

## Comment

# Communication for development. An Indian experience

**Subbiah Arunachalam**

*“Knowledge and information are essential for people to respond successfully to the opportunities and challenges of social, economic and technological changes (...). But to be useful, knowledge and information must be effectively communicated to people”, says the Food and Agricultural Organization. India is home to a number of ICT-enabled development initiatives, and we will look at one of them to learn how an effective communication strategy is used.*

### **ICT makes a difference to a fishing village**

Veerampattinam is a fishing village ten kilometers south of Pondicherry on the eastern coast of southern India. It is a fairly clean village with rectangular roads and a wide beach and has a population of about 6,200 people, most of whom belong to the fishing community. At the centre of the village is the temple, surrounded by the water tank, the village school, a few shops, the marketplace, and the office of the local Panchayat (the traditional village government). Apart from the annual temple car festival, when the deity is taken round the main streets of the village on the decorated car pulled by hundreds of devotees, which attracts a few thousand pilgrims from far off places, nothing is noteworthy about this village.

But that changed seven years ago when the villagers requested a non-governmental organization called the M S Swaminathan Research Foundation (MSSRF) to set up a knowledge centre and provided space in one half of a rectangular room that serves as the Panchayat office. Within months of its inauguration, the knowledge centre started providing, among other information, forecasts of wave heights and wave current directions in the Bay of Bengal 36 and 48 hours in advance. These forecasts, based on information downloaded from a US Navy website, proved to be a boom. Ever since this service was started, not one person from the village has died while fishing at sea. Before then, up to half a dozen lives were lost every year when fishermen were caught in rough weather while fishing far away from the shore.

Needless to say that timely communication of vital information can be of great help to people. It can even save lives.

In the case of the fishermen of Veerampattinam, lives could not have been saved without the intelligent use of a combination of technologies. The US Navy gathers the information on weather conditions in the Bay of Bengal through its own satellites and puts out the information on its website. MSSRF has set up about a dozen knowledge centers in villages within thirty kilometers of each other, all of which are connected to a hub at a central village through a hybrid wired and wireless intranet kind of network. Each knowledge centre, managed by local volunteers trained by MSSRF, is provided with a few personal computers with a battery back-up or solar power to ensure uninterrupted power supply, a printer, and a web camera. One computer in each centre is connected to the server at the hub through telephone-and-modem or spread spectrum technology or Motorola very high frequency two-way radio to enable them to receive and transmit data, text, audio and video files. The staff at the hub downloads wave height forecasts from the US Navy site once a day and transmits the same as a multimedia file to Veerampattinam. The transferred message consists of a weather chart in colors indicating wave heights as a function of the distance from the shore and ocean current directions, a written statement and a voice announcement. At Veerampattinam a local volunteer downloads the message, puts up the weather chart

and the written statement on the notice board and broadcasts the voice announcement several times in a day over the public address system so everyone in the village can hear it through strategically located loudspeakers. As not only the men but also the women hear these announcements, women are able to tell the men, on days when they are warned not to venture into the sea for fishing, to stay home and do some household chores and not to while away their time with their buddies!

Another kind of useful information the Veerampattinam knowledge centre provides is the location – latitude, longitude, depth, direction from the Veerampattinam shore, etc. – where large shoals of fish are found. This information is obtained from a research laboratory of the Indian Department of Oceanography located in Hyderabad, a few hundred miles north of Pondicherry

### **During and after the tsunami**

If the knowledge centre at Veerampattinam saves lives of fishermen during normal days, it had done even better on Sunday, the 26<sup>th</sup> of December 2004, when the deadly tsunami hit the village, and a few days later when the relief supplies arrived. On the day of the tsunami, Mani, one of the Panchayat members, was on the shore mending his net when he saw something unusual – the sea receding hundreds of feet. He thought that something awful was going to happen and rushed to the knowledge centre along with a few others, broke open the door and started warning over the public address system requesting everyone in the village to vacate their homes and rush to safety. By the time the tsunami struck the village, everyone – including women, children, the old and the infirm – were already in the safe areas. The villagers lost some of their homes, boats and nets, but there was hardly any loss of life. And when the relief supplies came, the knowledge centre volunteer Elumalai used the public address system to request people to come street by street and collect rice, pulses, cooking oil and kerosene. Whereas in most other tsunami-affected areas the supplies did not reach the right people and there were chaotic scenes, the distribution of relief materials at Veerampattinam was orderly. People who are used to a culture of sharing and communicating information in their daily lives are better able to deal with disasters.

