Revised Scheme of Information and Communication Technology in Schools (ICT in Schools) during the XI Plan

Background

The scheme of Educational Technology (ET) was started in 1972 during the IV Plan. Under the scheme 100% assistance was given to 6 State Institutes of Educational Technology (SIET) and the States/UTs were assisted for procurement of radio cum cassette players and colour TVs. Further, in recognition of the importance of role of ICT in education, the Computer Literacy and Studies in Schools (CLASS) Project was introduced as a pilot project in 1984-85 with the use of BBC micros. The project was adopted as a Centrally Sponsored Scheme during the 8th Plan (1993-98) and its scope was widened to provide financial grants to educational institutions and also to cover new Government and Government aided secondary and higher secondary schools. The use and supply of software was limited with coverage confined only to higher secondary Schools.

The National Task Force on Information Technology and Software Development (IT Task Force), constituted by the Prime Minister in July, 1998 made specific recommendations on introduction of IT in the education sector including schools for making computers accessible through the Vidyarthi Computer Scheme, Shikshak Computer Scheme and School Computer Schemes. Smart Schools were recommended on a pilot basis in each State for demonstration purposes. It was also stipulated that 1 to 3% of the total budget was to be spent on provision of computers to all educational Institutions upto Secondary and Higher Secondary level during the next five years. Based on the experience gained so far, a need for a revision of the scheme of ICT @ Schools was felt on the following grounds.

1. Expansion with emphasis on quality and equity: A need was felt to expand the outreach of the scheme to cover all Government and Government aided secondary and higher secondary schools in the country with emphasis on educationally backward blocks and areas with concentration of SC, ST, minority and weaker sections. Along with that, there is a need for ensuring dependable power supply where the electricity supply is erratic and internet connectivity, including broadband connection.
2. Demonstration effect: There is a need to set up smart schools at the district level to serve as demonstration models for neighbouring schools.
3. Teacher engagement and better in-service and pre-service training: Since ICT education will be imparted to all secondary and higher secondary students, an exclusive ICT teacher is required for each school. Similarly, there is a need for pre service as well as in service training of all teachers in effective use of ICT in teaching and learning process.
4. Development of e-content: There is also a need to develop and use appropriate e-content to enhance the comprehension levels of children in various subjects.

5. A strong mechanism for monitoring and management needs to be set in place at all levels for ensuring optimal delivery of set targets.
6. The Scheme envisages that the School Management Committee, Parents Teachers Association and local bodies would be involved in the programme management along with the setting up of an online web-based portal for real-time monitoring and transparency. In addition, independent monitoring and evaluation is envisaged.

Accordingly, the Scheme has been revised, with the approval of Cabinet Committee on Economic Affairs (CCEA) on 9th January 2010, for implementation during the remaining period of 11th Plan.

2.   Components of the Scheme

The scheme has essentially four components.

The first one is the partnership with State Governments and Union Territories Administrations' for providing computer aided education to Secondary and Higher Secondary Government and Government aided schools.
The second is the establishment of smart schools, which shall be technology demonstrators.

The third component is teacher related interventions, such as provision for engagement of an exclusive teacher, capacity enhancement of all teachers in ICT and a scheme for national ICT award as a means of motivation.

Fourth one relates to the development of e content, mainly through Central Institute of Education Technologies (CIET), six State Institutes of Education Technologies (SIETs) and 5 Regional Institutes of Education (RIEs), as also through outsourcing.

3.   Individual Details of each component:

3.1.   Expansion of coverage of schools in partnership with States/UTs

It shall be the endeavour to bring all Government and. Government secondary and higher secondary schools under the ambit of the scheme, subject to the availability of budgetary provision. Priority would be given to educationally backward blocks and areas with concentration of SC, ST, minority and weaker sections.

3.1.1 Infrastructure

Hardware and software: Each school would be provided with 10 PCs or 10 nodes connected through a server. Accessories like printers, projection system, etc will also be provided. Keyboards would be customized for use in the regional languages.

Connectivity: The first *priority* would be to have a ***broadband internet connection of at least 2 MBPS bandwidth in each school***. Wherever that is not possible, connection of lower bandwidth would be provided with plan to upgrade in future. Wireless links would also be explored.

Power Supply: Wherever the power supply is unreliable, *it is proposed to provide assistance for purchase of a generator,* ***as a back up only*** *and also its recurring cost,* ***subject to a maximum of Rs.1000 per month****, in addition to Rs 1000 per month for the electricity charges. In areas where there is no power supply,* ***solar generated power*** *should be made use of.*

Computer Room/Lab: *The computers would be installed in one of the safe rooms in the school. If such rooms are not available, the need can be met from the scheme Rashtriya Madhyamik Shiksha Abhiyan (RMSA) in case of Government schools.*

3.1.2. Mode of implementation

States would be encouraged to implement the programme through a BOOT model under which the supplier would make available the ICT infrastructure for the duration of the contract period (normally five years) on the basis of a service level agreement and assurance of a periodic payment subject to satisfactory maintenance. The release of Central assistance in that case would be spread over the contract period. In exceptional cases where such arrangements are difficult to implement, ICT infrastructure can be procured on 'Outright Purchase Basis'. The State/UT Govt. shall be free to partner with private organizations or integrate it with other similar schemes for implementation of the 'ICT in schools' scheme including providing for maintenance. The implementation of the scheme will be multi-modal. The Ministry of Human Resource Development shall consider the entry of the private sector in a Build-Own-Operate or annuity modal wherever possible. The direct procurement of hardware by the State would be last resort. The National Council for Teachers Education shall be associated with the scheme in the context of training of teachers in computer-aided learning. The Rehabilitation Council of India would play an important role in projects involving introduction of use of technology for the education of children with special needs.

