AWARDS FOR EXEMPLARY INITIATIVES IN E-GOVERNANCE

NOMINATION FORM
CATEGORY: INNOVATIVE OPERATIONS AND BEST PRACTICES

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Closing Date : January 18th, 2006

Award Scheme Designed by National Productivity Council of India

Category Applied for (Please Tick the Relevant Box):

    a. Professional Excellence for Process Reengineering – New Entrant

    b. Professional Excellence for Process Reengineering – Professional

    c. Exemplary Leadership and ICT Achievement of Year – New Entrant

    d. Exemplary Leadership and ICT Achievement of Year – Professional

    e. Outstanding Performance in Service Delivery – New Entrant

    f. Outstanding Performance in Service Delivery – Professional

    ✔ g. Innovative Operations and Best Practices – New Entrant

    h. Innovative Operations and Best Practices - Profesisonal

Title of the Nomination/Entry: Project e-Shishu

DESCRIPTION OF THE PROJECT NOMINATED
Please give a broad outline of the initiative and its benefits.

Right to free and compulsory elementary education is now a fundamental right for every child in the age group of 6-14 years. Govt. of India in collaboration with State Govts have embarked upon an ambitious programme of Sarva Shikshya Abhiyan. The three super goals of this project are:
- Universal enrolment,
- Universal retention
- and Universal achievement in eight years of elementary education.

To achieve this target, there was a need to _track each and every child by name_, his/her enrolment in school and his/her achievement through the years of elementary education.

There was also a need to _track date of birth of every child so as to have a projection_ for further enrolment, need for infrastructure planning etc.

One of the hard-to-reach children groups are never enrolled children and dropout children, especially from remote areas, in tribal pockets, from depressed categories like girls and schedule castes, in urban slums, among migrant families and from disabled children categories.

Diagnosis of a problem is the most important step in building a solution to same.

The e-shishu Project is about the diagnosing through problems of Universalisation through elementary education is state of Orissa. For example, Home language of nearly one fifth of the children in the state is not Oriya. But when they enter the school, they have to learn Oriya without the support of their home language. Since classroom transactions are not conducted in their home language, their achievement levels are low and many of them especially among from tribal community drop out subsequently. To overcome this problem, introduction of home languages of major tribal groups at the primary level could be one solution. To implement this solution, we need to know the schools where such children are studying and what is their home language.

Project e-shishu will provide us exactly that information.

The project aims to track each child between 0-14 years with name, guardian name, date of birth, sex, religion, category, school where they are studying, if out of school, then reason of out of school, mother tongue, children with special needs if any etc.

The project was implemented through a door-to-door Household survey in October 2005 under Orissa Child Census'2005. There were nearly 78 Lakh families whom the Data format were filled in. This massive volume of information was computerized through ICR (intelligent Character Recognition) technology. This data base is currently under process of error correction which will be followed by validation both at school level (for in-school children) and at village/ward level (for out of school & preschool children).

The benefits of this project would be mostly in planning activities under various interventions to achieve goals of SSA and meet the challenges of Universalisation of Elementary Education (UEE) e.g. Medical checkup, surgical corrections, supply Aids & appliances can be planned for children with special needs from the information available in e-Shishu project.

Second Major benefits would be to plan specific action for the out of school children based on the reason for their being out of school. Instead of dealing with numbers, we have names and individuals to deal with.

Third major benefit would be to plan for future entrants to the education system with infrastructure, teachers etc. in years to come.

Duplicate and fake enrolments which are quite common in Govt. schools due to several incentives like Books, MDM, uniforms could be minimized/eliminated altogether.

Most important benefit would be development of a tracking system for each child based on his/her achievement and taking steps to improve the same so as to achieve the objective of quality education.

The Nominees are required to provide information for the following, which need to be supported with documentary evidence wherever applicable.

Criterion 1: Strategic Planning and Implementation

1.   Please explain the process of involvement of stakeholders.

Project 'e-Shishu' project started with Orissa Child Census 2005. The project was conceived during one decision with Honorable Minister for School & Mass Education during Assembly Session in 1st week of August'2005.   With Karnataka's experience in conducting a similar exercise in March'2005, we planned to take up the project.

Please see the attached **Annexure B, C, D, and E** containing the photocopy of letters sent to different stakeholders.

Honorable Minister wrote an appeal to all public representatives starting from word members up to Honorable Members of parliament (nearly 1 Lakh letters) to generate awareness and requesting for participation and whole hearted support to the campaign.

