

Gender-Inclusive and Culturally Sensitive Disaster Preparedness, Mitigation, Response, and Recovery Plans for an Agta Community in the Philippines

Ernesto D. Doloso Jr.

College of Arts and Sciences, Central Bicol State University of Agriculture, Naga City, CAMARINES SUR, Philippines

DOI: <https://dx.doi.org/10.47772/IJRISS.2025.908000106>

Received: 27 July 2025; Accepted: 02 August 2025; Published: 30 August 2025

ABSTRACT

The study aimed to analyze the lived experiences of Agta men and women, including their gender roles, before, during, and after a natural calamity. Also, the study sought to examine the implications of breaking gender stereotypes in disaster preparedness, in the Agta community to develop gender-inclusive and culturally-sensitive disaster risk preparedness, mitigation, response, and recovery plans within the Agta community. Employing a case study research design, in-depth interviews with the Agta research participants, key informant interviews, naturalistic observation, and triangulation using the retrieved documents were conducted to gather relevant and significant data.

Based on thematic analysis, the lived experiences of the Agta men and women before, during, and after the typhoon highlighted the traditional roles of men and women from disaster preparedness, risk reduction, and disaster recovery. Agta men typically performed the hard and critical jobs while women performed the household chores and took care of the children during calamities. However, during the observation, there were non-traditional roles that both Agta men and women have performed. The switching of gender roles between Agta men and women formed new schema to the minds of younger Agta regarding the roles of men and women, thus, embracing both traditional and untraditional gender roles.

Keywords: Agta, gender schema theory, indigenous peoples, disaster risk reduction, lived experience

INTRODUCTION

Disaster affects populations and ecosystems in different ways, depending on various factors such as socio-economic, development practices, ecosystem conditions including its deterioration due to climate change, unsafe development, and reduced government investment in ecosystem protection. These factors increase the disaster risks that will cause depressing result to both men and women, boys and girls, especially those in the vulnerable sector of the society.

In addition to the unsafe location and socio-economic conditions of the indigenous peoples, women and men are also vulnerable to a variety of other important factors, such as differentiated gender roles and responsibilities, skills and capabilities, vulnerabilities, social relations, institutional structures, and long-standing traditions and attitudes. It is also believed that these social dynamics influence a variety of behavioral patterns, such as the capacity to anticipate, prepare for, respond to, and recover from disasters (Cvetkovic et al., 2018).

According to the International Institute of Rural Reconstruction (IIRR) and Give2Asia in 2018, inclusion of both men and women from marginalized sector in disaster risk preparedness opens an opportunity for community resilience against natural disasters. Inclusion also promotes equity and rights so that every member of the community, both men and women, is less vulnerable when it comes to disasters.

Moreover, mainstreaming inclusive disaster risk reduction and preparedness will raise awareness and understanding to the community on how to prepare for, prevent, mitigate, respond, and cope in times of emergencies. However, most of the time, there are groups of people, who are left out because of their inherent characteristics such as age, disability, gender, ethnicity, religion, and social status (IIRR, 2018).

In Camarines Sur, the Agta community and is commonly referred to as Negritos, is one of the indigenous groups of people in the Philippines. Like other IP communities, the Agta suffers from economic and social disadvantages; thus, considered marginalized and vulnerable. The Agta are prone for exacerbated risks apart from economic and social reasons, but also because of their lifestyle as they inhabit unsafe lands and transfer from one place to another (Bolario, 2014). Moreover, the Agta community in Camarines Sur has also lesser access to quality information and education especially on disaster-related concerns due to some structural and socio-economic barriers.

The situation of the Agta in Camarines Sur is of no difference from other indigenous groups in the country where IPs have been in a state of unrelenting displacement for more than 50 years, as validated by the United Nations High Commissioner for Refugees (UNHCR) in 2014. The Dumagat in the provinces of Nueva Ecija and Aurora has also lesser access to quality education due to extreme poverty, discrimination, and poor distribution and implementation of the Indigenous Peoples' Rights Act (IPRA) of 1997 (Eduardo et al., 2021). UNHCR (2014) also noted that the IPs living situations create a barrier for the protection of their rights, a national concern that is mostly heightened in situations during natural disaster.

In addition to the vulnerability of the Agta in Camarines Sur and other IPs in the country, UNHCR (2014) also acknowledged that noticeable exclusion of the group from contingency planning and humanitarian response measure in natural disasters. In March 2019 during the drafting of the 5-year disaster preparedness plan of the Local Disaster Risk Reduction Management Office of Camarines Norte, the office mentioned the inclusion of a vulnerable group in the province highlighting Persons with Disability (PWD) but not the Agta community or the Manide (Manlangit, 2019).

In Camarines Sur, a three-day disaster risk reduction (DRR) orientation and mainstreaming seminar was also conducted in February 2021 and was attended by people coming from various government agencies, academe, media practitioners, Philippine Red Cross personnel, and representatives from the private sector but no participation from any of the vulnerable sector of the province especially the IPs (Macatangay, 2011). Given that on Section 4 of IPRA of 1997 states that, IPs have the right to stay in their territories and not to be displaced therefrom and no IPs shall be relocated without their free and prior informed consent, much is important to include them in disaster risk reduction activities to protect their lives, territories, properties and domains comes natural calamities.

In 2015 at the 3rd World Conference on Disaster Risk Reduction (DRR) in Sendai, it was emphasized that in Disaster Risk Governance (DRG) there must be an equal participation in decision making along with equity and equality (Hemachandra et al., 2018) and that, UNHCR (2014) ensured that the most vulnerable sectors in the society get to participate in the decisions that affect the lives of the IPs and the lives of their family members and communities. The participation and involvement of the poor and the marginalized groups such as the IPs, give them greater say in decisions that would affect their lives (Mansuri & Rao, 2013). Also, the Pan American Health Organization in 2014, together with 20 delegates from other parts of the world, initiated a consultation about disaster risk reduction in indigenous communities.

However, the implementation of DRR and DRG was not at a satisfactory level and made it difficult to represent the needs of the IPs affected by disasters in many different ways. If women's role, as mentioned in the study of Hemachada et al. (2017), was isolated in disaster risk reduction and governance, what more on the part of Agta women in Camarines Sur and other men, women, and children from other indigenous groups of people in the Philippines who have repeatedly displaced, experienced severe poverty, have limited access to basic education and food security, have inaccessibility to basic services and assistance including health centers and

schools, have experienced discrimination, and incurred protection risks due to their age, gender or other social factors (UNHCR, 2014).

In the 2030 Agenda, as also captured in the 17 Sustainable Development Goals, social inclusion was its core aspiration to free the nations and people, including the lost, the least and the last from poverty and hunger and to ensure access to quality education, modern energy and information, and to achieve a healthy well-being. Moreover, the Agenda aimed to guarantee individuals to participate fully in economic, social, political and cultural life (UN Organizations, 2016). Nonetheless, the concept of participation of individuals especially the disadvantaged groups, including the IPs, is still disregarded.

In the Philippines, IPs still lack representation in official public data. They are also unrepresented in creating public policy programs such as in disaster risk reduction and management. Despite the effort of UNHCR in promoting rights-based approach and ensuring participation of the vulnerable in the decisions that affect their lives, IP remains “unnoticed, unaccounted for, and ultimately deprived of any real benefit” (Perez-Brito, 2021).

Therefore, this qualitative study aimed to develop a gender-inclusive and culturally sensitive disaster risk preparedness, mitigation, response, and recovery plans within the Agta community in Camarines Sur to ensure the full and meaningful participation of both men and women who are the most vulnerable to disasters.

Study Objectives

This study aimed to analyze the lived experiences of Agta men and women, including their gender roles, before, during, and after a natural disaster. Moreover, the study sought to examine the implications of breaking gender stereotypes in disaster risk reduction in the Agta community to develop gender-inclusive and culturally-sensitive disaster risk preparedness, mitigation, response, and recovery plans within the community.

METHODOLOGY

The study was conducted in the Ilian community of Agta in Iriga City, Camarines Sur, Philippines during the Academic Year 2022-2023 from May 18, 2023 to June 21, 2023. Qualitative in nature, this study used a case study design. The case study research design is most appropriate for research that requires in-depth knowledge about a certain phenomenon. It uses multiple sources in investigating the contemporary phenomena (Range, 2021).

This study focused on the issue of a smaller group of Agta community called the Ilian in Iriga City, Camarines Sur relative to their lived experiences before, during, and after a natural disaster. Purposeful sampling was used to select 20 Agta research participants and seven key informants in the study who were considered information-rich regarding the case.