3.1.3. Financial Parameters

Under the class component of the Revised ICT scheme, the Union Government would provide 75% of financial assistance to State/UTs. The balance 25% of funds would be contributed by the State Governments/UTs. Assistance shall be provided to Northern East States, including Sikkim, in the ratio of 90:10. The assistance of the Government of India would be for the following items and upto the limits indicated against each item:

A. Assistance to States/ UTs for ICT infrastructure in each school

(Rs. in lakhs)

a.	**Capital Expenditure (Non-recurring)**	
1.	10 PCs (or one Server with 10 Terminals), 1 Projector, 1 Printer, 1 Scanner, 1 Web Camera, 1 modem, Broadband antenna, Generator/ Solar Package, UPS, video camera, etc.	5.10
2.	Operating System & Application Software	0.20
3.	Educational Software and CD ROMs	0.45
4.	Furniture	0.25
5.	*Induction training in ICT to teachers for 10 days @ Rs. 400/- per day (average of 10 teachers).*	*0.40*
	Total	**6.40**
Note: The cost includes Annual Maintenance Contract for a minimum period of 5 years.		
b.	**Recurring**	
1.	Computer Stationery (Printer cartridges, CD-ROMs, DVD, paper, etc.)	0.80
2.	*Electricity charges @ Rs. 1,000/- p.m.*	*0.12*
3.	*Expenses on Diesel /Kerosene for generator @ Rs 1,000/- p.m.*	*0.12*
4.	Telephone charges @ Rs. 500/- p.m.	0.06
5.	Internet / Broadband charges	0.10
6.	*Teachers' salary @ Rs. 10000/- p.m.*	*1.20*
7.	*Refresher training for 5 days to teachers @ Rs. 400/- per day (average of 10 teachers).*	*0.20*
8.	Management, Monitoring and Evaluation	0.10
	Total	**2.70**

It may be noted that even in the revised norms, it is proposed to have greater in-built flexibility. ***The State Government would have the option to incur expenditure on the above items or any other items like generators, preparation of labs for computers including civil repairs and cabling, etc. depending upon their needs and resources, subject to an overall maximum limit of Rs.9.10 lakh per school {Rs.6.40 lakh (non-recurring) and Rs.2.70 lakh (recurring)}. The Central Government's share would be restricted to Rs.6.63 lakh per school {Rs.4.80 lakh per school (non-recurring) and Rs.1.83 lakh per school (recurring)} for general category States and Rs.7.19 lakh per school {Rs5.76 lakh non-recurring and Rs.1.43 lakh per school recurring} for NE States, including Sikkim.***

The provision for software shall include Learning Management Systems & curriculum based courseware apart from operating systems and other application software.

4.   Establishment of smart schools

Smart schools concept has already been extended to 31 Kendriya Vidyalayas (KVs) and 33 Jawahar Navodaya Vidyalayas (JNVs). *150 more such schools will be established in the districts by conversion of one of the existing State Government schools, to serve as role model and to share the infrastructure and resources with the neighbourhood schools also.*

In smart schools, the emphasis would not only be on the use of Information Technology but also on the use of skills and values that will be important in the next millennium. It is hoped that at least one section (of 40 students) in each of the classes IX – XII will be fully computerized. Thus a school having 160 computers @ 40 computer for each IX to XII classes may be called a smart school under the scheme. However, keeping in view the fact that this target cannot be achieved in one go, it is proposed to provide 40 computers to such identified schools.

Each State Government/Union Territory would convert one school per district into a smart school subject to availability of funds. A grant of not more than Rs.25 lakhs would be given per smart school. This limit may be reviewed in the future, if needed. A sum of Rs.2.5 lakhs shall be provided as recurring costs which includes maintenance, consumable, internet useage and monitoring costs.

A. Assistance to States/ UTs for ICT infrastructure in each school

(Rs. in lakhs)

a.	**Capital Expenditure (Non-recurring)**	
1.	40 PCs (or four Server with 10 Terminals), 4 Projector, 4 Printer, 4 Scanner, 4 Web Camera, 4 modem, Broadband antenna, Generator/ Solar Package, UPS, video camera, etc.	21.00
2.	Operating System & Application Software	0.80
3.	Educational Software and CD ROMs	1.80
4.	Furniture	1.00
5.	Induction training in ICT to teachers for 10 days @ Rs. 400/- per day (average of 10 teachers).	0.40
	Total	**25.00**
Note: The cost includes Annual Maintenance Contract for a minimum period of 5 years.		
b.	**Recurring**	
1.	Computer Stationery (Printer cartridges, CD-ROMs, DVD, paper, etc.)	0.60
2.	Electricity charges @ Rs. 1,000/- p.m.	0.12
3.	Expenses on Diesel /Kerosene for generator @ Rs 1,000/- p.m.	0.12
4.	Telephone charges @ Rs. 500/- p.m.	0.06
5.	Internet / Broadband charges	0.10
6.	Teachers' salary @ Rs. 10000/- p.m.	1.20

7.	Refresher training for 5 days to teachers @ Rs. 400/- per day (average of 10 teachers).	0.20
8.	Management, Monitoring and Evaluation	0.10
	Total	**2.50**

Since the target is to set up 150 smart schools through out the country during the XIth Five Year Plan, a tentative apportioning of this number among the states/UTs has been made, marking the upper limit of schools each State /UT would be eligible for, depending upon viable proposal being received from them. The list is placed at **Annexure A**

5.   Teacher Interventions:

5.1.   Engagement

Under the scheme, all Govt. and Govt.-aided secondary and higher secondary schools will have a minimum level of ICT infrastructure. It should be the endeavour to make all students of these schools IT literate. This would involve formulation and transaction of curriculum and syllabus on computer literacy for each of the classes from IX to XII. Hence an ICT teacher would be required in each school. Secondly, all Examination Boards in the country would be encouraged to offer computer-related subjects as electives at the higher secondary stage. This scheme would encourage individual schools to offer such electives, so that a large manpower with IT skills can be built up in this country. To enable schools to offer these courses, post graduate teachers in IT would be required.

