



STRENGTHENING COMMUNITY RADIO IN INDIA

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TECHNOLOGY & COMMUNITY RADIO

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After more than a decade of community radio in India, the time is ripe to evaluate how community radio has worked (or not) and how we can improve it. This paper investigates the existing landscape of technologies and makes recommendations that seek to make community radio a more inclusive and equitable movement for all those involved with it – directly and indirectly. In order to undertake this task, it is necessary to clarify the relationship between the technologies involved in FM radio broadcasting/reception and the social activity of community radio. There is an existing view that technologies shape human practices. While there is undoubtedly some truth to this view, it is also equally true that technologies themselves emerge from other broader social, economic and cultural practices. Thus the ‘social’ and the ‘technological’ are constantly at play, and the following submission aims at making recommendations at precisely this intersection. The recommendations are broadly structured around issues that concern relations between technology and community broadcasting.

Mode of transmission & Technology costs

Since the beginnings of community radio in India (roughly since 2003-04), the Ministry of Information and Broadcasting (MIB) Ministry has only considered FM technology for community broadcasting. It has been a sensible choice. FM technology tends to have a lower footprint while privileging higher quality of sound. FM receivers are cheap and built into most mobile phones. The lower footprint of FM is important in so far as it promotes the idea of physical participation. This aspect of community radio could be seen as relatively unimportant given the increase in penetration of mobile telephony. Consider however, the physical aspects of community radio – a social and cultural space in a community that actively allows and indeed encourages people of different genders, castes and classes to openly interact with each other. FM’s propensity for participation presupposes a minimum level of population density. Population density in a Delhi neighbourhood is very different to that of a tribal settlement in the forests of Chhattisgarh or desert settlements in Kutch. FM radio, whatever its blessings, cannot be a panacea for all forms of community life – especially in a country as diverse as India.

There are fishing communities who occupy a small strip of the shore and large parts of the ocean. There are linguistic communities like the Gonds and Lepchas that are spread across large geographical areas. Similar geographical compulsions face many tribal peoples, pastoralists, islanders, and mountain communities. Such situations make a strong case for thinking beyond FM technology. Countries such as United Kingdom and Australia have provided licences for AM broadcasting too. For the communities mentioned above, medium wave broadcasting could make much more sense than 100 watts FM. Since MW is on the verge of being phased out by the only user -- All India Radio -- one could examine handing over these frequencies to CR. As to the cost and viability of MW, that should be left to the communities to address.

Transmission Power

Under the current policy guidelines, a maximum of 100 Watts ERP is permitted and 250 Watts ERP may be considered under special conditions. Frequency use is saturated in urban areas while underutilised or unused in rural areas. Government should incentivise those who can work with lower wattage. The incentive can be a form of 'light licensing', say for 20 Watts ERP or below, that requires lesser paperwork, single window e-registration and faster evaluation of documents submitted. This will provide rapid growth to movement and increase quality of participation. It is also clear from available evidence that there has not been a single community radio applicant that has been granted 250 W ERP power for their transmission even when specific requests were made given the terrain. The Ministry of I&B needs to codify under what conditions the increased wattage will be provided. These conditions should be carefully considered, given that spectrum is scarce and urban areas and often underutilised in rural areas. Areas with relatively low population density but fragile financial sustainability could be awarded with 250 W ERP power.

Reservation of Frequencies – Urban Areas

As mentioned earlier, the real shortage of frequency is in urban areas, while there are many poor urban residents who still have no access to community radio. Thus in urban areas, there needs to be more frequencies reserved for community radio. This can be

enabled through incentivising lower wattage and intelligent allocation of frequency – i.e. real time mapping of actual footprint of existing CR stations. Civil society organisations in the US have successfully lobbied for low-power FM stations, made into law since 2010 by the Obama administration.

