Community Needs Assessment (CNA): Basis for community development in select communities in Gubat, Sorsogon, Philippines

Demetrio Esperanzate Castillo[1*], Gilbert Egana Lopez[1],
Rosemarie Romero Jadie[1], Rene Bailon Hermo[2]

[1]Bicol University Gubat Campus, Sorsogon, Philippines
[2]Gubat Saint Anthony Cooperative, Sorsogon, Philippines
[*]Corresponding author: decastillo@bicol-u.edu.ph

ARTICLE INFO

DOI:10.46223/HCMCOUJS.soci.en.15.1.3160.2025

Received: January 02nd, 2024

Revised: March 12th, 2024

Accepted: March 19th, 2024

Keywords:

climate change; community needs assessment; financial literacy; focus group discussions; Gubat; local governance; solid waste management

ABSTRACT

Community Needs Assessment (CNA) is an approach to evaluate the community's needs systematically. This study presents the findings of the CNA, which were conducted primarily to assess the community needs as the basis for community development interventions in selected communities in the municipality of Gubat, Sorsogon, Philippines. Key informants consisting of barangay officials and workers were purposively selected for the study. Data collection involved Focus Group Discussions (FGDs) using guide questions, Community Needs Assessments, and Training Needs Assessment tools. A descriptive research method was employed to analyze the data. Results of the study showed that most of the respondents were engaged in farming. Identified challenges include financial literacy, land ownership issues, and waste disposal compliance. Health concerns, reliance on public hospitals, and fears of hazards like typhoons and landslides are prevalent. The training needs assessment highlighted demands for various skills programs such as agricultural production, climate change awareness, disaster preparedness, computer literacy, financial literacy, and leadership training. This study recommends developing a training program that considers the identified needs.

1. Introduction

Communities naturally encounter issues and concerns, especially in this era of the new normal, which community members must address. People must come together to discuss these matters and devise future-proof solutions to take charge of sustainable development projects for survival. To do this, it is necessary to conduct an assessment to reflect on and analyze the issues and identify the problems or needs of the locality.

Conducting a Community Needs Assessment (CNA) is essential for several reasons: first, to ensure the sustainability of the community; second, to instill awareness among residents and local officials about the impact of planned development on social and economic well-being; and third, to prevent inequalities among community groups. Therefore, an assessment ensures positive impacts associated with planned development.

Community Needs Assessments (CNA) refer to a systematic approach to assessing the community's needs (Bhuiya et al., 2022). It evaluates the current situation regarding a certain population or community's resources, interests, concerns, or aspirations (Borbon, 2020). CNA has been conducted to identify and respond to diverse communities' inequalities and needs. A CNA in Karnataka, India, has identified the need for adequate housing, access to transport, and health care (Ravaghi et al., 2023). Similarly, mental health problems were identified as a major disease in Tamil Nadu, India (Bhuiya et al., 2022). Additionally, the use of CNA helped identify the health needs of indigenous communities in the Philippines by providing community extension awareness programs that resulted in significantly mitigating gastrointestinal problems and diarrhea (Masangkay et al., 2020). Thus, through CNA, governments, People's Organizations (POs), or Non-Governmental Organizations (NGOs) such as the Gubat Saint Anthony Cooperative (GSAC) can formulate community services or extension projects based on the needs of the community. This approach can also save community developers time, resources, and effort. The result of the needs assessment can be a basis for making judgments prioritizing the needs of the community involved and ensuring that the extension given is based on needs (Altschuld & Watkins, 2014; Castillo et al., 2024; Henrikson & Bishop, 2023). Technically, it is a prerequisite as a primary step for development practitioners before providing any community development intervention.

Through a partnership engagement, the Trias Southeast Asia through the Gubat Saint Anthony Cooperative (GSAC) and Bicol University agreed to conduct community needs assessments in selected barangays (Dita, Manapao, and Nazareno) of Gubat, Sorsogon (Figure 1). The target area for the CNA is the municipality of Gubat, a second-class town and considered the third largest municipality in the province of Sorsogon, located in the southern part of Luzon Island along the coast of the Pacific Ocean on the Bicol Peninsula. It comprises 42 barangays, with a total population of 60,294 in 2020. The main sources of livelihood are farming and fishing, with a poverty incidence of 28.38% (PhilAtlas, n.d.).

To date, there have been efforts in providing community development projects and activities given by the government and other non-governmental organizations. However, in most cases, there is no sustainability. Thus, a community needs assessment is a prerequisite to determine what are the needs of these communities to ensure that all efforts will not be wasted.

