

COLLABORATIVE ALUMNI – STUDENT COMMUNITY SERVICES IN LOMBOK EARTHQUAKE AFTERMATH: A NEW DISASTER RESPONSE AND RECONSTRUCTION PERSPECTIVE

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ABSTRACT

In 2018, Lombok has been hit by three big earthquakes on July 29th, August 5th, and August 19th. A 7 SR earthquake on August 5th caused major damage for Lombok Island including Gumantar Village in North Lombok. All permanent and important buildings collapsed such as houses, schools, and Mosques that caused people lost their home and paused all their activities. Beside physical damages, electricity and waterways also collapsed, in addition there were trauma among the people because of the earthquake. This kind of situation triggered response from many people including student and Alumni of UGM or KAGAMA who came right away after the earthquake to Gumantar as volunteer then known as Kagama Care. After that, UGM also send the students from various disciplines as Student Community Services Disaster Response UGM to involve and help in the reconstruction and recovery after the earthquake. Recovery process is performed through program in four sectors: social, infrastructure, health, and logistic. The recovery process itself is a collaboration between Kagama Care, Student Community Services UGM, DERU UGM, volunteers and also Gumantar people. The aim of this program is not only about helping the victims but also preparing them to continue their daily activities like before the disaster occurred. There are some results that successfully accomplished, such as initiate temporary school, rebuild Mosque, repair waterways system, build sanitary facilities (MCK – Mandi Cuci Kakus) and provide health service and health facilities for the people.

Keyword: service community, collaboration, sanitary, education, health

INTRODUCTION

KKN Peduli Bencana-Universitas Gadjah Mada (KKN PB-UGM) or Universitas Gadjah Mada-Student Community Service (SCS) Disaster Response is a quick response to the disaster, for this case was the earthquake in Lombok which caused great damage. Student Community Service is a form of direct contribution in the community in the midst of emergency response situations, where in this case there were 30 students departed to Lombok for one month period of contribution in the community. Not only contributing in disaster

response, but PB KKN is also a form of community service as one of the *Tri Dharma tertiary institutions* (Direktorat Pengabdian Kepada Masyarakat, UGM).

Students who went to Lombok and did disaster relief and volunteer activities were not working alone. There were various social elements and parties that together with students helped post-disaster recovery in Lombok, precisely in Gumantar Village. Volunteers were chosen from fellow students and the public, UGM alumni who are members of KAGAMA Care, DERU UGM, and of course the participation of the surrounding community itself. Students went into the field to find out clearly what the problem was and how to resolve it.

North Lombok as an area affected by the earthquake was severe enough to get the attention of various parties to get assistance, but unfortunately, it was not quite evenly distributed and reached all villages. One village that is quite far away is Gumantar Village, which is an option so that assistance will be more useful and on target. Some of the problems that arise after an earthquake such as infrastructure are damage to people's homes, public facilities such as mosques and schools, and damage to water pipes which hamper the distribution of water and sanitation. In addition, health problems also arose because of poor sanitation and inadequate conditions of temporary shelter (tents). Infrastructure damage also has an impact on social life such as the cessation of economic activities, school activities, and the inhibition of spiritual activities in the mosque.

From these problems, students and other volunteers try to help by not only providing assistance themselves but inviting citizens to participate in the post-disaster recovery. Reviving various activities in Gumantar Village is one of the most effective ways in post-disaster recovery and reconstruction because the community is also involved in it. Students act as initiators and facilitators in various activities to revive Gumantar Village

METHOD

Student Community Services as one of the forms of community service precisely aims to increase students' awareness of the surrounding community, especially in areas affected by disasters so that they can develop student empathy. Empowerment also remains an important part of community service with the aim of post-disaster rehabilitation and reconstruction. Community empowerment is intended to strengthen the community itself by placing them as important actors. Engaging the community in rebuilding and post-disaster improvement activities is the method that the Student Community Services team is doing so that it is also a form of community empowerment. In addition, the Student Community Services program also applies Education for Sustainable Development because as students and are involved in educators, the Student Community Services team also has an obligation to provide awareness in the community, especially in disaster areas that all elements can contribute to sustainable development itself including the economy, environment, and social culture (Gadjah Mada University).

In this community service activity, multidisciplinary and teamwork are the key to running programs. Multidisciplinary here not only means that students from various clusters work together, but students must be ready to work not according to their clusters or fields because of the conditions that require it or can be said to be a form of problem-solving because of limited human resources compared to their needs. Students become more flexible and also adapt quickly to new conditions but remain effective at work.