Promoting the possibility of low power community radio stations has two principal advantages. The first is that many more community radio stations can fit into the FM 'band' without necessarily increasing the number of reserved frequencies. Such a quantitative increase in the number of community radio stations in a given area will enhance media diversity and provide greater avenues for citizens to exercise their right to free speech. The second advantage is that low power community radio is well suited to addressing the densely populated but finely differentiated urban population – often comprising of distinct social groups based on class, caste, gender, language and so on. Community radio stations will build niche audiences but overall, the community radio ecosystem will become diverse and vibrant. Intelligent real-time mapping of frequencies may seem like an investment that exceeds its benefits. However, the long-term benefits far outstrip any initial investments that may be incurred. Primarily this involves a flexible and hands-on spectrum allocation design. Each ward of every major city needs to be monitored for whether at least one of the three reserved community radio frequencies is being used there. An intelligent, real-time and dynamic mapping of footprints of each CR station would be in order. Sources at the Department of Telecommunications point out that the protection for frequencies in urban areas is 20 kilometres. The logic of limiting protection is an important one since it promotes better utilisation of existing spectrum. However, a 100 W ERP transmitter broadcasting at a particular frequency protected for 20 km may not make much sense if the natural footprint is only five or six km. Given the value and demand for spectrum, it is worth investing in producing knowledge of actual footprint of urban community radios. The protection comes into effect only when the *actual* footprint of the radio comes close to or exceeds the 20-km limit. In most cases, because of concrete interference and or terrain, the actual footprint is far below 20 km radius. In these cases, the Wireless Planning and Coordination (WPC) Wing of the Ministry of Communications can easily repeat that frequency much more than the

theoretical 20 km limit would allow them to. This kind of detailed footprint analysis will take some resources and the public-sector company, BECIL has already shown some interest in financially and technically contributing towards this task as part of its Corporate Social Responsibility. A detailed map of actual footprints would by implication reveal CR-dark (i.e. dark of community radio signals) parts in cities, and in these parts, the Ministry could offer low-powered licenses available to community-based organisations that have a dedicated and proven track record of working in those areas.

Reservation of Frequencies – Rural Areas

In rural areas, as part of the broader policy, there are three reserved frequencies available. However, in many parts of the country, entire states included, these frequencies are unutilised. Policy making needs to look at their regular data in terms of state-wise demand for community radio. States like Goa, Jharkhand, Chhattisgarh, belts of Orissa, West Bengal, Uttar Pradesh and Bihar, large parts of the North-Eastern states, Kashmir, rural Punjab, rural Gujarat are all completely devoid of community radio. It is only states like Madhya Pradesh, Maharashtra, Tamil Nadu, Karnataka and parts of Uttar Pradesh that have seen consistent increase in demand for community radio. This absence of community radio in these areas is not a coincidence. It is a double curse. In the first instance, most of these areas are marked by some kind of conflict or tension – internal or with the State. In parts of Chhattisgarh, Jharkhand and parts of Bihar, Uttar Pradesh, Andhra Pradesh, Maharashtra and Orissa for instance, tribal communities are engaged in armed conflict with the State in various waves since the 1970s Naxalite uprising in West Bengal. Mistrust of communities in these areas for reasons stated by the government is not likely to bring about social change. Nor will providing licences to agencies like Border Security Force and Jharkhand Police decrease the trust deficit. There are exemplars of community radios working for peace-building and conflict resolution in parts of Latin America and Africa that have been riven by pathological conflicts for decades. The State needs to trust civil society's intentions to bring peace through the adoption of democratic means and this would mean that all applicants are treated seriously and only checked to the extent that they satisfy eligibility criteria. The applicants, on the other hand, need to recognise the nature and history of the conflict and therefore seek to assuage the

government of its intentions. Towards this, each applicant could receive a license that comes 'packaged' with a subsidised broadband connection. The entire programming of the radio can be simultaneously made available online and the Ministry of Home Affairs would be able to monitor these programmes at any time at their discretion. It is also very important to have a robust process for reviewing of programmes. For a start, areas with low development indicators across education, health, hygiene, employment, nutrition, agriculture etc. can be identified in geographical terms and cross-referenced for availability of community radio in these areas. For example, is there at least a single functional community radio initiative in districts with high levels of malnutrition, or farmer suicides? A mapping of the community radio sector that seeks to mitigate regions under-served by media, can make targeted use of public resources such as awareness workshops, demonstrations, publicity for Community Radio Support Scheme and so on. This could be a special track within the broader Community Radio policy where a team of civil society and government agencies come together in promoting community radios that can strengthen developmental intervention (public welfare schemes) in areas that need it the most urgently.

