

Community Radio Initiation for Remote Learning Program in East Nusa Tenggara

Ressi Dwiana*

Universitas Medan Area, Indonesia

Submitted: 22 December 2021 Accepted: 18 September 2022

Abstract

This paper reports the initiation of community radio as a remote learning medium in Sumba Island, East Nusa Tenggara, Indonesia. Using qualitative method, this study examines a community radio establishment in Sumba, an underdeveloped area in East Indonesia during the global pandemic of Covid-19. The study found out that digital divide was the key factor when the Government decided to stop face-to-face learning into online learning in March 2020. Compounded by flash floods and landslides in April 2021 in the midst pandemic, a group of civil society initiated a community radio for remote learning located in Melolo, East Sumba Regency, East Nusa Tenggara Province, providing educational services for the community.

Keywords: community radio; remote learning; digital divide; Covid-19

Introduction

Communities in disadvantaged areas have complex problems, from economic difficulties to the lack of infrastructure. If a disaster hits the area, the impact on the community will be many times harder. Indonesia has around 17,000 islands spread over three time zones. With such a large area, some areas are categorized as underdeveloped areas. Indonesia identified these areas with the term 3T (*terdepan*/foremost, *terpencil*/remote, and *tertinggal*/disadvantaged). Socially, a 3T region is a region in which the economy, human resources, facilities, infrastructure, regional financial capabilities, accessibility, and regional characteristics are still lagging behind the others (kemendesa.go.id).

The Indonesian Government, in 2020-2024 period, appointed 62 regencies in 11 provinces as 3T regions (kemendesa.go.id). Of the 62 regencies, 13 of them are in East Nusa Tenggara Province. One of them is Sumba Island. There are four regencies located on Sumba Island. They are West Sumba, East Sumba, Central Sumba, and Southwest Sumba, all of them categorized as 3T regions.

Copyright © 2022 The Author(s). This article is distributed under a Creative Commons Attribution-ShareAlike 4.0 International license.

^{*} Corresponding email: ressidwiana@yahoo.com

In normal conditions, the socio-economic life of the people of Sumba Island is far behind from other areas. For example, the Gross Regional Domestic Product (GDRP) of East Nusa Tenggara Province in 2018 was IDR 99.09 trillion. Of the 34 provinces, East Nusa Tenggara was in 26th position. In numerical terms, compared to DKI Jakarta Province which has the highest GDRP (IDR 2,599.17 trillion), the GDRP of East Nusa Tenggara Province is much lower (databoks.katadata.co.id)

When the Covid-19 pandemic occurred, the Central Government decided to carry out various programs to limit community activities to reduce transmission of the virus. One of the policies implemented nationally was stop face-to-face learning at schools. Teaching and learning activities moved to virtual space. Unfortunately, not all of students in Indonesia could carry out an online learning program.

Data from the Ministry of Education Culture Research and Technology in May 2020, there were 46 thousand or more than 17 percent of primary and secondary education units which did not have access to the internet. Of the 17 percent, there were more than 8 thousand educational units or 3 percent that have not even been installed with electricity (Kamil, 2020a). Moreover, a survey conducted by Saiful Mujani Research Center (SMRC) in August 2020 states that 24% of students in Indonesia did not have internet access (Kamil, 2020b).

The Central Government's decision to carry out online learning was inappropriate for 3T schools. Even without having to study online, schools in these disadvantaged areas are already far behind from non-3T areas. The education quality gap was recognized by the Minister of Education Culture Research and Technology after visiting several schools in the 3T area in November 2020. The Minister said that schools in the 3T area had lack in infrastructure, internet networks, and other infrastructure (Ihsan, 2020).

When a major flood disaster occurred in April 2021 in various areas in East Nusa Tenggara, the condition of the community was increasingly alarming. Communities in the 3T regions faced lagging socio-economic conditions, the Covid-19 pandemic, and natural disasters. Learning for students who initially had been left behind, was increasingly neglected.

The difficulties of the students in the 3T regions encouraged several parties to provide alternative learning media. Community radio is a simple technology option that is considered capable of overcoming the socio-economic problems of society and the digital divide for learning in the 3T regions. This article describes one of the initiations of establishing a radio for remote learning in Melolo, Umalulu Sub-district, East Sumba Regency, East Nusa Tenggara which was carried out in May 2021 after the Covid-19 pandemic and the big flood natural disaster.

Literature Review

Community radio is a form of broadcasting of which the existence is recognized in the broadcasting system in Indonesia. Generally, the role of community broadcasting is to provide a diverse range of services meeting community needs in ways that are not met by other sectors through their commitment to local programming (Melville, 2006: 12; Forde et al, 2002: 59). Not only meeting the needs of the community, with the principles of access and participation, volunteerism, diversity, independence and localism (Melville, 2006: 12), community radio has a proven track record around the world as a mean for community-led development and social change (Austin, 2014: 114).

