Addressing environmental concerns in the Asia Pacific region through community media

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Abstract

Addressing environmental concerns requires transforming norms into desired behaviors. A dynamic and interactive medium such as community media was found to be a potent tool to realize such change. The Philippines, a vulnerable country to climate change, ventured into using community radio stations towards strengthening climate change among Filipinos. Using the case study research design, five community radio stations (CRS) managers in the Philippines, a municipal mayor, the head of the Philippine Federation of Rural Broadcasters, and the president of a community radio-contracting firm were interviewed to determine what makes a CRS sustainable. Sustainability indicators included organizational structure, influential factors, and operational mechanisms that led towards the development of a CRS model.

Results showed that CRS played facilitative and catalytic roles in these social transformation processes. CRS sets social agenda, facilitates governance communication, enables changes in norms, and moves people to action. The synergistic action of Local Government Units, academe, civil society, and relevant national agencies through block time and community programs with guidance from the Community Radio Councils led to systematic programming, and strengthened people's capacities in addressing global issues like climate change.

Keywords: environmental concerns, community radio station, participatory radio, catalyst for change, localized programming, community communication

Introduction

Community radio stations (CRS) classified as community media have been recognized as an effective vehicle not only to inform and entertain but also more importantly educate a large number of audiences especially in remote, conflict-stricken, and disaster-prone areas. Community media are smaller and community-based. They include media such as community newspapers, localized radio programming, cable TV, wall newspapers, puppet shows, theater, or community communication channels. CRS, unlike the big media such as AM and FM radio stations, are community-based and are ideally managed by communities to serve local needs. CRS thrive on the concept of volunteerism and social activism. The existence of these types of media is extraordinary in view of the difference in organizational structure and system of operation. CRSs are not merely tools of communication but a vehicle of development for local communities.

However, sustainability of CRS prompted them to modify their operations such as soliciting support from Local Government Units, NGOs, or benefactors who can sustain their mission. Also, while the permit to operate the radio station is community-based, getting external support violates the permit applied for from the National Telecommunications Commission (NTC). There are also cases when CRSs have been used for other purposes like political campaigns that support the station to get media mileage. At other times, CRSs used sound systems with loud music that annoyed community members. Hence, NTC issued a memorandum in 2003 to close down low powered radio stations of less than 1-kilowatt.

While CRSs are supported by local government units (LGU), this should not be a cause for alarm because the local government code mandates them. The LGUs (as stated in Chap 2, Sections 17 & 23) shall provide basic services and facilities including telecommunication services subject to national policies and guidelines. They have the authority to negotiate and secure grants or donations in support of these basic services from local or foreign assistance agencies. It implies that LGUs through their telecommunication

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facilities cannot only govern, but educate their constituents using community media through the CRS for lifelong learning in communicating the threats of myriad environmental, health, and related issues that will affect lives and communities.

The unique or unfortunate location of the Philippines makes the country vulnerable to disasters compared to its neighboring countries in the Asia Pacific region. While the Asia Pacific is located along the Pacific Ocean, the Philippines sits along a typhoon belt and the so-called Ring of Fire where many of the Earth's earthquakes and volcanic eruptions occur. McGranahan et al. (2007) posits that Philippine coastlines have low elevation. It receives an average of 20 tropical typhoons annually according to PAGASA (Philippine Atmospheric, Geophysical and Astronomical Services Administration), 9 of which made landfall. Thus, the country is prone to storm surges and tsunamis. On the other hand, Rappler.com (2015), reports that the Philippines, like Nepal, is due for a powerful earthquake once the West Valley Fault moves. Solidum, Director of the Philippine Institute of Volcanology and Seismology forewarned the Filipino community through national TV that a 7.2 or Intensity 8 earthquake might strike any time based on historical data. He said that the West Valley Fault moves every 400 to 600 years, and it has been 357 years ago since the last 90-km fault system shifted. This is quite alarming coupled with projections of 34,000 deaths and 1,144,000 injuries. According to Orosa (2014), deaths would increase to 36,000 if the earthquake occurred during the night. How these statistics have been arrived at is something that only scientists are aware of. Suffice it to say that this threat is real; the question is "how do they prepare people to face this catastrophic prediction? The World Risk Index (2011) as well cautioned that many Asian and Latin American countries are prone to disaster risks due to high exposure to natural hazards and climate change, but with weak coping capacities. Top on the list include: Vanuatu, Bangladesh, Timor-Leste, Cambodia, Guatemala, Costa Rica, El Salvador, Tonga, Solomon Islands, and the Philippines.

How should this be communicated to every Maria (female) and Juan (male)? Culturally, people in the ASEAN region are God-fearing or fatalistic, which means, everything is left to God's will. Filipinos residing in vulnerable areas, no matter how many warnings were given would opt to die with their belongings instead of evacuating. This is because predictions seldom come true. Just like the "boy who cried wolf," they do not want to lose again their pigs, refrigerators, or television to thieves who took advantage of the situation the first time they evacuated. This is what happened in Tacloban, when Typhoon Yolanda (International code name Haiyan) brought havoc to affected areas. Looting, according to Director Solidum can generally happen because of lack of food and amenities caused by disasters. Australians, Japanese, or Chinese, on one hand, would ensure safety to save lives and leave their belongings to chance. Hence, deeper conscientization and education processes in the Asia Pacific region are required to make people understand that times have changed, and being resilient is one of the requirements to face those challenges.