Technology and Funding

The CR support scheme has enforced a set of technological standards based on which equipment must be purchased if they are to receive government funding. This increases bureaucracy and is at odds with local decisions – robustness of technology to handle volunteers experimenting or learning, availability of spare parts and/or servicing, familiarity with the design of equipment – hardware or interface level. All these are hyperlocal decisions. While the technology committee publishes recommended standards, hyper-local decisions must be made by the applicant. These recommended standards should ensure three major factors – safety of communities who will work with this technology, security of the community in which the radio will be established and easy maintainability. All other considerations would be best decided by the applicants – including cost price, open or closed source, quality of equipment, servicing, availability of spare parts and so on. At best the committee in charge of recommending equipment can provide incentives or disincentives for particular kinds of actions –

investment in durable equipment can be encouraged, or investment in closed source software can be discouraged. These can be explored through programmatic activities. One notices that these standards are too stringent and unrealistic and sometimes do not take cognizance of the pace at which new – and more appropriate and durable technology is evolving.

CR capacity building should also focus on appropriate technologies and preventive maintenance and management with emphasis on open source technologies and software.

The technology committee could also invest in showcasing blueprints for locally built community radio studios using local resources and skills. Such a type of blueprint could encourage applicants to approach available resources within the community to build their radio station rather than rely entirely on external equipment and resources. The CRSS should also explore possibilities of encouraging technology innovations in the sector through small grants. The ministry did take some initial steps on this but did not follow up on this.

Accompanying the ever-emerging choices, the costs of setting up a CR station still remains a concern. There is an urgent need for eliminating import duties on CR equipment, a list of which has already been put together by a technology committee of the MIB.

Convergence

Convergence (internet and/or telephony) can be both beneficial and dangerous to community radio stations depending on usage and context. On the one hand, once the initial cost of the production is paid for, the actual digital replication can go far at very little cost. On the other hand, the said content travels from autonomous and independent infrastructure to privately owned infrastructure – thereby becoming vulnerable to intellectual property rights and/or copyright regimes. The cultural and economic aspects

of this convergence are sensitive issues for community radio stations. Of course, the FM radio listenership itself doesn't invoke costs. However, the linear nature of analogue broadcasting means that there will always be a substantial number of listeners who will miss the programme. Telephony can be a convenient and interactive way of staying in touch with the local community radio stations. Integration with telephony can more than triple a community radio's interaction with listeners. However, since private telecommunication infrastructure is involved, usually the listener or the radio incurs the cost of this interaction. If the radio incurs the cost of telephony, participation remains high but the radio puts itself at financial risk. If the listener incurs the cost, then participation will dip to some extent because there are many lower income listeners who cannot afford to call the radio station on a regular basis. Secondly, because telephony makes the radio process interactive, it is the listener's voice that enters the studio. Once the listener's voice is available in digital format, it attains different kinds of values for different stakeholders—experts/ facilitators, advertising companies, the radio station, the donor, researchers etc. This commodification of participation is often the unacknowledged engine that drives monetary investment in telephonic participation. This is a crucial area that requires intervention albeit outside the scope of policy. Radio stations need to build capacities on how to engage with quantified participation in terms of ethics and intellectual property rights and further build awareness around these issues for their listeners. At a much broader level, the community of advocates in this movement need to caution governments and donors about quantifying engagement. In more pragmatic terms, and depending on individual contexts, community radio stations could seek to negotiate agreements with telecom and/or Internet service providers for zero rating, reduced call rates or toll free calls etc. In order to partake of benefits of information and communication technologies in a just and equitable manner, stakeholders need literacy – engaging with pressing debates on ownership of intellectual information, privatization, profit models in the network economy and how CR can ethically engage with all these issues. CR stations will need to learn to negotiate between participation of community members on the one hand and their quantification/commodification on the other hand.