Theoretically, when doing Student Community Services should be divided into clusters according to the study fields studied, namely Social-Humanities (Soshum), Science-Technology (Saintek), Medical (Medika), and Agro. In particular practice Student Community Services for disaster response, this can not be applied simply because of the limited number of students involved, for the case of Lombok there was no student from Science-Technology cluster. However, the problems that need to be resolved require the expertise of this cluster, besides that there are also problems that must be managed but difficult to categorize into which clusters. So that the division of work in Student Community Services divides into four different teams that are filled by students from various clusters and not always in accordance with their fields, while the four teams are social, infrastructure, health, and logistics teams. Each team has its own programs in accordance with the problems at the field, but members of each team still help each other and work together in the implementation of the program.

Team	Program	Description
Social	Emergency School	Reviving school activity that was stalled after the earthquake
	Processing of Agricultural Products	Igniting the enthusiasm people to work aftermath of the earthquake while utilizing agricultural potential and increasing the selling value of products.
Infrastructure	Construction of Mosque	Rebuilding Mosque that damaged by the earthquake, started with an emergency mosque then continued to the construction of the Bamboo Mosque
	Improvement of Waterways and Sanitation Systems	Improving the irrigation system damaged by the earthquake and increasing it, as well as providing adequate MCK or sanitary facility for the people in Guntar.
Health	24 hours Clinic and Home Visit	Providing free, close and easily accessible health services for residents.
Logistic	Distribution of aid and management of post	Providing assistance for residents with the right target .

CONTENT

3.1 Emergency School

The earthquake caused total damage to the education facilities and infrastructure of SDN 04 Gumantar, causing a vacuum of learning activities for approximately 4 weeks. Students lost their playground, gather with friends and study. In addition, this situation also causes children to roam without any supervision and useful activities in the areas of Tenggorong Hamlet (Dusun Tenggorong) and Beleq Hamlet (Dusun Beleq).



Emergency School at UGM Post

The construction of emergency schools aims to provide play and learning space for students as a solution to prevent the vacuum of learning activities too long after a disaster, reconnecting children's social relations with their closest friends and teaching staff, as well as indirectly a trauma effort healing for both children and teaching staff and parents of students. Through the collection of financial assistance and education logistics from various parties, two temporary (semi-permanent) school buildings built of bamboo, wood and palm fiber roofs were constructed with each building measuring 12m x 6m x 5m. The construction site is in the former SDN 04 Gumantar building while waiting for the school building to be rebuilt permanently. This development was carried out by considering the convenience of access to education for 167 students and 11 teaching staff including the principal. The duration of school construction takes 6 days starting from 12 September 2018 until it is completed on 16 September 2018.

On September 18, the inauguration and handover activities were carried out to the school from representatives of donors and students. In addition to the construction of physical school buildings, the provision of educational logistics in the form of stationery, such as: notebooks, picture books, pens, pencils, paper erasers, tapering, and rulers (167 units each), whiteboards and erasers (as many as 7 units), as well as a study table measuring 80 x 40 x 30 cm (88 units). In the process of building schools, local communities work together with students and donors. While in terms of funding, several parties were involved as donors,

including Canyoning Lombok; Edelweiss Out Bond; Surabaya Cares; and CMO - PT. PP (Persero) Tbk.



Semi-permanent school building for SDN 04 Gumantar

The construction of these temporary schools has actually been started since August 28, 2018. However, due to limited funds and support from donors to establish more conducive and more representative school buildings, teaching and learning activities are temporarily carried out at the UGM Post. The temporary school which was previously established consisted of a set of tents and 1 set of tarpaulin which was formed as a tent roof using bamboo poles. Emergency schools are conducted every Monday-Saturday wearing free uniforms. On Monday-Friday learning and teaching activities are carried out normally, but especially on Saturday there are no teaching and learning activities but they are filled with morning exercises together.

The trauma healing activity was also carried out as an effort to alleviate trauma for the community after the earthquake disaster in West Nusa Tenggara. In the program, this time Student Community Services team collaborated with a team of 10 volunteers from DERU UGM from the discipline of Psychology and Midwifery. This trauma healing activity was carried out with learning and playing methods that do not impose children's thoughts and do not require them to think critically but become activities that are primarily aimed at eliminating the traumatic experiences experienced by each child. In particular, this activity was specifically aimed at students and children from 7 hamlets out of a total of 16 hamlets in Gumantar Village (Beleq Hamlet, Tenggorong Hamlet, Gumantar Hamlet, Paok Gading Hamlet, Nangka Lombok Hamlet, Amor-amor Hamlet and Dusun Dasantreng) or incorporated into the education coverage area of 4 elementary schools, namely SDN 02, 03, 04 and 05 Gumantar. Due to the limited time and staff, unfortunately, educational assistance and logistical distribution activities cannot be carried out and sent to SDN 01 Gumantar by Students in the 1st batch of Student Community Services. However, in the hope that these activities can be carried out by the second batch team.