While the threats are aired over national radio, national television, the Internet, and the social media, and talks with Local Government Units and academe are conducted, very little has been done to popularize what these mean among the grassroots. Situations such as these would require a different approach for areas located along the fault line that traverses various parts of Metro Manila and surrounding provinces. The effort of Philvolcs is appreciated but the interventions to socially prepare what this disaster would bring about are left unsaid. What should people do? Leave the area? When? Where to go? What about indigenous or tacit knowledge? There are established bio-signals or bio-indicators for a forthcoming disaster exhibited by animals such as the rat, fish, horse, dog, cat, snake, etc. way ahead of the event according to Dr. Rogelio Concepcion, former Director of the Bureau of Soils and Water Management, and climate change expert. This information should be passed on through a medium that can reach a large number of audiences at any one time through advocacy campaigns.

However, communicating environmental concerns is a process that requires a more inclusive and participatory approach that can be addressed through transformational communication using community media, like radio stations. In times of disaster, perhaps, the only practical source of information would be the low-powered radio, assuming that mechanisms for disaster prevention or avoidance have been put in place

before hand and that close collaboration with relevant national agencies through relay stations or through hotlines or communities of practice (CoP), where accurate information is available. Community radio stations now can start educating the community about these forthcoming disasters, teaching them what to do, conducting orientation or conscientization sessions among various sectors, like the youth, farmers, housewives, children, elderly, civic organizations, service agencies, and the like. How can CRS be used to transform existing norms towards unprecedented threats to form new behaviors? Unfortunately, being community-based and inadequately funded, there is a need to find out how sustainable community radio stations are as vehicles of change, and how it can be strengthened as the last mile linkage. Specifically, this study sought to:

1. Determine the organizational structure of community radio stations that warrant sustainability;
2. Identify factors that influence sustainability of CRSs;
3. Assess existing system of operation in terms of resources; and
4. Develop a CRS model that would ensure sustainability.

Review of related literature

Types of radio broadcasting

AMARC (French acronym that stands for the World Association of Community Radio Broadcasters) classifies radio broadcasting into three: public broadcasting which is owned by the state; commercial broadcasting is privately-owned and operated for profit; and community broadcasting as broadcasting service not for profit, owned, and controlled by a particular community under an association, trust, or foundation where CRS belong.

Community radio

The difference of community radio from commercial stations is that CRS requires a two-way process where there is an exchange of views and the adaptation of media by communities. AMARC forwards:

> In an ideal world community radio allows members of a community to gain access to information, education and entertainment. In its purest sense, it is media in which the communities participate as planners, producers and performers and it is the means of expression of the community, rather than for the community. (Mtimde et al., 1998, p. 9)

Furthermore, community radio was described as non-profit; community ownership and control; and community participation. According to AMARC,

> This non-profit requirement does not mean that the initiative or radio station cannot be operated along business lines nor generate commercial revenues [...]. It does not mean either that the radio station cannot generate income in excess of its basic expenditure […]. It rather means that any surplus income generated has to be ploughed back into the project, be spent or invested into the development of the station. (Mtimde et al., 1998, p. 17)

Radio as ICT interface

Flor and Ongkiko (2003) describe the advantages of radio as available and affordable even in remote communities; can repeat messages at low cost; reaches illiterate audiences; supports other communication channels; announces events and developments as they happen; is flexible in style (ranging from drama to lectures, folk songs to interviews); and creates awareness and sets an agenda of priorities for people's attention. Furthermore, Barghouti (1973) opined "radio is available in almost all countries, reaching mass audiences cheaply and rapidly."