Therefore, a dedicated computer teacher would be required for every secondary or higher secondary school in the same manner as a separate teacher is required for every other each subject at the secondary and higher secondary stage. Wherever higher secondary and secondary schools are combined, a PGT in IT/ computer science may be appointed to teach the IT related elective subject in the higher secondary stage and also to teach computer literacy in classes IX and X as well. Incase of high schools without higher secondary stage, an IT teacher may be appointed on contract basis or through provisioning under 'BOOT model'. This act alone would be able to transform the ICT learning process in high schools throughout the country and will bring a great first mover advantage to the Indian students in the field of ICT.

*Keeping in view the diverse needs of States/ schools, various options for engagement of teachers for computer education are suggested at **Annexure B**, with flexibility to States depending on school specific requirement.*

5.2   Teachers' training

5.2.1 *Pre-Service training*: *It will be mandatory for all teachers to undergo training in use of ICT in teaching during the pre-service training courses meant for secondary teachers. Details of training and duration (55 hours) to be provided are as follows:*

S.No	Topics	Hours
1.	Computer Overview	1.30
2.	Operating systems (any scalable, standardized and least support required OS)	1.30
3.	Working with Multimedia and making movies and recording sounds	8.00
4.	Overview of productivity suits & integration of Presentation Software in classroom learning	4.00
5.	Networking/internet/e mail	8.00
6.	Using Word Processor	6.00
7.	Using Spreadsheet	6.00
8.	Subject specific TL Tools, e.g. labs, animation, musueum, etc.	8.00
9.	Database creation & management	6.00
10.	Classroom learning & teaching tools (whiteboards, collobarative cooperative tools)	6.00

The appropriate curriculum would be prescribed by National Council for Teacher Education (NCTE).

5.2.2 In-Service training:

a)   ***Induction training***:   *First time induction training in ICT should be provided to all teachers in the sanctioned schools for a period of 10 days (8 hours per day) @ Rs. 400/- per teacher. 10 lakh teachers are expected to be covered during the XI Plan. The details of training and duration (80 hours) to be provided are as follows:*

S.No	Topics	Hours
1.	Introduction Session	0.30
2.	Computer overview – parts of a PC, digital devices	7.30
3.	Operating systems (any scalable, standardized and least support required OS)	10.20
4.	Productivity suits & integration of presentation software in classroom learning	11.40
5.	Documents management using word processor	12.00
6.	Spreadsheet creation using spreadsheet	14.00
7.	Internet /email	14.00
8.	Classroom learning and teaching tools (white boards, collaborative noteworking)	8.30

9.	Assessment	1.00
10.	Feedback	0.30
	Total hours	80.00

The trainings would be organized by the respective State Governments in convenient batches at the SCERTs or such other training institutions as the State Governments finds suitable.

b) **Refresher Training**: *Refresher trainings in use of ICT in teaching should be provided to all teachers of the sanctioned schools every year. Refresher training is proposed to be provided for 5 days (8 hours per day) @ Rs. 400/- per day per teacher. The details of training and duration (40 hours) to be provided are as follows:*

S.No	Topics	Hours
1.	Working with multimedia	5.00
2.	Making and editing movies (picture story)	4.00
3.	Working with pictures (picture manager)	2.00
4.	Overview of web applications	2.30
5.	Internet and e communication	4.00
6.	Overview of Management Information System	3.30
7.	Legal and ethical aspects of web based information	1.00
8.	Computer technology and security	2.30
9.	Search optimization (search engines and how to take out relevant content)	4.00
10.	Classroom learning and teaching tools (interactive board)	8.00
11.	Overview of personalized learning	2.00
12.	Assessment and evaluation	1.30
	Total hours	40.00

5.3. *National Award for the Teachers using ICT for Innovations in Education*

In order to motivate teachers and teacher educators to use ICT in school education in a big way it is proposed to institute National Awards for the Teachers using ICT to be given away every year on the National Education Day (11th November). The details of the award scheme are at **Annexure C.**

An amount of Rs.1.40 crore would be kept aside for instituting National Award for the Teachers using ICT for innovations in education.

5.4   Content Development

5.4.1 Mode of Implementation

Development of appropriate e-content and its persistent and effective use constitutes the core of this proposed scheme.   This task would be shared by Central Institute of Educational Technology (CIET), State Institutes of Educational Technology (SIET), Regional Institutes of Education (RIE) of the National Council for Educational Research & Training (NCERT), Institutes of repute having experience of education and development of e content and other wings of central and State Governments as required. Outsourcing to private sector in a transparent manner may also be done. Content creation/acquisitioning being the critical factor for the success of the scheme, a Committee would be set up to ensure and assist Central Institute of Educational Technology (CIET) to finalize a strategy for utilising the full range of capabilities of the Indian ICT sector. State level committees should also be set up to assess the nature of e content to be developed to enhance the learning capabilities of the secondary school children. There would be stress on development of e-content and building of repository of e content & dissemination of best practices.