A draft format was designed and was circulated to all District Collectors, District Project Coordinators of SSA and district Inspectors of Schools soliciting their suggestions. Then a teleconference was held on 2nd September where in nearly 1050 stakeholders from Primary School Teachers, CRCCs, BRCCs, DIS, District Coordinators, DPCs, Programmers & District Collectors took part where in the objective of the project, the process of implementations, each item of the format was discussed in great detail.

A training module was developed to impart training to each and every stakeholder of the project. Detail instructions were given with respect to each and every activity of the entire process.

The training started with training to state level observers. Then, all the DPCs and District Planning coordinators were trained at the state level in the 1st week of September'2005. District level trainings & block level trainings were done between 15th and 25th Sept'05. Over 40,000 enumerators, 6000 monitors, 400 supervisors, 30 principal supervisors and 30 state level observers were engaged in the entire process.

Annexure A shows the hierarchy structure of the personnel involved in the project for data collection and monitoring.

2.   Please explain how the project has resulted in transparency, citizen centricity, decentralized decision making and efficient use of resources

Till date, we have been dealing with numbers as far as educational statistics are concerned. With implementation of the e-Shishu project, there is a <u>quantum change of the data from numbers to names</u>. This will give authenticity & credibility to the data of numbers of <u>out of school</u>, <u>in school</u> and <u>pre school</u> children.

As the entire data base is open to citizens through website, transparency about the whole data base is for the public to see and judge. Secondly, there are provisions in the database to where citizens can interact and send in mails to the administrator to correct or update any information. Upon receipt of such mails, there shall be a field enquiry before actual updation takes place at an appropriate level.

e-Shishu has two other sub projects which are in the process of being implemented. One is Orissa GIS School Mapping Project-2006 and Orissa Education Personnel Information Project - 2006. The first one maps each and every school up to secondary level in the state with respect to infrastructure along with latitude longitude reading with GPS survey. The second one shall give information about teacher details, their postings etc.

Once these two sub-projects are complete, there will be <u>linkage of Infrastructure and teachers position to each and every school apart from students. These three form the pillars of the education system</u>. Decision with regard to providing infrastructure or posting of teacher can be taken at the appropriate level. Once such decision is implemented, the same can be updated at the local level and up linked to web.

Even now, decision with regard to starting up of new schools or EGS (Education Guarantee Scheme) Centers or AIE (Alternative & Innovative Education) centers shall be taken at District and sub-District level based on the number of out of school children. Similarly, appropriate action shall be taken for each child out of school there by achieving goals of UEE.

e-Shishu project aims to optimize the use of resources by targeting them to these who need it instead of uniform/division among stakeholders or administrative units. It works as a decision support system for planners and administrators.

Criterion 2: Information Planning and Analysis

3. **Please explain the process adopted in environment scanning prior to the project initiation**

Before the project was initialized, the available information system on children, school and teachers were examined in detail. SSA has a District Information System on Education (DISE) where in school level information in a structured format was being collected and collated at District level. The same data base was sent to State and Govt. of India. There are fields for school information, teachers and students in the format. There were certain limitations of DISE like:

i) There was no way to know if all school of a particular district were covered or not.
ii) It didn't cover the unrecognized schools.
iii) It didn't cover all high schools where some 6-14 year children could be studying.
iv) Information collected on school infrastructure was not enough to take decisions at District and sub district level. Secondly, this information was based on the data filled in by the concerned Head Masters at Cluster level.
v) The teacher information was sketchy which didn't help in support making at appropriate level.
vi) The student information was in numbers, not in names.
vii) The same set of information is being collected year after year. No provision is there to collect only the changed information.
viii) One of the major limitations was that, the DISE data was never made web-enabled or citizen centric where by the correctness of data have been verified.

Annexure G shows the sample copy of the EMIS booklet used for collection of data.

Second set of information available in the system was Village Education register (VER). VER is meant to contain names of children of the Village in three categories namely Preschool (0-5 years), In-school (6-14 years) and out of schools (6-14 years) name wise. This is meant to be maintained at the village level. The responsibility to maintain and update it is with the Head Master of the local primary school. It was meant to be based on the Household survey. The information was to be collated in numbers and sent up to District Level through CRCC and BRCC for taking decision and plan for out of school and preschool children. Some of the limitations of VER maintenance that were observed are:

i) They were not maintained regularly for all villages.
ii) Even where they were maintained, the same was not used properly due to lack of proper monitoring.
iii) Compiling & collecting the information about Out of School children at District and state level became an impossible task due to lack of information from all villages.

iv) There was no mechanism to whether the data collected was complete or not.