The Philippines has 366 AM and 290 FM, and five shortwave radio stations broadcasting to 11.5M radio sets (Umali & Paragas, 2004). Of these, 177 are low-powered broken into 47 AM and 130 FM where 35 are in Mindanao, 45 in the Visayas, and 97 in Luzon (NTC, 2013). As an archipelago, it is composed of 81 provinces (includes the new province of Davao Occidental), 145 cities, and 1,490 municipalities with 42,028 barangays, the smallest political unit. Ideally, if all LGUs will establish one CRS each as mandated by law, then there should be at least 1,500 more or less to serve the population of 100M. Unfortunately, this is not the case.
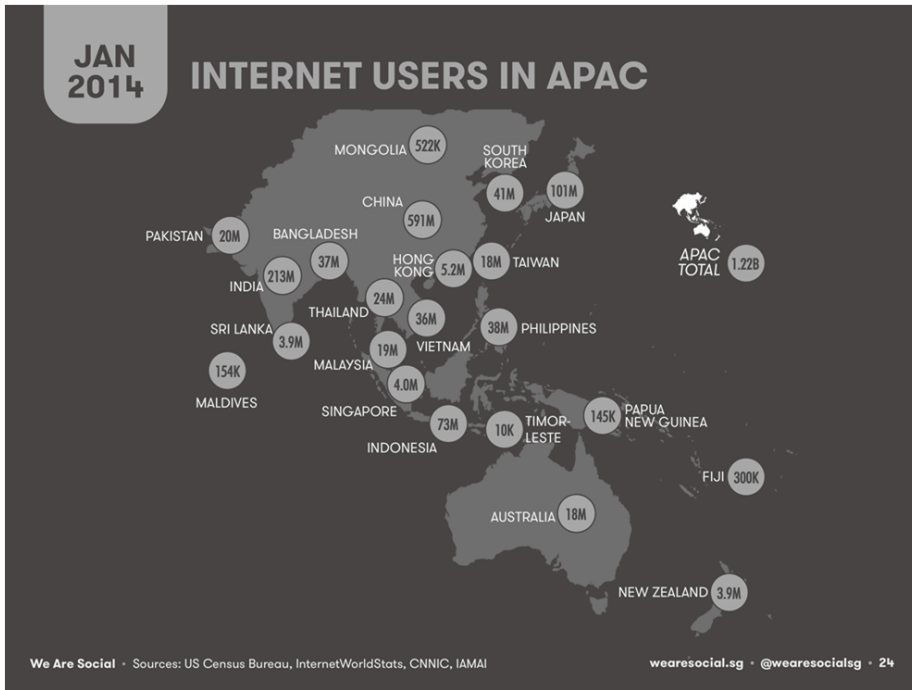
Vulnerable areas, however, are all over the country. With the advent of Information and Communication Technologies (ICTs), radio access has metamorphosed and is now readily available using mobile technology. The Global Information Technology Report (2014) revealed that the Asia Pacific region is very dynamic and active in developing ICTs. The interface of radio with cellular phones would be very advantageous for community radio stations in the FM band. Based on the 2014 Network Readiness Index ranking, among the ASEAN countries, Malaysia ranked 30th and confirms its leadership as the highest ranked economy in Developing Asia. The government uses ICTs extensively highlighting the high priority of this sector. Indonesia ranked 64th, the third best result among members of ASEAN after Singapore and Malaysia. Thailand ranked 67th and its main strength lies in the relative affordability of ICTs. The Philippines ranked 78th with improved access to ICT infrastructure and better skills. Vietnam ranked 84th and the overall quality of the political and regulatory environment and ICT infrastructure limit the expansion of the ICT sector, while available skills show no signs of development. Cambodia, Lao PDR and Myanmar are at the bottom of regional rankings.

In the Philippines, 12 million households in the country own a radio set according to the National Commission on Culture and the Arts (Infoasaid, 2014). In a study conducted by Kantar Media, entitled *Tuning in to Radio*, the audience spent longer sessions in radio than in television. Furthermore, the most-used device in listening to the radio in Mega Manila is still the traditional radio unit with 52% of its listeners (Luces, 2014). This implies that radio still remains as a vital means of communication even with the advent of the Internet and its share of listening peaks throughout the day.

In the ASEAN region, one may argue that the booming of mobile technology and social media networks has brought the biggest change in the media landscape. Southeast Asia is enthusiastically surfing the digital wave and it is in the midst of the mobile revolution, which is increasingly enabling people to access e-services and connect with one another beyond physical constraints. In 2014, 38 million out of 100 million Filipinos were Internet users. Figures 1 and 2 show an illustration of Internet penetration, social media mobile users, and time spent on the Internet in the Asia Pacific region.

Premised on strong Internet penetration, prevalence of mobile technology, and access to social media, it is safe to assume then that CRS can use the Internet to "air" their programs online and send SMSs to launch advocacy campaigns, educational broadcasts, or threat alerts in real time.

One concrete example is Sri Lanka's Kotmale Internet Community Radio initiative. According to UNESCO, this intervention "has been successful in demystifying the Internet to rural communities in the area." The community radio broadcast on the Internet offered a daily two-hour interactive program that allowed listeners to request, through call or email, specific information from the Internet. What is good about the program is that the host interprets the information in the local language to ensure complete understanding of message imparted. The requested information was then captured in a rural database, which also contained a public domain for FAQs for offline use in the local language. Notable about this project is the nature of callers like farmers, schoolteachers, community health workers, students, and other members of the rural community across topics or issues of concern.

