

## **Title: ICT innovations to connect the Community with Knowledge**

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### **Theme: Innovations and Technology**

#### **About ICT Convergence:**

Access to ICT and ICT-supported educational experiences potentially offers learners valuable opportunities to learn new skills and new competencies for effective functioning in the twenty-first century, and should arguably become part of the entitlement of citizens. It is also on the basis that large amounts of money have been allocated to the realization of IT-in-education master plans in many countries. However, success in implementation depends greatly on the understanding and readiness of the many stakeholders involved in the process. On the other hand, the shelf-life of ICT products and configurations is generally very short. A strongly ICT infrastructure-led development plan may thus lead to wastage of valuable resources if the teachers are not prepared, or if the understanding of the purpose is merely a technological one, such that the impact of the introduction of technology becomes rather limited.

It is common in the education field to identify cases of successful implementation and to disseminate it to others for adoption. It is often anticipated that such dissemination will need to provide detailed descriptions of the infrastructure, technical know-how, support available, curriculum context of the implementation and how it was conducted. However, the dissemination of innovation cannot be successful if the learning within or across institutions in this process is simply conceptualized as one of replication.

Leadership is essential in innovation adoption as it requires that everyone involved go through a deep learning process and undertake a role change at an individual level, while the institution as a whole will need to undergo a cultural change in order to become a learning organization. For adoption of innovation to be successful, it has to be a creative, innovative process for all those involved in the adoption.

It is widely recognized that participation in all the levels of community development process and joint consultation as one of the community is an approach that will lead to more sustainable community development. Communication and knowledge management are essential contributing factors to the emergence of such participation and consultation.

The advanced capacity of information and communication technologies has resulted in a variety of information being more rapidly disseminated to increased recipients. Such higher-level of information technology as Web 2.0 has brought about the so-called "Read/Write Web" phenomenon that the web users can do more than retrieving information; they can also send their own data. An improved two-way communication makes it more convenient for people to express their opinions and collaborate through networks.

Owing to diverse communication tools, such as weblog, podcast, and video online, citizen journalism is increasingly practiced. Such occurrence results in more perspectives on information and news, especially

from those directly concerned, such as affected people, local media, or social development organizations. It is thus important that community knowledge management and citizen journalism are promoted so that those directly involved can share their knowledge, problems and proposals among themselves within the communities as well as forwarding them to the media for wider public dissemination and discussion.

Citizen journalism relies on four major factors to enable the use of ICT tools to effectively manage and disseminate news and information. First is the knowledge to use the software and tools to produce and disseminate the content. Second is the knowledge management, ranging from collecting, analyzing and presenting the knowledge to target groups. Third is the ability to provide wider access to communications networks at reasonable expenses. And fourth is the freedom to get access to and disseminate information and news, including access to resources that will promote the efficiency of information management and its public dissemination.

As a result of the aforementioned technology and factors, numerous alternative media are available, including alternative websites, radio, or community television. This is instrumental in widening the communication within and between communities, thus facilitating internal and external exchanges of community information and knowledge. These ICT channels will, in turn, either benefit community's own development or provide useful information and knowledge that other communities can put to good use.

However, digital divides still exist to limit access to the communications system and information tools, such as computers and the Internet, skills in using technology, language barriers, and restrictions on freedom of expression. To solve such problems, it is necessary that networks of information and communication technology experts well-versed in media work and social development are established to give information technology-related assistance and support to the tribal-coastal communities of the Odisha State of India.

#### **About OFSDP:**

The Odisha Forestry Sector Development Project (OFSDP) aims at promoting sustainable forest management in the state with a larger goal of supporting rural livelihoods and community education, with financial assistance from Japan International Cooperation Agency (JICA). The project is being implemented at selected project villages in 14 Forest Divisions, namely Angul, Balliguda, Bonai, Deogarh, Jeypore, Keonjhar, Koraput, Paralakhemundi, Phulbani, Rayagada, Rourkela, Satkosia WL, Balasore WL and Bhadrak WL, through active participation of the village community organized as Vana Surakshya Samiti (VSS) or Eco Development Committee (EDC). The overall goal of OFSDP is sustainable forest management and poverty alleviation of local people. Out of the envisaged components Non Formal Education (NFE) is a major one to enhance Community/ Tribal development and capacity building with promotion of women literacy.