The limitations of both these sources of details being debated at all levels. In the 2nd joint Review Mission on SSA held in New Delhi for the entire country in July'2005, many field functionaries and mission members were of the view that some solid steps is needed to get the correct data on Out of School, in school and preschool children.

With this background, the project was initiated to meet the basic need of correct information on the above requirement. It was felt that a dynamic database would be the ideal solution to such a problem. After a series of brainstorming session and direction of honorable minister, school, & mass education department, Govt. of Orissa, it was decided to have following features in the dynamic database:
   (i) Name of each child in 0-14 years age group to be collected instead of just numbers.
   (ii) Date of birth of each child is to be collected so that age information becomes dynamic automatically.
   (iii)   This was to be done through a house hold survey with a pre-designed format.
   (iv) Name of the school of all in-schoolchildren was to be collected.
   (v) Educational status of all in-school and out of school children was to be collected.
   (vi) All related information for each child was to be collected.
   (vii)   Electoral roll was decided to be taken as the base material for house hold survey.

   Annexure H shows the details of stakeholders involved during different phases of Project e-Shishu.

4.   Please explain the process of citizen satisfaction measurement, performance measurement and management and information gathering

e-Shishu Project aims to bring in citizen satisfaction measurements once all the three sub-projects relating to children, school and teachers are implemented. At present, only the first sub-project i.e. Child Tracking System has been completed through Orissa Child Census-2005. The project aims to track the progress of each child and enable the stakeholders to take steps to ensure Universal Achievement of each child in 6-14 age group. As the project becomes citizen centric, feedback from citizens will enable us to put in satisfaction parameters in place. This will bring in new challenges for stakeholders who would then gear up to meet them.

The success of "Project e-Shishu" would be in regular updation of the information relating to children, school and teachers. Therefore, the parameter measurement would be largely dependent upon the quality of updation and timely updation of the changes that occur from time to time.

At present, before we reach the updation stage, there are the challenges in the children data base due to the process of ICR. These challenges are - correction of errors in names of the villages, household fields, and children details. These are being corrected by linking the SCANNED images of the ICR forms to each of the errors.

Second challenge is the issue of validation. Once all the errors are corrected, the children list for out of school and Pre School (village wise) and in-school (school wise) will be sent to the field for verification & validation. These are part of the process management.

A large hardware system with servers at district level and network through IPSTART VSATS are being deployed to correct the errors, key in validation correction and update the changes in the various databases.

Please see the **Annexure I** for the hierarchy level of resource groups formed for the project execution.

Criterion 3 : Human Resource Focus

5.   Please describe how the capacity and skill building exercise was taken up

In order to carry out such a mass exercise it was very much required that a proper training to be given to the people involved in the project. At different stages, proper training session was conducted for skill building. Following is a list of training session conducted at different levels.

First level training session was given to the programmers of all the districts on how to create the EMIS code. At the training session other difficulties were also discussed and sorted out.

On 2nd September 2005, a teleconferencing was arranged at the state level using GRAMSAT and all the district coordinators, BRCCs, CRCs and enumerators were trained online. In this one day session, many problems from different districts were sorted out.

On 5th and 6th September, 2006, State level orientation was conducted to train the DRG members.

On 12th and 13th September 2005, each district conducted District level orientation for the BRG members.

These trained Block Resource Group then give orientation to the enumerators from 14th to 17th of September 2005.

State level observers were appointed and trained at the state level. They are deployed in three phases to oversee the process of training, door-to-door survey and conversion from Non-ICR to ICR forms during child census 2005.

Regarding use of the database of e-Shishu project, the programmers of each district have been trained on the software. District Project Coordinators and District inspectors of schools, District Planning Coordinators have been oriented on the use of the children database especially in the field of plan up for activities to achieve the goals of SSA.

Annexure J shows the schedule of training conducted during the project.