This type of broadcast media is growing in various parts of the world. The initial community radio dates back to Bolivia around 1947. Miners' radio station La Voz del Minero started their broadcasts because there were no media in their area. Dagron (in Fuller, 2007: 202) explains that the radio was initially used to communicate among fellow miners, including announcing a meeting, broadcasting music that the miners liked, requesting songs, notification of the arrival of letters or shipments, reading messages from the miners' families, and notifying the arrival schedule of goods at the mining company's grocery store.

In South Africa, community radio was known as Bush Radio. Ibrahim (2000: 199) notes a long history of community radio since the late 1980s. He explained that during the crisis in that era, there was a small group of people who developed a simple communication system to record and distribute information. The group was called CASET (Cassette Education Trust) and hoped to establish community radio. Apartheid authorities at that time forbade groups consisting of indigenous people from entering existing universities. Finally, CASET created Bush College because it was in the middle of a thicket. The initiative to create community radio was finally realized in 1992 and was named Bush Radio.

In Indonesia, community radio successfully answers the problem of limited reach of mainstream media, which is concentrated only in big cities. This type of broadcasting can be established in remote areas of the country which are still a blind spot. This blind spot area is occupied by small communities. However, there are many, hundreds or even thousands of these small groups in various regions in Indonesia. They are the marginalized majority group (Sudibyo, 2004: 225) who need a medium of communication with each other and information from and to the outside world.

In the context of disasters, community radio also plays an important role. This media has proven to be a unique tool as an early warning system in natural disaster prevention as well as after the tsunami in facilitating reconstruction and solidarity building (AMARC, 2007: 27). Post-disaster community radio initiation was carried out in various major disaster events in Indonesia. Dwiana et al (2020: 655) note the initiation of community radio occurred during the earthquake and tsunami in Aceh (December 2004), the earthquake in Yogyakarta (May 2006), the earthquake and tsunami in Pangandaran (July 2006), the eruption of Mount Sinabung in 2013, the eruption of Mount Agung Bali (September 2017), and the earthquake in Lombok (August 2018).

From this history, it can be concluded that the initiation of community radio triggered by a disaster event is nothing new. The character of community radio broadcasts which is centered on the interests of the community makes this type of broadcasting able to meet the specific needs of the community when a disaster occurs. One of them is for remote learning needs that cannot be done via the internet because of the digital divide problem.

The initiation of community radio for remote learning in East Nusa Tenggara was triggered by two things: the digital divide and two disasters, the Covid-19 pandemic and the natural disasters that followed. The digital divide is problem that occurred long before the pandemic. Meanwhile, two disasters that came later made the teaching-learning process even more difficult.

Digital Divide in Eastern Indonesia

The term digital divide is widely explored by researchers. Researchers' studies on this issue lead to a broad definition of digital divide. One of advanced definition is by Rogers (2001: 96) who states that digital divide is the gap that exists between individuals advantaged by the internet and those individuals relatively disadvantaged by the internet.

The digital divide is considered by some researchers as a continuation of the existing gaps. Gunkel (2003: 503) says that the digital divide names a form of socio-economic inequality demarcated by the level of access that one has to IT (Information Technology). Therefore, the digital divide functions as another name for a problem that has previously been identified by a number of other expressions – information haves and have-nots, the question of access, and universal service. Therefore, the search for root of digital divide can be viewed from various fields. Rogers (2001: 102-103) says that reasons for the digital divide is socio-economic factors, demographic characteristics and education divide, socio-economic divide, and the learning divide.

What is highlighted is that the digital divide also depends on regional factors. Milner (2006: 176) mentions that the internet has been diffused unevenly across countries, raising concerns over a digital divide. This was also conveyed by U.N. Secretary-General Kofi Annan at the World Summit on the Information Society 2003. He explained that the so-called digital divide is actually several gaps in one. There are a technological divide great gaps in infrastructure. There is a content divide, a lot of web-based informations are simply not relevant to the real needs of people. And there are obvious social, economic, other disparities and obstacles affecting a country's, or in this case region's ability to take advantage of digital opportunities (Schloman, 2004).

Fuchs (2009: 56) analyzes 11 variables by providing data on 126 countries using multivariate regression to identify which of them influence internet usage and to what extent. The used data on 126 countries refers to the year 2005. It can be said that the overall finding that income inequality is one of several factors that influence the level of the digital divide in complex ways is a sign for the need of complex models of the digital divide.

In addition to within the country context, the digital divide regionally can also be seen from domestic conditions. The digital divide in the Indonesian context can be referred to regionally, which is the 3T regions. Telecommunications data shows the gap in 3T regions, such as East Nusa Tenggara. East Nusa Tenggara is a predominantly rural area. There are 3,154 villages (rural) and only 199 urban. In general, based on Indonesian Telecommunication Statistics data (Badan Pusat Statistik, 2019), only 69.33% of villages in Indonesia have strong cellular signals. Meanwhile, 23.56% only receive weak cellular signal, and 7.11% is totally not covered by cellular signal (blank spot). In East Nusa Tenggara, to be more specific, there are 1,446 villages that receive weak signal (p. 73).

Disasters and Issues of Communication

Information and communication channels are one that is often damaged or does not function optimally when a disaster occurs. To establish an effective disaster communications strategy is to provide timely and accurate information to the public in all four phases of emergency management: mitigation, preparedness, response, and recovery.