Figure 1

The Political Map of the Municipality of Gubat

Source. The Authors

2. Theoretical basis

This study is anchored on the Asset-Based Community Development Theory and Social-Ecological Model (SEM). Social-Ecological Model (SEM) is a framework developed by Urie Bronfenbrenner in the late 1970s and used to examine various system elements. It considers individual behavior and well-being as influenced by a complex interplay of factors at various levels: personal, interpersonal, organizational, community, and societal (Salihu et al., 2015; Schaffler et al., 2022; Tuominen et al., 2022). Applied to community needs assessments, SEM provides a holistic lens to understand the multidimensional nature of challenges and opportunities, guiding us in exploring the interconnected layers that shape community well-being. Moreover, we uncover our understanding of community needs and highlight communities' distinctive challenges in select communities of Gubat, Sorsogon. The evolving landscape, compounded by the unprecedented challenges of the "new normal", has created a dynamic environment that necessitates a closer examination of this locality's unique needs and aspirations.

Moreover, this study considers Asset-Based Community Development theory (ABCD), it is an approach that was developed by Kretzmann and McKnight in 1993 that focuses on the promotion of positive change and development using the community's strengths, assets, and resources (Maclure, 2023). Rather than relying on external resources or experts, the theory stresses the identification and use of community assets for development purposes (Ravaghi et al., 2023; Sam & Fung, 2023). Because community members are more aware of their needs.

Hence, this study aims to conduct a Community Needs Assessment (CNA) in selected barangays in Gubat, Sorsogon, with the goal of determining their needs as a basis for future developmental projects or extension engagements. Specifically, the CNA will assess the status of the community in terms of demographic profiles, socio-economic status, disaster and climate change awareness, and needs assessment.

3. Methodology

3.1. Study sites

The study was conducted at Barangay Dita, Manapao, and Nazareno in the Municipality of Gubat, Sorsogon, as identified by Gubat Saint Anthony Cooperative (**Figure 1**). These three locales are considered rural and agricultural. Moreover, of all the 42 barangays in Gubat, these barangays had the highest poverty rates, ranging from 70% to 75%, and an average monthly income of ₱7,300.00 ($132.00) in 2022.

3.2. Key informants of the study

The key informants of the study were purposively selected and they are the officials and workers of the barangay, which is composed of the Barangay Council, the Barangay Health Worker, Day Care Worker, the Barangay Nutrition Scholar, the SK President, the president of the women's association, the president of the farmers' association, the president of senior citizen organization, Department of Education (DepEd) principal or teacher (who is a resident of the barangay). As leaders and residents of the barangay, they can determine the needs, represent their community, and make an informed decisions.

3.3. Data collection

After the research proposal between Bicol University and Gubat Saint Anthony Cooperative (GSAC) was approved, the researchers coordinated with the concerned barangays to schedule a Focus Group Discussion (FGDs). FGD is a research technique requiring an in-depth group discussion or interview with the assistance of an expert moderator (Rabiee, 2004). Basically, participants are purposively selected based on specific criteria, experiences, sociocharacteristics, preferences, and more; for instance, in this study, leaders, professionals, and barangay council officers who are residents of the locale. A total of 58 key informants participated in the FGD. In the study of Busetto et al. (2020), at least six to eight participants are enough to saturate the study. More participants in a FGD could be beneficial, as this provides a more diverse and in-depth understanding of the issues (Hennink et al., 2019), but may necessitate additional considerations such as in transcribing and logistical aspects. Questionnaires, Community Needs Assessment Tool, and Training-Based Community Needs Assessment Forms from Bicol University Extension Management Division were utilized in the study. Likewise, barangay profiles for the current year were collected. Key informants were briefed by the researchers about the study's purpose and were given an opportunity to address any concerns, questions, or clarifications. All information obtained was handled with confidentiality, and no personal information of the participants was disclosed to any third party.

3.4. Research design

The study used a descriptive research method to assess the status and the needs of the barangay Dita, Manapao, and Nazareno. Data were transcribed, themed, coded, and weighted using frequency count, percentage, and rank using Microsoft Excel version 2019.