6.   Please explain the changes w.r.t. delegation of authority, empowerment of functionaries and knowledge sharing.

Mobilizing nearly one third of the functionaries of the elementary education sectors in the data collection process has actually helped them in the process of knowledge sharing. This will be further reinforced when the process of validation takes place. Lastly as we update the changes in the database through the hierarchy of functionaries to make the e-Shishu database dynamic, actual delegation of authority and empowerment of functionaries will happen. At present, we are in the process of making the guidelines for validation and updation with specific responsibilities and authority of various functionaries.

7.   Please explain as to how team work culture was promoted

To make the project successful, team work was the first and foremost requirement. Also the major challenge was to manage such a huge team of over 40000 enumerators at village level. Proper awareness among the citizen and the team members was required to make the project a success.

To achieve awareness among public, a sustained media campaign was conducted. Advertisements on the newspaper were published. Also awareness on the project was aired on Radio to reach the masses. Also television programmes were telecasted on Government as well as Private channels. Discussion and talk shows were organized in electronic media to create awareness among public.
The project management was done by delegating authority & representatives to various functionaries of the department in the field. Resources were made available in shape of instruction manual, forms (both non-ICR and ICR) at the district level in time.

Annexure I **shows paper cutting of different news paper where the knowledge on the project was advertised across the state.**

Criterion 4: Process Management
8. Please explain how you achieved process standardization and simplification

Process of standardization was achieved based on our need for various fields. The goals of SSA, various interventions of SSA, DISE data capture format, Household survey & Village Education Register format etc were used as base material in series of workshops to determine the fields & their options in the Orissa Child Censis'05 format (both ICR & non-ICR). As the Electoral Rolls were taken as base of data for door-to-door survey, fields such as Assembly Constituency number, Booth (Polling Station) number, Electoral serial number entries were included. These field items were also thrown upon to field functionaries for suggestions/modifications.

Requirements of various reports, Assembly & Parliament question requirements were also considered in these workshops to come to a 26 item format.

The main objective of the project was to collect correct and error free information from each and every household in the state. Also it was planned such a way that the same process could be used in other states to capture and process household data without reinventing the process

flow. In order to make the process of data capturing simpler, Intelligent Character Recognition technology was used. This technology made the data capturing simpler, as the enumerators had to write the details in a predefined format and most of the fields (20 out of 26 fields) were numeric in nature. Then those ICR forms were scanned, recognized and verified without any manual intervention. Nearly 2 Lakh ICR forms were scanned everyday and stored to the database directly. This saved the time of reentering the data after house hold survey by the enumerators.

The following 26 items were available in the ICR as well as in Non-ICR forms for data consolidation in the 'Orissa Child Census-2005'

1. Name of Block/ULB (Alphabetic entry)
2. Name of Grampanchayat/Ward Number (Alphabetic entry for Rural and Numeric for Urban)
3. Name of Village/Local Area (Alphabetic entry)
4. Name of Habitation/street (Alphabetic entry)
5. Household No (3 digit number)
6. Enumerator Code (3 digit number that is assigned to the enumerator)
7. Type of family (1 for general family, 2 for institutional family and 3 for houseless family)
8. Assembly constituency No (3 digit number)
9. Polling station number (3 digit number)
10. Electoral serial no (4 digit number)
11. Name of Father/Mother/Guardian/Head of family (Alphabetic entry)
12. total number of members in family (Male & Female)
13. No. of Children (0-14 age) in the family (Male & Female)
14. Sl No. (this was required for additional forms as the main form was able to accommodate details of 5 children)
15. Name of the Child (Alphabetic entry)
16. Relation of Head of Family (1 for father, 2 for Guardian, 3 for Others)
17. Date of Birth (DD/MM/YYYY)
18. Gender (1 for male, 2 for female)
19. Category (1 for SC, 2 for ST, 3 for OBC and 4 for Others)
20. Religion (one digit number ranging from 1 to 8)
21. Education status (two digit number ranging from 00 to 11)
22. Institution Code (7 digit EMIS code)
23. Reason for out of School (Two digit number ranging from 00 to 12)
24. Class drop out (one digit number ranging from 0 to 8)

25. Mother tongue (one digit number from 1 to 8)
26. Disability Type (one digit number ranging from 0 to 8)

For non-ICR format, in item 22, name of institution was to be recorded but in ICR format, this was changed to 7 digit EMIS code. EMIS code was designed in such a manner so as to act as the <u>common key</u> of the entire e-Shishu project.

