Community Radio for education, farming and livelihood generation: Challenges before existing CR initiatives

Dr. H. O. Srivastavsa

President, World Development Foundation

drhosrivastava@gmail.com

Introduction

Govt. of India vide its notification in 2002 paved way for low power FM transmitters to be set up by recognized educational institutes. Since then there have been lots of discussions by the govt., grass root workers, academicians, NGOs, Regulator, UN bodies and developmental agencies and recently, Govt. has reviewed the policy & guidelines to allow NGOs too to set up the Community Radio Stations. Relaxing some norms will definitely trigger and induce the organizations working for the people to take advantage of the tremendous communication power of Radio, '*Shakti – the power of god'* as Mahatma Gandhi had said rightly in 1947.

Use of Community Radio

Community Radio can in fact start a revolution if used effectively. It can be used for education, farming and livelihood generation by broadcasting programs in coordination with the local communities in their own languages and dialects, on following themes:

- development of effective innovative education approaches to translate knowledge gained from science into public health and community applications

- educating the farmers and seasonal farm workers in rural areas, organic farming, and livelihood generation
- innovative educational programs intended to motivate biomedical and other health science students to pursue cancer/HIV/AIDS related careers;
- short courses to update in new scientific methods, technologies and findings
- training of health care clinicians and community health care providers
- better informing and motivating Indian masses with regard to priority HIV/AIDS interventions and services; supporting and reinforcing positive HIV/AIDS behaviors; improving HIV/AIDS information on the radio;
- training and counseling to women who are socially and economically disadvantaged,
- counseling and technical assistance in the areas of finance, management, procurement, and marketing to the rural masses,
- helping communities to get reward for their talent in the ethnic field such as Madhubani Paintings, Warli paintings, Phad Paintings, Thanga Paintings, various forms of murals, sculptures etc. 
- health, hygiene, drug abuse, vaccination, child care etc.

Challenges before CR initiative

There are lots of challenges in effectively using the media. We mention a few here.

- Getting license and regulatory issues
- Cost effective technical solutions
- Sustainability
- Content sharing and capacity building

Getting license and regulatory issues

Community Radio license is to be obtained from Ministry of I & B, before the same is used by a user. The user can be a University, a college, a residential school, or a NGO, as per the policy document of the Government. Getting a license, frequency and SACFA clearance is mandatory. The process has been taking a long time, sometimes more than a year, especially for NGOs.

Cost effective technical solutions

There has been debate in the country in all the Seminars/Conferences/consultations about the ideal cost of a CRS. Solutions have been thrown very widely, perhaps without understanding the regulations of operating a transmitter. Before giving the alternatives, first let us know what is illegal.

- No CRS can be made operational without getting all the licenses from Ministry of I &B and WPC (Wireless Planning and Coordination, Ministry of Information and Communication) and signing of a Grant of Permission Agreement (GOPA) by Ministry of I&B.
- The transmitter can operate only on the frequency allocated by WPC in the FM band (87 to 108 MHz). No other frequency can be used. Therefore using a transmitter such as from Cordless Telephone etc. is illegal.
- There are regulations about the standardization of transmitter in regard to frequency stability, frequency drift, emission of harmonics etc. Therefore unless these have been checked and license for manufacturing transmitter has been obtained from the Govt., no one can build and use his own transmitter.
- The tower height has to be a minimum of 15 meter to protect biological hazards. The tower must be suitably designed so that it withstands the wind, storm and rain and does not fall and causes injury.
- Programme must follow the AIR Code.

After having discussed some of the regulatory parameters on which we operate, let us know about a radio station, big or small. It has essentially three components.

- Studio
- Transmitter
- Tower and antenna along with connecting cable

A studio should have a minimum of recording room and a transmission room. To encourage participation of women, children and old people, the CRS needs to be located at a very

convenient location, which has easy accessibility. The location should also have reliable power supply for the operation of CRS. The sound insulation of about 50-60 dB and an RT of about 0.35 are required. Legally there is no bar from doing a broadcast from a hut or untreated room, but technically this is not desirable if one does not want a whistle of train or sound of passing car to go on air or a discussion is muffled by a number of reflections in an untreated room. Necessarily a PC, microphone, headphone, CD Player, console mixer, hard disk based editing system etc are required. Software for making play list, scheduling etc. is also required. The other considerations are:

- Power Supply – reliability, hospital supply, AIR/DD Supply, Alternate feeder
- Diesel Generators/Petrol Generators – Capacity, Running Cost, Maintenance
- Alternate Sources – Solar Power (Initial Cost), Wind Mills
- UPS – Online/ Off line,
- AVRs – Range of voltage fluctuations
- Air Conditioning

The quantum of equipment shall depend upon the requirement of programme production and hours of transmission. The equipment can be analogue or digital. World Development Foundation is conducting a research to arrive at a most cost effective solution for CRS in terms of acoustics and system configuration.

