Keynote Address by Hon. Susil Premajayantha, Minister of Education, Sri Lanka
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Respected participants, respected organizers of this initiative to celebrate innovations in ICT in Education;

Today, we consider it important to celebrate this very essential aspect of education in the 21st Century, because IT has given us the opportunity to build capacities of future generations, to take advantage of the vast potentials unleashed by the new communication technologies, to participate in knowledge societies and to enhance their quality of learning.

Today, what happens in a far corner in Africa can be known to an internet user in Sri Lanka, no sooner the news item is posted on a website. Disaster warnings can be sent instantaneously to centres involved in monitoring and action taken to minimize effects. Communications are exchanged in a matter of seconds, without waiting for a postman to deliver letters, that could sometimes take days or weeks, depending on the distances and means of distribution that are available. And a massive dose of information and knowledge is available on the internet for those who are able to use it.

But, Ladies and Gentlemen, the challenge facing us today and particularly for those of us in developing countries, is how best we can provide this important tool to a greater segment of our population, especially in the rural areas, who comprise the majority of the populations and in situations where there is no electricity or connectivity to support the sustainable use of ICTs in and for Education.
Allow me therefore, to present to you Sri Lanka’s ICT in education development, efforts that could help us learn from one another and to shape our future directions and plans.

**Current Status in ICT education**

In Sri Lanka, computer education was introduced in 1983. In 1994 it was decided to set up Computer Resource Centres (CRCs) to provide computer literacy to students who sit the GCE O/L and GCE A/L examinations and are awaiting results. At present there are 100 such centres in the system and in addition 8 provincial ICT centres that serve to conduct teacher training programmes since 2004.

Meanwhile different foreign funded projects are assisting us in the implementation of ICT education at school level in the Sri Lankan education system.

The Ministry and various projects have taken action to provide training for teachers as well as officers. There are about 65,000 teachers and officers who have undergone different levels of ICT training programmes.

While providing the infrastructure facilities to the education system, the Ministry has also taken several actions to develop and implement curricula for ICT education.

- ICT as an optional subject for A/L
- ICT as a technical subject for O/L
- ICT use as a teaching and learning tool (pedagogy integration)

To enhance the teaching and learning style of the education community, there are several support initiative programmes that were executed in the system. They are:

- “SchoolNet” programme – dedicated internet service to education
- Development of Ministry of Education website, in order to provide complete and latest information to the community
• Innovative teachers’ competition establishment of hardware and network solution teams at school level
• Content development

**Key Challenges**

ICT is a subject that needs more financial support than other subjects. The cost of establishment of complete computer laboratories, which are the basic needs to teach ICT, is a considerable amount for a developing country. Although the government has released taxes for computers and related components, it is still a high rate, which the school or the Ministry cannot easily bear, to provide all infrastructure at once.

There are nearly 30% of schools which do not have electricity through the national grid. This is one of the serious issues when implementing the policy. However, the Ministry has introduced solar power computer laboratories as an alternative solution until the power supply establishes.

Further, the utilities and line charges (electricity, telephone, and internet) are very high, compared to some of the other countries. Therefore, users are reluctant to use the services and at the same time, no one is interested in obtaining the services once again, when terminating the service for not paying bills.

Sri Lanka has realized the need to change and has responded by launching professional development programmes to train teachers in the use of computers. As most of the existing teacher training programmes are focused at providing ICT education, it has prioritized the necessity of providing training for ICT in and for education.
What teachers require in order to exercise this role effectively is training, not only in computer literacy but also to apply educational software in teaching and learning while integrating this resource into the classroom activities. Starting from what teachers already know and feel they need to know, programmes can be developed which train teachers not to use ICT for teaching the same things in the same way, but rather, to make available new and better ways of teaching in which ICT, with all of their interactive and multimedia features and potential for simulation and virtual manipulation, can help happen.

To meet these challenges, various strategies have been adopted. They are:

1. Providing infrastructure facilities.
2. Introduction of cost recovery strategies to meet costs of electricity, internet, maintenance, etc. to enable self management.
3. Development of teacher training syllabus and training materials.
4. Training of trainers (who are already trained to teach IT related subjects) and orienting them for teacher training.
5. Training of teachers who do not have ICT capabilities, to build their IT capacities at educational zonal levels.
6. Formulation and development of curriculum, implementation and evaluation of teachers guides, resource books, model question papers, etc.
7. “One Laptop Per Child Foundation (OLPC) came forward as a pilot project to handover 900 laptops for school children in the rural areas to upgrade the IT knowledge of students. Nine schools were chosen from the nine districts covering Sinhala and Tamil medium schools to conduct the pilot project where the World Bank would fund.
8. Plans are afoot to include IT as a subject for the Advanced level Examination within the next two years.
**Expected outcomes from the Strategies**

1. Increased ICT literacy among students, teachers and officers.
2. Effective use of ICT by teachers and students in teaching and learning.
3. Self learning by students through the Internet and school net (establish e-culture).
4. ICT is used to teach other subjects.
5. Developed software contents are available for other subjects using ICT.
6. Primary students are familiarized to use ICT.
7. Improved students’ awareness on further ICT education opportunities.
8. Students are capable of finding suitable ICT professions’
9. Students make proper decisions using ICT’

**External Factors to be taken into consideration**

There are some major external factors, which may contribute to or impede the project achievements:

**First**, the existing national policies on ICT will have impacts on the ICT in Education, particularly on connectivity, the cost of telephone line connection and service charges that would reflect on ICT use, especially in remote, rural and disadvantaged areas.