Digitalisation

Economically, spectrum allocation determines a large extent of the capital investment in telecommunication, radio and a few other communication industries. For the purpose of this paper, we consider only the digitalisation of transmission and reception. The digitalisation of cable, and of terrestrial medium wave public service broadcasting has already achieved significant technical progress, although it is not clear what financial or social benefits have been achieved. In radio, there has been some talks of impending digitalisation around the DRM standard, but there has been no official policy document in this matter. There are more than 200 community radio stations in India and they will be significantly affected if digitalisation is implemented in a hasty and unplanned manner. First there needs to be a thorough debate around the implications of the DRM standard – including the cost of introducing this standard in terms of transmitters, antennas, radio receivers, integration with mobile phones, USB integration in cars and so on. It is also important that we learn from the experiences of other countries on this path. Many of the countries are on a slow-down with particular reference to CR. If and when agreed upon, the policy document should announce a clear timeline for this process of digitalisation so that all stakeholders can plan for the transition without incurring any long-term liabilities. Thirdly, the transition process should allow for equitable terms of transition for all tiers of radio. This includes equivalent reservation of frequencies when the additional amount of spectrum is released as a result of digitalisation. Fourthly, no policy document should be announced before listeners can access affordable receivers in either standalone form or integrated with affordable mobile phones. Fifthly, transition to digital broadcasting will undoubtedly require existing broadcasters and future applicants to mobilise a much greater capital investment, especially in transmission equipment. Until the stage when digital radio transmitters are not as affordable as analogue FM transmitters, radio stations should have their transmission equipment completely subsidised through the Community Radio Support Scheme. To ensure a smooth transition to digital radio, the government will need to ensure a period of ‘simulcasting’ where for a period of say five years, radio stations can broadcast on both analogue terrestrial and digital terrestrial. Listeners can gradually wean themselves

away from the analogue mode and radio stations can gradually learn to handle the challenges of digital transmission.

Recommendations:

- Simplification of the application process for both SACFA and Frequency Allocation has been a long pending demand. This needs to be implemented immediately.
- An exclusive and efficient help-desk at WPC is the need of the hour. Several applicants have noted that WPC is unresponsive to queries on SACFA & frequency allocation issues.
- There needs to be a systematic, rational and dynamic mapping of the spectrum both in urban and rural areas. This is important so that we do not lose sight of the principles of equity and social justice in allocation of spectrum.
- Applications for transmission licenses of 20W and below needs to be 'light licensed'/ delicensed.
- Establishing a specific capacity building programme for CR technology and technological processes within the larger process of CR capacity building, especially as supported with CR Support Fund funds.
- Revitalizing the technology innovation support under the CRSF (MIB called for applications a couple of years ago and did nothing)
- There is an urgent need for eliminating import duties on CR equipment in order to further bring down the costs of setting up a CR station. Both MIB and MoCIT need to work with the relevant ministries to bring this into effect. This includes fully built equipment units; assemblage packages for transmitters, and, components of CR equipment that are not manufactured in India.
- The Ministry of I&B needs to codify under what conditions the increased wattage of up to 250 ERP will be provided. These conditions should be carefully considered, given that spectrum is scarce and urban areas and often underutilised in rural areas.

- On funding technology, the recommended standards are too stringent and hardly dynamic to take cognizance of the pace at which appropriate and durable technology is evolving.
- Subsidies should also be extended to CR stations wanting to embrace convergence.
- The introduction of convergent technologies raises issues in terms of dealing with the communities. Numbers alone cannot be the parameter for engagement with the communities. The depth of engagement is what needs to be considered.
- Any attempt to digitalise community radio should take place through a thorough consultative process. While accounting for learnings from other countries, a clear timeline should be laid out before any policy level decisions are announced for the CR sector.