Haddow and Haddow (2008: 2) explain the relation of communication in those four phases. In mitigation, there are activities to promote the implementation of strategies, technologies, and actions that will reduce the loss of lives and property in future disasters. Preparedness is a phase to communicate preparedness messages that encourage and educate the public in anticipation of disaster events. When disaster attacks, response is a phase to provide to the public notification, warning, evacuation, and situation reports on an ongoing disaster. The last phase is recovery: the time when information on how to register for and receive disaster relief is provided for individuals and communities affected by a disaster.

These four phases - mitigation, preparedness, response, and recovery are best seen as a continuum where actions taken in any single phase are appropriate to carry over to and have implications for the next phase and beyond (Haddow & Haddow, 2008: 67). Thus, disaster management program in the context of communication should be a continuous process, too. In this case, the priority group is disadvantaged people (e.g. the poor, the sick, the marginalized). Access to information and involvement in the development of mitigative strategies should be concentrated for these groups (Pearce, 2003: 217).

Disaster divides into two categories: natural and unnatural. The first consists of disasters caused by natural phenomena and the second consists of those caused by human behaviour (Tanesia, 2007: 69). The intertwine between disaster with particular factors like poverty, remote areas, poor education, and gender inequity, has a great potential to grow into a bigger disaster. The effects of disasters can have physical, social, psychosocial, sociodemographic, socioeconomic, and political consequences, and the severity of disaster effects is seemingly increasing (Houston, Pfefferbaum, & Rosenholtz, 2012: 607).

Disaster management contends with two kinds of damage: the tangible and the intangible. Tangible damages include the material objects that are at risks, such as peoples' lives, property, productive capacity and the destruction of the environment. Intangible damages are abstract and difficult to assess in monetary terms, such as cultural artifacts, social relationships and the morale of a population. The ability to quantify any subject of inquiry makes it more amenable to empirical research, but the fact that disasters are not solely affecting the tangible aspects of our existence requires due consideration for the human experience outside of an accounting perspective (Kasdan, 2019: 673).

The Covid-19 pandemic as an unnatural disaster creates an intangible damage, in the form of communication problems. Although the pandemic conditions did not have an impact on the physical damage to communication facilities, there is a need for information and communication that requires immediate improvement. The Covid-19 disaster is something new, so the public must be provided with accurate information in order to participate in the prevention and handling of the pandemic, instead of being exposed to hoaxes that worsen the situation. Communication facilities must also be available as a channel of information to the community and from the community.

Communication infrastructure in 3T regions such as East Nusa Tenggara is far behind other regions. Without adequate communication facilities, people can be ignorant of the pandemic threat. The impact can vary. If there is false information, it will cause unrest and even chaos in the society. If information about the dangers of the virus does not reach the public, the potential for transmission will increase. Without any communication-problem solving, government policies on Covid-19 do not take into account the differences in infrastructure facilities in the 3T area. Online learning policy adds to the amount of communication problems in the society. Without adequate means of communication (including digital communication), people who already have communication problems must also struggle to do online learning. The flash flood disaster made the condition more acute. Even the meager communication facilities were destroyed by the disaster. Online learning policies are becoming increasingly unfeasible to execute.

Methods

This case study uses a qualitative method by collecting data from observation and interview. Observation was made throughout the process of establishing Love Sumba FM community radio station, from April 15th - 17th, 2021. Other data was obtained through interviews with initiators and the community radio management. To make observations, researchers followed the initiators of the establishment of community radio to Melolo, Umalulu Sub-district, East Sumba Regency. Direct interviews were conducted during the field research. Meanwhile, distance interviews via telephone lines were conducted to obtain data on remote learning activities at radio stations.

The uniqueness of the initiative of community radio in Melolo, Sumba Timur, East Nusa Tenggara is that this area is the most vulnerable location where the community radio was established. With the setting of the Eastern region of Indonesia experiencing a fairly high digital divide, this region was then hit by two disasters, the Covid-19 pandemic, like the rest of the world, and a major flash flood in April 2021. To be noted, East Nusa Tenggara Province has limited access of transportation. From the capital city of Indonesia, Jakarta, to Sumba island, one must transit in other big cities. Meanwhile, in Sumba itself, public transportation is not widely available and does not reach all areas. This condition was further exacerbated when flash floods occurred in April 2021. Airfare prices have doubled, and access to remote areas is also difficult.

Researchers have access to involvement in the process of establishing a community radio through volunteers from the Indonesian Community Radio Network (JRKI) who are experts in the establishment of community radios in Sumba Island, East Nusa Tenggara. The volunteers who initiated this community radio collaborated with a church institution in the area. After arriving in Sumba, the church provided all the necessary facilities for the volunteers, from transportation, accommodation, to daily meals. This access is not owned by other researchers when conducting research in remote areas. The limitations of transportation and accommodations make it difficult for other researchers to conduct single-case research.