Figure 1: Internet users in the Asia Pacific region
Source: http://wearesocial.com/sg/special-reports/social-digital-mobile-apac-2014
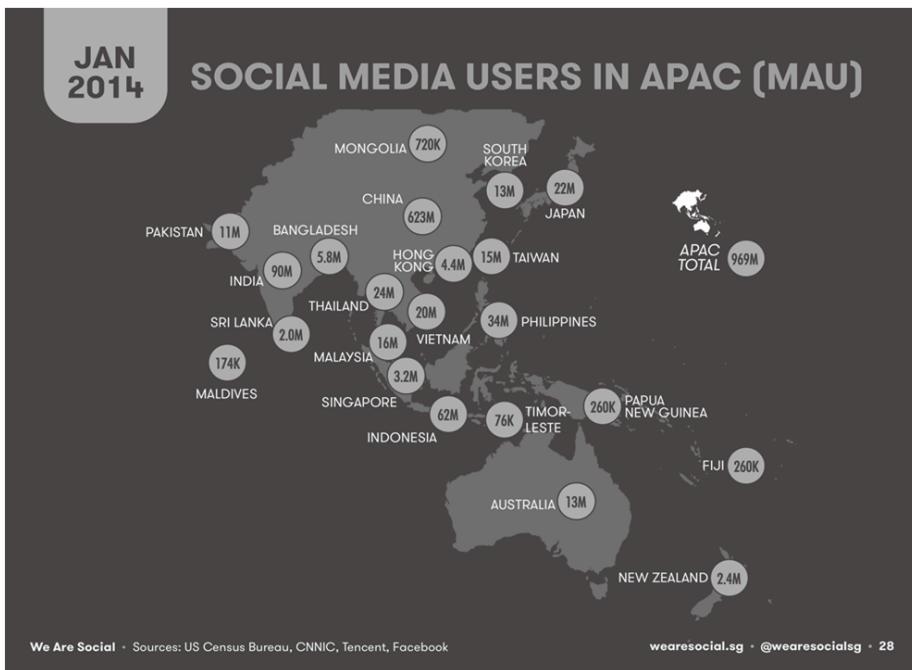
Figure 2: Social media users by device
Source: http://wearesocial.com/sg/special-reports/social-digital-mobile-apac-2014

The role of radio in development

In like manner, the purpose of CRS in general can be enhanced to perform multiple functions. In *Philippine Communication in the Digital Age* (2014), Maslog distinguishes three roles that channels of communication, and in particular mass media, play in society. These are political, economic, and social roles.

In terms of the political role, different communication channels provide information from which the decisions of political leaders and those of the general public are based. People still greatly depend on the mass media for information whether this be at the local, national, or global levels (even if this is changing with the advent of new media). It is imperative, therefore, that people as receivers of information are able to read, understand and decide for themselves on issues affecting them. The mass media also has a role to create public opinion. This is true for both democratic and authoritarian countries. While this function is encouraged, some countries in ASEAN restrict information dissemination to limited audiences, especially if this will affect or lead to political and social instability. As a thinking public, members of a population should be able to evaluate and discern what information is being sent to them and what actions must be taken to foster truth and transparency. The media plays an important role both in creating public opinion and reflecting and showcasing the opinions of members of society, for instance, through editorials, columns, commentaries, newspapers, magazines, new media or the Internet, among others. Media also function as watchdogs–raising awareness on issues of public interest and the wrongdoings of institutions and people in power.

The second role of the media is an economic one. Among ASEAN member states, Indonesia leads advertising spending growth in the Asia-Pacific region; its spending is heading towards international levels. While CRS should be non-profit, it is quite impossible to operate without funds. This is the reason why some CRS fail to continue their advocacies. On the contrary, there are other CRS that are "commercial" to ensure sustainability.
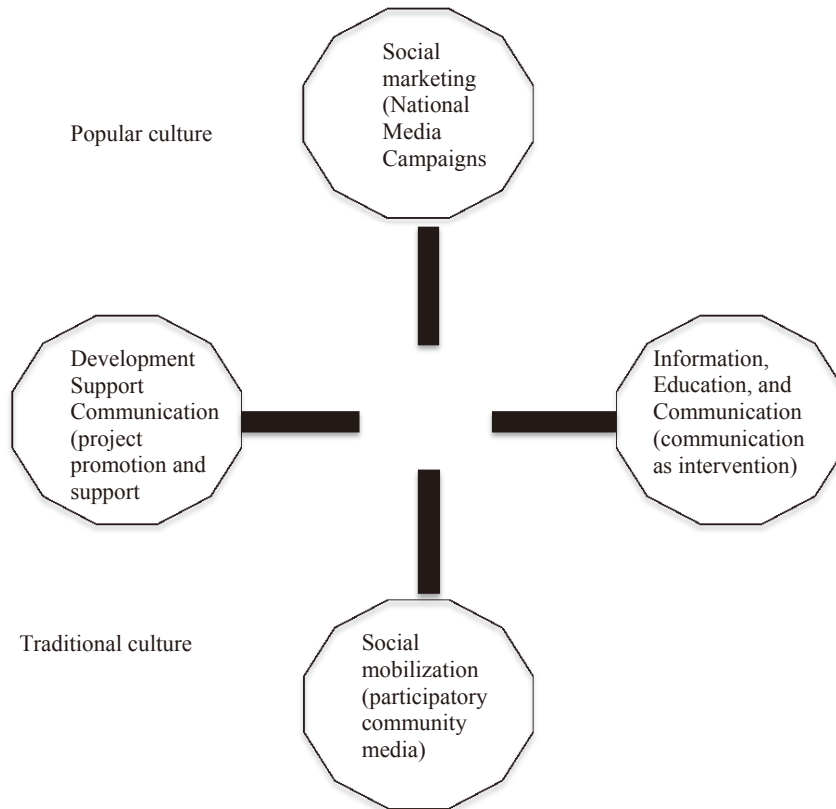
The third role of the media is social. "Mass media help strengthen the social fabric of the nation and influence its pattern" (Maslog, 2014). In other words, media are conveyers of culture and shape the ways in which societies are being built. One of the social roles of the mass media is to create a popular culture, which includes customs, fads, fashions, folk songs, pop tunes, folk art, pop art, lingo, technology, norms, beliefs, personalities, and even superstitions. Other social roles are entertainment and development communication. It is in the latter that CRSs are being tapped to play a more proactive role in social transformation processes to prepare every individual to face the environmental threats that may suddenly beset their communities.