4. Result and discussion

4.1. Demographic profile

A total of 58 key informants participated in the Focus Group Discussion (FGD) from the three barangays in the Municipality of Gubat, Sorsogon. The majority were female (62%), while the remaining participants were male. Among the total respondents, 44% identified as household heads, 5.2% as fathers or mothers, 1.7% as sons/daughters, and 48% as husbands or wives of the household head. The household head is typically an adult responsible for managing and organizing the household and is often the breadwinner. In the country, most of the family heads are male because of the patriarchal culture. In the paper of Hill (2011) mentioned that husbands are more "emotionally stronger" than wives, thus more susceptible to 'anxiety and indecision.' This can be noted that gender is associated with who will be the head of the family (Bammeke, 2013; Chakrabarti, 2021). Moreover, the age group 50 - 59 constituted the highest percentage (30.6%), while ages 20 - 29 had the lowest representation (4.1%), representing the Sangguniang Kabataan (SK) (Table 1). In terms of educational attainment, the majority had a high school level (50.9%). Additionally, the community is predominantly Roman Catholic (94.3%), with other Christian denominations such as Iglesia Ni Cristo (INC) (1.8%) and Members Church of God International (MCGI) (1.9%). Islam was also identified, constituting 1.9% of the population.

Table 1

Profile of the Respondents

Age			**Civil status**			**Educational level**		
Range	F	%		F	%		F	%
10 below	0	0.0	Single	1	1.9	No Schooling	5	9.1
20 - 29	2	4.1	Married	42	77.8	Pre-school	1	1.8
30 - 39	10	20.4	Widowed	4	7.4	Elementary	8	14.5
40 - 49	8	16.3	Divorced/Separated	1	1.9	Highschool	28	50.9
50 - 59	15	30.6	Widow/er	1	1.9	College	11	20.0
60 - 69	7	14.3	Common Law/Live-in	5	9.3	Post-graduate	1	1.8
70 up	7	14.3	Never married	0	0.0	Vocational	1	1.8

Note. F = Frequency; % = percentage
Source. Data analysis result of the research

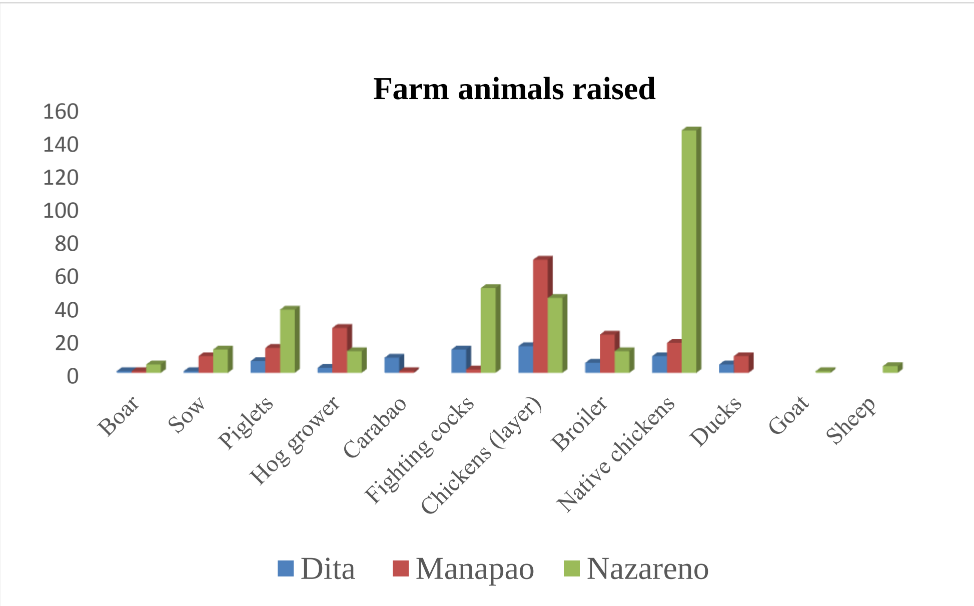
4.2. Socio-economic status

The province of Sorsogon is basically agriculture-dependent, with farming and fishing being the primary economic activities. Despite most respondents being barangay officials and workers with monthly salaries, many are engaged in farming for additional income. The result of the study (Figure 2) is native chicken production, particularly in Brgy. Nazareno (29.7%) plays a significant role in the diet and nutrition and serves as an extra income source for villagers. Native chicken production follows a traditional approach, allowing the chickens to scavenge for feed (Salces et al., 2015). Coconut and rice production are considered the main livelihoods in the area, with marketing conducted through traders (54%) and direct-to-consumer transactions (46%). Specifically, Brgy. Dita specializes in coco-twinning/coco net production, weaving coconut husks into geo-nets to prevent soil erosion, as well as creating doormats or carpets.