Participation in the process of establishing a community radio gave researchers direct experience of the difficulties faced by the initiators. During the process of establishing the radio, Melolo's condition had not yet recovered due to the flash floods and landslides. Electricity was not yet on and the generator was the source of lighting, source of power for carpentry tools and the water machine for daily needs. In addition to the electricity that was still out, the internet signal had not yet recovered.

The researchers' involvement in the process of establishing a community radio enriched the researchers' data. However, on the other hand, researchers find it difficult to establish a distance with the research subject. Researchers sometimes express opinions about the ideal form of community radio, for example, researchers told the initiators that the process of establishing a community radio should be the initiation of the community itself rather than from outsider.

The Place and Time

The location of this community radio is very important to be explained. Sumba is an island in East Nusa Tenggara Province, Indonesia. East Nusa Tenggara territory is dominated by small islands. There are 1,192 islands in this province. As there are so many islands, some of them, do not even have names (Seo, 2016).

The lag in development is illustrated by the comparison of the number of cities and regencies in East Nusa Tenggara. Currently, there is only one city in this province, while the other 21 are regencies (Purwanto, 2021). Of the 21 regencies, 13 are categorized into 3T regions. Based on Presidential Regulation No. 63 of 2020, regencies in East Nusa Tenggara that are included in the 3T regions are West Sumba, East Sumba, Kupang, South Central Timor, Belu, Alor, Lembata, Rote Ndao, Central Sumba, Southwest Sumba, East Manggarai, Sabu Raijua, and Malacca.

A community radio for remote learning programs was established in Melolo, Umalulu Subdistrict, East Sumba Regency. To reach Melolo, the nearest airport is Umbu Mehang Kunda which is located in Waingapu, the capital of East Sumba Regency. The distance from Waingapu to Melolo is about 80 kilometers which can be reached in approximately two hours by land.

Radio initiation was established in mid-April 2021. The team to Melolo arrived on April 15th, 2021. The process of establishing the radio was less than two weeks after flash floods and landslides occurred in East Nusa Tenggara. At least 12 regencies/cities were affected by the disaster, including East Sumba Regency. According to data from the Indonesian National Disaster Management Agency (BNPB), seven public facilities were damaged by the disaster (bnpb.go.id). In addition to public facilities, there were 7,212 people who had to evacuate due to the disaster (Guritno, 2021).

The radio initiation was carried out in the midst of the natural disaster recovery process that occurred during the Covid-19 pandemic. Transmission of Covid-19 in April 2021 escalated sharply. Based on 2020 data, the population of East Sumba is 244.9 thousand (kemendesa.go.id). However, as of April 24th, 2021, there have been 1,049 cases of Covid-19 transmission in this regency with 33 deaths (Lodu, 2021).

At the time of the radio establishment process, Melolo's condition had not yet recovered. Electricity was not yet on and the internet signal was not yet available. For activities that required electricity, one had to rely on generators. Meanwhile, for communication media, it only relied on face-to-face communication. The most difficult part was that some of the equipment to set up the radio station had to be purchased in Waingapu. When there is an unexpected need, the team had to travel quite a remote from Melolo-Waingapu-Melolo.

The Initiator

The community radio established in Melolo is the second remote learning radio in East Sumba Regency. Previously, a community radio with a similar program had been established in Lewa

Sub-district. The initiation of community radio for remote learning in Lewa and Melolo was carried out by the same institution.

A foundation called Footprints based in Yogyakarta is the initiator of community radio in Sumba Island. The core business of this foundation is children's book publishing. Footprints cofounder, Purnawan Kristanto, has carried out various humanitarian activities, especially for children, in Sumba Island since 2017. Their initial activity is distributing children's books to a small library in Lewa Sub-district.

During the Covid-19 pandemic, activities in the library and face-to-face learning had to be stopped. In areas with very minimal internet access, such as Sumba, most of the learning activities were carried out in a very simple way. The teacher distributed photocopies of materials and assignments to students' houses. Then, the next day, the teacher picked results of the assignment. Learning activities were almost non-existent. The teacher worked like a postman delivering photocopies of the materials and assignments. While at home, with the education level of most of the parents being also low and their busy work, students got almost no knowledge when face-to-face learning activities were terminated.

This problem motivated the co-founder of Footprints to establish alternative learning media for children. To purchase radio station equipment, funds were raised from donors. However, for the cost of travel and accommodation during the radio establishment process, a public fundraiser using kawanberbagi.org, an Indonesia-based donation website, was used.

The first community radio in Lewa was physically established in September 2020 but only broadcast in November. The radio station is located at the Lewa Theological College. The choice of this location is due to the availability of electricity and a relatively stable internet network. From the radio initiation in Lewa, stories about alternative learning media spread out on social media. Eventually, a donor of the program in Melolo found out about the initiatian of the establishment of the community radio.

This donor helps the missionary program of the Indonesian Christian Congregation (JKI) on Sumba Island. The missionaries activities related to religious and humanitarian services. The daily humanitarian activity they do is early childhood education (*Pendidikan Anak Usia Dini*/PAUD). There are more than 20 children in this PAUD. In addition to PAUD, they have established five service posts in the Umbululu sub-district. In these five posts, they also made additional learning activities for elementary school (*Sekolah Dasar*/SD) and junior high school (*Sekolah Menengan Pertama*/SMP) students. In total, there are more than 100 children, PAUD, SD, and SMP, served by eight JKI missionaries.