### **An all-women managed knowledge centre**

If the knowledge centre at Veerampattinam saves fishermen's lives, the one at the agricultural village of Embalam has helped women acquire a certain level of gender equality. Like all knowledge centers set up by MSSRF, the Embalam centre was also set up after detailed negotiations with the people of the village. Although a variety of technologies are used, the focus of the Information Village Research Project, funded by Canada's IDRC, is people, their contexts and their needs. As in other villages, the bottom-up programme started with a needs assessment. This knowledge centre is managed by an all-women team selected by the women self-help groups in the village. The information provided is wide ranging and pertains to agriculture (e.g. how to deal with red rot in sugarcane, agro-meteorology, crop insurance), education (e.g. public examination results, nearest colleges, courses offered, hostel facility and costs), healthcare (availability of doctors and specialists in the nearby primary health centers and district hospitals, vaccination dates), animal health (e.g. touch screen information modules on cattle health prepared by veterinarians), government entitlements (e.g. support for widow remarriage, benefits for people below poverty line), employment opportunities, market information (availability and prices of seeds, fertilizers, pesticides, etc.), livelihood opportunities (training programmes and skill building), and so on. Initially, when men came to the centre to get information, the women stood up and provided the answers to their questions. But they found it a bit cumbersome to push the keyboard tray in and the chair out so they could stand up, and started replying sitting in their chairs! Women operating computers and inputting data gave them a status in the community. Thanks to the different training programmes offered through the knowledge centre, now volunteers at this centre are checking eyes of the villagers for long and short sight, cataract, etc. and are transmitting the pictures of the eyes taken with the web camera along with their observations to doctors at the nearby eye hospital, who then provide free treatment to

those who need it. Others have set up small-scale business operations – such as knitting sweaters, growing mushroom for sale to five-star hotels, etc.

About half of the population in most of these villages has a total family income of less than \$25 per month. The project is designed to provide knowledge on demand to meet local needs, and it does so through a bottom-up process. The process starts with volunteer teams that help poll the villagers to find out what knowledge they want. Particularly popular thus far are women's health information, advice on growing local crops and protecting them from diseases, the daily market prices for these crops, local weather forecasts, and clear information about the bewildering array of programs that are provided by the Indian government to aid poor families. MSSRF provides the villages the needed hardware and maintenance for the communication system, and specially designed Web sites in the local language that convey the requested information.

After visiting some of these knowledge centers Prof. Bruce Alberts, former President of the National Academy of Sciences of the USA, observed: "Drawing on this concept, I envision a global electronic network that connects scientists to people at all levels – farmers' organizations and village women, for example. The network will allow them to easily access the scientific and technical knowledge that they need to solve local problems and enhance the quality of their lives, as well as to communicate their own insights and needs back to scientists". Notice the emphasis on two-way communication.

### **From a small beginning to a mass movement**

Convinced that communicating relevant information in local language and using multimedia format makes a difference to the lives of the rural poor, Prof. Swaminathan wanted to extend the benefits to other regions of the world. It led to two major communication initiatives, viz. the Annual South-South Exchange Traveling Workshop (SSE) and the Open Knowledge Network (OKN). So far three SSEs have been held and each had 20-25 participants from Asia, Africa and Latin America. Participants travel from village to village in Pondicherry and Tami Nadu, where MSSRF has set up knowledge centers, and engage in a dialogue with the local people and knowledge centre volunteers. They exchange notes and learn from one another's experience.

In collaboration with OneWorld International, MSSRF formed the OKN, a human network, which collects, shares and disseminates local knowledge and is supported by flexible technical solutions. It is a network that tries to empower the poor through creation and sharing of local content. What people need is space to communicate, to express their ideas and their voices. What OKN does is to help them acquire the skill to develop the content. People in rural areas of India and Africa (Kenya, Uganda, Zimbabwe, South Africa, Senegal, Mali) are partners in this network and partners from other countries are joining in. Trained volunteers gather indigenous knowledge by talking to people and upload the information along with metadata on to a central portal. Anyone anywhere can download the content and using the metadata tags choose what is relevant to one's needs.

Also, the success of the Information village initiative led to the setting up of "Mission 2007: Every Village a Knowledge Centre", which aims to take the knowledge revolution to all of rural India before 15 August 2007, the 60<sup>th</sup> anniversary of India's Independence. A National Alliance has been formed to achieve the Mission and it has more than 170 partners drawn from NGOs, corporations, industry associations, academia, government departments, etc. Mobilizing the power of partnership and sharing knowledge form the basis of the Mission.

### **Conclusion**

Most telecentre programmes in the world today seem to focus on government-related information. What is more important is to communicate the information needed by the local communities in a way they can grasp and act upon.

## Author

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