Prior to the conduct of data gathering, the researcher sought permission and certification precondition from the National Commission on Indigenous Peoples and from the Agta community in Camarines Sur. Moreover, the research has also received research ethics clearance from the University of the Philippines Los Baños Research Ethics Board on May 10, 2023, with approval code of UPLB REB 2022-0022, to conduct data gathering involving human participants.

The researcher collected data in the field where participants experienced the issue or problem at hand. The researcher employed face-to-face interaction among the participants and key informant interviewees using a semi-structured and open-ended questionnaire tool.

The researcher used a semi-structured and open-ended questionnaire tool in which the questions were designed by the researcher.

The results obtained from the semi-structured interviews and key informant interviews were transcribed, translated from Rinconada/Bicol Naga dialect to English language, and analyzed. The researcher employed

descriptive statistics in describing or summarizing the demographic characteristics of the participants such as the age, gender, civil status, number of children and occupation. Also, the researcher used manual thematic coding analysis applying the six-phase approach to thematic analysis by Braun and Clarke (2006) to determine the initial codes, main theme, subthemes, and the interconnections between themes and subthemes that transpired from the significant statements generalized from the interview transcription.

RESULTS AND DISCUSSION

Table 1 presents the detailed profile of each Agta research participant. There were 20 participants (10 males and 10 females) aged 18-71 years old. With regard to marital status, seven were single, eight were married, and five were with live-in partner. The participants were engaged in different employment: four were laundry workers, one was a housekeeper, five were construction workers or laborers, three were sari-sari store owners or vendors, one was barangay police, three were farmers, and three were unemployed.

The KII participants were composed of one male tribal leader, married, and works as a construction worker; one female Indigenous Peoples Mandatory Representative (IPMR), who is single, and is a college student; one male DSWD representative, single, and a government employee; one male NCIP representative, married, and also a government employee; one school CDRRM coordinator, female, married, and works as a public school teacher; and one female junior high school, single, and a private school teacher.

Table 1. Profile of Agta research participants

Participant No.	Age	Sex	Civil Status	Number of child/children	Occupation
1	38	Female	Married	2	Laundry worker
2	19	Female	Single	0	Unemployed
3	35	Female	With live-in partner	7	Laundry worker
4	34	Female	With live-in partner	4	Vendor
5	26	Female	Married	1	Vendor
6	51	Female	Married	6	Laundry worker
7	48	Male	Married	0	Barangay police
8	41	Female	With live-in partner	5	Laundry worker
9	33	Female	Married	4	Housekeeper
10	67	Male	Married	4	Farmer
11	31	Male	Single	0	Construction worker
12	26	Male	Single	0	Construction worker
13	30	Male	With live-in partner	2	Construction worker
14	27	Male	With live-in partner	0	Construction worker
15	54	Male	Married	1	Construction worker
16	19	Female	Single	0	Unemployed
17	38	Female	With live-in partner	5	Vendor
18	59	Male	Married	9	Farmer
19	43	Male	Single	5	Farmer
20	22	Male	Single	0	Unemployed

Lived Experiences of Agta Men Before, During, and After a Natural Disaster

Men and women, boys and girls have different experiences of disasters even if they dwell in the same household (Alvina, 2021). Despite that natural hazards such as typhoons and floods that are gender neutral, their impacts are not (World Bank, 2021).

Agta men in Iriga City were commonly expected to perform the traditional male roles during disaster. These include fixing the house by putting sand bags on the rooftop as protection, building the tribal house kurob as their families' safe shelter, and digging pits in the backyard to serve as men's evacuation center. Purchasing all the needed materials for their families especially food and water, securing their families by assisting them to transfer to the evacuation center, and cooking and delivering food for their families at the shelter were some of the roles performed by Agta men before typhoon. Additionally, they carried out recovery work following the disaster and stayed in the house until the storm passed.

These experiences of men before, during, and after the typhoon were common to both Agta men and boys as they believe that they were the protectors of their families. They knew that their physical strength can endure the tasks needed to be accomplished before, during, and after emergencies. They had to appear stronger despite their heroic efforts to save their families from the calamity, since they were also the pillars of support for their spouses, parents, siblings, and kids.

In addition, Agta males were typically the community's primary players during disasters, lending a hand and even risking their lives to support Agta families outside of their own. Participant No. 7, who is male, 48 years old, married, and a brgy. police shared how he was about to be hit by a falling tree when he was bringing his family to the evacuation center:

“Bagyong Reming, 2006, udto kato mainiton pa, tapos nagsabi sa radio na delikado daa ang bagyo, uru-atchan kuminusog na si bagyo, paduman na kami kato kan ago ko saka mga aki ko kan biglang tuminumba si kahoy sa atubangan mi...naghanda man kami, kaya lang biglang kusog talag si bagyo.”

[It was in 2006, typhoon Reming, when the sky was clear and sunny, however, according to a radio announcement, the typhoon was worst, then out of nowhere when we were heading to the evacuation center with my family, a huge felled tree dropped before us...we did prepare but the storm's strength was really abrupt.]

Before the typhoon, most of the Agta men except for the elders and younger boys, assured that their houses, which were made of bamboo and wood for the beams and posts, nipa shingles for the roof and windows, and bamboo slats for flooring railings for benches and stair steps, must be tied and corded to trees or huge bamboos as support to not to be blown off by strong winds. Other houses with metal tin roofings were hammered using nails to withstand howling winds. Some men cut or pruned the trees in the backyard and other trees nearby to reduce the damage to their homes for possible uprooting of trees or falling of big branches.

During typhoon, Agta men would usually stay inside the house where they can find comfortable areas to wait for the storm to stop. When houses' roofs or walls were blown off, they would stay in the pit or inside the kurob for their safety. Other Agta men would continue checking their dwellings to safeguard the little property that remained and some also extended assistance to other Agta families. Despite risking their lives, assuring that their properties would stay intact was their top priority as they knew how hard to find a replacement of those hard-earned properties when lost because of typhoon.

Participant No. 15, who is male, 54 years old, married, and a construction worker recalled that he stayed inside the house to secure their door, he also added that because he was not able to predict the sudden change of wind's direction, the door hit his arm severely that it became immovable for few hours. He said:

“Hinalat ko na sana mag-aga para mapahilot. Nalugadan ako pero kaipuhan kong ayuson ang harong, gamit ko si saro kong kamot mag-ayos.”

[I have waited until morning to have my arm massaged by a hilot. I also got wounded but I continued fixing the house after typhoon using my other arm.]

On the other hand, Participant No. 15 also shared that the husband of his sister also met an untoward incident during the height of typhoon. A flying metal tin roof sliced the leg of his family member. He helped him clean

the wound and applied munched guava leaves onto it. He also shared that they were lucky during that time because his relative stayed alive. In order to provide his family member with traditional first aid, they sought for a nearby guava tree, plucked the tender leaves, chewed them, and applied them to the wound. To stop the bleeding, they also used clean cloth and applied tourniquet on the wounded leg. The Agta men went to the barangay clinic in the morning to get the wound sewn.

As Agta men are the most visible before and during the typhoon in the tribal settlement, after the calamity, they would also serve as the main stars for the Agta community's recovery. As some men and boys were repairing their homes, other Agta men were clearing felled trees from the streets to make room for government vehicles involved in the relief effort. Moreover, Agta men would fetch their families at the evacuation center, bringing with them the remaining properties brought at the temporary living quarters.

The Agta men in Ilian Tribal Settlement have learned to rely on themselves in times of disasters and catastrophes as no one would be there to back them up except the Agta members of the community. They have realized how important bayanihan or the support system among them especially during unfortunate incidents. Without the help of others, casualties may happen or extreme effect on their lives may also be experienced. In addition, their shared culture strengthened their bonds even more during difficult times, making the Agta community more resilient even in the absence of other resources that are legally theirs.

In the Philippine setting, it is easy to locate consistent evidence of the long-standing, customary conventions of masculinity—known as machismo—in both indigenous and non-indigenous communities. According to Nunez, et al. (2015), machismo encompasses the aspects of masculinity including bravery, honor, dominance, aggression, sexism, sexual prowess, and reserved emotions. Moreover, it also includes attitudinal beliefs that consider appropriate for women to remain in traditional roles, and thus, encourages male dominance over women.

The Agta men in Iriga City showed certain machismo attitudes especially during emergencies. They tend to be domineering over women especially on decision-making in the households.

Participant No. 1, who is female, 38 years old, married, and a laundry worker shared that when they have heard that a typhoon would be landfalling in Camarines Sur, her husband would start asking her to do preventive actions to save them from disaster. She added that he would tell her the things that she needed to do such as cooking dinner earlier, putting and organizing the important documents and other things that can be drenched in the plastic bags. Despite that she already knew what to do, she passively followed what are being told to her to not cause misunderstanding between them and to not delay the errands that needed to be done before they left for the evacuation center.