Theoretical framework

Anchored on the Transformational Communication Model, Flor (2004) puts forward that environmental communication requires a more comprehensive and holistic paradigm unlike other development communication approaches. Neil McKee as cited by Flor (2004), typologized the modes of development communication into two: social marketing and social mobilization. However, according to Flor (2004), there are four types of development communication approaches that can be used based on their experience such as development support communication; information, education, and communication; social marketing; and social mobilization. These approaches could work well in the agricultural, population, and health sectors. He emphasized that these techniques are meant to employ the behavioral approach in communication such as addressing health issues.

The model proposes the integration of the four major communication modes applied to development undertakings. The model depicts four converging circles representing the four modes: development support communication; conventional IEC; social marketing; and social mobilization. The framework also provides an imaginary line that takes into account the cultural dimension in these approaches. The model also focuses on normative instead of behavioral change because in the environmental field, there are various

environmental friendly and non-enviromental friendly behaviors that may be identified and may become endless. Addressing a few defeats the purpose of a holistic approach, hence, the focus was on norms that determine behaviors for social transformation (*Figure 3*).

Popular culture

Social marketing (National Media Campaigns

Development Support Communication (project promotion and support

Information, Education, and Communication (communication as intervention)

Traditional culture

Social mobilization (participatory community media)

Figure 3: An integrative operational framework (Flor, 2004)

Transformational communication must be multi-level/multi-sectoral. The holistic view of environmental communication should be done at all levels of society from the individual, community, and national levels. It should also involve all stakeholders such as the church, business and industry, schools, law enforcement agencies, the military, the media; Local Government Units (LGUs, NGOs, People's Organizations, women, farmers, the youth, etc. The aim is institutional (network) development and capacity building to achieve sustainability.

The second feature is being process-oriented and synergy-driven. Changes in norms involve social processes such as education, collective pressure, shifts in worldview, and the like. The communicator serves as facilitator and catalyst through social agenda setting, shaping public opinion, and community mobilization.

The third feature is being strategic. It should focus on key players, even if everyone is required to play a part, within the social processes and develop a pool of leaders that would form a critical mass or the champions who will lead in transforming existing behaviors toward new norms.

Methodology

The study employed a case study research design in selected community radio stations in Luzon, Visayas, and Mindanao, specifically in Kabacan, North Cotabato, Davao Oriental for Mindando, Iloilo and Aklan for the Visayas, and Cagayan Valley for Luzon. Participants of the study as key informants were five station managers, one mayor, the head of the Federation of Rural Broadcasters, and the President of Media Zone,

Inc. This totaled to eight participants who were purposively sampled in order to accomplish the objectives of the study. While there are many community radio stations in the Philippines, "true" CRSs (where communities participate as planners, producers and performers and it is the means of expression of the community, rather than for the community) are few if not nil. In-depth interviews with key informants were conducted to have a sound basis for data analysis. Interviews lasted for two hours or more to probe further into the responses, and find coherence in the data being collected. A laddering technique was used in doing the interviews. This was done to find out whether the responses were logical and sound. Observations and responses gathered were analyzed using thematic analysis by establishing a pattern in the responses. While the sample cases have unique experiences, common themes arose. Such commonness served as an anchor in building a sustainable CRS model.

Results and discussion

The participants

Participants of the study were purposively chosen in benchmarking good practices to have a sound basis in developing the proposed CRS model. Each station had a different feature in terms of management and control. Observations came from five station managers across the country, namely, DXNQ and DXVL in Mindanao; DWTG and DWRL in Luzon; and DYMI and DYYM in the Visayas, all belonging to the FM band. One mayor in Luzon was likewise interviewed to feature how CRS was used for governance. As oversight of CRS, the head of the Philippine Federation of Rural Broadcasters formed part of the observations to shed light on how CRS can be made sustainable. From planning of CRS to installation and management, the president of a community radio-contracting firm was interviewed about challenges and prospects of CRS installation in the Philippines.

The community radio stations' profile

Each CRS was profiled in terms of call sign, nature of operation, tagline, frequency, year of establishment, Internet access, type of transmission, power, location, coverage, type of broadcast (live or canned), language used, time of airing, schedule of airing, address, email address, Facebook account, website (URL), and contact details. The profiling was done to determine accessibility, reach, and capacity.