JKI missionaries also build relationships with formal schools in Melolo. During the Covid-19 pandemic, formal schools were also affected. JKI concerned about the problem of online learning from school partners. The frequent power outages, unstable internet signals, and the unavailability of adequate devices and data packages made online learning activities impossible for all students. The remote learning problem was then conveyed to the donors. One of the donors who knew about the initiation of community radio in Lewa, offered to fund the establishment of a radio for learning activities in Melolo. To ensure that radio is suitable for their needs, the JKI missionaries visited the radio station in Lewa. They concluded that a similar radio initiation would greatly assist learning activities for children in Melolo.

Radio Station Funding and Establishment

The problem faced by 3T regions such as Sumba is the combination of economic, education, and infrastructure. This prolonged underdevelopment of the region creates complex tangible and intangible impacts on the community. Naficy (2021: 830) concludes that there is a need for the role of the outsiders when complex problems occur in the community that cause the lack of self-confidence, hope, and shared mentality of passiveness.

Historically, community development in Indonesia was funded by external organizations and dominated by international agencies (Kenny et al, 2017: 109). The involvement of funding institutions in establishing community radio as a medium for community development has occurred since the early development of the media in the early 2000s. Several institutions have been recorded to have funded community radio, either in the form of initiation of establishment or strengthening of human resources, namely the Combine Resource Institute, Internews, and Unesco (Dwiana, 2021). This style of community development funded by external community institutions is still ongoing today, one of which occurred at the initiation of community radio in Melolo.

The establishment of radio for remote learning in Melolo was through agreement among JKI church, Footprints Foundation, and donors. Donors are those who provide funds for the establishment of radio stations and the purchase of radio receivers. For the establishment of a radio station, funds were raised among donors. Meanwhile, for the purchase of radio receivers for the communities, public fundraising was conducted.

The Footprints Foundation provided time and energy for the establishment of radio stations and basic training for radio operations. In the process of establishing a community radio in Sumba, this foundation invited several volunteers who have technical expertise in radio establishment, including an activist from the Indonesian Community Radio Network (JRKI). The other two were volunteers from Tangerang, Banten. In total there were four personnel who joined the initiative of the radio station.

In the process of establishing the radio station, technical work, such as digging holes to plant antenna poles, helping to erect transmitting antennas, and providing food for volunteers was carried out by community members who live nearby. The community members involved in these activities were young people and were still or have been students of the JKI missionaries.

The total cost of purchasing radio device (transmitter, booster, and antenna) is about IDR 20 million. A problem when setting up stations in the 3T area is transportation costs. All required tools must be purchased in Java. So, when the devices are installed in rural areas, the cost of purchasing and transportation can be almost the same or even higher. Fortunately, for the establishment of radio in Melolo, there was support for ship costs so that no extra money was needed for transporting the equipment.

Apart from equipment, technically, it takes a lot of other equipment which, if purchased in Java, the packaging would be very large. Therefore, some tools are better purchased in Sumba, but buying on this island is also risky because it is often out of stock. Creativity is needed because, for example, if there is no iron pipe for mounting the antenna, bamboo can be used. This is where the role of the JKI missionaries in Melolo plays. As they are used to live with minimal facilities, they learn specific skills. For example, to do the welding of the iron connection of the antenna. One of the JKI missionaries is skilled and has adequate tools like a welder. The installation process for the radio equipment began on April 15th, 2021. The team from Footprints arrived at Melolo in the late afternoon. There was not much to do on the first day as electricity had yet to recover and the lighting provided was minimal. On the second day, the antenna installation process began. The antenna was installed by midday. However, several other devices had not yet arrived in Melolo as they were still stuck at the port in Waingapu. It was only in the afternoon when the device arrived. With minimal lighting, the team opened and checked the completeness of the device.



Picture 1. The Team Worked under Minimal Light (Photo by: author)

On the third day, the process of establishing the radio was continued. The most difficult thing was to find a safe place to connect cables and devices. The topography of the Melolo region dominated by land with a low slope made the wind blow very hard. It took more than half a day to install cables and other radio equipment. By the afternoon of April 17th, 2021, the radio, named Love Sumba FM, was broadcast successfully. Antenna power was 150 watts, the radio could cover 15 km of air remote.

Radio Management and Its Sustainability

After the radio was technically established, its management was handed over to the JKI church. The radio coordinator is one of the JKI missionaries, who is also active in teaching at PAUD school. She was appointed to manage the radio because she is experienced as a broadcaster when working in Singapore. This experience is very useful when learning technical things in broadcasting. In addition, these skills can increase the confidence to broadcast.

The initiation of community radio for remote learning in Sumba does not yet have a clear long-term target. A criterion of the success is limited to the radio being able to broadcast. Ensuring the radio equipments will work continuously is a another matter. Learning from the

radio initiation in Lewa, it was almost three months that the radio did not broadcast because of problems with radio transmitter.