**Second**, the cost of hardware will limit the access to learners, particularly of the disadvantaged groups. Measures would be needed to reduce the costs of finished hardware.

**Third**, availability of constant electric supply is limited mostly to urban areas. Solar energy, small generators and battery will be used as an alternative source of energy in remote areas.
Fourth, the proficiency in English language will also be a key factor in linking the country to the outside world. However, to take advantage of the international experience and the World Wide Web, software would need to be developed to make it accessible in local languages. Contents in the local languages will be developed and utilized. Learning of English will also need to be enhanced.

**Initiatives by UNESCO**

I am pleased to mention that UNESCO has played an important role in the development of IT education in Sri Lanka.

UNESCO’s role has been geared to the training of trainers and has been numerous. They comprise:

- Preparation of a Teacher Trainers Manual for the use of ICTs in and for Education, made in collaboration with the National Institute of Education in 2005.
- Training of selected trainers from three National Colleges of Education (NCOE) in the application of the methods proposed in the Teacher Trainers Manual, such as operations of ICT, effective integration of IT into teaching and the use of ICT in the preparation of teaching and the use of ICT in the preparation of teaching materials.
- Making available web tools and published case studies for teacher educators.
- A Deans’ Forum to prepare 13 selected secondary and post primary teachers on how to learn, understand and accept the need for application of ICT in and for Education.
- Training in IT essentials, PC Hardware and Software and Network Operating Systems for 34 selected trainers, provided by CISCO Systems.
- Training in Peer Coaching methods, ICT pedagogy integration and telecollaboration for practitioners and the use of ICT in Education toolkit for policy makers, planners and practitioners.
Training in policy platforms for policy makers, deans and school leaders, on how to enhance quantity, quality and status of IT teachers in schools.

Training in the establishment of hardware and network solution teams, to contribute towards the sustainable use of ICTs in the schools.

These initiatives comprise a systematic and continuous process of a pilot nature, targeting selected key teacher training institutes and are expected to provide trickle down benefits to all teacher trainees in the country, the progress of which however needs to be closely monitored.

**Initiatives by ADB**

The ADB Assistance has had direct impact on ICT literacy in the school system. By providing more than 1400 Computer Learning Centres (CLCs) to schools throughout Sri Lanka and Information & Communication (ICT)-related training opportunities for more than 50,000 teachers, the ADB-funded Secondary Education Modernization Projects I and II (SEMP I and II) have been significant initiatives in order to empower the system with required skills and competencies among teachers, students, principals and educational officers.

Further, to ensure and enhance the teaching and learning capacities in the system, ADB assistance helped setting up of the “SchoolNet”, the dedicated Educational Web Portal and Internet access for more than 1000 schools and 120 educational institutions in the country. A notable outcome of the SchoolNet (www.schoolnet.lk) is that more than one and half million (1.5 million) students are browsing the SchoolNet everyday for their learning and research activities, while Skool Sri Lanka (www.skool.lk) provides secondary level teachers and students access to science and mathematics resources and tools in an engineering, multimedia environment to help improve learning.
By ensuring sustainable measures for CLCs in the school system, the ADB-assisted SEMP played a significant role to empower the schools to introduce various cost recovery strategies to meet costs of electricity, internet, maintenance, etc., which resulted in more than 1000 schools reaching “self manage” level.

To improve teaching ICT as a subject for grades 10 and 11 and providing support to ICT for education are also significant components of the ADB assistance.

During the next three-year period, ADB assistance will be focused at 2500 type II additional schools to be empowered with educational ICT facilities/skills to improve the teaching and learning capability at classrooms levels. To inculcate the ICT skills in the Sri Lankan schools system, numerous educational software competitions have been implemented annually.

Respected Participants, Ladies and Gentlemen;

Despite all these efforts, we would like to point out that the success and benefits for the country will depend on many factors. I would like to briefly enumerate them.

**Firstly**, and above all, the commitment of those who have received the numerous training facilities from UNESCO and ADB, to ensure appropriate follow up in the provision of continuous training to others, as also, in framing policy and mechanisms for monitoring and evaluation of the training being provided.

**Secondly**, to ensure a balanced and well structured process, to create strong Provincial Training Centres, and Computer Resource Centres, where all instructors coming under the control of the Ministry could be used as instructors in these centres or in local academies in the nine provinces of the country.
Thirdly, ensure the presence of a well trained IT teacher in all the schools that have IT facilities. We therefore are of the firm conviction that the establishment of “School Level Hardware and Network Solutions” at the school level is a step forward in the right direction.

Finally and last but not the least, it is not by putting a computer into every school or providing a laptop to every student that progress can be achieved in situations where there is no electricity or connectivity, to support the sustainable use of ICTs in education. It is only through commitment of the teachers and the schools’ management to create the required interest in the students, as also, by way of appropriate monitoring and assessment mechanisms from the educational management authorities, that proper use is being made by the teachers and the schools’ management of the ICT training and facilities made available to them, through the various initiatives undertaken by the National Institute of Education, the National Colleges of Education, UNESCO, ADB, The World Bank and other partners involved in the process.

Ladies and Gentlemen;

I hope to have provided you with sufficient food for thought!!