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"A National Strategy for ICT in Basic Education "

Experience from Uzbekistan

Malika Shagzatova



National Strategy for ICT Development


- **National Laws:**
On Education; On National Program for Personnel Training; On Informatization; On Telecommunication
- **Presidential Decrees :**
On further development of computerization and introduction of ICT (N 3080/2002); On additional measures for further development of ICT (№117/2005); On development of Public Educational Network of Republic Of Uzbekistan (№191 /2005);
State National Program for Public Education Development - 2004-2009 (№ 3431/2004)
- **Decrees of the CoM (№ 200/ 2002) :**
On measures for further development of computerization and introduction of ICT;
Program of development of computerization and ICT for 2002 -2010
- **Conception of Development of Informatization in RU(2005)**
- **National Strategy for ICT Development in Basic Education (January 2007)**



The National Strategy for ICT Development

Is integrated part of the State National Program for Public Education Development.

It was developed in order to improve the quality of learning and teaching and thus the quality and relevance of educational outputs in basic schools by ensuring effective and sustainable access to relevant and appropriate ICTs to all teachers and students over the next 10-15 years.



In order to achieve this goal it is necessary that:

- every teacher and student has the hardware, connectivity and reliable power supplies to routinely use ICT in their work and their studies across all curriculum subjects;
- there is a wide range of teaching and learning resources, including electronic resources, available to all curriculum subjects at all levels; and
- there is a transformation of teaching and learning styles towards active, student centred learning and the development of higher order skills as a result of the introduction of ICT into basic education schools



National Strategy for ICT Development Phase 1 (2006-2010)

The Objectives are:

- To improve the quality and relevance of learning and teaching, through the use of ICT, across a priority number of curriculum subjects in grades 6-9 in all schools.
- To prepare for future ICT expansion by creating improved financial, educational, and infrastructural conditions



National Strategy for ICT Development Phase 2 (2011-2015)

The Objectives are:

- Improvement of quality and results of education in all subjects, included into curricula for grades 5-9;
- Training of all students on basics of ICT for the priority subjects in grades 1-4.



Constraints and difficulties in the implementation of National Strategy for ICT in Basic Education

- Financial - Limitations of financial resources;
- Educational - constraints and limitations related to education sector development, teacher training, curricula development etc;
- Infrastructure - Telecommunications and Power supply