To anticipate the same problem, in this program, the team brought a backup transmitter. This transmitter can be used directly by radio stations in Lewa and Melolo if there is a problem with the device in the future. If the equipment cannot be fixed on Sumba, it should be sent to Java. Backup transmitters can be used by radio stations so that he learning program will not stop due to technical problems.

The targets of Love Sumba FM radio are high school students. The radio collaborated with one of the secondary schools in Melolo to broadcast remote learning. Even though it was just being initiated, the invitation to broadcast was enthusiastically responded by the school by making a written commitment to cooperation. The subject teachers broadcast daily on Love Sumba FM. So far, there are 20 teachers who take turns teaching on the radio.



Picture 2. Situation of Remote Learning in Love Sumba FM Studio (Source: Love Sumba FM)

Radio learning broadcasts are still searching for the right format. Radio has not been able to replace the classroom, especially for children in the Sumba area. Although teachers can deliver lessons well and creatively, the educational abilities of children in the 3T region are far below average. This can be seen, for example, from students' literacy skills. There are some high school students who are unable to write or read. Another learning obstacle is language ability. In Sumba, people still use the local language. Therefore, their Indonesian language skills are somewhat limited. On the other hand, it is impossible to use the local language because there are so many local languages in Sumba. Radio only relies on audio verbal language. The limitation of the language factor will require more time to find the right learning format for students in Melolo.

Community development is left entirely to JKI. Institutionally, the possibility of forming a community in Melolo is promising. Even though it is church-based, Love Sumba FM still

prioritizes programs for the general public. Cooperation with schools for remote learning and religious activities that have been carried out by JKI is a potential for legal community formation. The ultimate goal of forming a community is to legalize radio stations. Based on the applicable regulations, for a community radio license, a minimum of 250 people must apply for a community radio. Therefore, community formation is a requirement if Love Sumba FM decides to operate legally.

Discussion

The digital divide is a complex problem that represents many layers of problems in a community. In the context of the 3T region, there are various problems that make the need of access to digital media very difficult to meet. In 3T regions like Sumba, there are 3 types of digital gap that stem from various problems: gaps in internet access, gadgets, and internet credit. Inequality in infrastructure development in 3T regions makes access to internet signals minimal or even not available at all. Meanwhile, the low level of the community's economy is the reason for other two problems, the difficulty in providing proper gadgets and purchasing internet credit.

Even though economic is one of the triggers of the digital divide, solving an economic issue does not automatically solve the problems. The Indonesian Government is trying to solve some of the impacts of economic problems on the digital learning process. There is a distribution of learning quota for students and teachers. This program is only effective for people in areas with adequate internet access and already have devices that are compatible with digital learning process. Meanwhile, people in the 3T regions do not yet have both. Community radio for remote learning is an alternative when the digital divide cannot be addressed immediately or with short-term and partial solutions such as the distribution of internet quota by the government.

The problem of the digital divide is rooted in the problem of the development gap, especially between developed regions and 3T regions. Not only related to the internet network, but more basic needs such as electricity are also still problematic. During the process of establishing a community radio in Sumba, the location of the radio station must take into account the availability of electricity. The first community radio station in Lewa was set up in the Theological College complex, instead of in the school environment, because in the college complex, electricity is available. In addition to better electricity availability, an electric generator is ready for use in case of a blackout.

The effect of development inequality is worsening when a disaster occurs. Inequality of development should be the government's consideration in disaster management. One of the most basic government functions is disaster management (Bang and Kim, 2016). If the government is unable to make the right decision in disaster conditions, then the existence of the government must be questioned. Making an online learning policy during Covid-19 is a mockery for people whose electricity has not flowed in their area. The distribution of internet quota is only useful for people who have digital devices, while students in the 3T regions are still using oil lamp chimneys. So it is not wrong if Castells (2001: 3) says that the digital divide is the most damaging form of exclusion on our economy and in our culture.

Organizations such as Footprints and its donors consider that the establishment of community radio as an alternative media can answer problem in remote learning during disaster.

The existence of community radio for remote learning is not only useful during the Covid-19 pandemic. The reason of additional learning activities for elementary and junior high school students carried out by JKI church is because the level of knowledge of students in this 3T regions is far below the average. Love Sumba. FM radio can be used even after the pandemic. Students in Sumba do not have the luxury of internet network to take additional learning on digital platforms. Radio is an alternative for students in the 3T regions to catch up with students from the cities.

Community involvement in the process of establishing and managing radio is a question because initiation actually comes from outsiders. Historically, the practice of community radio is very diverse in Indonesia, which includes the background of the establishment of radio, the initiator, to the programming. Research by Prakoso and Nugent (2005: 30) notes that in the early years community broadcasting was recognized in the Broadcasting Law No. 32 of 2002, not all community radio stations fit to the conception of community empowerment. Some have developed as an individual's hobby, others from someone's desire to gain power and influence over the community. Others may represent attempts by individuals to use the lax regulatory regime to take a first step towards commercial radio.