In the aspect of bravery, most Agta men would stay in their houses despite knowing the exact things to happen when they decided to stay at home. They knew that they would stay wet and cold but they preferred to stay brave for the family especially in securing the remaining little property of the family. Other Agta women would tell them to just stay with them at the evacuation with the children but most men opted not to follow their wives as they wanted to man the house. As also discussed, Agta men projected the aspect of bravery that despite the laceration of the leg, being almost hit by a fallen tree, and smashed by whirling wind, they remained brave to prove the rules of masculinity.

On the other hand, younger Agta men typically followed the footsteps of their fathers and stood in the family as the protectors. Participant No. 11, a 31-year-old single male and a construction worker shared that he used to help his father in the house during typhoon. He would cook food for their family and delivered them at the evacuation center disregarding the risk of being hit by flying roof or falling trees.

Another evident traditional role of men with or without calamity is stoicism, despite experiencing hardship on certain things, literal heavy work, family burden, and other incidents during calamities, they endured the pain and hardship without displaying them with the family members as they are the image of strength and bravery.

There was even a time that Participant No. 11, who is male, 31 years old, single, and a construction worker honestly shared that he got really scared during the height of typhoon when the window glasses of the church started breaking hard due to strong winds, despite his fear, he projected strong and continued assisting other Agta women and kids inside the evacuation center. Weakness has no room in a dire situation when men needed to step up.

Machismo may be positive to others especially to men who depict hypermasculinity, however, traditional masculine norms may have negative cognitive-emotional factors that would be detrimental to men's emotional health such as depression, anxiety, and anger. However, despite the negative effect of not showing off the men's other side, most men prefer to keep the emotion within them as an emotional man is tantamount to being homosexual (Bjornsdottir, et. al, 2020).

Thus, in an Agta community, the rules of masculinity remain and these rules are being imitated by younger Agta males. Men are fighters; that as a man, he has to have the courage to take risks; real men are providers and protectors, that he has to make sure to provide the needs of his family and protect them, whatever it takes; and a real man retains mastery and control, that he has to be aware of the threat of danger and adjust personal defenses to face that danger (Seager, 2019). These rules of masculinity do not only thrive on normal days but more so during emergency and crisis. As explained by Bem (1981) on her Gender Schema Theory, attitudes, beliefs, and behaviors projected by older Agta men were imitated from their ancestors and that the image of masculinity remains in the Ilian tribal settlement in the present time.

Lived Experiences of Agta Women Before, During, and After a Natural Disaster

In times of crisis, the Agta society thrived on the conventional or traditional ideals of femininity—cooperativeness, perceptiveness, helpfulness, empathy, kindness, to mention a few. Agta women are the spiritual backbone of their families and are loving, home-centered, and family-oriented individuals.

Before the calamity, it was normal to see Agta women preparing the needs of their children before leaving for evacuation centers. They were responsible for ensuring that the family had access to food, milk, clothes, beds, and other essential items. Agta women and girls before calamities were also expected to be cooperating in organizing the households while men were doing the harder tasks outside. All of the vital documents had to be stored in secure locations because it was required of them to take good care of these items even in the absence of a disaster. They were also in charge of preparing meals, particularly in the early stages of the storm. It was also anticipated that Agta women would remain at the evacuation facility with their kids.

Participant No. 17, who is female, 38 years old, with live-in partner, and a vendor recalled her ordeal before the typhoon as she had just given birth during those times. She said that because of her condition, she was bedridden and unable to help her husband. She claimed that her two children, rather than her, handled domestic tasks and fixed sinks and tin cans to their home's overhanging roofs to prevent her and her infant from getting wet. Outside, her son and husband were fixing the rooftop and pruning the trees.

Participant No. 9, who is female, 33 years old, married, and a housekeeper has also shared that before the typhoon, she was aware that their house would be destroyed by typhoon, so she put all her trust in God and prayed for her family's safety before the house was destroyed. She said:

“Aram ko naman na lalayugon ang harong mi, ipinasa Dios mi na sana бага, sabi ko, dawa mawara ang harong bako lang ang pamilya ko.”

[I knew that our house would be washed out and I just left everything to God. I also prayed that whatever happened, I would always choose my family over the house.]”

While most of the Agta men were manning and securing their homes during the typhoon, most of the Agta women and their children were either at the St. Jude Chapel or at the elementary school as their evacuation

centers. Agta women recounted how challenging their circumstances were during the typhoon: their children were wailing, they had to cram themselves into small areas since there were more evacuees, some of the children were hungry, and some of them were completely drenched. The classrooms were congested and everybody was uneasy due to the possible risk that could arise from the evident damage to the classroom's roof.

Participant No. 2, who is female, 19 years old, single, and unemployed, while crying, talked about her unforgettable experience during typhoon Rolly. She said:

“Kan bagyong ito, nasa classroom kami kan Grade 5, tapos sa classroom kan Grade 1 na kataid mi, may mga evacuees man. Dahil po sa sobrang siksikan, naisip mi na bukaan si sarong bintana, naglaog si makusog na hangin. Bigl ana po nagyugyugan si classroom, nagkakagaraba na. Nagtutuktok kami sa lanob kan kataid ming classroom pero dae kami nadadangog. May nagbabaragsakan na sa atubangan ming mga kahoy. Grabe po si hibi mi, kala mimpati magagadan na kami, mayo pati kato si Papa.”

[During that typhoon, we were occupying the Grade 5 classroom, beside it was grade one's classroom which was also occupied with people. We thought of opening the other window as it was really uncomfortable inside because of too many evacuees, when we opened the window, the strong wind was able to penetrate inside and suddenly the entire room was shaking. There were wreckages falling in front of us. We kept knocking on the other side but we were not being heard. I was crying really hard that time because I thought we would all going to die. Sad thing was, our father was not there with us.]

Participant No. 8, who is female, 41 years old, with live-in partner, and a laundry worker recalled her typhoon Tisoy experience when she and the older Agta in her family had decided to not to stay at the evacuation center but only the kids. She said:

“Nagpalipat lipat kami katong lugar, paglipat mi sa saro magagaba ang harong, paglipat mi na naman sa saro, magagaba na naman ang harong. Kan naglipat kami sa harong na yero ang atop, buminaliktad si yero tapos nagaba si kabanga kan harong. Barasa bas ana kaming intiro. Grabe si takot mi kan nagwawasiwas si bagyo. Mayo naman kami magigino kundi halation na matapos ang bagyo.”

[We kept on transferring places then. When we transferred to one house, the house was blown off, when we moved to another house, again, the house was brushed aside. When we shifted to a house with metal roofing, the roofs were snubbed and half of the house was smashed by typhoon. We were wet thoroughly and we could not do anything anyway but to wait for the typhoon to die out.]

Participant No. 9, who is female, 33 years old, married, and a housekeeper also emotionally recounted her previous typhoon experience, saying that while she was with her four kids, she couldn't help but feel sorry for them because most of them were already soaked. While the typhoon was ravaging, all she could do was to say her prayers for everybody's safety including her husband's safety who was left alone at home.

After the typhoon, Agta mothers and other older Agta girls would return to their houses to assist the Agta men, leaving some younger female Agta at the evacuation camps to care for their younger siblings. Agta women usually cleaned the house and removed all the remnants of typhoon and to obtain water for washing their filthy garments, some Agta women would go to the flooded irrigation system. While some houses were still submerged to floods and mud, other women would return to the evacuation center to clean the area as they would be staying longer in the evacuation center while the community was under recovery.

Women were the ones queuing for the relief operations for hours. After the long queue, they would return to the evacuation center to cook food for their kids and husbands. On the other hand, Participant No. 9, who is female, 33 years old, married, and a housekeeper shared that Since some Agta were unable to register their names for those Agta who would receive relief supplies, several households were not able to receive food packets from the barangay or the DSWD.

Based on Participant No. 9's recall, the relief operation after the typhoon only happened once, and the next relief distribution happened after few days, thus, some of the families were just letting the days passed having empty stomachs as they could not also get vegetables from the backyard because everything was gone. Fortunately, other Agta women would share a pack of instant noodles to other families who did not receive relief goods. Some Agta women cooked porridge instead of rice, and others only ate once or twice a day rather than three, all in an effort to survive the hardship and food scarcity brought on by the typhoon's destructive effects.

In the recovery stage, Agta women were vital to the community's rehabilitation, particularly in managing the home and allocating the available food supply, as the majority of Agta males were occupied with reconstructing their destroyed homes.

The term traditional femininity refers to a set of persistent qualities that include behaviors, interests, and attributes that have historically been seen as comparatively typical of women (Kachel, 2016). In the Agta community, Agta women are required to take care of the children and handle all household responsibilities while Agta men are supposed to work to support the family.