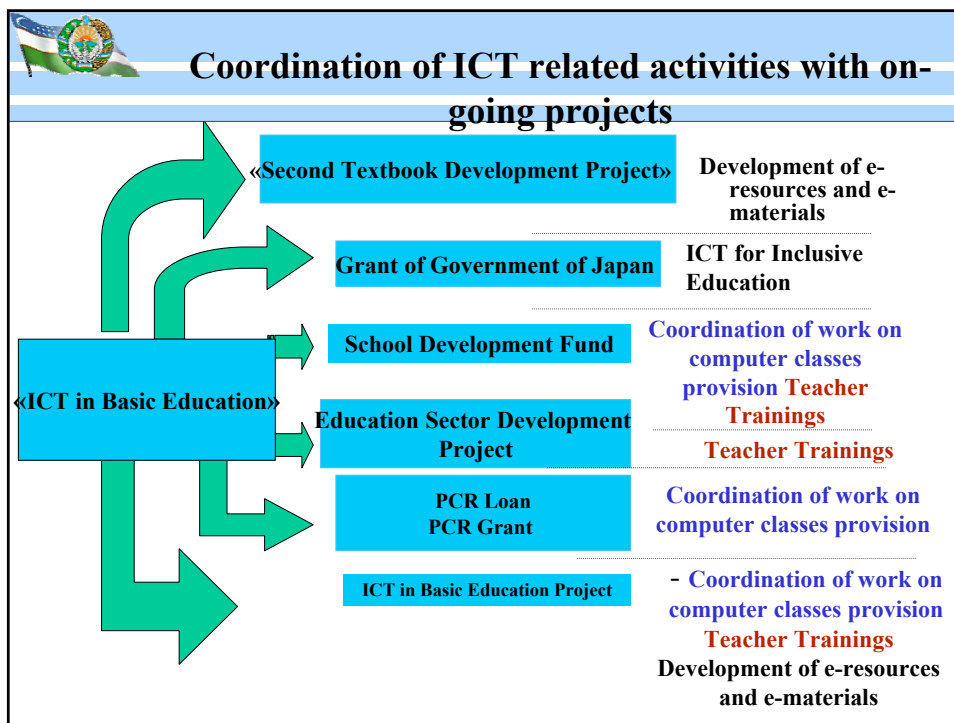
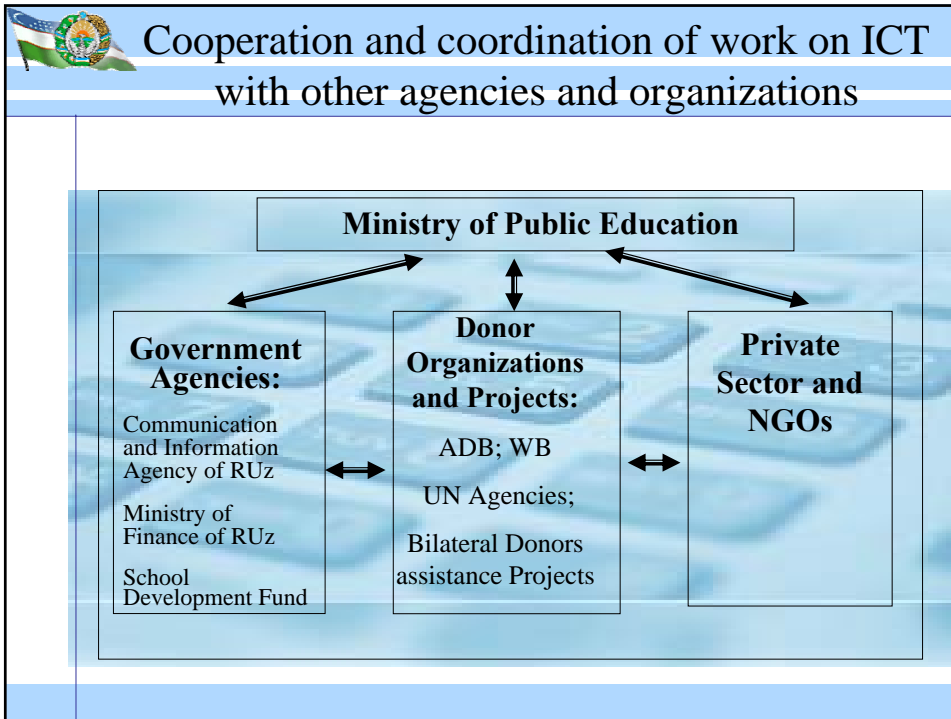


Available Resources for ICT Financing

- **State Budget;**
 - **Grants and Loans from International Financial Institutions;**
 - **Local Governments Budgets ;**
 - **Other Sponsorship assistance.**
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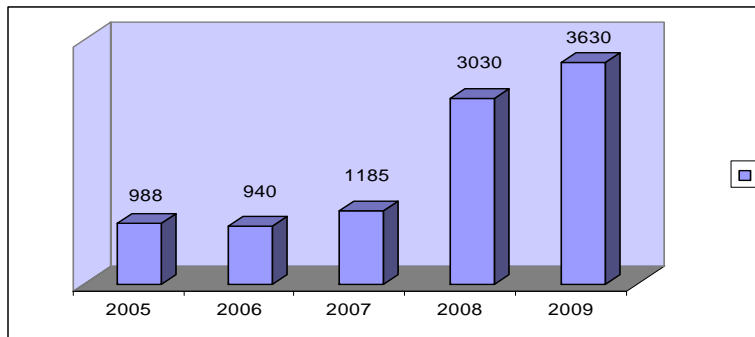
In 2007, the following credit resources are under implementation:

- **ADB Loan for ICT in Basic Education Project –\$30 mln. USD**
- **PCR grant –\$1 mln.USD**
- **PCR Loan –\$19 mln. USD**
- **Korean Government Loan – \$30 mln. USD.**





Number of the schools that will be provided with computer classes years 2005-2009



Total Number of the schools	- 9773
Number of the schools with Modern computer classes on 01.01.2007	- 3776
Number of the schools with modern computer classes on 01.01.2008	- 4961



Targets on Computers Provision

- Number of students in Basic Education –
5, 920 132
- Number of students in grades 5-9 –
2,750 000;
- Needs for computers (based on the target rate 1:20) –
137 500;

The ratio of 1:20 is based on the number of the students enrolled in middle school grades.



Connectivity targets and strategies

that should be achieved in 2010 are:

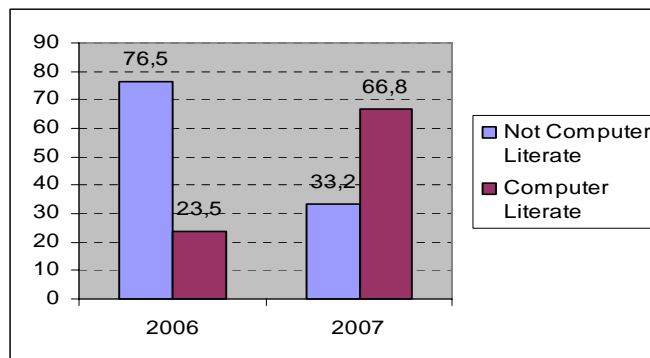
- For General Education Schools – 63 %
- For Academic Lyceums - 92%
- For Professional Colleges - 85%
- For Higher Education Institutions -100%



Teacher Training in ICT

Total Number of the teachers: 447,154

For the period of Sept.2006-June.2007 – 271,950 teachers were trained in ICT





Cost Implications

The average total operating costs of ICT provision in basic education schools is about US\$150 per month per school. These include: equipment & centre maintenance costs, and telecommunication and power costs.

For today, the proposal of UzbekMobile for the wireless stations e.g. in Bukhara is: US\$230 for terminal; US\$19 for antenna and US\$18 is monthly fee.

Internet connection monthly fee:

Speed	Limit/ mb	Cost (USD)
64	500-600	60-90
128	1000-1200	100 - 165



Some of the problems that have to be addressed:

E-Materials: The clear standards for electronic and multimedia resources should be developed

Financial: Cost for maintenance of computer classes, internet connection and electricity should be estimated and included into the school budget.

Educational: System of ICT skills assessment should be developed. Graduates of Pedagogical University has to be ready to use ICT in teaching.

Infrastructure: Technical Support for Computer Maintenance; Internet and Telephone Lines. Reliable and predictable power supply.



As a result of implementation of national strategy for ICT development, it is expected that:

- ✓ **Developed Educational Standards and Curricula with ICT as integral part of educational process**
- ✓ **New generation of e-resources and e-materials**
- ✓ **Informatization of Educational Process, full coverage of the system with ICT Network and access to the Global Information Network**
- ✓ **Sustainable System of Financing of ICT in basic Education**



As a result of implementation of national strategy for ICT development, it is expected that:

- ✓ **Equal access to ICT for all including children with the special needs and ethnic minorities**
- ✓ **Sustainable system of teacher trainings and re-training on usage ICT**
- ✓ **New student oriented pedagogical technologies and teaching methods**
- ✓ **Developed EMIS System for decision making process and insurance of transparency;**
- ✓ **Monitoring and Evaluation system of ICT usage in educational process.**

Thank you

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