On the other hand, regarding land ownership, 47.8% of respondents own their land, while others are tenants (37%), family-owned (10.9%), or under a leasehold agreement (4.3%). However, Dita and Nazareno face the risk of landslides (50%) due to their mountainous geography. Residents are distributed in riverside areas (9.4%), low-lying areas (12.5%), and upland areas (28.1%). Most houses in these areas are semi-concrete structures (66.7%), combining asbestos or cement in the foundation with indigenous materials like anahaw (*Livistona rotundifolia*), nipa (*Nypa fruticans*), bamboo (*Bambusa spp.*), or galvanized iron (yero) for the roof. Concrete houses make up 31% of the structures, with no identified shanty houses. On the other hand, all respondents (100%) reported eating three times a day, and only seven percent (7%) experienced hunger in the last 12 months.

Figure 2

Commonly Raised Farm Animals



Source. Data analysis result of the research

4.3. Sources of capital

The three barangays assert that the source of their capital for economic activities is primarily self-financed (79%), with business partners contributing to 10%, and loans accounting for 12%. However, in Barangay Dita, residents often rely on various lending institutions. One respondent mentioned, "*Halos lahat kami dito ay may utang sa mga lending, kahit mataas ang* *interest*.” (Almost all of us here have loans from different lending companies, despite the high-interest rates). Consequently, they find themselves in a debt trap, borrowing to pay off other loans. In many developing countries, the lack of financial literacy often leads farmers to borrow, resulting in a repeated cycle of losses (Aggarwal et al., 2014).

Moreover, it is estimated that 77.4% of Filipinos are unbanked or have no access to any banking institution (Bangko Sentral ng Pilipinas, 2019). Fortunately, more than half of the respondents (56%) have savings in different banks. However, their average savings amount to less than ₱ 5000 ($ 90) per year. Therefore, promoting financial literacy is crucial among rural communities.

4.4. Sources of drinking water and electricity

The main source of water in the locale is Level II or community faucets (38.60%). A community faucet system includes a source, reservoir, and communal faucets. Additionally, 33% have access to a Level III water supply distribution, particularly in Barangay Manapao, facilitated by the municipal water district. Meanwhile, 28% of respondents obtain drinking water from a Level I source, such as a deep well, well, or spring.

However, a notable concern among residents in their respective barangays is the lack of water supply during intermittent electric supply or ‘brownouts’ (60%). About 28% reported experiencing insufficient water supply even when there is an electric supply. In terms of electricity, 95% of the local community subscribes to the electric company, specifically the Sorsogon Electric Cooperative (SORECO 2). In Nazareno, only two households lack electricity.

4.5. Public transportation

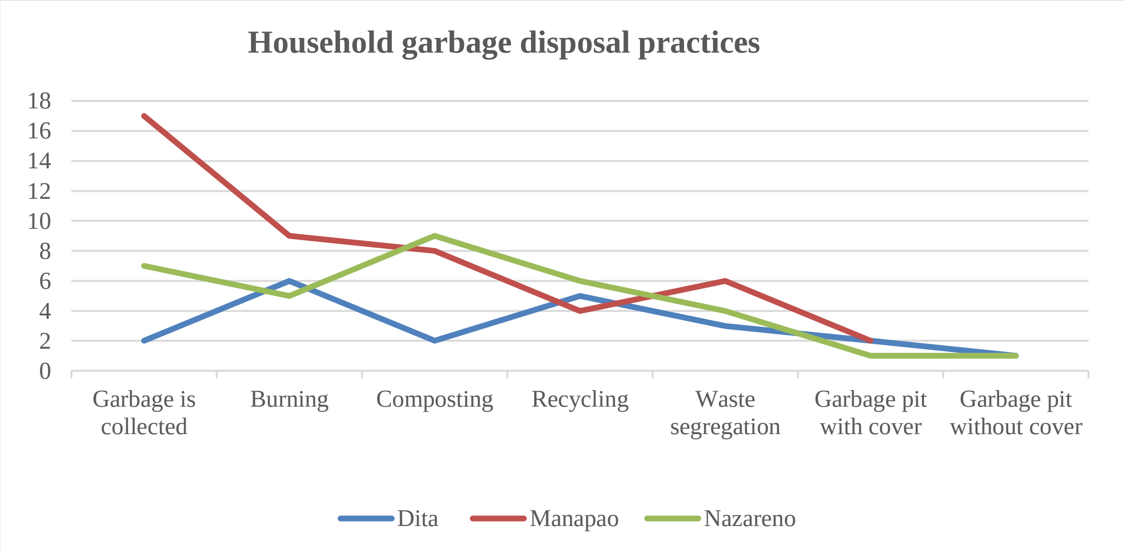
Dita and Nazareno are almost 11 kilometers away, while Manapao is six kilometers away from the town proper. Results of the study showed that public transportation is available every day for 68% of respondents, while 21% mentioned that there are some days of the week with no or poor access to transportation. The identified types of transportation used to reach neighboring communities include single motorcycles (55%), walking (28%), tricycles (11%), and bicycles (6%). Overall, the most common mode of transportation for the public is the tricycle. A tricycle is a three-wheeled motorcycle vehicle with three to five seating capacity. In rural areas, especially in the province of Sorsogon, tricycle serves a dual purpose as cargo carriers and modes of transportation. This vehicle facilitates the efficient transport of goods, agricultural products, and people.