Each school was first codified with a unique 7 digit EMIS code. This code can give the location details of the school as well as in which category it falls. This EMIS code was the base of the entire system. Then each household was codified with a 9 digit HMIS Code. The main objective of codifying Household was to track the household at a later stage. This code can give information on the physical location and type of family. The next difficult area was to give a unique number to each and every child in the entire state. This code(CMIS) would give information of a particular child, its gender, location of the household etc... Once this code is assigned to each child, it will help in tracking a child and know its status. The above three codes are standardized so that it can be helpful to other activities related to child and households. The Child Code (CMIS) can be used as a Social Security number for a child. In future this will be a help to other service providers like health & WCD Depts. for use in their programs.

EMIS code has been standardized & used where as HMIS and CMIS codes are in the process of Standardization. It will take shape as errors in the Child & household database get corrected & validated.

Annexure N shows sample Non-ICR form, **Annexure O** contains a sample ICR format and **Annexure P** shows a sample format which was used to consolidate the EMIS code for each schools in the state.

9.   Please explain the process of Documentation e.g. Admin/user manuals.
At different stages of the process, proper training material and guidelines were printed for distribution to the personnel involved. During the preparation of EMIS code, an instruction guide was printed and distributed to all the district programmers. A Guideline on how to fill up Non-ICR and ICR Forms was printed out and had been distributed to all the enumerators across the state **(Attached Annexure)**. In the instruction sheet each fields in the ICR form were explained in details and proper instruction were given in the manual.

During the Training session for updating child data, a detail user manual for users as well administrator was prepared and distributed to the concern personnel. Also the user manual for maintenance of Application server and database server was given to the concern district programmer. The user manuals were prepared in such a way that it can be understood by everyone.

The minutes of meetings were documented properly for future use.

All the instructions issued for the project implementation including clarifications have been documented separately for future reference. Present and future instruction which are being issued/shall be issued would also be documented for future reference & guidance.

Annexure L shows the sample copy of Instruction sheet provided to the District programmer for filling up of EMIS Code for schools.

Annexure M contains a sample copy of instruction sheet provided to all the enumerators for filling up of ICR & Non-ICR sheets.

10. **Please Explain whether any best practices were studied and benchmarked prior to the changes brought about by your initiative.**

Karnataka government had done a similar kind of project using ICR technology. The process they had followed was studies deeply and was benchmarked. Any kinds of problem faced by them were also discussed so that such kind of hurdles could be avoided.

While Karnataka stopped at child census, we have gone beyond to include school infrastructure database and teacher information database in the e-Shishu project. Linking the three databases under one architecture, has been one of our new initiatives.

Secondly by making the data available on the web, we have gone beyond the Karnataka experiment and have tried to make it citizen centric.

Thirdly, by making the database live with regular updation, we need not repeat the annual data collection ritual in future. Real time data availability was one of the cherished goals of the entire e-Shishu project.

11.   Please Provide details of the benefits accrued to the society.

The entire project was done keeping in mind the benefits to the stakeholders as well as the citizen. The child data (of age group 0-14 years) is available in the OPEPA website from where the citizen get information on Pre school child, In-school child, out of school children, house hold details, schools details as well as the population details. One can search a particular child from his/her name or his/her guardian name.

As mentioned earlier by updating changes on a regular basis, real time data would be available on the web.

Apart from being citizen centric, this information would be used by planners to plan for various interventions such as SSA.

Steps are also being taken to make the actions taken through interventions also web enabled. By this, we can see the actions taken on an problem and their impact in delivering the intended objectives in the web on a real-time basis.

It will make the process transparent, and increase the confidence of the citizen in the governance process as the first phase of the project is just implementation, we can only expect results in days to come.

12.   Please provide details of the economic benefits accrued to the organizations/individuals that implemented the innovation as well as to the end users.

The main objective of OPEPA is to provide education to all the children in the age group of 6-14 years. In order to achieve the goal it is very much required to utilize the fund in a proper and systematic way. The service should be given to the people who are in need. Project e-Shishu empowers OPEPA to know the exact status of children in the entire state. This reduces repeated survey of children and hence saves manpower involvement, expenditure in conducting such surveys every year. The district programmers now do not have to re enter all the data for their district, in stead they have to update the changed data only. This saves lot of time of the programmers/DEOs in the districts level. Also the VER need not be maintained in registers as all the data is available in central server. They can get information any time and cross check the same at the village/school level. VER can be printed at block level and given to villages for verification & updation if any.
The information captured and stored in the central location helps the planning officers during planning for the next year as the data are accurate and authenticated. Earlier to get the information many level exercises had to occur. Also data are consolidated at block, district and state level which were time consuming. But now they don't have to consolidate data at different

levels. The state planning officers can get the data instantly at his/her place. Similarly the district planning officer gets his/her district information without much hassle.