The use of community radio frequencies by various groups is the impact of the lax rules for accessing frequencies in the Broadcasting Law. Article 21 states that community broadcasting institutions are broadcasting institutions in the form of Indonesian legal entities, established by certain communities, independent, and non-commercial, with low transmitting power, limited area coverage, and to serve the interests of their communities. This definition allows almost any institution to establish community radio.

The legalization of community radio in the broadcasting system encouraged many parties to take advantage of regulatory loopholes to establish radio stations. Several non-governmental organizations such as NGOs and religious institutions set up community radio as a medium for empowerment and *da'wah*. Educational institutions such as schools and colleges also have community radio stations. Not only non-governmental organizations, even the government also uses community radio frequencies. The Ministry of Communication and Informatics (Kominfo) has also established community radios as part of the Information Village Program in various regions in Indonesia (Juditha, 2015: 10).

Referring to the definition presented by AMARC (International Community Radio Association), community radio is 90% community, and 10% radio. AMARC believes that access by the community and community participation should be the main determining factors in the establishment and operation of community radio (Carpentier, Lie, and Sevaes, 2003: 53). However, even in countries that are member of AMARC, the perception of community radio is very diverse because it is motivated by the practice in each country (Dwiana, 2021: 288). Historically, funding and establishment of community radio is varied and does not only come from internal communities. In addition to historical factors, funding from outside the community is also caused by the condition of the community which is economically unable to initiate the establishment of a radio station. In the case of Love Sumba FM located in the 3T area, apart from economic factors, there is also a problem with community knowledge in radio operations.

Footprints cooperate with JKI Church in radio operations. JKI Church has available human resources capable of managing the radio. The lack of community involvement in the radio initiation process for remote learning is unavoidable. The timing factor becomes very important to immediately meet the learning needs of students. However, if radio managers want to legalize Love Sumba FM, broadcasting regulations require the community to be involved in the radio management.

The problem of some community radio stations in Indonesia if that they are reluctant to apply for permits. Community radio licensing must be managed up to the ministerial level. The process must start from the formation of a community which must be legalized at the ministerial level as well. In addition to a long process, the legalization of community radio requires funds to pay the fees for the principle permit, the fee for a fixed permit, and the cost of extending a fixed license (Dwiana, 2021: 277).

The initiation of community radio in Melolo can be categorized as top-down. When there are donors who are willing to donate, then the radio can be set up. Not the other way around, the community realizes the need for community media and makes a plan to make it happen. Initiative due to funding support is often unsustainable when funds are no longer come. If at the time of the licensing process no assistance and financial support exists, it is possible that the existing radio has not been taken care of. If the government does not demand a permit, radio can broadcast illegally. But if there is a raid, the radio will be forced to stop its program.

Conclusion

Initiation of establishing a community radio in the 3T regions greatly helps the education process during the Covid-19 pandemic. Regions that have digital divide problems need alternative media to implement remote learning. The initiation of community radio comes from outside in collaboration with local institutions or communities. Funding works from donations and technical work are carried out by volunteers from outside the area together with members of local institutions/communities. Community radio management is left to local agencies. In order to ensure the continuity of broadcasting, a radio broadcast permit must be arranged, the process of which is left to local institutions and communities.

References

- AMARC (World Association of Community Radio Broadcasters). (2007). Community Radio Social Impact Assessment Removing Barriers Increasing Effectiveness, Challenges, Findings, Reflections, Experiences, Lines of Action for Community Radio stakeholders AMARC Global Evaluation. AMARC: Montréal (Québec) Canada.
- Bang, Min Seok & YunYoung Kim. (2016). Collaborative Governance Difficulty and Policy Implication, Case Study of The Sewol Disaster in South Korea. *Disaster Prevention and Management*, Vol. 25, No. 2, pp. 212-226, DOI 10.1108/DPM-12-2015-0295.
- Carpentier, Nico, Rico Lie, dan Jan Servaes. (2003). Community Media: Muting the Democratic Media Discourse?. Continuum: Journal of Media and Cultural Studies. Vol. 17, No. 1.
- Melville, Barry. 2006. Digital Challenges for Community Broadcasting. *Media International Australia Incorporating Culture and Policy*. No. 120, pp. 10-13.
- Dwiana, Ressi. (2021). Kemunduran Radio Komunitas (Community Radio Setback). Dissertation: Universitas Indonesia.