Trauma healing activity at SDN 05 Gumantar

The first trauma healing activity was held at the UGM Center Post along with the DERU volunteer team every day at 7.30-9.00 WITA for 8 consecutive days before the teaching and learning activities carried out by the teachers commencing on 29 August 2018 with the main target students of SD 04 Gumantar totaling 110 out of a total of 167 children. The second trauma healing activity was held at the SDN 2 Gumantar (Emergency School) as well as the DERU volunteer team every day at 7.30-9.00 WITA for 4 consecutive days before the teaching and learning activities were held by the teachers aimed at 199 children. This trauma healing activity was also carried out by collaborating with a team of UNS volunteers from March 30, 2018. The third trauma healing activity was held at SDN0 3 Gumantar School every day at 7.30-9.00 WITA for 3 consecutive days before the implementation of teaching and learning activities by teachers as of September 12, 2018, with a target of 183 children. The fourth trauma healing activity was held at the SDN 05 Gumantar (Emergency School) at 7.30-9.00 WITA for 1 day due to limited time and staff. This activity was also carried out before the commencement of teaching and learning activities by teachers on September 17, 2018, with a target of 91 children.

3.2 Processing of Agricultural Products

The natural potential that exists in Gumantar Village, especially Beleq Hamlet can be considered quite abundant, this can be proven by the amount of land planted with the dominant types of coffee plants, bananas, and cashew. The determination of the Student Community Services program regarding the processing of agricultural products was initiated because of the less empowerment and the implementation of the processing and marketing of products. Several types of plants used to process products of economic value include bananas, coffee, and cashew nuts.

Post-disaster was one of the obstacles for the surrounding community in processing products. However, if the cessation of this production activity can actually be considered to be able to provide loss and decrease in the income of the surrounding community to meet their needs. Processing of agricultural products is currently led by KWT (Kelompok Tani Women) Molah Mudi Dusun Beleq which was founded in 2017. Commodities of coffee and banana plants in Beleq Hamlet have been processed into typical local products namely packaged coffee and banana chips. However, cashew type plants in Gumantar Village have not been processed into a product that has a high value. Cashew nuts are only sold in the form of

unprocessed raw cashew at very cheap prices of Rp. 19,000.00 / kg, so this is the basis of team initiation. Student Community Services in planning new products in the production of agricultural products so that the KWT is increasingly developing and producing. One name of processing this agricultural product is "One Brand One Village".



The product of Cashew Chips



The processing of Cashew Chips

The discovery of new product innovations in the form of cashew fruit chips can be considered to have a higher selling value compared to the yield of the cashew nuts. The basic ingredients in the form of cashew fruit are very effective to be processed into food products because in addition to having a substance in pseudo-fruit, cashew nuts that are good for health, cashew fruit is also more useful and optimized, because in general, cashew nuts only become waste and as animal feed only without the use of healthy local food products. The agricultural production processing program produced a new type of cashew chips and introduced a new brand in the theme "One Brand One Village" namely "Gumtar food" for 3 types of products in Beleg, Gumantar Village including banana chips, guava chips, and Gumantar coffee.

The price range for the processing capital of agricultural products is a total of Rp. 90,000.00 for food ingredients, frying ingredients, and packaging while raw materials are free from nature. Then the selling value offered on banana chips and cashew chips is Rp 10,000.00 / pack with each package is 100 grams. While coffee products are offered at a price of Rp. 20,000 / pack in units of 150 grams. Planning certainly needs to be taken into account carefully about the beginning of capital, implementation, to marketing so that production can continue to run and get a big advantage for the sustainability of the "Gumtar Food" business. This agricultural production processing program can provide opportunities for residents, especially the KWT to be creative and active in conducting independent business and can provide the added value of their own income on the other side of their livelihoods as farmers. The realization of an agricultural production processing program with a new brand in the theme "One Brand One Village", namely "Gumtar food", is expected to continue and can bring innovation to the latest and innovative special foods to be developed, produced and marketed to outside the island of Lombok , so that a high economy can be realized for a prosperous society and life.

