based portal linked dynamically to the relational database containing the survey results.
- A completed training course of project managers, teachers and industry employers.
- An eLearning curriculum to support the trainers and the framework for delivery of further modules.

The project's input, output and outcome identifiers have been decided as follows:

Input Indicators

- Survey instrument (modified PICS)
- Survey firm identified and hired
- Web and DBMS firm identified and hired
- Sample frame and sample designed

Output Indicators

- Survey executed
- Data cleaned and coded
- Data input to PICS
- Awareness building
- Portal launch
- Website hits
- Competitiveness report including factors associated with the most successful institutions

Outcome Indicators

- eLearning curriculum designed on feedback from survey.
- Number of institutions employing eLearning
- Number of education policy-makers trained
- Number of teachers trained in using eLearning
- Number of educational institutions in the Northeast adopting an eLearning curriculum

The project is currently underway and is expected to be completed by March, 2005.

IV Conclusion

The Market-Based Mechanisms to Enhance Delivery of Skills and Services in Northeast Thailand Project is an exciting new application of ICTs and eLearning in the development of one of the poorest regions of Thailand. Instead of targeting ICTs and eLearning at traditional users – teachers, students – the project targets these same technologies at a higher, policy-level. Delivering education through ICT has long been one of the generally accepted uses of eLearning. Here, we are using the same basic technologies – the web, computers and broadband, to enhance the effectiveness of all institutions through benchmarking, transparency and competition. Targeting eLearning at the policy-makers, teachers and managers stands to make this project much more scalable than would be possible given a traditional workshop-based approach.

The project TOR has been approved at all levels and is now in the implementation stage.

V Acknowledgements

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VI Reference

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