The Agta women also display the typical norms of femininity, as from the break of dawn you can already see them cleaning the house, preparing food for their working husbands, bathing their children for school, bringing and fetching the kids to and from school, and fetching water from the faucet at the entrance of tribal settlement while the water is still available. Moreover, they also extend support to their husbands by selling delicacies such as baduya (fried flour-coated banana) and other street food while their kids were at school. Frequently, they would also offer extra work to some households in the nearby barangay to do laundry service, mown their lawns, or do other household works that some lowland families asked of them. It is also typical that women of no education tend to find jobs as laundry washers or household keepers.

On the other hand, Agta women from Rumbang, the mountain top area of Ilian, would gather their produce and sell them to the nearest market to assist the family in uplifting their economic backbone. After doing the household chores, they would wait for the jeepney to bring them to the market early in the morning. Their daughters are the ones manning the house and taking care of the younger ones. When they get luckier and their produce are bought earlier, they would go home with food and groceries and cook a meal for the family before the husbands arrive from the farm or from construction work.

As Agta women, despite breaking the norm of men being the one working for money to feed the family, they assist their partners out of love for the children and family but without forgetting their main roles as mothers and wives in the households. Moreover, it is also expected that women are helpful and cooperative especially when it comes to family matters.

During emergencies as well, women are expected to bring the kids to the hospital for medical assistance. Based on observation, a young Agta girl who asked her neighbors to bet for jueteng, was bitten by a dog. Despite both of her parents having just arrived from work, it was the mother who brought her daughter to the hospital for anti-rabies injection. This only proves that regardless of women's contribution to family's economic status, a mother should stay as mother for their kids regardless of how tired she is.

Before natural emergencies, the Agta women would perform the usual jobs of a woman, doing the household chores, preparing the kids to be evacuated, and assuring that food and other needs of the family were ready. During natural emergencies, an Agta women made sure that their children were safe at the evacuation center. They would give some reassuring comfort to their children especially when kids got scared due to the terrible sounds of thunder, lightning, and wind. After the emergency, an Agta woman would continue supporting her husband in rebuilding their lost home through cooking comforting food despite the scarcity in food supply.

Cheerful and emotionally expressive, Agta women would include chit-chatting among other Agta women while doing the laundry at the irrigation and while watching their children swim. The irrigation area, where

the water runs from Buhi, is the happy place of Agta women to de-stress and forget momentarily the burdens they carry as mothers and wives. During free time as well, most women are usually seen huddling at a sari-sari store exchanging stories with other Agta women. Compared to other urban women where bags, jewelry, makeup, and dresses are important, for Agta women, having a healthy and a contented family is good enough to stay happy despite poverty.

Breaking Gender Stereotypes in DRR

Immersing in the Agta community has validated traditional and untraditional gender roles of Agta men and women. Accordingly, despite the traditional gender norms of both Agta men and women, boys and girls that were categorically revealed both inside the households and in the community, there were also evident non-traditional behaviors that some Agta men and women have executed and acted, breaking the traditional gender stereotypes.

As it was normal to see shirtless old and young Agta men carrying bolo (as protection and as a symbol of bravery) while doing their usual “men” work such as fixing some broken chairs and tables, looking for firewood from the mountain, carrying heavy loads of agricultural produce and bamboos, marshalling goats and carabaos, driving their motorcycles for income, fetching gallons of water, and cutting and carrying coco lumber to name a few, there were Agta men who cleaned the households, cooked food for the family, did laundry at the irrigation, bathed and took care of kids and spent some time chit-chatting with other Agta men while munching nganga or just staying at the waiting shed observing people passed by.

On the other hand, there were Agta women who have also transcended boundaries regarding traditional femininity norms. There were Agta women who carried sacks of banana or corn, looked for firewood, chopped them using an ax or bolo and carried them home, fetched and carried pails of water from the irrigation, worked as motorcycle rider, and carried lumbers and assisted in carpentering a store. There were also Agta women who worked for the family and the Agta men were in-charge of household chores.

During typhoon, there were also men who opted to stay at the evacuation center as they were afraid of their lives and there were Agta women who opted to stay home and help other men monitored the typhoon and secured the house. Moreover, some Agta men would also talk more as compared to women during emergencies, reminding every member of the family to help, check the house’s condition, bring the pets with them, and evacuate before the storm strengthens. There were Agta women who would also climb on the rooftop, put sand bags on them, and fixed the house especially when their husbands were off for work outside the tribal settlement despite natural emergencies.

During Sundays, as this is the off day of most of the hardworking Agta men, they would also drink Ginebra San Miguel from morning until dusk and spent the day with their friends and other Agta relatives. While Agta men were having fun, there were also Agta women who would drink liquor with other Agta womenfolk. The older Agta sons and daughters would be responsible of their younger siblings and the household chores.

As most of the Agta children would imitate the traditional norms of their parents and elders and would remember the gender-related information and behaviors as per gender projection of Agta men and women, based on Gender Schema Theory, breaking gender stereotypes would open greater opportunities for Agta children to be more acceptable of other roles in the household and in the community beyond their gender. Thus, each Agta will recognize that gender differences at all levels, leading to recognition of gender as an essential determinant of social outcomes especially in managing disaster risks (Cvetkovic et al., 2018).

Moreover, children may no longer be absorbing potentially harmful gender stereotypes such as non-disclosure of emotion among men, projection of bravery and toughness at all times despite danger, following men as the head of the family despite some irrational reasonings sometimes, and boxing women in the household as mother and wife.

In the long run, since most of the Agta men and women in the Ilian Tribal Settlement have transcended the boundaries of gender stereotypes as they have been performing tasks beyond their gender, Agta children would also realize that men can perform women roles (except giving birth) so goes with Agta women doing men roles.

Role of the Gender Schema Theory in the Agta Culture and Its Implication to DRR

Gender schema theory was introduced by psychologist Sandra Bem in 1981 as a counterargument to Freudian theories that were too focused on the influence of anatomy on gender development. Bem (1981) on the other hand, asserted that the child's cognitive development combined with societal influences largely shape the patterns of thought (schema) that dictate "male" and "female" traits (Cherry, 2020). Moreover, according to the theory, children adjust their behavior to align with gender norms of their culture from the earliest stages of social development.

Gender schemas have great impact not only how people process information but, on the attitudes, and beliefs that direct gender-appropriate behavior (Cherry, 2020). For example, the traditional norms of the Agta were largely influenced by how their ancestors behave and perform in the tribal community based on their gender roles. As discussed, an Agta child who lives in a very traditional culture might believe that their mothers or Agta women in general would only be for caring and raising children while Agta men should focus on earning money to support and feed their families. With these observations, children form schema related to what men and women can and cannot do (Zosuls, et. al, 2008).

Moreover, some Agta women, as were raised in an Agta culture where other girls were not able to finish education because of poverty, might believe that their fate leads them to getting married and raising kids without knowing that there are available options for them outside their culture.

As mentioned, most of the Agta men and women have been performing gender roles interchangeably, men do women's work, and women do men's work. With this, the younger Agta children will form new schema related to what Agta men and women can do beyond their gender and will adjust their behavior to align with the new gender norms in their culture.

In relation to disaster risk reduction plans to be conducted in the future by City Disaster Risk Reduction Management Office (CDRRMO) of Iriga City to the Agta men and women of Ilian Tribal Settlement, when Agta parents have already learned and applied the learned skills on basic life support, first aid, search and rescue, basic CPR, basic rope rescue, and other life skills trainings to be implemented in the community by other private or non-government agencies, they would also serve as the role models among their children regarding disaster and risk management and would help in the creation of a culture of prevention and for the Agta community to take action to prepare for disaster (Flores, 2013).

Moreover, when Agta members will be educated regarding disaster preparedness, risk assessment, disaster mitigation or disaster risk reduction, children would be able to learn as well from their parents through observation and imitation, thus, they would form new schema regarding the roles and contributions of Agta men and women in the community before, during, and after a calamity. Agta children, when educated regarding disaster, would also be encouraged to think about the importance of preventive measures and bridge the gap between knowing and acting on knowledge (Torani, et. al, 2018) regardless of gender.

Furthermore, when every Agta member is trained and skilled regarding disaster risk reduction, the Agta members, including the children, can be able to protect themselves and others better during natural emergencies such as typhoon. They can also save themselves without the help of others in such dire situation (Torani, et. al, 2018).

It is expected that the learned disaster knowledge and skills would also be passed on to the next generation of kids from their parents; thus, disaster risk reduction available and management would become part of the Agta culture and that would lead to a disaster-resilient Agta community.