5.4.2 Development of Infrastructure

Existing courses in education in the various teacher training and content courses offered across the country have no component of Educational Multimedia. It is proposed to fill this gap by developing and deploying the Interactive Multimedia (both in the form of Learning Objects (LOs) as well as Interactive Multi Media Packages (IMMPs) at 12 Multimedia Development Laboratories to be set up with the requisite equipment and personnel. The content developed for various subjects at one laboratory would be translated into other languages at other laboratories and adapted to a regional context so as to avoid *de novo* efforts for each language.

5.4.3 Training of Teachers in Instructional Design

Each of these 12 labs is expected to produce at least 240 IMMPs (of one hour duration) per year (i.e. 720 IMMPs in 3 years). In order to prepare a massive number of IMMPs (estimated to be 8640 in all, to be translated to several languages), there will be a need for Instructional Designers, for which selected teachers would be appropriately trained. Once trained, each teacher would be expected to prepare Instructional Designs for the development of IMMPs.

5.4.5 Outsourcing of Development of IIMPs (and Learning Objects)

Learning Objects could be also developed for Classes IX to XII on subjects like Mathematics, Science (Physics, Chemistry and Biology), English, Hindi (and other Regional Languages) and Social Sciences through outsourcing to various organizations like University departments (of Education or Educational Technology), reputed e-learning

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firms or NGOs working in the area of Learning Resources development. The details of content development are at **Annexure D.**

5.4.6 Financial Parameters

Financial assistance would be provided to Central Institute of Educational Training (CIET), SIETs and RIEs and institutes for development of e content.   An amount of Rs.43.30 crore has been kept aside for CIET during the XIth Plan for development of e-content. An amount of Rs.36 crore has been kept aside for development of Learning Objects (LOs) by outsourcing @ Rs.30,000 for 10 subjects for 4 classes (100 LOs per subject per year), while Rs.9.69 crore has been earmarked as assistance to States for modification of the developed e content as per their requirements.

5.4.7 Assistance to SIETs

As in the previous scheme, the financial assistance to SIETs shall continue to be in the project mode. The financial assistance would be provided to SIETs on the basis of the project proposals submitted by SIETs. These project proposals shall be submitted to the Project Monitoring and Evaluation Group which shall assess the proposals submitted as to their utility and quality. The details of financial assistance for the various other components in respect of SIETs are given below:

S.No.	Item	Expenditure limit
1.	*Programme Production* a) **Cost of Audio programme** *i) Simple two people talk show (10 min)* *ii) Full fledged drama (10 min)*	 *Rs.10,000* *Rs.25,000*
	b) **Cost of Video Program : Outdoor** *i) A simple single camera (1 anchor, documentary) (10 minute)* *ii) Full fledged drama (10 minute)*	 *Rs.40,000* *Rs.60,000*
	c) **Cost of Video Program (Indoor)** *i) A simple 3 camera panel discussion documentary (10 minutes)* *ii) Full fledged drama*	 *Rs.60,000* *Rs.1,00,000*
	d) **Cost of Multimedia Learning Objects** *i) Non interactive with 2 animations (2 D), Graphics no interactivity, about 15 frames.* *ii) Interactive with 2 animinations (2D), Graphics interactivity about 15 frames*	 *Rs.40,000* *Rs.50,000*
2.	*Office expenses (stationery, postage, telephone/internet/fax charges, furniture,*	*Rs.5 lakh per annum*

	hospitality, liveries, TA/DA and contingencies, etc.)	
3.	*Library books & periodicals, CD room and purchase of software*	*Rs.1 lakh per annum*
4.	*Building/studio maintenance (electrical / civil), repairs, replacement, etc.*	*Actual expenditure based on PWD estimates with approval of MHRD.*
5.	*Maintenance / replacement of AC Plant*	*Actual expenditure based on PWD estimates with approval of MHRD.*
6.	*Advertisement and printing of brochure and pamphlets*	*Actual expenditure but with approval of MHRD.*
7.	*Holding of seminars, conferences and symposium, etc.*	*Actual expenditure but with approval of MHRD*

It may be noted that SIETs would have the option to incur expenditure on the above items or any other items like digitization, data based creation, editing, etc. depending upto their needs and resources, subject to prior approval of MHRD on submission of detailed justification.

5.4.8. Assistance to Institutes of repute for content development through outsourcing:

The financial assistance for development of e-content through outsourcing would be provided to institutes with repute on the basis of the project proposals submitted by them. The proposals submitted by these Institutes would be scrutinized by the Committee set up under the Chairpersonship of Joint Director, CIET for content development. Based on the recommendations of this Committee, the concerned institute would be asked to make a presentation before the Project Monitoring and Evaluation Group which shall assess the proposals submitted as to their utility and quality. The Committee under Joint Director, CIET will also issue detailed guidelines on outsourcing the work to reputed organizations, including its proper monitoring, supervision and penal clauses in case of defaulting.

The grants to these institutes would be remitted either by Demand Draft drawn in its favour by the Ministry of Human Resources Development or by telegraphic transfer to the savings bank account opened in its name. These institutes should also submit a Pre-Stamp Receipt (PSR) and a Bond before release of funds.

6.   Programme Management

With the increase in the mandate and outreach of the scheme, an appropriate management structure is needed at the national, state and district levels. These details are placed at **Annexure E.**

7.   Procedure for Approval of Proposals

The Project Management and Evaluation Group (PMEG) under the Chairmanship of the Secretary of the Department would approve the Computer Education Plans (CEP) furnished by States/UTs at the commencement of each financial year. The CEPs have to be sent in the format, which can be seen at **Annexure F.** The States/UTs should ensure the receipt of the CEPs at MHRD by the month of April of each new financial year for timely release of funds and completion of activities proposed for the year. The CEP should include the details of the infrastructure put in place in the previous year as well as utilisation in imparting more effective classroom teaching. Best practices and innovations should be elaborated for sharing with other States. Details of the provision made in the State budget, including that for the State share should form a part of the CEP mandatory. CIET, SIETs, RIEs and other institutes etc shall also have to submit their annual work plans for various components of the scheme for consideration by PMEG.