4.6. Type of toilet facility and waste disposal

The majority of respondents (95%) have water-sealed or septic tank toilet facilities, while a small percentage (2.3%) dispose of waste improperly. Figure 3 illustrates various practices for household waste disposal. In Manapao, 17 respondents mentioned that their household waste is collected, whereas in Dita (2) and Nazareno (7), waste collection is less common. Burning waste is still practiced by 20% of respondents despite being prohibited by RA 9003, the Ecological Solid Waste Management Act of 2000. This is often due to the perceived convenience of burning compared to segregating or composting. Open burning of plastics continues to be a prevalent practice globally, despite of existing laws aimed at encouraging it (Pathak et al., 2023). However, composting (19%), recycling (15%), waste segregation (13%), garbage pits with covers (5%), and uncovered garbage pits (2%) are practices observed in the community, except for Manapao, which does not have uncovered garbage pits.

Figure 3

Types of Household Garbage Disposal



Source. Data analysis result of the research

4.7. Health status

One of the common health issues observed in the community includes cough, headache, hypertension, asthma, and kidney failure. The results of the study showed that most respondents seek medical treatment from public hospitals (35%). Despite some hospitals lacking facilities, residents prefer to consult government or public hospitals due to their relatively lower medical costs.

Additionally, consulting albularyo or hilot (24%) is still practiced in the three barangays (Table 2). Albularyo or folk healers, locally known as 'parabulong', specialize in various areas such as herbalism and bone setting (Cerio, 2020). The World Health Organization (WHO, 2020) recognizes the value of indigenous knowledge, skills, and practices in maintaining health, diagnosing, preventing, and treating diseases.

Table 2

Medical Unit/Facilities Visited to Avail Medical Treatment

Medical treatment	Dita	Manapao	Nazareno	F	Percentage (%)
Public Hospital	6	10	11	27	34.62
Private Hospital/Clinic	-	4	4	8	10.26
Rural Health Units	1	3	4	8	10.26
Brgy. Health Station/Center	5	5	6	16	20.51
Albularyo/Hilot	5	10	4	19	24.36

Note. F = Frequency
Source. Data analysis result of the research

4.8. Equipment and infrastructure

Generally, the barangays express a need for various facilities, including a rice mill (20%), cooking utensils and equipment (16%), computers (13%), solar dryer (13%), mobile tricycle for disaster response (8.9%), tools and equipment for the barangay tanod (barangay police) (8.9%), filing cabinets (5%), blood pressure apparatus (4%), and weighing scales with stadiometers (to measure height) (3%). Additionally, some *sitios* have rough roads or footpaths (18%) that require maintenance, particularly in Manapao. Consequently, there is a perceived need for transport services (22%). Despite these needs, the communities already have essential amenities such as schools, chapels, barangay halls, daycare centers, and access to farm-to-market roads.

4.9. Stakeholders/Existing organization

Nowadays, numerous agencies, including Governmental (GO), Non-Governmental Organizations (NGOs), and Civil Society Organizations (CSOs), aim to improve the living conditions and provide basic services to identified recipients. Based on the results of the Focus Group Discussion (FGD), various stakeholders have been identified, such as the Municipal Local Government Unit, Department of Social Welfare and Development (DSWD), Department of Health (DOH), Municipal Agriculture Office (MAO), Department of the Interior and Local Government (DILG), Department of Agrarian Reform (DAR), Department of Education (DepEd), State Universities and Colleges, Technical Education and Skills Development Authority (TESDA), farmers' organizations, Senior Citizen, Department of Labor and Employment (DOLE), Gubat Agritech Industries Co. (GAICO), Shopee/Lazada, Gubat Saint Anthony Cooperative (GSAC), and several lending institutions. Among these stakeholders, lending institutions are consistently present in their barangays because residents often have loans from one or more of these lending entities. Respondents rated their satisfaction with these institutions as either satisfied or very satisfied.