Culture-Based and Gender-Sensitive Disaster Risk Reduction Preparedness, Mitigation, Response, and Recovery Plans

Prior to implementation of the disaster risk mitigation, preparedness, response, and recovery, the CDRRMO or any agency who intends to craft a training module or manual on disaster-related training program or activities must consider the unique cultural background of the indigenous peoples in Iriga. The nonformal education curriculum developers must incorporate diverse cultural, physical, social, and gender perspectives of the Agta to nurture the Agta's sense of belonging and identity. This can also strengthen community participation in DRR as they can understand the importance of preventive measures and preparedness and bridge the gap between knowing and acting on disaster-related knowledge (Torani et al., 2019).

As most of the adult Agta men and women in Ilian were only able to reach basic education, more so, have not accessed education, the educational level, language and background must be given utmost consideration in crafting or developing an inclusive DRRM manuals for them. As the existing DRRM training manuals and materials were designed to cater other social groups and cannot just be applied to PWDs, IP men and women, or other marginalized sectors, the manuals and materials may be modified based on the needs of the IPs, including gender and age needs, to create a more positive and productive community education experiences.

Despite the request of Sendai Framework to update DRR terminologies including the emerging terms in the language of the target group (UNDRR, 2015), the current DRRM manual of the Philippines is still written in English language, as mostly the target participants are students, professionals, and government employees, and crafted to cater the general public, thus, nonformal curriculum developers must include mechanisms that would be able to catch the attention of the IPs and would be understood by them based on their context. Inclusion of graphics, photos and images, with captions in Bicol language or Rinconada dialect, must be contextualized so Agta can easily relate. Moreover, the manual must be written as well in the language of Agta so the IPs can easily reflect on the delivery of training based on their own culture.

On the other hand, through a nonformal education approach, DRR trainers or the delivering agency must also be adept with the cultural background of the Agta to deliver the training package properly—with sensitivity toward Agta culture and gender. In the long run, when Agta men and women are already trained, they would be able to join the pool of trainers to train other Agta members in Camarines Sur or in Bicol regarding disaster risk reduction. Furthermore, as adult Agta members have established a culture of disaster resilience, they would serve as role models for Agta youngsters. Children would replicate the preparedness, response, recovery, and mitigation knowledge and techniques the adult learners have learned, forming new schema for disaster management. As a result, disaster literacy will grow in the Agta community, eventually resulting in a resilient and disaster-proof Agta community.

The Gender-Inclusive and Culturally-Sensitive DRR Preparedness, Mitigation, Response, and Recovery Plans

The proposed DRR plans adopted one of the four priorities of the Sendai Framework for disaster risk reduction – Priority 2. Strengthening disaster risk governance to manage disaster risk. Priority 2 discusses the importance of disaster risk governance at the national, regional, and global levels for the prevention, mitigation, preparedness, response, recovery, and rehabilitation. Priority 2 also highlights the importance of collaboration and partnership to make DRR interventions work.

Specifically, the proposed DRR plans only focused on the importance of gender-inclusive and culturally-sensitive DRR plans in the Agta community in Iriga City, Camarines Sur. Regardless of the DRR plans' limitations, this supported the Sendai Framework for DRR 2015-2030 especially in providing culture-based and gender sensitive concrete actions to protect the IPs from the risk of disaster.

The proposed DRR plans provided each phase Agta-specific actions or interventions to be taken before, during, and after a natural disaster including the Agta's local knowledge and traditional practices to achieve a culture

of resilience. Furthermore, as highlighted in Sendai Framework, Priority 2 – importance of collaboration and partnerships – the roles and contributions of the Agta community, the CDRRMO, the NCIP, the barangay, nonformal education curriculum developers, and DRR implementers were discussed. Collaborations between and among disaster-related agencies shall forge solidarity and shall build strong relationship that may guarantee the contributions of the proposed gender-inclusive and culturally-sensitive DRR plans to the advocacies of the Sendai Framework for DRR especially in the substantial reduction of disaster risk and losses in lives, livelihoods and health, and in the economic, physical, social, cultural, and environmental assets of a community – in this proposed community education interventions in DRR – the Agta community in Camarines Sur, Philippines is the major beneficiary.

This section discusses the four basic phases of disaster risk reduction and management including gender-inclusive and culturally-sensitive DRR activities and interventions.

Mitigation

Long-term risk reduction strategies aim at reducing the impact of natural disasters are referred to as mitigation. It entails lessening the negative effects of natural hazards on social institutions and the economy in addition to preventing property losses and preserving lives. Mitigation also involves understanding of hazards and the likely damages in the event of a disaster. It also requires systematic and logical planning process to ensure that resources allocated adequately reduce risks, and protect development (Coburn et al., 1994).

In order to reduce the risks associated with known natural hazard like typhoons, the Agta community must understand the concepts and range of mitigation actions in their own local language. This phase includes actions or interventions to be taken to prevent or reduce the cause, impact, and consequences of natural disasters in Ilian community in Camarines Sur, Philippines.

Nonformal education and trainings in DRR. The Agta community, especially the

adults, must first undergo disaster-related seminars on mitigation concepts and the types of hazards including their nature, consequences, and some specific mitigation actions. Additionally, they need to be informed on how dangers develop, their likelihood and severity, the physical mechanism underlying destructions, the objects and activities most susceptible to their impacts, and the repercussions of damage.

In this case, the CDRRMO may focus on typhoon that brings multi-hazard aspects including serious injuries and fatalities to the IP community. Moreover, as typhoon is the most common natural disaster in Camarines, CDRRMO can focus in this natural disaster.

On the other hand, Agta must understand, as part of climate adaptation topic, how typhoon bring extreme winds, rains, flooding, storm surges, landslides, and lightning that typically destroy not only their livelihood sources like agriculture but also lives (IG-WDRR, 2013).

Since community education or public education in disaster risk reduction is part of the mitigation phase, capacity building and trainings especially on flood and water hazards must be conducted. CDRRMO may start orienting the community and encourage participation in conducting mitigation projects within the Agta community such as retaining walls or soil nailing since the community is located in Mt. Iriga.

Furthermore, construction of the Agta community's gender-sensitive evacuation center may begin through the initiative of the Iriga local government unit. In the event of a crisis, the evacuation center is absolutely necessary, especially since the IP community's homes were constructed using lightweight materials. Sustainably, as a disaster prevention strategy, the municipal government of Iriga can potentially propose a housing development project for the Ilian neighborhood.

Meanwhile, the CDRRMO must also provide trainings to both Agta men and women on basic life support, search and rescue operation, standard first aid, emergency first aid, cardiopulmonary resuscitation, and water safety programs. These trainings can be used not only during natural emergencies but also on a day-to-day emergency.

Furthermore, as part of Agta community's contribution to disaster mitigation, inclusion of "How to Build Kurob" in the training manuals on disaster mitigation and adaptation can be considered as Agta members are also ready to share. As revealed by the findings of this study, there are community members who are willing to share their indigenous knowledge and practice in mitigating disaster through building the kurob.

Hazard and vulnerability assessment. As the Agta community is one of the vulnerable sectors in Iriga City because of their economic conditions and is located within the surroundings of Mt. Iriga, the CDRRMO and other related agencies such as the Department of Environmental and Natural Resources must conduct hazard and vulnerability assessment. Such vulnerability assessment will mitigate possible risks of natural disaster such as landslides, mudslides, and rockslides and provide possible environmental-friendly solutions to prevent probable dangers. In conducting such, CDRRMO and DENR should encourage Agta members to participate and to learn how hazard and vulnerability assessment works. Learning how to assess vulnerability, the Agta community may also apply them to other critical areas that are not yet assessed by the disaster-related agency.

Gender-inclusive vulnerability assessments. A gender-neutral evaluation based on an extensive gender analysis makes understanding more precise of the capacities, needs, and vulnerabilities of women and men as these two genders may have different ways of managing disaster risks. Acknowledging gender differences as well in terms of risk management may assist training developers in the creation of suitable programs that both cater the unique needs of Agta men and women. Moreover, vulnerability assessment that takes gender into account and post-disaster evaluation, promotes gender-equitable disaster risk management and response practices. Without it, conventional methods are probably going to be used and inequalities are strengthened.

Improved infrastructures. As discussed, the Agta community's houses are made of light materials and are prone for total destruction during natural calamities. To mitigate the risks of loss of properties and lives, a housing project can be one of the sustainable solutions. If no funding is available from the National Housing Authority or any government offices that handle the housing development project for the poor, the City Engineering Office of Iriga City, through the approval of the local government unit of Iriga and NCIP, may start rebuilding a bigger evacuation center to accommodate the Agta community during typhoons. The evacuation center must have secured facility to cater the needs of pregnant, lactating, and women in general to prevent abuse and other forms of harassment during and after the calamity.