3.3 Improvement of Waterways and Sanitation Systems

Although in the Health Profile 2017 (Kementerian Kesehatan Republik Indonesia, 2018), West Nusa Tenggara Province (NTB) ranks second in the implementation of community-based sanitation, public hygiene issues are one of the problems that still need attention, especially in Tenggorong and Beleq Hamlet. The level of sufferers of skin diseases and other diseases that are quite high comes from the behavior of bathing, washing, and irregularities due to the lack of optimal sanitary facilities (MCK - Mandi Cuci Kakus) and the availability of clean water. Coupled with natural disasters bring the community to the conditions of all limitations. As a result of the earthquake that occurred on the island of Lombok, sanitation facilities in the form of public bathrooms were totally damaged so that the activities related to sanitary were further hampered. Communities have to travel long distances to get to water sources or alternatively make public bathrooms along the pipeline. This also affects the smooth distribution of clean water in the hamlets. There, needed a concrete action to achieve stabilization of post-disaster conditions in Tenggorong and Beleq Hamlets. With the aim of facilitating the improvement of the community's clean lifestyle, especially those living in the hamlets of Tenggorong and Dusun Beleq, it is necessary to build sanitary facility.

There are two sanitary facilities sites, namely at the location of the land belonging to the Head of Beleq Hamlet, which is located in Tenggorong Hamlet (Location of UGM Post) and Tenggorong Bamboo Mosque. The sanitary facility established at the UGM Post was an emergency sanitary facilities that was obtained through assistance from the UGM Faculty of Engineering and the Ministry of Public Works and Public Housing (PUPR). Aside from being a public facility for the local community, Emergency sanitary facility is also used to support post's activities. The construction was carried out for two days with the help of the local

community, and collaborated with Kagama Care Volunteers, Student Community Services Pemenang Unit (Engineering Students), and Lecturers from the Faculty of Engineering UGM.



Sanitary facility from Faculty of Engineering UGM



Sanitary facility from Ministry of Public Works and Public Housing

The process of building was carried out on 24-26 August 2018. Three emergency sanitary facilities are preferred to cover sanitary needs in the two hamlets. One toilet measuring 1x1 meter with facilities in the form of a bowel movement and tap water. Then for one of the 3 x 1.5-meter toilets which are divided into two bathrooms with a toilet and a tub of water in it. These three emergency sanitary facilities get water supply from the water source network used by the residents, accommodated in a public hydrant tank. Disposal of liquid waste through a septic tank measuring 2.5 x 2 meters with a depth of 3 meters connected to PVC pipes in each toilet.



Permanent sanitary facility

Not just stop at the emergency sanitary facilities, as a form of sustainability of facilities to support the behavior of clean and healthy living in the surrounding community, permanent sanitary facilities is directly initiated by students with the local community as the spearhead of the implementers. The sanitary facilities is placed in the prospective Tenggorong Bamboo Mosque with the reason of being the center of community activity in the hamlets of the region. Permanent sanitary facilities which was established at the location of the Tenggorong Hamlet bamboo mosque was carried out in conjunction with the construction of a temporary and permanent mosque on September 7 - 30 2018. The required material procurement was supported by various groups including the Saudi Kagama, IATMI (Indonesian Petroleum Engineering Association), and Kagama Care.

3.4 Construction of Mosque

One of infrastructures that was destroyed because of the earthquake was the Al Falah mosque in Tenggorong Hamlet. This mosque is used as a community worship center in the Tenggorong Hamlet and Beleq Hamlet, with a population of nearly 1,000 people and the majority adhering to Islam. The mosque is also used as a center of friendship, and information for the surrounding community. Damage to the mosque due to the post-earthquake caused a decline in worship activities and other community activities.



Collapsed Mosque at Tenggorong Hamlet

The impact of the cessation of activities in the mosque that was most noticeable was the absence of a call to prayer (Adzan). This was felt by the residents at Kagama Care post, they felt the time was running very fast because there was no time change marker. Only the rising and setting of the sun becomes a marker of time so that time seems to run fast, unlike when there is a call to prayer that reverberates five times a day.

The Tenggorong Mosque is also used as a place to teach the Koran for children and adolescents in Tenggorong and Beleq. The number of students studying in this mosque before the earthquake occurred was 60 students. And when after the quake the reciting activities stopped completely, the children were still traumatized by the earthquake and they were still afraid to move outside the home environment.