8.   Release of Grant

On approval of the project / CEP, the grant shall be released to the States / UTs/SIETs/CIET/RIEs/other institutes on an annual basis in two or more installments – the first installment of 50 % will be released immediately after issue of sanctions. After the States / SIETs / CIET / RIEs / other institutes has utilized 75% of the 1st installment, it may request for release of the subsequent installment along with progress report and statement of expenditure with full details. The release of grants in the second and subsequent years will be made on a similar basis, provided that before release of the second installment in a particular financial year (beginning with the second year), the utilization certificate and audited statement of accounts in respect of grants released till the end of the preceding year is furnished.

Wherever CEPs of the States/UTs are approved under BOOT model, the following will be the mode of release of grant:

'In case of BOOT Model, since implementation is staged over a period of 3-5 years, Central assistance may be released in one installment per year at the beginning of the year for the requirement of the entire year subject to the progress of expenditure in the previous year. However, the release of grants in second and subsequent years would be based on receipt of utilization certificate and audited statement of accounts in respect of grants released till the end of the preceding year is furnished'

9.   Disbursement

The grants of SIETs/CIET/RIE/other institutes would be remitted either by Demand Draft drawn in its favour by the Ministry of Human Resources Development or by telegraphic transfer to the savings bank account opened in its name. The grants to States/UTs would be given through Inter Government adjustment advice.

10.   **Management, Monitoring and Evaluation**

10.1   *A separate allocation has been made within the scheme for management purposes, especially in view of the increasing coverage and mandate of the new scheme both at the National and State levels. An amount of Rs 60 crores @ Rs 10,000 per school for the States and Rs 20 crores for the national level has been allocated for the purpose.*

10.2   At the national level the provision will be used for the purpose of monitoring, evaluation, research, innovation, seminar, workshops, visits, office expenses, and consultancy. At the State level the provision would be utilized for undertaking external impact assessment studies at State, District and school levels to make course corrections and for meeting expenses on the staff salary at State level and District level.

10.3   The respective States would have an internal mechanism for overseeing the implementation of the programme through a monitoring committee constituted for the purpose. The main parameters for monitoring would include timely installation of requisite hardware, including power supply, suitable software, engagement of teaching and administrative staff, teacher training and extent of use of e-content developed at the multi media labs by the teachers. The State Govt. shall undertake a monitoring mapping at each level i.e. school, district, and State level.

10.4   For effective monitoring and evaluation, a web portal will be developed to enable real time monitoring of the implementation of the project at various levels. The Management at State/National level could view the status of implementation and also provide timely mid course interventions. Successful innovations, experiences shall also be uploaded on the portal so that all the stakeholders can make use of the best practices or innovations being carried out by various States and Schools.

10.5   The Project Monitoring and Evaluation Group at the Ministry of HRD would also function as the Monitoring Committee. In addition, the SIETs, CIET, RIEs and the State/UT Government submitting the proposal would be required to submit progress report every quarter

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Setting up of Smart Schools – state wise allocation

S. No	Name of the State	No. of Smart School proposed	Remarks
1.	Tamil Nadu	5	
2.	Karnataka	5	
3.	Andhra Pradesh	5	
4.	Orissa	5	
5.	Madhya Pradesh	5	
6.	Uttar Pradesh	5	
7.	Bihar	5	
8.	Gujarat	5	
9.	West Bengal	5	
10.	Rajasthan	5	
11.	Maharashtra	5	
12.	Himachal Pradesh	5	
13.	Punjab	5	
14.	Jammu & Kashmir	5	
15.	Kerala	5	
16.	Jharkhand	5	
17.	Chhattisgarh	5	
18.	Uttarakhand	5	
19.	Haryana	5	
North Eastern States			
20.	Assam	5	
21.	Arunachal Pradesh	5	
22.	Meghalaya	4	
23.	Nagaland	4	
24.	Tripura	4	
25.	Mizoram	4	
26.	Manipur	4	
27.	Sikkim	4	
Union Territories with Legislature			
28.	Puducherry	4	
29.	Goa	4	
30.	Delhi	3	
Union Territories without Legislature			
31.	A & N Islands	2	
32.	Lakshadweep	2	
33.	Dadra & Nagar Haveli	2	
34.	Daman & Diu	2	
35.	Chandigarh	2	

ENGAGEMENT OF TEACHERS FOR COMPUTER AIDED TEACHING

The following options for engagement of teachers for IT literacy and competency teaching are suggested for adoption by the States:

i)   It would be necessary to have dedicated and suitably qualified teacher for computer education in each secondary school. It would not be possible for other subject teachers to teach computer literacy to high school students

ii)   If a school has higher secondary stage, then a post graduate teacher in computer science may be appointed if computer related subject(s) is (are) offered as elective(s). To start with, such teachers may be appointed on contract basis with a remuneration not exceeding Rs. 10,000 per month and this will be part of the scheme. If one school does not justify a full time teacher, one teacher may be appointed for 2 schools and time table may be so arranged that the teacher can spend half the week in each school. The qualification of the teacher teaching higher secondary stage should be adequate.

iii)   If the school has both secondary and higher secondary stage, then the teacher meant for higher secondary classes would also teach ICT in secondary classes (class IX and X) students.