Moreover, permanent shelters in some designated public places may also be considered especially for IPs' and non-IPs' relocation site during natural disasters. Local authorities may also provide reinforcement materials for the Agta's houses such as metal connectors, roof trusses, composite sheets, plywood, rods, sand bags, rope, nails, or fishermen nets. These house strengthening materials are essential since strong winds have the potential to destroy or completely collapse buildings, more so, shanties and small houses.

Preparedness

The word "disaster preparedness" refers to a group of actions performed ahead of time by governments, businesses, communities, or people to better respond to and deal with the aftermath of any kind of disaster, whether it is caused by natural or man-made dangers. Reducing the loss of life and livelihoods is the goal.

According to European Commission (2023), improving readiness requires knowledge of the likelihood and frequency of natural hazards as well as their dangers, weaknesses, and possible effects on people and property. Thus, the local disaster risk reduction management office and other disaster-related organizations need to engage in disaster risk knowledge and establishing preparedness capacities with the IP community for preemptive and early actions, rather than only providing emergency response.

This phase includes planning, training, and educational activities for events that cannot be mitigated.

Telecommunication and response plans. The CDRRMO must post or hang culture-based and gender-sensitive tarpaulins or posters indicating locations in Ilian community that are hazardous to natural disasters as part of natural disaster awareness campaign. They may also post visible and accessible contact information that can be contacted with or without natural disasters. Hence, telecommunication infrastructures such as local emergency centers must be put up to immediately respond to emergencies. Furthermore, the local government unit of Iriga may ink memorandum of agreement with telecommunication companies to provide emergency contact center using a three-digit number for easy recall and for easy access to emergency needs. Getting in touch with the contact center representative, who is disaster literate, should be free of charge.

Moreover, the city government of Iriga may also put up a radio community hub within the Ilian community in which topics to be discussed on the community radio rotates from culture-based and gender-sensitive disaster preparedness, mitigation, response, and recovery to CDRRM's disaster plans and activities. The community radio is essential in spreading the knowledge on DRR in local ways – local language, disaster adaptation strategies using indigenous knowledge and practices, traditional culture, and local environment. Thus, community radio should be inserted into disaster preparedness planning.

Training and exercises. The CDRRMO and other government offices must also provide exercising plans through drills and exercises especially on basic life support, first aid training, search and rescue operations, cardiopulmonary resuscitation, emergency radio and safety boat operations, and other emergency lifesaving procedures and activities.

On the other hand, CDRRMO may also provide rescue boats and life jackets to be used as assistance in distress and emergency situations. The rescue boats and life jackets are crucial in transporting Agta members from their residence to another safer shelter if in any case the community gets flooded due to torrential rain. Moreover, a walkie-talkie or an emergency radio may also be provided to the chieftain or to the IPMR for emergency purposes. These safety boats and emergency radios are highly essential for reducing mishaps and for handling crises in and around flooded areas.

Standard operating procedures. The CDRRMO must also provide a disaster preparedness plans for what to do, where to go, or who to call for help in disaster. These disaster preparedness plans must be cascaded to the community in a way that the Agta can certainly comprehend and learn. Placing the culture-based preparedness plan, including Dos and Don'ts before, during, and after a natural disaster, in more accessible areas in the Ilian community is also paramount for their safety. The more Agta members are exposed to disaster-related materials, the better they can remember the disaster preparedness information.

Response

The response phase follows the occurrence of a major emergency or disaster. It entails taking steps to prevent death, lessen financial loss, and lessen suffering. Using an incident command system, resources are coordinated and managed during the response phase. Incident command system is designed to enable effective and efficient management of disasters, incidents, and planned events.

Communication and coordination. Communication technology has always been a crucial component for disaster management since disaster situations and crises are by very nature chaotic and extremely dynamic, resulting in physical, emotional, and social disorder (Yodman et al., 2001). Thus, the in-place telecommunication device such as the emergency radio and community radio hub in the Ilian community will ensure real-time and reliable information dissemination especially on the current situations of the Agta community during disaster. Effective communication between and among Agta and the CDRRMO response team will enhance proper coordination among response agencies especially on providing emergency assistance.

In a dire situation during natural disaster, proper communication plays a crucial role especially in providing assistance and interventions during or immediately after an emergency (Khaled et al., 2019).

Saving lives. The trained Agta men and women on search and rescue operations may be able to assist the response team in conducting search and rescue missions if needed. They can likewise assist in providing first aid, food and water delivery, and other immediate needs in the Agta community. This would also enable them to take action to protect themselves, their families, animals, and even their properties.

Recovery

After a calamity, there is a recovery phase. This stage involves community recovery efforts from any effects of a natural disaster. At this point, the Agta community has already attained a minimum level of social, economic, environmental, and physical stability. During the recovery period, restoration effort occurs concurrently with regular operations and activities.

On the other hand, the recovery period, especially for the Agta community, can be prolonged, usually measured in months and/or years, depending on their disaster preparedness. Therefore, to shorten the reconstruction of physical infrastructure and restoration of emotional, social, economic, and physical wellbeing, the other stages of disaster management need to be approached appropriately and rigorously by the disaster-related agencies and the Agta community in order to guarantee fast recovery following a natural disaster.

Recovery and rehabilitation of other services. Since the recovery period may take a considerable amount of time, the trainings conducted by CDRRMO on disaster risk reduction and management in the Agta community will enable them to assist and contribute in the recovery team. The Agta men can assist in rebuilding damaged structures based on their advanced knowledge obtained from DRR seminars and trainings. Moreover, trained women in disaster recovery may assist in assuring and restoring the emotional, social, and physical wellbeing by reminding other Agta members on how the community, as one, can successfully pass through the difficult times post disaster.

Furthermore, with the community education in DRR, the members of Agta community may be able to respond objectively to post disaster incidents such as power outages, interrupted services, and other disruptive events. The community should then focus on the most important recovery plans provided by the CDRRMO, which need to be first addressed vitally while the recovery is underway.

In this sense, when IPs are actively involved in disaster management, the recovery period of the Agta community may not take a longer period of time to reach its full recovery.

Making Gender-Inclusive and Culturally-Sensitive DRR Preparedness, Mitigation, Response, and Recovery Plans Work

Disaster risk reduction works when the Agta community, the City Disaster Risk Reduction Management Office of Iriga, the Local Government Unit, including the barangay level, and other Philippine government agencies responsible for disaster mitigation, preparedness, response, and recovery fulfill their disaster management responsibilities. Disaster-related agencies and actors must interact and collaborate in order to fulfill a number of complicated goals and share responsibility for related duties in disaster risk reduction that cannot be completed independently (Shah et al., 2022). Thus, each member in the delivery of disaster risk mitigation, preparedness, response and recovery initiatives has to fulfill significant responsibilities to achieve a culture of resilience especially in the Agta community.

The Agta Community. When the CDRRMO of Iriga and other government agencies related to DRR provide community education trainings on disaster mitigation, preparedness, response, and recovery, the Agta

community must religiously attend and allot ample time in understanding and learning every concept of DRR. These community education interventions are especially crafted to the special needs of the community, thus, serious participation and implementation of the learned DRR skills must be applied during drills and exercises so the CDRRMO can validate the efficacy of the DRR trainings conducted for them.

Furthermore, since the government will devote a sizeable portion of its budget to the creation of socio-inclusive DRR training programs, manuals, and other DRR-related equipment, the Agta community is also accountable for safeguarding DRR materials and equipment for the benefit of future Agta community members consumption, particularly when it comes to using it during natural disasters.

For the maintenance of the evacuation center, the Ilian Chieftain must ensure that the center is utilized for its very purpose. Keeping in mind its cleanliness and maintaining the structural conditions of the building, the Ilian Chieftan must secure assistance from the City Engineers Office.

The Agta community must be responsible in securing their lives and properties by applying the learned skills in DRR from mitigation to recovery. The Agta community's application of the learned knowledge and skills from the community education and trainings in DRR that are to be provided by CDRRMO will further intensify their important roles in managing disaster risk reduction in their families and communities. Thus, community participation in DRR is important to mobilize the interests of the IP community in discussions, understanding, and application of key concepts of disaster risk reduction and management (Nkombi et al., 2022).

The City Disaster Risk Reduction Management Office. The CDRRMO must carry out hazard and vulnerability assessments in the community to further validate the hazards and threats available in order to create plans and provide resources such as community education trainings on DRR to protect the Ilian community from potential natural disaster dangers. This will ensure that the IP community in Iriga City has the resources it needs to address its immediate DRR concerns.

The CDRRMO, through the supervision of the city mayor, must also create mitigation activities, preparedness plans, responses to emergencies, and recovery operations specifically intended to the unique needs of the indigenous peoples in Iriga City.