The villages environment was quiet and there was no traffic to the mosque. Within this conditions of disaster that caused property damage and deaths, people need to pray and surrender to the Creator. Because by praying and surrendering, earthquake victims will be mentally stronger in the face of trials. So it is expected that the community's spirit arises from the impact of the earthquake experienced.

Based on the results of the assessment outlined above, Students Community Service and Kagama Care initiated the improvement of Worship Places and revived activities in Mosque through several programs, including: the construction of Emergency Mosques and the improvement of the completeness of Worship, Construction of Temporary Mosque, construction of permanent mosque / Bamboo Mosque and reactivate landfill activities.



Temporary Mosque using tent

The construction of the Emergency Mosque was held on August 19, 2108, 3 days before the Eid al-Adha holiday. The Emergency Mosque was built next to the ruins of the mosque and involved the people of Tenggorong and Beleq in its construction. The emergency mosque building is in the form of a tent that has a tarpaulin supported by poles from bamboo and tarpaulin floors. For worship activities, the Emergency Mosque is equipped with a sound system to proclaim the call to prayer and sermons, as well as a wooden pulpit taken from the old mosque. Congregational prayers and recitation activities begin after the construction of this emergency mosque. Eid al-Adha prayer services are also held at the emergency mosque. The Emergency Mosque lasted for one month and was replaced by a Temporary Mosque because the collapsed mosque area would be used for cleaning activities of the mosque ruins and the construction of permanent mosques.



The temporary Mosque moved to semi-permanent building

Temporary mosque was built outside the waqf mosque area so that worship activities would not be interrupted by the construction of the permanent mosque. Mosques While a semi-permanent building measuring 7 x 11 meters with brick foundations and wooden frame buildings from the ruins of a mosque, the walls of the mosque use plywood and the roof uses tarpaulins from the emergency mosque.



Building the Bamboo Mosque

Permanent mosques will be built on the foundation of the old mosque. The size of the old mosque's foundation is 12 x 12 meters, while the permanent mosque will be built 9 x 9 meters. The mosque to be built as a form of building that adopts the traditional form of Lombok's traditional mosque. The main material of this mosque is bamboo. Bamboo is chosen as the main material because bamboo is more earthquake-friendly than concrete material. This has been proven by the collapse of traditional houses in Tenggong and Beleg whose material is made of bamboo and wood.

The choice of bamboo as the main material for the permanent mosque was Kagama Care's attempt to provide a model for the community in choosing building materials other than concrete because currently, people whose homes were destroyed in the earthquake were still afraid to rebuild their homes using concrete or brick materials. Bamboo is not the only choice as the main building material, there is a choice of wood, mild steel, plywood, kalsiboard, and others that can be used. However, the potential for bamboo to rehabilitate buildings in the Lombok area can be said to be adequate.

Based on the survey results of the "Bambu Bos" team, the bamboo stocks found in Central Lombok and East Lombok were 10,083,536 clumps. From the sample in Pringga Jurang Utara Village, Montong Gading Subdistrict, East Lombok showed in 1 clump consisting of 25 stems. So that the total bamboo culm is 252,088,400 stems. If the maximum

amount of bamboo harvesting is 25% of the existing stock, then the amount of bamboo that is harvestable annually is 63,022,100 stems.

At the planning stage, the 9 x 9 meter Bamboo Mosque uses 100% bamboo as the main material for frames, roofs, and walls. The frame of the mosque uses apus bamboo, and the wall uses double lids, while the roof uses a *sirap pelupuh*. The connection between bamboo uses a bolt, making it stronger and more flexible to resist earthquake. To further strengthen the Bamboo Mosque construction, the base of the bamboo pole is 16 concrete casts planted. Bamboo Mosque is built with a higher size than the traditional Lombok mosque, the aim is to provide opportunities for widening the mosque building if later the mosque will be widened to the east, north, and south. The estimated cost of building this mosque per meter is Rp. 1,200,000, it is estimated that the construction cost is 100 million rupiah. The construction of the Bamboo Mosque building will be carried out by Kagama Care, UGM Community Service Program, Community and in collaboration with the Bambu Bos Team as experts and supervisors.

The fundraising of the Bamboo Mosque was carried out by Kagama Care. Through the Kagama Care network, Rp. 150,000,000 from IATMI donors, Saudi Arabia Kagama and also group and individual donors. After the fundraising was closed, then the order of the Bambu Mosque building was imported from Jogja.