The tagline of each community radio station symbolizes the mission of the station. For instance, the CRSs in Mindanao have very socially sensitive taglines being a conflict-stricken area. The tagline of DXNQ is *Radyo Kalumonan* (Radio Friendship) to symbolize that friendship can be built through radio. Listening to the radio implies that the listener is a friend. It can also be deduced that the role of the radio station is to bridge good relationships among academe, LGU, a national government agency, community, and a local foundation.

DXQL's tagline, on the other hand, is *Kool FM*, meaning if one listens to the station, one is cool. In war-torn areas, radio can be a catalyzer through the programs they air, music that they play, informational and educational programs produced so that they may be aware. In Luzon, DWTG's tagline is *Tangguyob ti Gonzaga*, meaning native horn or voice of Gonzaga. It symbolizes that voices are heard especially for the voiceless and the marginalized so that they too can air their concerns. DWRL's tagline, on the other, is *Atin to*! (This is ours) that symbolizes ownership. It implies that listeners own the station. In the Visayas, DYMI's tagline is *"sama-sama* (Filipino term for together), *together, always and forever"* which is very obvious that listeners should always tune in because they are one. DYYM boast of its tagline *"Katribo radyo"* which means we come from the same tribe; therefore, we belong to this radio as one. These taglines are not only meant to identify but to convey the message for which the radio station stands for.

There were five models of operation that surfaced in the study. The first model is the Academe-National government-Local government Partnership (ANLP). This is the case of DXNQ. DXNQ (Radyo Kalumonan) was established with assistance from the National Nutrition Council (NNC). NNC had

established more than 30 community radio stations all over the country as vehicles for disseminating information about good nutrition in areas with high incidence of malnutrition. Since Barangay Bato-Bato, San Isidro, Davao Oriental had the highest rate of malnutrition in the area; the radio station was installed there. However, the establishment was done in partnership with academe and the Kalumonan Development Foundation, which is headed by the mayor of the municipality. This is one of the projects of the president of the community-radio contracting firm. Academe needed a radio station as a laboratory for their communication students, hence, the partnership.

DXNQ is a quadripartite ownership structure among LGU, academe, a national government agency (NGA), and a local foundation. The NGA in this case is the NNC who provided the equipment and audio facilities. It started with 100 watts, but will be increased from 100 to 500 watts within the year. The College, on the other hand, provided the radio station (which used to be the office of the school coordinator and converted into the radio station). The NNC trained them on how to run the radio station. The role of the LGU was tapped to meet manpower requirements like the radio communications engineer, announcers, and other personnel who went on board to run their own programs. Mr. Kiko Flores of Media Zone, through the NNC, trained them on reporting, announcing, and the use of audio facilities.

The second exemplar in operating a CRS is the public-academe partnership (PAP) of DXVL. A case in point is the University of Southern Mindanao's community radio station. While the model is not truly a CRS by definition, the practice is worth emulating. Like many universities, USM is no exception. They cannot operate commercially and did not engage in private participation when it first aired. However, when the policy of the university was imposed for all units to become income generating, the Department of Development Communication banked on going commercial in partnership with a public-owned broadcasting services, Philippine Broadcasting Service, the Radyo ng Bayan Network. Their story is something that State universities and colleges can learn from.

The third model is the Academe-LGU Partnership (ALP) operated by DWTG and DWRL. Started by Tambuli project,[4] a UNESCO project in the late 90s, these two radio stations are community-based. However, securing a frequency for CRS from the National Telecommunications Commission proved difficult but with academe to request one for educational purposes was easier. Hence, the LGUs had to partner with the Cagayan State University, which had campuses in Lal-lo and Gonzaga, where the radio stations are.

The fourth model is the religious/church-managed CRS. The DYMI Spirit FM radio station is a good example of a Religious/Ecumenical-Private Partnership (RPP). DYMI is managed through a corporation named "For the Greater Glory of God Holdings, Incorporated" (FTGGGHI) with community people serving as anchors of the different programs of the station. DYMI Shine Radio/DYMI Spirit FM advocates for building relationships among Catholic parishioners of Iloilo and its nearby provinces. With its tagline "*sama-sama* together, always and forever," the role of the station is to bring people closer to God and help them address issues that concern people (e.g. environment).

The fifth model is LGU-Private Partnership (LPP) that is with the local government unit in partnership with Manila Broadcasting Company. It operates under the leadership of the Local Chief Executive cum Mayor of Kalibo, Aklan. Being a partner of MBC, the radio station follows programming protocols and guidelines observed by MBC. Meanwhile, the public, through the listeners, are tapped as contributors in some of the station's programs. DYYM 98.5 Hot FM informs the people of the various programs initiated by the local government. It makes the public aware of the activities of the different LGU line agencies including the Office of the Mayor. It coordinates with the communities and encourages community people to get involved in the various programs spearheaded by the LGU.

The schedule of airing of all stations was daily except one, which airs every other day, but with an average of 15 hours/day live through a power ranging from as low as 100 watts to 3 kw all in the FM band.