iv)   If the school has only secondary (IX-X) and no higher secondary (XI-XII) stage, then a dedicated and qualified teacher is required on contract basis to teach ICT. In this case, the ceiling for monthly remuneration would be Rs. 5000 per month. If full time work is not possible in one school, one teacher may be appointed for a group of 2 schools, taking care to arrange time tables so as to enable the teacher to spend half of the week in each school.

v)   The computer teacher will also be in charge of all ICT facilities in the school in general. He/ she will also coordinate in-service ICT training for all subject teachers in the school to enable them to use ICT in their day-to-day teaching of subjects.

vi)   Wherever if it is found expedient, instead of contract teachers for IT for classes IX and X, provision of a qualified teacher can be made as part of 'BOOT model' agreement, so that the service provider makes arrangement for a qualified teacher. In such cases the total outlay per school would be enhanced to the extent of Rs 5000 per month or Rs 60000 per year for a five year period.

NATIONAL AWARD FOR TEACHERS USING ICT FOR INNOVATIONS IN EDUCATION

Eligibility

School teachers of primary, higher primary, secondary and higher secondary schools pertaining to the following organizations are eligible to be nominated:

(i) State Govt. schools, schools run by local bodies and Govt aided schools
(ii) Central Govt. Schools i.e. Kendriya Vidyalayas (KVS), Jawahar Navodaya Vidyalayas (JNVS), Central Tibetan schools, schools run by Ministry of Defence (MOD), Atomic Energy Commission (AEC).
(iii) Schools affiliated to Central Board of Secondary Education (CBSE) (other than those at (i) and (ii) above)
(iv) Schools affiliated to Council for Indian Schools Certificate Examination (CISCE)

Allocation of Awards

(i)	Three awards for each large State (Defined as States having teacher strength of 1 lakh or more)	13x3= 39
(ii)	Two awards for each small State (Defined as States whose teachers strength is less than1.0 lakh)	15x2=30
(iii)	One award for each UT	7x1= 7
(iv)	Two awards each for KVS &NVS	2x2= 4
(v)	Three awards for CBSE	3
(vi)	Two awards for CISCE	2
(vii)	One Award each for CTSA	1
(viii)	One Award for Sainik school and Schools under MOD	1
(ix)	One Award for schools under AEC	1
	TOTAL	**87**

Award

Each winning teacher will be awarded with a laptop and a commendation certificate. The winners would be required to function as mentors (resource persons) for their area to motivate and train other teachers in use of ICT in teaching All the winners will form a community of resource persons through networking. In addition the prize winning initiatives would be shared as best practices across the country.

Selection Procedure

(i)   For States &UT schools

Schools will send detailed entries in the prescribed format along with supporting documents to the Directorate of Education of the State through the District Education Officer. The Directorate of Education, with the help of a State-level Committee headed by Secretary (Secondary Education) will scrutinize all the entries and shortlist the candidates, which will be twice the number of awards to be presented, and forward the same to Central Institute of Education & Training (CIET), NCERT, New Delhi.

(ii)   For others

Schools will forward detailed entries with template and supporting documents to the headquarters of the concerned organization. A Committee under the Head of the organisation will scrutinize all the entries and shortlist the candidates, which will be twice the number of awards to be presented, and send the same to CIET for further action.

(iii) At CIET the short listed candidates would be required to make presentations before a Committee. The composition of the Committee will be as follows:

I.	Director, NCERT	- Chairman
II	DDG, NIC	- Member
III.	Representative from Secondary Education Bureau, Deptt. of SE&L, Ministry of HRD	- Member
IV.	Representative from Dept of IT	-Member
V.	Joint Director, CIET	-Member Secretary

(iv)   The Committee would recommend the requisite number of awardees to the Ministry with justification. At the Ministry level the proposal would be scrutinized for approval of the Minister.

Timeline:

S.No	Item	Date
1.	Advertisement for nomination including announcement on website of Ministry	31 December
2.	Last date for submission by schools of detailed entries to State Directorate of Education/Organizations	28th February

3.	Scrutiny and forwarding of short listed candidates by State Govt./UT/Organizations to CIET	30th June
4.	Scrutiny of short listed candidates by CIET and forwarding final list for consideration to Ministry of HRD	30th September
5.	Award Function	11th November

Financial implication

The total cost of the expenditure would be Rs.65.00 lakhs as per details given below:

(i)	Pre-contest activities (Evaluation of criteria, formation of jury and their presentation)	2.00
(ii)	Advertisement announcing the competition	3.00
(iii)	Expenditure by the Committee for evaluation at CIET	2.00
(iv)	To and fro fare for teachers shortlisted for giving presentation at CIET	10.00
(v)	Cost of 87 laptops to be given as award @Rs.40,000 each	34.80
(vi)	Cost of booking of venue (Vigyan Bhavan)	1.00
(vii)	Boarding and lodging of 87 teachers	5.00
(viii)	To and fro fare for the awardees by Train (2-AC)	5.00
(ix)	Lunch in honour the awardees by the Minister of Human Resource Development	1.00
(x)	Misc. expenditure (cost of printing certificates, award ceremony, etc)	1.00
	Total	64.80 **65.00 lakhs**

The number of awards may be increased in the course of the implementation of the scheme based on a review by the Project Monitoring and Evaluation Group (PMEG).

CONTENT DEVELOPMENT

A.   Objectives
1. To develop IMMPs for Secondary and Higher Secondary classes in all subjects.
2. To develop Learning Objects for the same target group.
3. To create infrastructure for Development of IIMPs at the CIET, SIETs and RIEs.
4. To train teachers in Instructional Design for Computer Assisted Learning.
5. To share IMMPs among the States.