Bamboo materials are ready to use imported from Yogyakarta, although there are many bamboos around the construction site. This is done with the aim of shortening the processing time because there needs to be a bamboo preservation process that takes quite a long time, besides that in Lombok there is no bamboo preservative installation. The bamboo preservation process for the mosque is carried out from 27 August 2018 to 10 September 2018. Preservation of bamboo uses borate solution and takes 2 to 3 days for draining. Scheduled bamboo materials sent from Yogyakarta on September 14, 2018, along with 1 expert and 3 repairmen. Materials sent from Yogyakarta are as follows:

No.	Goods	Specifications		
		Length (m)	Diameter (cm)	Total
1	Apus Bamboo	6		369
2	Reng Bamboo	2		1020
3	Bamboo (<i>pelupuh</i>)	Lids 2		895
4	Bamboo Lids	2,4		5
5	woven	3 x 2		159

6	<i>Sponati</i>	1,35 x 2,25		110
7	Long Drat	1	0,06	932
8	Long Drat	1	0,1	84
9	Nut (<i>mur</i>)		0,06	5592
10	WP		0,06	5592
11	WP		0,1	504
12	Nut (<i>mur</i>)		0,1	504
13	Bamboo stairs	6		2

The construction phase of the mosque began with the cleaning of the ruins of the old mosque. Residents worked together to move materials that cover the foundation of the old mosque. In addition to clean up the debris, residents also prepared locations for bamboo materials. The bamboo material will be placed in the former emergency mosque which is next to the foundation of the old mosque.



Process of building the Bamboo Mosque

After cleaning the mosque debris, the next step is the construction of the mosque as the foundation to support the bamboo mosque frame post. *Umpak* is the foundation used as

the base or base of a simple building that uses a wooden or bamboo frame system. The Bamboo Mosque will be built requires 16 pieces of the pedestal, with a diameter of 40 cm and tall from the floor 30 cm. The Bamboo Mosque's *umpak* is made of concrete buis which is based on 50 cm thick cast concrete, and between cast and pedestal is reinforced with a series of 10 mm cast iron. So the pedestal structure embedded under the floor is 60 cm and that is above the floor surface as high as 30 cm. The work of the peddling is carried out by residents in mutual cooperation. The bamboo that will be assembled should be cleaned first. Bamboo cleansing aims to remove herbs and dirt that sticks to the outer surface of bamboo. This bamboo cleaning takes 3 days and is carried out by the community supervised by Bambu Bos.



Design of the Bamboo Mosque

The assembly phase of the Bamboo Mosque begins with the establishment of the *Soko Guru* Pillar. *Soko Guru's* pillar has a height of 6 meters and stands on 4 pedestals. One pillar of *soko guru* consists of 4 bamboos with a diameter of 8 cm so that the total needed for the *soko guru* is 16 bamboo. Each pole is connected by a beam at the top. One beam consists of 2 bamboos with a length of 3.4 meters, so the total bamboo for the beam is 12 stems. On the wall frame, there are 12 support poles with a height of 2.7 meters. Each pole consists of 4 bamboos with a diameter of 8 cm. The frame stands on a pedestal that surrounds the teacher's shop and is connected by 2 bamboos with a diameter of 8 cm and a length of 9.4 meters. On the roof frame used bamboo jurai, there are two parts of the jurai namely jurai above and lower jurai. The top jurai consists of 4 bamboo stems with a diameter of 8 cm with a length of 3.4 meters, and in the lower jurai consists of 4 pairs of bamboo which each pair consists of 3 bamboo strands which are assembled using bolt nuts. The bottom length is 6.6 meters stretching from the teacher's to the corner of the mosque.

The Bamboo Mosque wall consists of 8 bamboo panel panels. The door used in the Bamboo Mosque is a sliding door which amounts to 4 units, two are on the front and the right and left sides are installed one unit each. The roof of the mosque uses 2 copies and between lids, it is coated with sponati. The upper roof area is 24 m² and the roof area of the bottom / main roof is 144 m². The work of the Bamboo Mosque in addition to the purpose of completing worship facilities is also for the transfer of bamboo construction technology. So that in the process there is an internship program for the surrounding community. The internship program was attended by representatives of the Tenggorong and Belek hamlets,

students from SMK 1 Gondang and SMK 1 Bayan. In this internship program, there is a transfer of technology about the cultivation process, harvesting, selection that, preservation, the design of bamboo buildings, to the process of making bamboo-based buildings.

