Excellency Mrs Sin Serey and distinguished guests,

I am very happy to be honoured today. My colleagues, Richard Fuchs, the regional director of IDRC’s Singapore office and Vivien Chiam, our business manager are as equally proud to be here with me.

While Asians have become the largest group of Internet users in this decade, our online population still barely forms 4.5% of our region's total population. Even after significant investment in building ICT infrastructure, language remains a great barrier to access in developing Asia. Why? Because the region's diversity of languages makes information in foreign languages like English largely inaccessible to our overwhelming majority of under-developed rural Asian populations that do not speak and write a foreign language.

Around 2002-3, we at IDRC became acutely aware of the need for more ingenuity to support people in the rural villages of Asia to benefit from the computing and Internet age. We took a major departure from the traditional “access” interpretations of ICT infrastructure, by attempting to understand the root causes and solve a deeper problem underlying the rural digital divide in Asia. The solution would be to provide access to ICTs for rural Asian populations in their mother tongues, or at least in the national languages, to start with.

So in December 2003, we officially launched what to us, is a mega–sized regional project if not in dollars, in intention, named PAN-Localization, with the following objectives:

- To develop sustainable human resource capacity in the Asian region for R &D in local language technology;  
- To raise current levels of technological support for Asian languages;  
- To advance policy for local language content creation and access across Asia for development.

Coordinated and managed from out of the National U of Computing and Emerging Sciences in Lahore, Pakistan, The PAN
Localization project currently involves eleven countries and the following languages:

Afghanistan: Pashto and Arabic
Bangladesh: Bangla
Bhutan: Zongkha
Cambodia: Khmer
Laos: Lao
Mongolia: Cyrillic Mongolian
Nepal: Nepali and Devanagari
Pakistan: Urdu
Sri Lanka: Sinhala, Tamil
China Tibet Autonomous Region: Tibetan

About six years ago, we were fortunate to discover in Phnom Penh, a small pocket of great dedication to localization in Khmer, in the National Committee for Standardization of Khmer Script for Computers, led by Excellency Pan Sorasak, who was then with the Council of Ministers. The NCSKSC has been instrumental in sensitizing the need for localization in Cambodia, and HE Pan Sorasak has been a great champion of the PAN Localization project in Cambodia.

Through the support of the PAN-Localization project, the NCSKSC research team in Cambodia has produced localization software and utilities such as:

Khmer encoding conversion utility
Khmer collation and sorting utility
Khmer basic lexicon
Khmer word segmentation utility
Khmer spell checker utility
Khmer text corpus
Khmer mobile interface

This work has been in collaboration with the Royal Academy of Cambodia.

Free CDs of these outputs have been distributed to the Cambodian general public, such as schools and institutes, all government branches and the private sector. To reach more users, the project team traveled to rural schools and universities to distribute and
install software copies for free. The research team has established a website to provide free downloads and technical support to the public users who use their core software and applications.

The Ministry of Education has now incorporated the work of the NCSKSC team and as well, the PAN Localization work in Cambodia now includes two other organizations in Phnom Penh - Institute of Technology and the National Information and Communications Technology Development Authority.

The Cambodian teams are currently focusing on Khmer text-to-speech research; open source software localization, Khmer mobile messaging content development, Khmer optical recognition.

The project deals with: standards; basic localization; advanced applications and while it has been very technology focused in Phase I, in Phase 2, it is more multi-disciplinary, incorporating social sciences research, as the project outputs get downstreamed to communities.

The objectives of the PAN Localization project continue to present a challenge.

- There is the diversity of languages in developing Asia and the variety in their script, speech and language systems.
- There is also a general lack of linguistic resources, which means that localization development work has to start from scratch by building first these resources before software development may begin.
- We found the project could not immediately get down to meeting popular expectations of developing the applications that could be immediately used by rural, native language speakers. We found that it was not simply a case of supporting the development of localised applications to get non-English speakers started in being computer users. The project had to first build capacity from scratch in the technical project staff, so that they may become proficient in local language computing to develop the necessary tools and technologies for the non-English language speaking end-users to use at the client-computers.
- As challenging is the issue of attracting personnel to work in this field, of training enough personnel so as not to lose the project momentum, when people leave for higher-paying jobs or go for further education, as happens a lot in developing
countries where opportunities for skilled and capable people are also abundant.

We are making sure that the PAN Localization network builds deep capacity, and to ensure sustainability we have purposefully seen to it that our project stakeholders include universities as well. The project has motivated our university partners to set up linguistics research departments.

IDRC’s funding of the whole PAN Localization project until its currently projected completion date at 01 May 2011 will add up to a total of C$ 4.6 million Canadian dollars or more.

PAN Localization is but one of several other large and significant project initiatives that IDRC is supporting in Cambodia for Cambodia is identified as a priority country for project programming by the Singapore-based team of IDRC. IDRC stands for the International Development Research Centre of Canada, which supports about 100 million Canadian dollars worth of development-research type of projects per year around the world from out of its HQ in Ottawa and its six regional offices, including Singapore.

To the Government of Cambodia, Excellency Sin Serey, thank you very much again for this recognition of our work.

Ladies and gentlemen, thank you for this opportunity to address you.