4.10. Environmental protection (Disaster and risk reduction and management and climate change)

Climate change

The effects of climate change are interconnected across all sectors. According to the definition by the Intergovernmental Panel on Climate Change (IPCC), climate change refers to a shift in climate over time, whether caused by natural events or anthropogenic activities (United Nations Framework Convention on Climate Change, 2011). Based on the study results, 96% of the respondents reported familiarity with the concept of climate change. Generally, they share a common understanding that climate change manifests as *'sobrang init at sobrang ulan*' (too much heat and too much rain), even experiencing heavy rains during the summer or, worse, typhoons. They perceive that the impacts of climate change include increased precipitation and temperature. To counter the effects of climate change, it is essential that strategies be put in place for community and ecosystem adaptation. There is a need to implement adaptation strategies to improve resilience (Alberto et al., 2022).

Moreover, respondents noted a rise in their electricity bills as they keep their appliances, especially electric fans, working to cope with the extreme heat. Additionally, heavy rains adversely affect their farming activities and production. Crop yields can be reduced by increasing temperature, changing precipitation patterns, and extreme weather events such as droughts and floods, causing pressure to the food systems (Annie et al., 2023; Raza et al., 2019; Singh, 2023; Wing et al., 2021).

Table 3

Hazards or Risks Experienced in the last Three Years

Hazards/risks experienced	**Dita**	**Manapao**	**Nazareno**	**F**	**Percentage (%)**
Flood		2	3	5	6.7
Landslide	1	5	4	10	13.3
Mudflow/Volcanic flow/Lahar flow	-	-	-	-	0.0
Storm sage	-	1	2	3	4.0
Tsunami	-	-		0	0.0
Soil erosion	1	2	3	6	8.0
Armed conflict	-	-	3	3	4.0
Fire	-	-		0	0.0
Typhoon	10	20	18	48	64.0

Note. F = Frequency
Source. Data analysis result of the research

The most common hazard or risk identified among all areas were typhoon (64%) and landslide (13.3%); this is because of the mountainous landscape of the location. Respondents experienced typhoon occurrence one to three times in a year (55%). However, no forest fire had been recorded in the last three years (**Table 3**). Moreover, one of the impacts of hazard or risk in the community is damage to property (40.4%) and damage to crops (37.1%). Their main source of information when natural hazard such as typhoon occurs are the radio/television (49.4%) and from the barangay officials or neighbors (43.5%) as shown in **Table 4**.

Table 4

Shows how Hazard or Risk Affect and the Source of Information

How were you affected by these hazards/risk	**Dita**	**Manapao**	**Nazareno**	**F**	**Percentage (%)**
Lost a family member	-	-	-	0	0.0
Disease	-	-	2	2	2.2
Damage to property	9	17	10	36	40.4
Damage to crops	4	13	16	33	37.1
Livestock loss	3	7	8	18	20.2
Source of information when natural hazard is coming					
Personal knowledge/experienced	1	2	1	4	4.7
Radio/television announcement	8	17	17	42	49.4
Barangay officials/community/ Neighbor warning	8	15	14	37	43.5
Others- social media	1	-	1	2	2.4

Note. F = Frequency
Source. Data analysis result of the research

Several factors, such as socio-economic status, age, health status, and housing materials, manifest vulnerability to hazards and risks, especially for groups likely to be associated with disaster damages (Yoon, 2012). The majority of respondents (32%) reported securing their houses by tying the roof supports, while others prepared basic needs (29%). Additionally, some evacuate to schools (58.5%), barangay halls (32%), evacuation centers (7.3%), and churches (2.4%). Approximately 70% of respondents stated the availability of evacuation centers in their locale, but facilities and amenities are inadequate, lacking items such as megaphones, whistles, kitchen utensils, food packs, first aid kits, bedding, toilets, and emergency gates or spaces.

In terms of risk perception, 53% of respondents identified themselves as at medium risk, 24.4% at high risk, and 22.2% at low risk in addressing natural hazards, encompassing prevention and mitigation. Table 5 illustrates the demand for various disaster preparedness training. Both ‘Rescue and Evaluation Planning’ and ‘First Aid/Basic Life Support’ training are in high demand (23.7%), while training on water safety and rescue is considered least in demand (16.1%).

Table 5

Identified Training Needed to Cope with Various Disasters

The training needs to prepare	**Dita**	**Manapao**	**Nazareno**	**F**	**Percentage (%)**
Contingency Planning	5	4	8	17	18.3
Rescue and Evacuation Plan	5	9	8	22	23.7
Water Safety and rescue	1	13	1	15	16.1
The training needs to prepare	**Dita**	**Manapao**	**Nazareno**	**F**	**Percentage (%)**
First Aid	7	8	7	22	23.7
Marketing Strategy	1	11	5	17	18.3

Source. Data analysis result of the research

4.11. Training needs assessment

Training Needs Assessment (TNA) is a systematic process of collecting data to determine appropriate training based on the needs of a community or organization (Brown, 2002). Through this process, decisions can be made about who should receive training and the content of the training (Clarke, 2003). Results of the TNA showed that, 14% of respondents prefer ‘Training on Vegetable Production’ as their top choice, followed by ‘Training on Organic Gardening/Container Gardening’ (11%) (Table 6). The majority of respondents are engaged in farming, albeit on a small scale or backyard farming. Training on Layer Production and Hog Raising were ranked lower, possibly because they were originally listed outside the TNA form but were suggested by respondents.