3.5 Health Care

The initial step was the observation to know the emergency needs of residents and health communities in the region. Observations were carried out by interviewing the community so that the health team got the right location for the work area. The construction of the clinic is located in front of the Kagama Care Command Post in Tenggorong Hamlet, Gumantar Village, Kayangan District, North Lombok Regency, West Nusa Tenggara. Site selection is based on a large area ($> 100 \text{ m}^2$), distance to the nearest house $> 10 \text{ m}$, in an area that can be reached by several families. Gumantar Village, which has 16 hamlets (6366 people), is affected by a significant amount of damage which damages public facilities including public health facilities. Kayangan Health Center is the closest health service that is still operating but has suffered severe damage to the building. The existence of a 24-hour health clinic and mobile puskesmas is expected to reduce the number of morbidity in the working area of the Kayangan Health Center.

Based on the meeting with the Head of Village, Head of Hamlets Beleq and Tenggorong, Kayangan Health Center, Kayangan Health Service, and others, the construction of a 24-hour health clinic was established in the yard owned by Mr. Sahir (Head of Beleq Hamlet). This is because Pak Sahir's yard area is 15 m from the house which has 4 heads of households in one house. The yard has an area of $> 150 \text{ m}^2$. Visualization of the construction location of the 24-hour health clinic is shown in Figure 2. It is expected that the location can be used by residents of Beleq and Tenggorong Hamlet as healthcare facilities for the community.

- Medical Team Programs:

In terms of health, most people suffer from skin diseases and upper respiratory tract infections (ISPAI) in addition to several other technical problems such as the destruction of health institutions and the lack of medical personnel. Thus, it is important to overcome some of these problems along with the provision of health counseling activities as an effort to maintain health in a sustainable manner.

- Home Visit



Home visit activities is aimed to improve health services especially those related to promotive and help in remote areas that are far from the reach of health facilities, in addition to mobile health centers also to monitor the services of the primary health center in general through screening cases of the disease in the local area. The disaster caused at least dozens of casualties and some were injured but due to limited access to people's homes had an impact on the uneven distribution of health services. The team conducted a network of cases of average illnesses in remote areas far from the reach of health services. The initial two weeks of mobile health center activities are carried out 3 times a week, on Monday, Wednesday and Saturday. Two weeks later, the home visit is done every day with a different location. The total number of patients treated by more than two hundred people. Common diseases were skin diseases and respiratory infections. This home visit or mobile health center provides first aid and monitoring of diseases suffered by the community. If you find a disease that requires further treatment, then refer to the nearest health center, namely the Kayangan Health Center.

- 24-Hours Clinic
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The clinic when using tent



After the clinic moved to Huntrap

It was built by the health team and local residents on August 25, 2018. Before that, there was a health service at the previous post but in the spatial and management manner it was not good. The existence of this clinic serves as a temporary health care place if at any time there are residents who need help and have not been netted when a mobile health center is carried out. The health clinic is a 3x6 meter tent built in front of the Kagama Care parent post, but then it moved to huntrap (Hunian Transisi Menuju Permanen) with safety considerations for both patients and medicines. The clinic is open at 08.00 WITA but the team can still serve patients for 24 hours equipped with a more detailed administration (recording) system. There are experts, namely a doctor-assisted by the koas from the UGM Faculty of Medicine. The medicines available are supplied from Pukesmas Kayangan. The medicine needed by the

community is scabimite which is a drug for people with skin diseases (scabies). The total number of people who come to the clinic is an average of 18 people each day. Medicines and medical equipment facilities that support these health clinics are all estimated to require more than 50 million rupiahs. Clinics with small funds can be realized because of the funding from Kagama Care and other donors. In this program, we played a role in the initial assessment of what was already there, the potential for infectious diseases, and what needed to be done besides that we (the first team from Student Community Services) also served in recording or administration and supply of medicines from the Puskesmas.

3.6. Logistic

– Distribution of Aid



Aid distribution to Hamlets at Gumantar Village

Aid is one of the important things for post-disaster situations, so that programs carried out is data collection and distribution of logistical assistance obtained from various parties and channeled through the UGM NTB post in Mataram. We collaborated with Kagama Care who had sought donations and collected assistance. This program is carried out by recording logistical in and out and preparing the distribution to the people affected by the Lombok earthquake, especially in Gumantar Village.

In logistics distribution, the postal team conducted a “needs assessment” to all hamlets (16 hamlets) in Gumantar Village. This was done to find information on the needs of the community, so that aid was distributed on target and in accordance with the needs of the community. Assessment was carried out periodically to update data on community needs. The team also needs to record the demographics of other posts spread in Gumantar Village to anticipate overlapping in the distribution of aid. Logistic distribution is carried out routinely through mobile health center programs, counseling, trauma healing, 24-hour clinics, landfill activities, teaching activities, and community service activities. Distribution of large amounts of assistance is done by dropping.