The Local Government Unit of Iriga and San Nicolas. The local government unit of Iriga must provide the Ilian community with an evacuation center to further mitigate risks during natural disaster. The Agta uses the church and the elementary schools as their shelters during natural emergencies, which do not secure the safety and health of the evacuees due to classroom conditions and venue congestion.

Moreover, the LGU may also provide a chain of command in emergencies to spell out who to report to whom. This will further organize information dissemination and will prevent wrong information from spreading especially during natural emergencies. Providing a chain of command in emergencies also properly assists the Ilian community or its members when they need help or assistance.

Other government agencies delivering DRR initiatives. Other government agencies involved in disaster management must properly coordinate with CDRRMO to discuss their roles in details appertaining to disaster mitigation, preparedness, response, and recovery. Other agencies may also provide supplemental resources when the CDRRMO does not have sufficient resources to protect or assist the Agta community or other marginalized sectors. They might also help with the restoration of vital services that can revive the local economy and address the IP community's needs in the wake of the disaster.

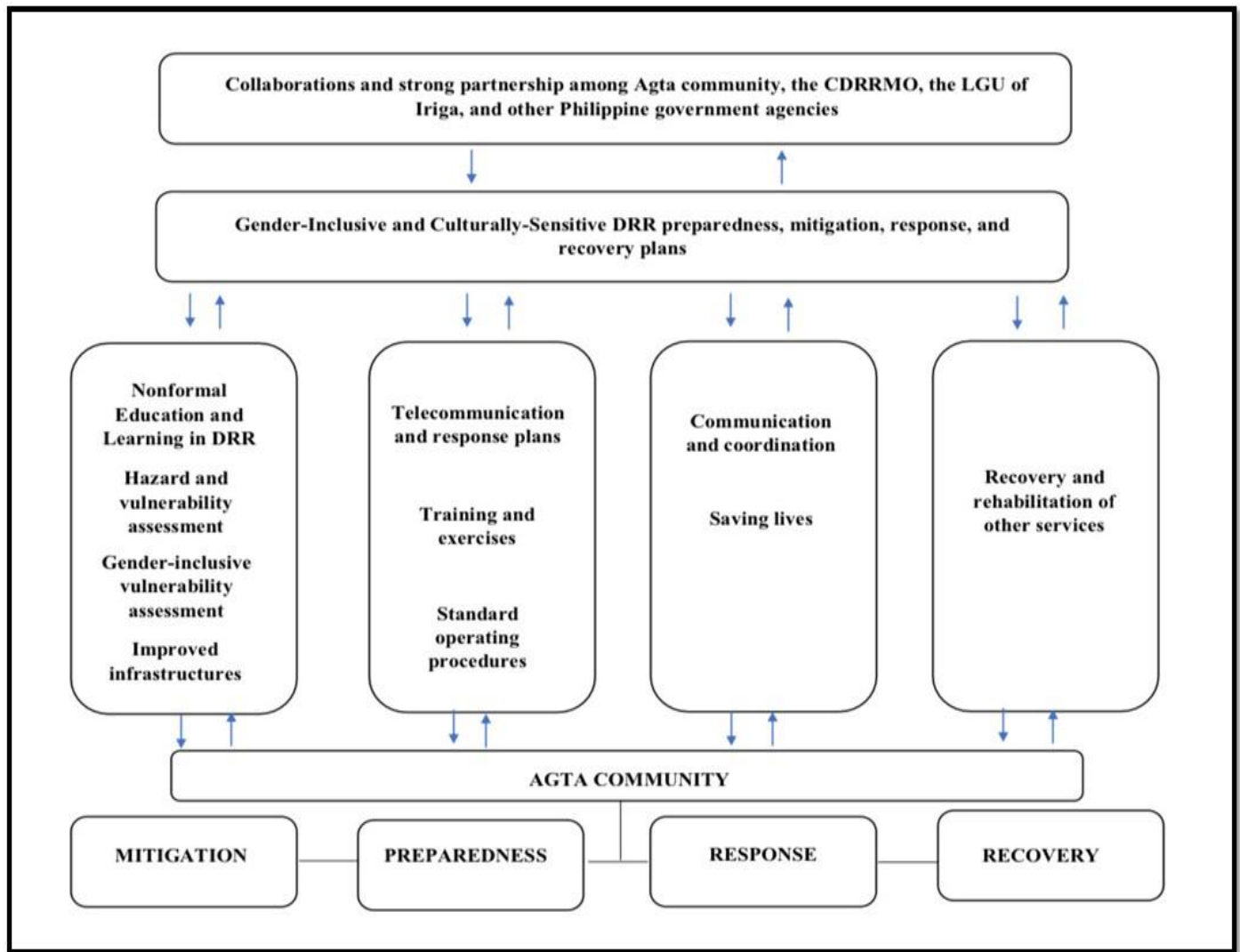


Figure 2 Gender-Inclusive and Culturally Sensitive DRR Preparedness, Mitigation, Response, and Recovery Plans

Beneficiaries of the Gender-inclusive and Culturally-Sensitive DRR plans

The community education interventions in DRR are for National Disaster Risk Reduction Management Office and its local counterparts in the city, provinces, and localities to serve as their blueprint or guide in developing inclusive and gender-sensitive DRR projects, programs, and activities to DRR. The community education interventions in DRR will also help them in revisiting their existing DRR PPAs and tailor fit them based on the needs of the indigenous peoples in their localities.

The community education interventions in DRR are also intended for public and private schools and higher education institutions (HEIs), community developers, community extension officers, and nonformal curriculum developers. These would enable them develop inclusive and gender sensitive DRR extension programs or activities for a particular group of students or community members that will broaden their knowledge and skills relative in disaster risk reduction.

Moreover, the collaboration between and among agencies will forge solidarity and build strong relationship that will guarantee the inclusion of IP groups in decision-making bodies in the community, which may affect them or their communities. As required by the Climate Change Adaption (CCA), Disaster Risk Reduction (IRR, 2018), and Sustainable Development Goals (SDGs), a greater adherence to policies of inclusion of vulnerable sectors can be ensured through collaboration with NDRRMC or CDRRMO and other partner agencies in conducting inclusive and gender-sensitive community education trainings on DRR to IP

communities through a nonformal education and learning approach. Consequently, the Agta community in Camarines Sur as well as all ICCs/IP groups in the Philippines will benefit significantly from the community education interventions in DRR upon adoption by NDRRMC and its local counterparts, HEIs, NCIP, policymakers, community leaders, and local government.

In sum, the Agta community or other IPs in the country, upon learning and understanding, and applying the concepts of disaster risk mitigation, preparedness, response, and recovery will serve as their personal and communal skills that are considered their lifelong learnings skills meaningfully essential to achieve a resilient and disaster proof Agta community thereby improving and achieving better lives.

CONCLUSION

Indigenous peoples are one of the most disadvantaged sectors in the society and their unfavorable socioeconomic condition has significantly contributed for not attaining the good life that they deserved. Evidences from the current study have highlighted the non-access of IPs to disaster-related trainings and disaster education, and the repetitive neglect of their request to renovate their evacuation center have worsened the already worst condition of the Agta especially during natural calamities as validated and confirmed by the lived experiences of Agta men and women in the indigenous community. As there were no available DRR trainings for the IPs and other capacity building activities, more so the non-availability of socio-inclusive DRR trainings or culturally-sensitive and gender-inclusive DRR preparedness, mitigation, response, and recovery plans, the Agta community were mostly affected negatively by natural calamities such as typhoon.

Since IPs have the same rights as citizens and contribute culturally, socially, and economically to the Philippines, it is only right and fair to include them in disaster risk reduction initiatives, plans, and governance. They should also work hand in hand with the Local Disaster Risk Reduction Management Office and other disaster-related agencies to share their knowledge and skills related to disaster mitigation, preparedness, response, and recovery, including their indigenous practices related to DRR. This co-creation among Agta and other disaster-related agencies will eventually help to create a resilient and disaster-literate indigenous cultural community that the younger Agta members can soon follow, and eventually become a part of their DRR preparedness, mitigation, response, and recovery practices in the event of a natural disaster in the future.