B. Methodology
1. Set up 12 Multimedia Labs
2. Train teachers in Instructional Design for the IIMPs
3. Develop IMMPs in the school subjects.

C. Set up 12 Multimedia Labs

It is proposed to set up Multimedia labs in CIET, 6 SIETs and 5 RIEs with high end Multimedia computer systems for content development.

D.   Expenditure at each Lab

Item	Description	Number	Approximate Cost per Unit	Total Cost
Hardware	High End Computer systems	20	60000	12,00,000
Software	Multimedia software			6,00,000
AMC	AMC for Computer Systems and Accessories	20	1000 / year for 2 years	40,000
Total cost per Lab				18,40,000
Total cost for 12 Labs [A]				**2,20,80,000**

E.   Development of IMMPs at these Labs

The process of development of IMMPs (in Hindi / English / local language) will be through following steps:
1. Identifying the content for developing IMMPs
2. Preparing Instructional Design (ID)
3. Editing of ID
4. Translating the IDs in different regional languages
5. Designing and developing Multimedia
6. Field Testing (on small target group)

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7. Disseminating IMMPs to the target group

F. Engagement of personnel on contractual basis for project period

Type of Personnel	Number	Total estimated cost (Rs.)
Multimedia Support		
Project Manager @ Rs 30,000 pm	1	3,60,000
Multimedia Designers, Illustrators, Integrators @ Rs 15,000 pm	20	36,00,000
Lead Instructional Designer @ Rs 30,000 pm	2	7,20,000
Steno Typist @ Rs 8,000 pm	1	96,000
Class IV (Office assistant) @ Rs 5,000 pm	1	60,000
Total cost per year per Lab		**48,36,000**

Experts (to be assigned work on per IIMP basis)	Number of IIMPs/year	Total cost (Rs.)
Subject Matter Experts (SME) @ Rs 10000 per IMMP	240	24,00,000
Instructional Designers@ Rs 10000 per IIMP	240	24,00,000
Language Editors@ Rs 3000 per IIMP	240	7,20,000
Translators		
Total cost of development of IIMP per Lab per year		55,20,000

G. Cost for Development of New Content at 12 Labs for 3 Years

Items (Recurring and Non recurring)	Cost (Rs.)
Personnel	48,36,000
Experts (SMEs, IDs, Editors)	55,20,000
Total cost per lab per year	1,03,56,000
Total cost in 12 labs per year	12,42,72,000
Total cost of development (Human Resources) in 12 labs for 3 years	37,28,16,000
Hardware (One time cost) for 12 Labs	2,20,80,000

Total cost of development and Infrastructure	**39,48,96,000**
No of IMMPs to be developed at each Lab per year	240
No of IMMPs to be developed at 12 Labs per year	2880
No of IMMPs to be developed at 12 Lab for 3 years	8640
Cost per New IMMP	**45,700**

H.   Cost for Development of Translated Content at 12 Labs for 3 Years

Items (Recurring and Non recurring)	Cost (Rs.)
Personnel Translator (Teacher would be preferred) Rs. 3000/one hour of IIMP (80 frames) In 1 more regional language (about 240 per year) 3000 * 720 IMMPs in 3 years	21,60,000
Subject Matter expert (for translated content) Rs. 1000 * 720	7,20,000
Total cost per 12 labs for 3 years	28,80,000
Total cost of development of translated IIMPs per 12 labs for 3 years	**3,45,60,000**
Translated IMMPs (in 1 language) to be developed at each Lab per year	240
Translated IMMPs (in 1 language) to be developed at each Lab for 3 years	720
Translated IMMPs (in 12 languages) to be developed at 12 Labs in 3 years	8640
Cost per Translated IMMP	**4,000**

I. Cost of Training of Instructional Designers through Blended Learning (Face to Face and Online) 4 Credit course in Instructional Design

Number of Trainees from CIET, 6 SIETs and 5 RIEs	300
Number of participants per batch	30
Number of Batches	10
Duration (weeks) per batch	12

J.   Development of Learning Material for the training Course

	Honorarium (Rs.)	Cost (Rs.)
Number of Modules (1 Week of Introduction and 11 Modules of Content)		
Honorarium to writers (Subject Matter Experts)	10,000	1,10,000
Honorarium to Editors	3,000	33,000
Honorarium to Translators (Hindi)	3,000	33,000
Multimedia component in Hindi and English (Rs. 5000+ Rs. 5000)	10,000	1,10,000
Total Development Cost		**2,86,000**

K. Cost of Face-to-Face Workshops

	Number	Cost (Rs.)
TA to 300 participants for 2 Face to Face sessions @ Rs. 3000/-	300	18,00,000
DA to 300 participants for 6 days for 10 workshops (60 man days) @ Rs. 150/-	300	2,70,000
TA DA to Resource Persons (3 per day for 6 days for 10 workshops) @ Rs. 1000/-	30	1,80,000
Total cost of Face to Face workshops		**22,50,000**

L. Cost of Online Component

Honorarium to Online Tutors Per module per 30 participants (for 10 batches)	10000	10	1100000

M. Total Cost of Training of Instructional Designers

Component	Cost (Rs.)
Development of Learning Material	2,86,000
Online component	11,00,000
Face-to-Face workshops	22,50,000

Grand Total of Training Cost	36,36,000
Cost per trainee	12,120

N. **Total Cost of developing (new and Translated) IIMPs at CIET, SIETs and RIEs**

Total cost of development new IMMP and Infrastructure	39,48,96,000
Total cost of development of translated IMMP per 12 labs for 3 years	3,45,60,000
Total Cost of Training	36,36,000
Grand Total	43,30,92,000