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[4] For more details, view http://www.unesco-ci.org/ipdcprojects/content/tambuli-community-radio-stations.

The low-powered CRS had a coverage ranging from as short as 10 km to 50 km across barangays, municipalities, cities, and provinces. This is a good indication that low-powered radios, especially in far-flung areas, could be the only source of information.

In terms of contact, all CRSs have cellular phones, the station manager or the station may own these; some have live streaming, and FB accounts as well. This implies that CRSs have gone beyond the airwaves and are now visible online. Connectivity has expanded, therefore, and points to an expanded network, listenership, and on demand subscription.

Table 1 presents the profile of these CRSs.

Table 1: Profile of community radio stations						
Characteristics						
Call sign	**DXNQ 97.3 mhz**	**DXVL 94.9 mhz**	**DWTG 102.5 mhz**	**DWRL 95.1 mhz**	**DYMI 94.7 mhz**	**DYYM 98.5 mhz**
Tagline	Radyo Kalumonan (Radio Friendship)	Kool FM	Tangguyob ti Gonzaga (native horn)	Atin ito!	Sama-sama together, always and forever	Katribo Radyo
Nature of operation	Academe managed with NGA, LGU, and Foundation	Academe-Government	LGU-managed with academe	LGU-managed with academe	Church-managed with community	LGU-managed
Frequency band	FM	FM	FM	FM	FM	FM
Year of establishment	2012	2006	1997	2010	1998	2005
Internet access	none	http://dxvl949.blogspot.com/p/blog-page_19.html	None	None	Live streaming	Live streaming
Type of transmission	Analog	Analog	Analog	Analog	Analog	Analog
Power	100 watts	3 kw	300 watts	100 watts		1 kw
Location	Hill	Plain	Valley	Valley	Hill	Plain
Coverage	10-15 km radius	40-50 km	20 km radius	30-40 km	Iloilo, portions of Capiz, Antique, Guimaras and Negros	Provincial-wide
Type of broadcast (live or canned)	Live	Live	Live	Live	Live	Live

Language used	Cebuano	English, Ilocano, Cebuano	Ilocano	Ilocano	Hiligaynon	Aklanon (local dialect)
Time of airing	5:00 AM-10:00 PM	5:00 AM-10:00 PM	5:00 AM-5:00 PM	5:00 AM-9:00 PM	4:30 AM-6:00 PM	4:30 AM-7:00 PM
Schedule of airing	Daily	Daily (17 hours)	Daily (17 hours)	Daily (16 hours)	Every other day (M-W-F-S) (14 hours)	Daily (15 hours)
Email address	None	dxvlfm@yahoo.com	None	dwrl95.1fmofficial@yahoo.com	dymi_shineradio@yahoo.com	ronbautista2015@yahoo.com.ph
Facebook account	None	None	None	None	None	DYYREFM
Website	None	http://dxvl949.blogspot.com	None	www.lallocagayan.com	None	None
Telephone no.	None	(064) 248-2867	None	None	(033) 330-0604	None
Mobile no.	09105266563	0949-4939-462/ 0947-2890-117	0915 450 8413; 0977 176 8268	2 hotlines – Emergency: 0977 1266669 Greetings and request: 0926 1500951	09097531050 and 09985323896	None

Factors of sustainability

Sustainability was measured in terms of organizational structure, influential factors, and operational mechanisms that led to the development of a CRS model. Indicators of organizational structure include support from stakeholders (i.e. community members, LGU, sponsors, etc.), size of membership/staffing; organizational membership, the mission, ownership, and management system.

Operational mechanisms consist of regularity of support (daily, weekly, monthly, etc.); content providers (materials for airing are regular, up-to-date, etc.); regularity of airing (as scheduled, intermittent, only when needed); consistent anchor announcers/host (regular hosts); functional facilities (transmitter, antenna, computer, etc.); regularity of income (regular, intermittent, cannot be predicted); estimated amount to fully operate a community radio station on a monthly basis (community-based, LGU-supported, church-run, nationally-supported, NGO-supported, etc.).

Influential factors refer to radio attributes such as listenership, support from stakeholders, and topics of interest that matter, type of radio station, size of coverage, and power. These factors were deemed necessary for the sustainability of CRS operations. It was also important to find out what problems do they usually encounter and how they should be solved. This was done to understand the plight of CRSs.

Results of the study showed three thematic descriptions of organizational structure as indicator of sustainability: flat structure; community-participation; and legal mandate. Observations gathered showed that a lean staffing of 3 to 6 people can run and manage a CRS. A station manager, anchorman, and licensed electronics and communications technician are the basic personnel while field reporters would be a plus factor. This constitutes the organic staff. The organizational structure is normally headed by the owner of the

station, in this case, the mayor for LGUs, local parish priest for the religious, head of the foundation, president of the school, supported by members of the community that composes the Community Radio Council (CRC). CRC serves as the governing board of CRS.