Correct information on children will help in creating primary, Upper Primary schools and EGS /AIE centres, maintenance of infrastructure of schools, providing proper health care to disabled children, planning for pre-School children in coming year. And all the information will only be updated at different levels… no need to make similar exercise every year.

13.   Please provide details of the recognitions /awards /other accolades, if already received for the proposed project.

NIL

Criterion 6: Specific Criteria:
Innovative Operations and Best Practices:

Please provide information on how your initiative was focused on achievement of the following:

- **Progressive Modernization and transformation of administrative practices in form and content keeping in mind the centrality thereof in regulating, facilitating and delivering services at the grass-root level.**

Regulating, facilitating and delivering service at the grass root level is central to the entire e-Shishu project. Services and interventions are required to be provided where there is at most need. The e-Shishu project aims to make the need analysis and prioritization easy and transparent.

Usually, in our democratic setup, cake is often divided equally and frequently, the most vociferous one gets the largest share of the cake. This situation is true in the entire country at various levels. e-Shishu project aims to change that concept from demand-based to need-based by pin pointing the issues and helping everyone to focus our attention to the most problematic areas in a better manner. Need prioritization is one central idea which runs through the entire project.

Progressive modernization and transformation of the existing administrative practices is a necessity to achieve the objective of the e-Shishu project. Starting from block level to DIS level, to District level, modernizations of infrastructure, training of personnel and adaptation of efficient practices have been under taken in a systematic manner. Not only all reporting will become web based but also individual administrative units will use computerization to process their pay bills, other activities etc.

The data related to children and households of the entire state are kept in a central location, it is very convenient to get the right information instantly. Also the data is distributed in the district level so that it will be easier for the officers at district to change their district data without connecting to the main server. These data are again consolidated at regular interval so that the state users get the correct information.

The backbone of the project is the infrastructure and connectivity across the state. In order to achieve this each district has been provided with state-of-the-art infrastructure with high-end servers and VSAT connectivity. These servers contain the application and t he Database of the children pertaining to there district only.

The block level users as well as the citizens can access the data through internet. The Block level users can use GRAMSAT for accessing internet and update the data of their Block at the block level.
Please see the Annexure Q for a detailed architecture diagram of Connectivity across the state through VSAT.
Also **Annexure R** contains the database architecture diagram of the project.

- **Bringing about systemic changes to infuse and sustain vibrancy and responsiveness**

At the districts and state level each programmers are well trained on the system usage. Proper planning has been done on the updation of the data at the district level. The system is made simple to use so that the users and administrators don't have to enter much information in a daily basis. Log reports are also generated to get a clear picture on the usability of the system at different levels. System and human generated alerts and reminders are sent at regular interval if any action is not taken in due time. This control mechanism helps in managing the entire system remotely.

It is also proposed to recruit one data entry operator at the block level so as to ensure regular updation of the changes in the e-Shishu project. As everyone needs to operate through the project in a progressive manner, the project will be accepted by all stakeholders in a gradual manner.
Remarks and feedbacks are taken from the users and administrators to improve the quality and consistency.

- **Promote knowledge sharing to realise continuous improvement in the quality of governance.**

From the planning level, all the stakeholders were involved in the project and their feedbacks were taken at regular intervals. This helped in improving the quality of work.

Also regular training champs were organized to share the idea of e-governance among the users and administrators. This helped them in understanding the system in depth and also the novel reason of improvement in the quality of governance. As everyone uses the database and updates the same, there will be regular sharing of information. More new uses are bound to come up as we progress.

- **Contingent measure and emergency system response that ensures effectiveness of the machinery to meet such crisis situations and enhance crisis preparedness.**

Proper steps were taken to ensure an effective and robust system to use. Still there are few situations where the crisis management is required.

Proper logging of activities, system performance report, system usability reports etc. are generated in daily basis to know the health and status of the system in all the levels. Also the district programmers are given technical training on the management of the system so that the cases where remote management is not possible can be handled by them. A crisis management team at state office is always ready to help online in case any crisis occurs.

Similar structure is also planned at the district office to meet their emergency situations.