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Government of India
Ministry of Human Resource Development
(Department of School Education & Literacy)
(School-5 Section)

xxx

Shastri Bhawan, New Delhi
18/06/2014

Subject : Minutes of the first meeting of the National Resource Group on ICT @ School Scheme held on 15th May, 2014.

A copy of the Minutes of the first meeting of National Resource Group on ICT in School Education held on 15th May, 2014 under the Chairpersonship of Secretary (SE&L) in the Room Nom 202, IInd Floor, Chacha Nehru Bhawan, NCERT, New Delhi is enclosed herewith for your kind perusal.


(Subhendu Das)

Under Secretary (RMSA-1)

1. Dr. Ajay Kumar, Joint Secretary Department of Electronics & IT
2. Sh. Nagesh Singh, Eco. Adviser, DSE&L, MHRD
3. Dr. C.S. Arora, Senior Consultant (NMEICT)
4. Ms. Neena Pahuja, Director General, ERNET
5. Dr. R. Govinda, Vice Chancellor, NUEPA
6. Sh. B.B. Tiwari, Director (IT), ERNET
7. Sh. Dipak Singh, Director (E-learning), Dept. of Electronic & IT
8. Dr. V.V.S. Moorthy, Deputy Director General, NIC
9. Sh. S.S. Jena, Chairman, NIOS
10. Sh. Vineet Joshi, Chairman, CBSE
11. Sh. G Arumugam, Deputy Commissioner NVS, Noida
12. Dr. Savithri Singh, Principal Acharya Narandra Dev College, New Delhi
13. Sh. S. Anand, Data Analytics, Gramener, Bengaluru
14. Sh. Sasi Kumar M, Assoc Director, E-learning technologies, CDAC Mumbai
15. Sh. Sridhar Rajagopalan, Managing Director, Student Learning Ahmedabad,
16. Sh. Firish Srivastava, CEO/Policy, GnS Strategy Advisory Services, Noida
17. Sh. Nagarjuna G., HBCSE, TIFR, Mumbai
18. Sh. Jitendra Shah, Scientist, IIT, Mumbai
19. Sh. Raghu Raman, CREATE Amrita University, Amritapuri
20. Sh. Gurumurthy Kasinathan, Director, IT for Change, Bengaluru
21. Ms. Chanchal Singh, Dy. Director, Directorate of School Education Chandigarh

22. Sh. V. Vijaya Lakshmi, Joint Commissioner KVS
23. Sh. Ravi Shankar S., Joint Director, NIOS
24. Ms. Sudeshna Sen, Secretary, NCERT

Copy to:-

1. Sr. P.P.S to Secretary (SE&L)
2. PS to JS (SE)
3. PA to Dir (SE)
4. Joint Director, CIET, NCERT
5. Guard file / Concerned files

(Subhendu Das)
Under Secretary (RMSA-1)

Minutes of the First Meeting of the National Resource Group on ICT in Education held on 15 May, 2014

1. The first meeting of the National Resource Group on ICT in Education was held on 15 May, 2014 under the Chairpersonship of Sh. Rajarshi Bhattacharya, Secretary (School Education and Literacy).
2. The list of participants who attended the meeting is attached at Annexure – 1
3. In order to inform the group on various technical aspects of the ICT implementations in the school education, a sub-group of the NRG met separately. The list of members of the sub-group, abstract of their presentations and discussion and the report is attached at Annexure – 2.
4. The NRG was welcomed by Ms. Sudeshna Sen, Secretary, NCERT.
5. As this was the first meeting of the NRG, Ms. Radha Chauhan, Joint Secretary, defined the scope of the initiatives undertaken and expectations from the NRG. The group was appraised of the ICT Scheme, the National Policy on ICT for School Education, the draft proposal for a Mission Mode Project on Education and expert opinion was sought on the following issues & challenges faced during implementation:
 - leveraging technology in schools and to impact the school sector as a whole ;
 - understanding what facets of school education lend themselves to support through ICT;
 - address the absence of capacities at different levels in using ICT and for managing ICT implementations;
 - absence of software and consequent underutilisation of hardware;
6. A report of the deliberations of the sub-group of the NRG was presented (see Annexure - 2).
7. The Chairperson, Sh. R. Bhattacharya in his keynote address, recognised the distance yet to be covered and highlighted the role of the NRG in critically examining the steps already initiated and to advise and guide future steps. The following issues were identified for the ensuing discussion:
 - Challenges of defining what constitute appropriate choices of technology, both hardware and software; building capacities in the system to broadbase the utilisation of ICT; applications which can convert the data available into useful information and knowledge; interfaces which make it easier for everyone to participate.
 - In the context of demonstrated possibilities and the knowledge of what we want from ICT, the need to understand and evolve a national roadmap and help each and every state derive a benefit from it.
 - Overcoming the narrow focus on ICT for teaching-learning and attending to a variety of applications including e-governance, teacher and school networks, shared knowledge and

capacity building. The role of RMSA in establishing the right perspective.

- Building capacities in the States to manage the implementation from the specification to the tender process to the maintenance of the infrastructure and the monitoring of the system, and supporting it.
- Exploring ways to invite institutions in the states, enable them to participate and benefit from their expertise. In the light of investments in ICT being very large and returns not so tangible, building capacities to recognise the potential and work towards greater utilisation.
- Developing suitable design and technological support, enabling access and participation of all in NROER; seeking help and enabling participation of others in the development of metastudio; identifying institutions in the states and encouraging their participation; and engaging with the states in translations and creation of resources in multiple languages.
- Rolling out the ICT curriculum not only in the Navodaya Schools, but also in the Kendriya Vidyalayas and in some states.