O. **Grand Total of Development of E-Content**

Total cost of development and Infrastructure	39,48,96,000
Total cost of development per 12 labs for 3 years	3,45,60,000
Total Cost of Training	36,36,000
Total	43,30,92,000
Development of LOs by outsourcing @ Rs 30,000 for 10 subjects for 4 Classes (100 LOs per subject per year)	36,00,00,000
Maintenance of SIETs including office expenses, library, recurring expenses on building, equipments. etc, seminars, etc	9,00,00,000
Assistance to States for modification of the developed e-content as per their requirements	9,69,08,000
Grand Total	100,00,00,000

Programme Management

A. State Level

The overall responsibility of the programme at the State level shall rest with Principal Secretary/Secretary incharge of the programme. A cell, headed by an officer not below the rank of District Collector, having sufficient experience in the sector, will manage the programme implementation. The support staff for the cell would be engaged on contract basis.

B.   District Level

A cell headed by an officer with adequate seniority and relevant experience will oversee the implementation of the programme in all secondary and higher secondary schools in the district.   The cell would monitor the programme and also maintain all records including periodic financial and physical reports to be sent to the State for onward transmission to the Ministry.

C.   School Level:

The head of the school assisted by the computer teacher would be responsible for the school-level implementation. The School Management Committee, the Parents Teacher Association and the local bodies would be fully involved.   All efforts would be made to make the school an information hub for the community. The facilities can be used outside the school hours for the benefit of the community so that optimal utilisation of the ICT infrastructure takes place while enabling revenue generation.

Format for Computer Education Plan under the Centrally Sponsored scheme of Information & Communication Technology in schools

Name of the State/UT:

1. Details of schools at Secondary & Higher Secondary Stage functioning as on 01.04.2011:

Sl. No.	Type of School	Nature and number of school		
		Govt.	Govt. aided	Total
(1)	**(2)**	**(3)**	**(4)**	**(5)**
1.	Secondary school			
2.	Higher Secondary school			
	Total			

Please provide district-wise/block-wise details [School name, location etc.] as per format at ***Appendix-1***.

2. Details of schools already covered under ET/CLASS/ ICT @Schools Scheme as on 01.04.2011:

Sl. No.	Type of School	Nature and number of school			School remained
		Govt.	Govt. aided	Total	
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
1.	Secondary school				
2.	Higher Secondary school				
	Total				

Please provide district-wise/block-wise details [School name, location etc.] as per format at ***Appendix-2***.

3. Details of infrastructure available in the school :
    (a) Number of computers installed :
    (b) Number of printers installed :

(c) Number of projectors installed :
(d) Number of generators installed :
(e) Number of scanners installed :
(f) Number of schools in which internet connectivity available :
(g) Number of servers installed :

4.   No. of schools proposed now to be covered in 2011-12:

Sl. No.	Type of School	Nature and number of school		
		Govt.	Govt. aided	Total
(1)	(2)	(3)	(4)	(5)
1.	Secondary school			
2.	Higher Secondary school			
	Total			

Please provide district-wise/block-wise details [School name, location etc.] as per format at ***Appendix-3***.

5.   **Whether atleast two schools have been selected from each of the identified educationally backward block?**
[Please shade/mark in * names of such blocks and schools listed in *Appendix-3* **above] and also list the name of the block, district wise below:**

6.   No. of students likely to be covered. Details be given in the table below:

Sl. No.	Type of School	Number children				
		Govt.		Govt. aided		Total
		Boys	Girls	Boys	Girls	
(1)	(2)					
1.	Secondary school					
2.	Higher Secondary school					
	Total					

Please provide district-wise/block-wise details of students in ***Appendix-4***.

7.   **Whether vendors have been short listed for procurement of**

equipments, if so, please indicate their names and addresses and method of short listing. It is preferable to implement the programme through BOOT model. If state government proposes to implement under Outright purchase, detailed justification be given:

8. **Mode of proposed implementation**
   (Please tick):

Outright Purchase Basis	
BOOT model	

9. **Whether adequate infrastructure available in the selected schools, e.g proper room with ventilation/safety, electricity etc.:**

10. **Whether qualified and trained teachers are already available in the school planned for coverage in 2011-12 or ready for posting. Give details:**

11. **Whether provision for dedicated teachers has been made or not. Give details :**

12. **Whether arrangement for training of teachers in ICT has been arranged. Give details alongwith the institutions involved in the training programme :**

13. **Benefits accrued in qualitative and quantitative terms for grants released under the CLASS and ICT in School scheme:**

14. **Steps taken by States/UTs for promotion of Computer Education. Give details of Policies, Strategies adopted for computer Education at Secondary & Higher Secondary Stage:**

15. **Details of Public Private Participation undertaken:**
    [A copy of the Memorandum of Understanding may also be furnished]

16. **Efforts made in sourcing content/software:**

17. **Whether mechanism for developing of e-content have been placed or not :**

18. **Give details regarding the manner in which the programme is being monitored/proposed to be monitored:**

19. **Give details of financial assistance sought as per the cost norm per school given in the guidelines:**
    [Please ensure that the no. of schools proposed for coverage and each of the items in the cost norms match with each other]

20. **Provision made in the State's own budget :**

Central Share	Rs. _____ lakh
State Share	Rs. _____ lakh
Total	Rs. _____ lakh

21. **Position of utilization of Central funds received / unspent balance:**

22. **Whether evaluation of the Scheme by an External Agency has been done. If yes, submit the evaluation report. If not, likely date of submission of evaluation report :**

File No.:
       Dated: Signature
                                                  _____

Secretary to the Government of_____
[with seal]