- Dwiana, Ressi, Ade Armando, and Mario Antonius Birowo. (2020). Emergency Broadcasting Radio in Indonesia: Comparative Studies in Lombok and Palu. *Journal of Disaster Research*, Vol. 15 No. 5,
- Forde, Susan, Kerrie Foxwell, and Michael Meadows. 2002. Creating A community Public Sphere: Community Radio As A Cultural Resource. *Media International Australia*, No. 103, pp. 56-67.
- Fuchs, Christian. (2009). The Role of Income Inequality in Multivariate Cross-National Analysis of the Digital Divide. *Social Science Computer Review*, Vol. 27 (1), pp. 41-58, DOI: 10.1177/0894439308321628.
- Fuller, Linda K (Ed). (2007). The Power of Global Community Media. New York: Palgrave Macmillan.
- Gunkel, David J. 2003. Second Thoughts: Toward a Critique of the Digital Divide. *New Media and Society*, Vol. 5 (4), pp. 499–522.
- Guritno, Tatang. (2021, April 6). Ini 10 Wilayah Terdampak Bencana Alam di Provinsi NTT. Retrieved from https://nasional.kompas.com/read/2021/04/06/17325831/ini-10wilayah-terdampak-bencana-alam-di-provinsi-ntt?page=all.
- Haddow, George D and Kim S. Haddow. (2008). *Disaster Communications in A Changing Media World*. Burlington: Butterworth-Heinemann.
- Houston, J. Brian, Betty Pfefferbaum, & Cathy Ellen Rosenholtz. (2012). Disaster News: Framing and Frame Changing in Coverage of Major U.S. Natural Disasters, 2000–2010. *Journalism & Mass Communication Quarterly*, 89(4), 606–623, DOI: 10.1177/1077699012456022.
- Ibrahim, Zane. (2000). Tarzan Doesn't Live Here Anymore: Musings on Being Donor-Sponsored in Africa. *International Journal of Cultural Studies*. Vol. 3 (2), pp. 199-205.
- Ihsan, Dian. (2020, November 13). Mendikbud Nadiem: Pembenahan Kesenjangan Daerah 3T Akan Jadi Prioritas. Retrieved from https://www.kompas.com/edu/read/2020/11/13/102946471/mendikbud-nadiempembenahan-kesenjangan-daerah-3t-akan-jadi-prioritas.
- Juditha, Christiany. (2015). Pemberdayaan Radio Komunitas sebagai Media Informasi di Tapal Batas Papua. *Jurnal Komunikasi Profetik*. Vol. 08, No. 01, pp. 5-18.
- Kamil, Irfan. (2020a, August 18). Survei SMRC: 67 Persen Responden Kesulitan Sekolah Online. Retrieved from https://nasional.kompas.com/read/2020/08/18/21335871/survei-smrc-67-persen-responden-kesulitan-sekolah-online?page=all.
- Kamil, Irfan. (2020b, May 23). Memperjuangkan Hak Belajar Siswa di Daerah 3T, Tanpa Ponsel dan Kuota. Retrieved from https://www.kompas.com/edu/read/2020/05/23/165205771/memperjuangkan-hakbelajar-siswa-di-daerah-3t-tanpa-ponsel-dan-kuota?page=all.
- Kasdan, David Oliver. (2019). Dichotomies of Disaster Management: A Reflection on the Politics of Efficient Decision Making. *Disaster Prevention and Management*, Vol. 28 No. 5, pp. 670-676, DOI 10.1108/DPM-07-2018-0226).
- Kenny, Sue, Azwar Hasan, and Ismet Fanany. (2017). Community Development in Indonesia. *Community Development Journal*, Vol. 52, No.1, 107-124, doi:10.1093/cdj/bsw059.
- Lodu, Dionisius Umbu Ana. (2021, April 24). Kasus Covid-19 di Sumba Timur Naik Tajam, RSUD URM Setop Layanan Rawat Inap Anak. Retrieved from

https://regional.inews.id/berita/kasus-covid-19-di-sumba-timur-naik-tajam-rsud-urmsetop-layanan-rawat-inap-anak/all.

- Milner, Helen V. (2006). The Digital Divide, The Role of Political Institutions in Technology Diffusion. *Comparative Political Studies*, Vol.39 (2), pp. 176-199, DOI: 10.1177/0010414005282983.
- Naficy, Alireza et al. (2021). Understanding the Role of Outsider in Community-Based Development Interventions: A Framework with Findings from Iran. *Voluntas*, *32*, 830-845, https://doi.org/10.1007/s11266-021-00339-5.
- Pearce, Laurie. (2003). Disaster Management and Community Planning, and Public Participation: How to Achieve Sustainable Hazard Mitigation. *Natural Hazards*, 28, 211–228.
- Prakoso, Imam, and Nicholas Nugent. (2006). *Community Radio in Indonesia*: A Study for the World Bank. Unpublished.
- Purwanto, Antonius. (2021, January 13). Provinsi Nusa Tenggara Timur. Retrieved from https://kompaspedia.kompas.id/baca/profil/daerah/provinsi-nusa-tenggara-timur.
- Rogers, Everett M. (2001). The Digital Divide. Convergence: The International of Research into New Media Technology, Vol. 7 (4), pp. 96-111, <u>https://doi.org/10.1177/135485650100700406</u>.
- Schloman, Barbara F. (2004). The Digital Divide: How Wide and How Deep?. Online Journal of Issues in Nursing.
- Seo, Yohanes. (2016, May 16). Nusa Tenggara Timur Cari Nama untuk 760 Pulau. Retrieved from https://nasional.tempo.co/read/771074/nusa-tenggara-timur-cari-nama-untuk-760-pulau.
- Sudibyo, Agus. (2004). Ekonomi Politik Media Penyiaran. Yogyakarta: LkiS.
- Tanesia, Ade. (2007). Women, Community Radio, and Post-Disaster Recovery Process. *Women in Action.* 2, 68-76.