For technology transfer training on food manufacturing, ‘Cassava and sweet potato Chicharron’ (18%) ranked highest, followed by ‘Banana Chips’ (16.5%) (Table 6). In these areas, cassava, sweet potato, and banana are among the crops planted. Empirical observations indicate that neighboring barangays, like Cabiguhan, face challenges in disposing of cassava due to a lack of market, highlighting the need for product development.

Moreover, ‘Turmeric-Ginger Granules Making’ (47%) topped the list for preferred training in herbal supplements, followed by ‘Tea Production’ (28%) and ‘Herbal Syrups’ (28%).

In the non-food items category, 'Soap Making' (45%) ranked first. For health and environmental education, 'Training for First Aid and Emergency Nursing' (28%) is considered an ideal capacity enhancement for the community (Table 6).

In the realm of communication media technologies, 'Computer Literacy' (38%) emerged as a top priority. Barangay officials and workers often need to write reports, and many admitted a need for computer literacy, as not all of them are proficient. Finally, 'Leadership Training' (100%) is identified as essential for organizing people and local governance.

Table 6

Training Needs Assessment

A- Technology Dissemination/Transfer	Dita	Manapao	Nazareno	F	Percentage	Rank
Training on Native Chicken Production	3	10	5	18	10.2	3
Training on Layer production	-	-	1	1	0.6	13
Training on Hog-Raising	-	-	1	1	0.6	13
Training on Indigenous Food Production	2	5	7	14	8.0	5
Training on Vegetable Gardening	5	12	8	25	14.2	1
Training on Corn Production	1	6	2	9	5.1	10
Training on Rabbit Raising	1	1	1	3	1.7	12
Field Demonstration on Upland Farming	2	2	6	10	5.7	9
Training on Organic Gardening/ Container Gardening	2	8	9	19	10.8	2
Sweet Potato Production	2	4	3	9	5.1	10
Cassava Production	1	5	7	13	7.4	6
Ginger Turmeric Production	1	7	3	11	6.3	8
Quail Production	2	5	2	9	5.1	10
Mushroom Production	1	4	7	12	6.8	7
Training on Bokashi Production	-	4	1	5	2.8	11
Organic Pesticides and concoctions	2	8	7	17	9.7	4
Food Manufacturing						
Nutrimix Cooking Demonstration	1	4	3	8	7.3	6
Banana Chips	2	6	10	18	16.5	2
Cassava and sweet potato Chicharon	3	9	8	20	18.3	1
Salted Eggs Production	3	6	3	12	11.0	4
Fish Ball Making	1	6	4	11	10.1	5
Crispy Peanut	2	2	4	8	7.3	6
Peanut Brittle	2	2	3	7	6.4	7

A- Technology Dissemination/Transfer	**Dita**	**Manapao**	**Nazareno**	**F**	**Percentage**	**Rank**
Ube Balls		1	4	5	4.6	8
Ice Cream Making	3	4	6	13	11.9	3
Kalamansi/Dalandan Concentrate	2	1	4	7	6.4	7
Herbal Supplements						
Turmeric Ginger Granules Making	1	12	4	17	43.6	1
Tea Production	4	6	1	11	28.2	2
Herbal Syrups	1	2	8	11	28.2	2
Non-Food						
Soap Making	4	8	6	18	45.0	1
Acapulco Ointment making	2	8	3	13	32.5	2
Rag Making	3	4	2	9	22.5	3
B. Health and Environmental Education						
First Aid and emergency Nursing	4	15	6	25	27.8	1
Environmental Education	3	6	3	12	13.3	3
Disaster Management	1	6	5	12	13.3	3
Nutrition Education	4	8	8	20	22.2	2
Barangay Integrated Development Approach for Nutrition Improvement	2	1	1	4	4.4	6
Continuing Refreshers Training for BIDW's (barangay integrated development worker)	2	1	3	6	6.7	5
Nutrition Month Forum	4	5	2	11	12.2	4
C. Communication Media Technologies						
Computer Literacy	5	7	7	19	38.0	1
Project Proposal Writing	3	6	8	17	34.0	2
report Writing	3	6	5	14	28.0	3
D. Peoples Organization Development & Local Governance						
Leadership Training	5	13	8	26	100.0	1