Every incoming and outgoing logistics is recorded in detail and will be processed for distribution to the public. Logistics to be distributed needs to be sorted and sorted according to the distribution plan. Logistics also need to be regulated in order to cover the entire population in need.

- Management of Post's Kitchen



Cooking activity at UGM Post

Food is an important factor in the disaster management process. In PB PBN in particular, there is a special program for managing nutrition intake and consumption of volunteers and students of KKN through the postal kitchen management program. For a month the kitchen management of the post was carried out alone through the collaboration of KKN and KAGAMA students. These two parties do not depend on the management of the kitchen for the community because they see the post-disaster situation where the community is still focused on the kitchen of their homes.

Through several stages, KKN and KAGAMA students try to carry out the kitchen management strategy independently as follows:

1. Conduct a Survey of Availability of Food Ingredients, Prices, and Shopping in Various Markets

Trauma and infrastructure damage mostly affected the course of buying and selling transactions on the market. This disaster also affected large-scale changes in people's consumption patterns. Food surveys are of course needed. KKN and KAGAMA students conduct market surveys to see what materials can be obtained. And most importantly, any market that has carried out its activities after a disaster occurs. This was needed to know food menus that are not only arbitrarily given to parties at the post. Plus, we see that good nutrition will improve the performance of the parties concerned. This survey was also needed because of the urgency of logistics.

However, it was impossible for residents of the post to only rely on the help that comes in but needs to shop to be able to survive without bothering the surrounding community. For a month, we did shopping several times. It can be said that there are significant differences in the availability of materials on the market. This shows the existence of community business progression to maintain life through the activity of buying and selling food.

2. Conducting Various Simulations Schedule Kitchen Posko Managers

In practice, the posko's kitchen management strategy emphasizes the collaboration between KKN students as implementers with KAGAMA as donors. In order to foster the same feeling among the residents of the post, KKN students divided the schedule for the postal kitchen management tasks. Not only that, the division of tasks will be very helpful in providing food in a fast and precise time without helping the work program of each team. With the division of tasks, the elements of empowerment and cooperation are trying to be developed so that the students will not always focus on the areas of science they are involved in but also soft skills to survive.

MODEL

The presentation on Student Community Services programs shows the role of various parties in the process of repair and reconstruction after the Lombok earthquake which is the main objective of the Student Community Services at Lombok. Students themselves as

executors of Student Community Services can not run programs with post-disaster situations without the presence of other parties such as volunteers, alumni (KAGAMA), Kagama Care, donors, and the institutional presence of the UGM campus itself. Especially in the case of post-disaster management in areas such as Gumantar that are far from the city center and tend to be overlooked in handling by the government so that they are more dependent on non-government actors. The presence of the Student Community Services which at the same time plunged into volunteers at Gumantar brought fresh air in the rehabilitation and reconstruction process.

The frequent disasters that occur both disasters make traditional hierarchical and over-administrative or centralized tendencies increasingly ineffective and create urgency to do other ways that are faster and decentralized in disaster management (Kapucu and Garayev, 2011 in Menya, Alice A., and OA K'Akumu, 2016). Collaboration and cooperation are one option in this problem. Collaboration in question is several parties, agencies, or agencies that have different abilities and resources to unite and work together to achieve a common goal of handling disasters. The PB PBN Lombok activities are a tangible proof of the importance of collaboration in disaster management because it involves various parties such as students, public volunteers, alumni, universities, and donors to work together to revive Gumantar Village.

VI. CONCLUSION

The Community Student Service in Lombok was successfully done well, as evidenced by the results of the work that had been done, both those which could be seen directly such as emergency schools, mosques, sanitation facilities or not directly such as the rise of the Gumantar community activities as usual. In addition, the activities we carried out were initiations for further Student Community Services in Gumantar Village through the next period of Student Community Services. Activities carried out with various parties in the form of collaboration in handling post-disaster situations can also be used as models in subsequent disaster management efforts.

Activities like this can certainly be improved and developed such as giving a special or specific debriefing to the disaster area for students to be better prepared in the field later. In addition, although collaboration is tend to be spontaneous and without prior planning, it still can be improved more by clarifying the flow of command and communication from the center to the field, so that the work done can be more effective and efficient.

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