Transmitter is used to convert the audio frequency to radio frequency. It is for the user to have his CRS using one transmitter or two transmitters, with one as standby for manual change over. If one transmitter is used, then in case of failure of the transmitter, the CRS shall be un-operational till the same is got repaired. The power of transmitter is also very important. As per policy document, it is expected to get a license for a maximum of eirp of 100 watts. It is possible to use the lower power transmitter sacrificing the coverage area.

Tower, antenna, cable is required for broadcasting the signal. A compromise in tower height shall cut the coverage area.

Sustainability

The CRS has not just to be installed but effectively used. For this purpose, the factors to be considered are:

Technical maintenance:

Maintenance of technical facilities at CRS is very essential for smooth functioning of equipment. There are two methodologies either for developing in-house capacity or awarding maintenance contracts to outside agency. It may not be worthwhile to invest on spares and specialist manpower for advanced maintenance but at the same time following jobs are to be taken in-house by semi trained person:

- Proper switch on / switch off and proper upkeep of equipment
- Monthly/ quarterly maintenance
- Quarterly reports and alignments
- Minor and card level replacements

Manpower

Some manpower is required for management of CRS. At least one professional station manager with technical skill, creativity skill for content generation, etc is recommended. Volunteers can be used to run some of the services. Proper training may help the community volunteers to run a number of services.

Training

Training is essential for the staff / volunteer to get them familiarized with the system and operation. Local producers can create content with the help of local people. Technology is to be demystified so that all could share its benefits. The voice of local people should form the backbone of community radio. Interactive programmes with greater listeners' participation shall result in eventually getting more content producers.

Content sharing and capacity building

Considering its potential, I foresee thousands of Community Radios in India in next 5-7 years. This will result a number of community radio stations in a region having same language/dialect. Sharing off content will result in reduced cost of production. Similarly training of personnel at a common place shall cut down the cost.

Sustenance

It is not expected that a donor support shall come for all the time. The community shall have to support it even if the capital cost comes from some donor. So means of revenue generation shall have to be explored. For this, good reliable equipment, a good content and some professional help shall go a long way.

Conclusion

Considering its potential, I foresee thousands of Community Radios in India in next 5-7 years. A sound understanding of the process and right support and advice shall result in the community radio revolution to take place in the country.

Biodata of the author

Dr. H. O. Srivastava is the President of the World Development Foundation. Earlier as Chief Engineer in All India Radio and Doordarshan, he has been responsible for expansion of broadcast system in the country. He established IT Division of All India Radio, formulated and piloted the proposal for establishment of BECIL, established *AIR Resources*, a wing for sharing infrastructure of All India Radio and Doordarshan with private broadcasters, among others. He was pivotal in signing a number of MOUs for consultancy for expansion of broadcasting in private sector. This included MOU with IGNOU for setting up 40 nos. of 10 kW FM stations in the country.

Dr. Srivastava received the Master of Science degree, Ph. D. Degree in Chemistry and another Ph. D. degree in Information Systems. He joined Indian Broadcasting Service. He worked as Commonwealth Expert in 1991 and ITU Expert in 1992. He has published one hundred six arti-

cles and six books. He received Six international and a life time achievement award. Dr. Srivastava was selected “Marquis World’s Who’s Who in the World 2001”. Earlier, he was declared International Who is Who for the year 1998.

Dr. Srivastava was Chairman of IETE, New Delhi during 2004-2006. His areas of interest are Information System, Digital storage, Multimedia Broadcasting and Broadcast application for social issues. He is keenly associated with expansion of CRS and other means of new media for social cause.

Contact address:

Res:

325, Krishi Apartments
Vikaspuri-D, New Delhi-110018

WDF office:

Plot 5, Sector 3, Dwarka
(Behind DPS in front of BSES)
Karuna Kunj, New Delhi-110075

Phone: 9313373745, 9810523668, 28533293 ®
Email: drhosrivastava@gmail.com, wdfindia@yahoo.co.in