REFERENCES

1. Alvina, E., De Vries, R., Anne, S., Thies, S. F., Kayenat, K., & Mirai, M. (2021). Gender dimensions of disaster risk and resilience: Existing evidence. World Bank. Retrieved from <http://openknowledge.worldbank.org/entities/publication/88d46d58-c4ca-53bf-82ea-4f3cc423b67e>
2. Asian Development Bank. (2020). Philippines: Social protection support project - Second additional financing. ADB. Retrieved from <https://www.adb.org/sites/default/files/project-documents/43407/43407-017-ipp-en.pdf>
3. Aznar, J. (2021). Philippines: Officials 'red-tagging' indigenous leaders, activists. Human Rights Watch. Retrieved from <https://www.hrw.org/news/2023/01/26/philippines-officials-red-tagging-indigenous-leaders-activists>
4. Bastida, E. J. (2021). Developing a rights-based indigenous peoples education curriculum in Agusan Del Sur, Philippines: A convergent parallel mixed methods study. CPAf Library UPLB.
5. Bicol Regional Development Plan (2023-2028). (2023). NEDA. Retrieved from <https://nro5.neda.gov.ph/bicol-regional-development-plan-2023-2028/>
6. Bjornsdottir, R. T., & Rule, N. O. (2020). Emotion and gender typicality cue sexual orientation differently in women and men. PMC. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7497461/>
7. Bolario, B. (2018). The Negritos tribe. Retrieved from <https://tribesinthephilippines.wordpress.com/2018>

8. Braun, V., & Clarke, V. (2012). Thematic analysis. American Psychological Association. Retrieved from https://www.researchgate.net/publication/269930410_Thematic_analysis
9. Cherry, K. (2020). Gender schema theory and roles in culture. Verywell Mind. Retrieved from <https://www.verywellmind.com/what-is-gender-schema-theory-2795205>
10. Coburn, A., & Pommnis, A. (1994). Vulnerability and risk assessment. ResearchGate. Retrieved from https://www.researchgate.net/publication/209803485_Vulnerability_and_Risk_Assessment
11. Conde, C. (2016). Dispatches: The Philippine picture of Badjao displacement. Human Rights Watch. Retrieved from <https://www.hrw.org/dispatches/2016/05/31/philippine-picture-badjao-displacement>
12. Cvetkovic, V., Roder, G., Ocal, A., Tarolli, P., & Dragicevic, A. (2018). The role of gender in preparedness and response behaviors towards flood risk in Serbia. *International Journal of Environmental Research and Public Health*. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6313390/>
13. Eduardo, J., & Gabriel, A. (2021). Indigenous peoples and the right to education: The Dumagat experience in the province of Nueva Ecija and Aurora, in the Philippines. Sage. Retrieved from <https://journals.sagepub.com/doi/full/10.1177/21582440211009491>
14. European Commission. (2023). Disaster preparedness. European Civil Protection and Humanitarian Aid Operations. Retrieved from https://civil-protection-humanitarian-aid.ec.europa.eu/what/humanitarian-aid/disaster-preparedness_en
15. Flores, Z. L. R. (2013). Disaster education. Training and Prevention Center for Emergency and Environmental Management, Peru. Retrieved from https://www.preventionweb.net/files/7560_DisasterEducation.pdf
16. Hemachandra, K., Amaratunga, D., & Haigh, R. (2018). Role of women in disaster risk governance. Elsevier, 212, 1187-1194. Retrieved from <https://www.sciencedirect.com/science/article/pii>
17. Indigenous Peoples Mandatory Representative Report. (n.d.). IPMR's report. Ilian Tribal Settlement, Iriga City.
18. Indigenous Peoples Rights Act (IPRA). (1997). National Commission on Indigenous Peoples. Retrieved from ncipcar.ph/images/pdfs/IPRA.pdf
19. International Group for Wind-Related Disaster Risk Reduction (IG-WRDRR). (2019). Preparedness for wind-related hazards. The International Strategy for Disaster Reduction (ISDR). Retrieved from <https://irides.tohoku.ac.jp/media/files/topics/Preparedness%20for%20Wind-related%20Hazards%20in%20English%20HR.pdf>
20. International Institute of Rural Reconstruction. (2018). Facilitating inclusion in disaster preparedness. PreventionWeb. Retrieved from <https://www.preventionweb.com/facilitating-inclusion-in-disaster-preparedness>
21. Kachel, S., Steffens, M., & Niedlich, C. (2016). Traditional masculinity and femininity: Validation of a new scale assessing gender roles. *Personality and Social Psychology*. Retrieved from <https://www.frontiersin.org/journals/psychology/articles/10.3389/fpsyg.2016.00956/full>
22. Khaled, Z., & McHeick, H. (2019). Case studies of communication systems during harsh environments: A review of approaches, weaknesses, and limitations to improve quality of service. *Sage Journals*. Retrieved from <https://journals.sagepub.com/doi/full/10.1177/1550147719829960>
23. Macatangay, L. (2011). Philippines: Preparing Camarines Sur for disaster. UNDRR. Retrieved from <https://preventionweb.net/news/philippines-preparing-camarines-sur-disasters>
24. Manlangit, R. (2019). PDRRMO drafts 5-year disaster preparedness plan in Cam. Norte. ReliefWeb. Retrieved from <https://reliefweb.int/report/philippines/pdrmo-drafts-5-year>
25. Mansuri, G., & Rao, V. (2013). Localizing development does participation work? Policy research working paper. The World Bank, Washington, D.C.
26. National Commission on Indigenous Peoples. (2022). Buhi Service Center Report.
27. National Commission on Indigenous Peoples Administrative Order No. 03, S. (2018). Revised national guidelines for the mandatory representation of indigenous peoples in local legislative councils and policy-making bodies. NCIP. Retrieved from ncip.ph/images/pdfs/ncip-ao-no-3-s-2018-ipmr.pdf

28. Nkombi, Z., & Wentink, G. (2022). The role of public participation in disaster risk reduction initiatives: The case of Kathelong township. *Journal of Disaster Risk Studies*. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8905445/>
29. Nunez, A., Gonzalez, P., & Talavera, G. (2015). Machismo, marianismo, and negative cognitive-emotional factors: Findings from the Hispanic Community Health Study/Study of Latinos Sociocultural Ancillary Study. National Institute of Health. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5102330/>
30. Perez-Brito, C. (2021). No data, no story: What the absence of indigenous peoples-specific data reveals. World Bank. Retrieved from <https://blogs.worldbank.org/opendata/no-data-no-story-what-absence-indigenous-peoples-specific-data-reveals>
31. Range, L. (2021). Case study methodologies. Salem Press Encyclopedia of Health, 2021, Research Starters. Retrieved from <https://discovery.ebsco.com/c/gxuk27/viewer/html/5icup6edcz>
32. Seager, M. (2019). From stereotypes to archetypes: An evolutionary perspective on male help-seeking and suicide. *The Palgrave Handbook of Male Psychology and Mental Health*. Retrieved from https://www.researchgate.net/publication/373924904_From_Stereotypes_to_Archetypes_An_Evolutionary_Perspective_on_Male_Help-Seeking_and_Suicide
33. Sendai Framework for Disaster Risk Reduction. (2015-2030). Retrieved from <https://undrr.org/publication/sendai-framework-disaster-risk-reduction-2015-2030>
34. Shah, I., Mahmood, T., Khan, S., & Elahi, N. (2022). Inter-agency collaboration and disaster management: A case study of the 2005 earthquake disaster in Pakistan. *Journal of Disaster Risk Studies*. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8832005/>
35. Torani, S., Majd, P., Maroufi, S., & Dowlati, M. (2019). The importance of education on disaster and emergencies: A review article. *Journal of Education and Health Promotion*. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6512217/>
36. United Nations. (2007). United Nations declaration on the rights of indigenous peoples. Department of Economic and Social Affairs. Retrieved from <https://www.un.org/development/desa/indigenouspeoples/declaration-on-the-rights-of-indigenous-peoples.html>
37. United Nations. (2016). Social inclusion. Department of Economic and Social Affairs. Retrieved from <https://www.un.org/development/desa/socialperspectiveondevelopment/issues/social-integration.html>
38. United Nations High Commissioner for Refugees. (2014). Indigenous peoples in natural disasters. UNHCR. Retrieved from https://www.alnap.org/system/files/content/resources/files/main/Indigenous_peoples_in_natural_disasters.pdf
39. United Nations Office for Disaster Risk Reduction. (2015-2030). Voluntary commitments Sendai Framework for disaster risk reduction 2015-2030. Retrieved from <https://sendaicommitments.undrr.org/commitments>
40. World Bank. (2021). Gender dynamics of disaster risk and resilience. *Understanding Poverty*. Retrieved from <https://www.worldbank.org/en/topic/disasterriskmanagement/publication/gender-dynamics-of-disaster-risk-and-resilience>
41. Yodman, S., & Hollister, D. (2001). Disaster and communication technology. Perspectives from Asia. Presented at the Second Conference on Disaster Communication in 2001. Retrieved from <https://www.adpc.net/V2007/IKM/ONLINE%20DOCUMENTS/downloads/DisasComm.pdf>