Conservation and management of the existing forest and restoration of the degraded forests is of primary importance for maintaining ecological equilibrium. Forest dwellers participation is a potential alternative to restore the degraded forest resources to maintain natural balance. Nevertheless, community participation without capacity enhancement provides no guarantee of success when the plan of action is not matched with people's interest.

#### **Establishment of VSS:**

In the year 2007 when OFSDP was launched, the village committee got converted into Vana Surakshya Samiti (VSS). The VSS is the primary village level unit responsible for implementation of the JFM program. Role of VSS is very crucial in view of the growing realization of involvement of local communities in forest resource management. Most of the VSS selected under the OFSDP project are located in remote areas and have a majority of tribal/poor households. The project has put special emphasis on empowering the community along with enhancing their capacity. There are 2371 VSS and 52 EDC established in 11 Territorial and three Wild Life project divisions.

#### **VSS as VRC:**

VSS has immense responsibility for spearheading different activities relating to village development and sustainable forest management. Project is developing each VSS as Village Resource Centre (VRC) for long term resource augmentation, all round development and commitment for JFM activities. Besides this, project is putting in efforts for enhancing VSS efficiency and enabling it to undertake various activities. There are two VSS level committees are formed namely General Body & Executive Committee comprising President, Member Secretary, Treasurer, Animator and nominated Executive Committee members from the constituent village communities. The Member Secretary is the Forester representing the FMU to hold responsibility on behalf of OFSDP.

### **Problem Highlights:**

OFSDP resourcefully provides umpteen livelihood options for the pecuniary progress of the rural people living in remote and inaccessible forested villages. In many instances, such villages often lack opportunities to minimum services including basic education. Natural barriers of distance and topographical limitations restrict physical access to schools, even if schools are located nearby. All these subscribe to poor facility of education in such project villages.

The people in these forest fringe villages gather forest produce to earn a livelihood. But it is found commonly that they are getting exploited by the traders and middlemen because of no minimum education on functional numeracy and financial transactions. It has adverse impact on the livelihoods of the communities. The children of school going age do not have minimum access to the school education causing rampant illiteracy.

### **OFSDP Strategy:**

Learning is a lifelong process and education is to equip the children, young people and adults with knowledge, skills and competence that are necessary in order to rise up to today's and tomorrow's modern society challenges. It is most likely noticeable that traditional formal school system alone is not able to answer to those challenges.

OFSDP collaborated with the Odisha Primary Education Program Authority (OPEPA), to promote 'Non-formal Education' as an essential livelihood option and introduced in the project before 'Right to Education' coming into effect. Use of innovative means of education like musical instruments, folklores, dance & music on the dialect in collaboration with local stakeholders enhanced the acceptability and improved the impact of Non Formal Education (NFE). Imparting non-formal literacy and functional numeracy to villagers especially the women members of SHG was improved. The project facilitated innovative non-formal education services to school going age children to accomplish school education.

### **Objectives:**

- 1.To create common learning space whereby participants can exchange their ICT knowledge and skills;
- 2.To enable those working with the media at grassroots level to enhance their practical skills in four areas: management of organizations and information, e-advocacy, basic structure of information for social development, and promotion of the concepts on the open source software;
- 3.To expand the network of open source software users to include regional media organizations;
- 4.To build networks of ICT trainers and educators that can disseminate the knowledge in the region;
- 5.To press for a variety of learning activities at regional and national levels; and
- 6.To create collaborative networks whereby ICT experts, media organizations, NGOs and social activists make use of ICT for social development.

The twin objectives for functioning of NFE centers were to mobilize the boys and girls of 6-14 years who were not attending nearest school for primary education and preparing for sending them back to schools and to provide numerical skills to illiterate women who were exploited on account of their inefficiency on count of weight, currency and simple calculations.

**Benefits:**

- Enabled children of school going age to avail school education with ICT support
- Attracted the children and women to NFE with ICT aid
  
- Emulate Reading & Writing practice
- Mustered Learning skill to converse in Group Discussions
- Enlarged functional-literacy for adults especially women members of SHG
- Developed the VSS to functional NFE Centers
- Developed competency to understand the ICT innovations
- Acquisition of knowledge through pictorial e-Learning contents
- Developed technology-friendly NFE environment in remote and inaccessible project villages

**NFE Activities:**

OFSDP addressed some basic livelihood needs of the forest dependent community including NFE activities in the forest adjacent villages where the school dropout rate was very high. The project collaborated with OPEPA to implement NFE in interior project villages and identified 310 villages through participatory micro plans having no formal schools within one km radius or more. In convergence with OPEPA, the project organized Para Teachers' Training programs since 2010-11. OPEPA with their team developed training modules and the trainers' team. One of the educated youth/ Animator nominated by VSS got trained for a week by Teachers Trainers of OPEPA. Innovative Learning materials and Teaching-Aids were supplied from the project and OPEPA.