In terms of operational mechanisms, the themes that surfaced include: human resources, money, physical infrastructure, and information. Having consistent anchorpersons require regular programming and scheduling. As a non-profit CRS, it does not mean that they cannot subscribe to commercials as defined by AMARC. DXVL, DYMI, and DYYM have opted to have commercials to survive. However, in the Philippines, CRS are non-profit which means they cannot have commercials. This policy should be reviewed and modified accordingly to ensure operations now that radio may be the only telecommunication facility available in times of calamities.

For influential factors or attributes that sustain the operation of CRS, results revealed three themes: content, reach, and power to transmit. While listenership surveys were not normally conducted, feedback through SMS, emails, or calls are proof that they have a following. Their content, also paved the way for their continuous existence. The various programs aired about the environment, health, nutrition, alternative learning systems (such as School-on-the-Air or SOA), old songs, local news, youth programs, religious programs, and local events are the links for CRSs to be strengthened and supported. Low-powered CRSs, though weak in signal compared to high powered ones can be strengthened if they choose to partner with big national networks like MBC (Radyo Natin) and PBS (Radyo ng Bayan). They have the physical infrastructure, but are limited in content. The partnership can be developed if they work collaboratively. Local involvement in community fairs increased; covered local ordinances; covered events like fiestas which is what people want; they cannot connect with the national issues or radios because of television. The needs of local communities include disaster, risk, and reduction councils for flood prone areas, as well as discussion of issues on the peace process (Bangsamoro Basic Law) that Moslems listen to.

Proposed sustainable CRS model

With a transformational communication model as the theoretical framework of the study, it can be assumed that one of the convergent concentric circles, which is social mobilization through participatory community media, must be carried out with ample support from stakeholders to transform people's existing norms to new behaviors. The CRS to be able to play its role must be fully funded by either the LGU, or through private-partnerships. Its sustainability is determined by a well-staffed, but flat organizational structure for faster decision-making. Staffing may include a radio station manager, a licensed radio operator technician, an anchorman/woman, a field reporter, and volunteers from the community. Ideally, volunteers should run the station, but this practice is not sustainable. The lean staffing shall provide the daily services to operate the station. Block timers from relevant government offices should form part of the organization to ensure accuracy and flow of content. The Community Radio Council, composed of the church, academe, elders, and other stakeholders is tasked to oversee the operations of CRSs in terms of programming, and, with the Philippine Federation of Rural Broadcasters, to perform an oversight function.

Community radio stations through participatory radio can serve as major a channel or medium for information dissemination, education, and social transformation. The CRS, at the same time, should collaboratively work with relevant government offices, organizations, groups, and units to ensure a holistic approach in facing the challenges. As information sources, they shall provide content on a continued basis, and properly capture and store information in a database that can be accessed by anyone who would need the information. Crucial to the operation is strong support from the Local Government Unit for funding, and logistical support or a public-private partnership may be resorted to, whichever is applicable and allowed. While the CRS is the major channel of information dissemination, social mobilization must complement the strategy to ensure action on the ground. CRS anchors along with LGU staff, representatives from relevant agencies must join together to explain or demonstrate expected disasters like earthquakes, tsunamis, etc. The telecommunication companies should likewise be involved in providing the last mile linkage to ensure that

CRSs have Internet connections that are linked to PAGASA, Philvocs, National Mapping and Resource Information Authority, Department of the Interior and Local Government, Department of Social Welfare and Development, Department of Health, Department of Education, Climate Change Commission, Philippine Federation of Rural Broadcasters, academe, the Church, Department of Agriculture, Department of Environment and Natural Resources, National Risk Reduction and Management Council, etc. There should be close collaboration among these relevant agencies in giving out information to avoid confusion and miscommunication among CRS anchors, or information officers tasked to gather information. The National Telecommunications Commission, on the other hand, should allocate frequencies to LGUs without a community radio station. Ideally, all municipalities should have one CRS to make sure that they are in the loop and ready to discuss with their constituents relevant topics or issues that they should be familiar with.

The proposed model is not only applicable to Philippine conditions, but also in highly vulnerable areas within the Asia Pacific region. With ICT, information on various environmental concerns can be hooked to Japan, Australia, or China who have better and newer facilities to determine climatic conditions. The need to put in place such networking is crucial to explain extensively, in a popular manner, threats to the people and the environment, along with the concomitant risks. More often than not, threats are communicated, but risks are not. As a result people end up speculating, in limbo, or having cognitive dissonance. CRS announcers when properly trained on these technical issues can better explain such occurrences in layman's terms.

The Head of the PFRB and the president of the community-radio contracting firm also recommended that LGU-partnerships could be the most potent mechanism to sustain CRSs. With mandates to provide telecommunication services, LGUs should be able to provide $20,000/year for its operation if NTC will not allow them to operate commercially.

Conclusion

The study concludes that a lean organizational structure with ample support from the Local Government Unit, the Church, private companies, or public companies can sustain CRS operations. This should be complemented by worthy contents that are relevant to respond to community needs. Localized programming sustains listenership because a community radio only discusses things that matter. Finally, CRS, as the last mile linkage in times of disaster, may be the only resort to save people's lives.

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