8. The members of the NRG were invited to present their views and suggestions. The salients points emerging from the discussion are as follows:

- The need for a framework of roll-out and universal availability (once available, available everywhere) was highlighted to ensure that all schools, teachers and students are covered in a comprehensive manner.
- The roll out is also expected to include mobility and connectivity, internet access to schools, low cost devices, and leveraging the National Optical Fibre Network (NOFN).
- The limitation of the BOOT model was also highlighted and a suggestion made to consider replacing it with a transactional model, wherein only infrastructure is supplied by the vendor agency and the implementation is done by the school.
- To broadbase the support to the system seeking of expert help available in the community, encouraging voluntary actions and supporting them and exploring possibilities of utilisation of CSR funds was suggested.
- The need to learn from successes and challenges faced was emphasised and sharing among the states, synergy between different schemes, NMEICT and ICT in schools, for example, and institutional collaborations with public institutions were suggested.
- In the context of e-governance initiative, the need for a Unified School ID and a Unified Teacher ID, need for DISE data to become realtime, open access to data to enable the participation of others in its representation and analysis was emphasised. A need to open access to geographical data, from Bhuvan (from ISRO's satellite data) for use in school level activity as well as e-governance applications was sought.
- The need for infusing ICT into a wide range of school and teacher level activities and encouraging a universal culture of ICT use was emphasised. This included:
 - encouraging teachers to take additional online courses
 - participation of teachers in maintaining infrastructure to enhance a feeling of ownership
 - incentives for teacher innovation in the form of ICT devices
 - creation of an ICT based teacher support pool
 - showcasing teacher and children developed e-content

- ensuring that students motivation is not suppressed and they do not become disengaged
- integrating ICT into the curriculum; RIE curricula to lead the way
- need for local and localised networks, thriving on local content
- Localisation, local language spellcheck, translation and digitisation
- attention on quality of e-content, its usage and amenability to e-learning
- understanding licenses, and develop capacities to reuse / revise / remix
- information security training, and
- a focus on children with special needs

9. Action points which inform strategies have been identified: They are:

- Revisiting the ICT@Schools scheme and the guidelines to the implementing states:
 - i. Prescriptions of hardware and software and financial allocations made in the scheme need to be updated;
 - ii. Flexibility in choosing locally relevant solutions enabled; this includes choices of equipment, options for electricity and internet connectivity;
 - iii. Variations in the BOOT model aimed at increased ownership of the infrastructure and the ICT programme at the school level.

[Action: CIET and MHRD; revised document circulated for feedback from stakeholders; by August, 2014]

- Inform stakeholders and build capacities for innovative and informed implementation
 - i. Develop the web interfaces of ICT@Schools, ICT Curriculum and the National Repository to together function as clearing houses for ICT implementation;
 - ii. Develop the web interfaces into forums of exchange and enable implementing schools and state agencies to seek support;
 - iii. Enable participation of experts from the community in developing and advising locally relevant innovative solutions;
 - iv. Involve teachers and teachers groups in the development of a teacher support pool;

[Action: CIET and NRG technical sub-group; appropriate interfaces to be developed and activities facilitated; by December, 2014]

- Expand ICT access and ensure comprehensive coverage across all schools
 - i. Develop a road map for comprehensive coverage of ICT in schools. This would involve financial allocation by the states, plan of action to cover remaining schools, monitoring and evaluation of implementations to overcome challenges;

[Action: States and MHRD; One year]

- ii. Expand internet connectivity to all schools. Explore existing and newer avenues like National Optical Fibre Network, National Mission for Education through ICT, National Knowledge Network, etc. Advise and facilitate action by states;

[Action: MHRD and States; Two years]

- Provide for upgradation / refresh of infrastructure in schools already covered
 - i. Address provisions in states to upgrade and maintain ICT infrastructure after the BOOT period; Advise funding provisions for the same;

[Action: States; Two years]

- Ensure teacher competencies for ICT integration
 - i. Implement ICT curriculum in schools for students and teachers; Enable participation of teachers in ICT course; Ensure completion and certification;
 - ii. Make ICT curriculum integral part of the ICT@Schools implementation

[Action: States; Two years]

10. The meeting ended with a vote of thanks to the Chair.

List of Participants at the First Meeting of the National Resource Group (NRG) on ICT

1. Sh. Rajarshi Bhattacharya, Secretary DSE&L, MHRD (Chair)
2. Ms. Radha Chauhan, Joint Secretary, DSE&L, MHRD
3. Dr. Ajay Kumar, Joint Secretary Department of Electronics & IT
4. Sh. Nagesh Singh, Eco. Adviser, DSE&L, MHRD
5. Dr. C.S. Arora, Senior Consultant (NMEICT), MHRD
6. Ms. Neena Pahuja, Director General ERNET,
7. Dr. R. Govinda, Vice Chancellor, NUEPA
8. Sh. B.B. Tiwari, Director (IT), ERNET India
9. Sh. Arvind Shukla, Scientific officer (ICT projects), ERNET India,
10. Sh. Dipak Singh, Director (E-learning), Dept of Electronic & IT
11. Dr. V.V.S. Moorthy, Deputy Director General, NIC
12. Sh. A.K. Jain, Sr. Director NIC
13. Sh. S.S.Jena, Chairman NIOS
14. Sh. Vineet Joshi, Chairman CBSE
15. Sh. G Arumugam, Deputy Commissioner NVS, Noida
16. Dr. Savithri Singh, Principal, Acharya Narendra Dev College, New Delhi
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26. Sh. V. Vijaya Lakshmi, Joint Commissioner KVS
27. Sh. Ravi Shankar S., Joint Director , NIOS
28. Ms. Sudeshna Sen, Secretary, NCERT
29. Dr. Rajaram S. Sharma, Joint Director, CIET, NCERT (Convenor)