215 such instructors were engaged to attract the children towards non formal education by way of dance, songs, play. 262 NFE centers were established at the VSS building cum Meeting Hall with project support. Out of these 252 centres were running successfully and instilled the interest to read, write and speak by bridging the knowledge gaps.

**Use of ICT:**

The project is focusing on the Community/ Tribal development by involving the Community Para Teachers with technology-mediated support by promoting Common Service Infrastructure equipped with computers , mobiles etc. in the VSS buildings. Learning materials are provided from the Project site in simple formats with abridged text to help recapitulate the learning need. With the basic learning mechanism the community folks are empowered to maintain the SHG accounts and get into alternate livelihood practices with improved skill. They are equipped with the health related information to maintain community sanitation to avoid malaria, an age old menace in tribal villages.

It is understood that how vital it is to develop the information and communication technology of the media in the tribal & coastal areas. The OFSDP also finds the use of strategic ICT convergence, an appropriate alternative as it is free of copyright royalty payments, allows for modifications suitable for particular uses of each locality, and is fundamental to the information and communication work. A number of support activities have been taken up in the project, such as engagement of moderately educated women with the help of ICT innovations. It has promoted Community Teachers in tribal pockets of the state and there by happened a considerable growth of literacy among the women and children. As far as the social and economic backwardness is concerned the tribal people who exclusively depend on NTFP forest produce are economically poor, geographically isolated, physically segregated, socially despised. The community is facing the problems of poverty, vulnerability and marginalization because of no innovative empowerment with the support of developmental education.

**Success of NFE Center in Sundergarh District:**

**Lamsi** is an interior Village Surakshya Samiti (VSS), a community level institution under Bonai Field Management Unit (FMU) where NFE center was started in the 1<sup>st</sup> of November, 2012. Mr. Ghanashyam Banra, Animator of the VSS was undergone Para Teachers' Training and took a lead to motivate the poor parents to send their children to the center. E-Teaching materials were provided by OFSDP and his joyful teaching methods attracted the children to come to the center regularly. With his persuasion 20 children were enrolled in the formal school and attending the school regularly.

#### **Success of NFE Centers in Phulbani District:**

OFSDP started the Non Formal Education Centers in convergence with OPEPA in 18 inaccessible VSS pockets in Phulbani District. NFE program is running successfully covering five FMUs of Phulbani. The Animators-cum-Trained Instructors are managing the NFE centers in respective VSS buildings. The enrolled children within the age group of 6-14 are attending the teaching regularly and happy to learn through the Teaching aids and learning materials supplied by the project. The Animator-cum Trained Instructors are motivating the children to NFE through music, dance and playful teaching methods on the prevailing dialect. It has resulted a great deal in decreasing the dropout rates in these villages.

#### **Comments from the Community:**

Mr.Ghanashyam Banra, Animator-cum NFE Instructor, Lamsi VSS, Bonai:

During induction training as NFE Instructor conducted by OPEPA at Bhubaneswar with support from OFSDP, I learnt various useful techniques and ICT tools on teaching. That increased my confidence and adds on interest for taking the challenge of mainstreaming the children who are not availing regular schooling. The supply of the teaching materials with pictorials from OFSDP made my job easier and effective so also children are more regular in their attendance. I am thankful to OFSDP for extending me the support and the opportunity for this new assignment which helps me financially.

#### **Conclusion:**

The OFSDP realizes how vital it is to develop the information and communication technology (ICT). The effective use of information and communication technology and the expansion of ICT knowledge networks in the project villages is working to expand the specialist networks, provide training of new generation actors, produce regional trainers, and disseminate and exchange new technologies and techniques. Of particular attention will be those issues directly concerned with and of practical use to the region's current situations. Realizing the growing importance and influences of the Internet and mobile technologies welcomes new partners to be the co-organizer and curriculum designer. The OFSDP strives hard to grow as an ICT consulting social enterprise with expertise in social media technologies and mobile applications, particularly in the areas of healthcare, knowledge management, digital library, and online activism.