Note. F = Frequency
Source. Data analysis result of the research

5. Conclusion and recommendation

Community Needs Assessment is a systematic process of assessing the needs of the community. It is a pre-requisite that prior to the roll-out of any projects or programs from any institution, Non-Government Organizations (NGOs), Peoples' Organizations (POs), or Civil Society Organizations (CSOs) to the community, a CNA shall be established. This is to ensure that the intervention is based on the needs of the recipient. With this, time, resources, and effort will be utilized efficiently.

On the other hand, this study proposes the development of a comprehensive training program as part of community development interventions to effectively address the diverse needs within the studied communities. The issue of financial literacy has been acknowledged, particularly in budgeting resources, prompting the initiation of training sessions to enhance understanding of money concepts and encourage effective saving practices. Leadership and local governance training are slated for barangay officials and organizational bodies, emphasizing both implementation and policymaking aspects. In addition, recognizing the increasing demand for computer literacy, a program focusing on basic computer skills, especially Microsoft applications, has been outlined to meet employment requirements and improve their report-writing skills. The awareness of climate change and solid waste management is noted among the respondents, yet challenges persist in compliance with waste disposal regulations. Moreover, basic life support and rescue operation training are proposed for three barangays at medium risk, given the considerable distance to the nearest hospital. Also, respondents expressed a strong demand for skills training in vegetable, poultry, and livestock production, alongside food processing, product development, organic fertilizer production, and the establishment of post-harvest facilities. These programs aim not only to address immediate needs but also to develop a sustainable practice and enhance the overall well-being of the community. In conclusion, this community needs assessment has identified several livelihood training and community needs that can significantly benefit the community.

ACKNOWLEDGEMENTS

The authors are grateful for the financial support from the TRIAS Southeast Asia and the Gubat Saint Anthony Cooperative (GSAC). Special thanks to the Barangay officials of Dita, Manapao, and Nazareno, Gubat Sorsogon, Philippines, for their invaluable assistance. Additionally, I appreciation to the technical staff and faculty of Bicol University Gubat Campus for their support during the focus group discussion.

References

Aggarwal, N., Gupta, M., & Singh, S. (2014). Financial literacy among farmers : Empirical evidence from Punjab. *Pacific Business Review International*, *6*(7), 36-42.

Alberto, R. P., Paz-Alberto, A. M., Ponce, C. D. B., & Mata, K. J. E. (2022). Climate change community-based and ecosystem-based adaptation strategies in selected coastal Barangays in Masinloc, Zambales, Philippines. *American Journal of Climate Change*, *11*(4), 342-362.

Altschuld, J. W., & Watkins, R. (2014). A primer on needs assessment: More than 40 years of reseach and practice. *New Direction for Evaluation*, *2014*(114), 5-18.

Annie, M., Pal, R. Kumar, Gawai, A. S., & Sharma, A. (2023). Assessing the impact of climate change on agricultural production using crop simulation model. *International Journal of Environment and Climate Change*, *13*(7), 538-550.

Bammeke, F. (2013). Gender, household headship and children’s educational performance in Nigeria: Debunking the myth of poor performance in female-headed households. *African Population Studies*, *24*(1/2), 26-41.

Bangko Sentral ng Pilipinas (BSP). (2019). *2019 Financial inclusion survey*. Bangko Sentral ng Pilipinas. https://www.bsp.gov.ph/

Bhuiya, T., Thakker, K., Hyacinthe, J., & Cioe-pena, E. (2022). Community needs assessment of low-income sections of 10 rural villages in Karnataka and Tamil Nadu, India. *Cureus*, *14*(1), Article e21271.

Borbon, N. M. D. (2020). Needs assessment of one municipality in the Philippines : Basis for sustainable community extension tourism program. *Asia Pacific Journal of Education, Arts and Sciences*, *7*(1), 24-31.

Brown, J. (2002). Training needs assessment: A must for developing an effective training program. *Public Personnel Management*, *31*(4), 569-578.

Busetto, L., Wick, W., & Gumbinger, C. (2020). How to use and assess qualitative research methods. *Neurological Research and Practice*, *2*(14), 1-10.

Castillo, D. E., Estiller, G. H., & Jadie, R. R. (2024). Extension training on Bokashi fertilizer production. *Puissant*, *5*, 1387-1397.

Cerio, C. (2020). Albularyo folk healing: Cultural beliefs on healthcare management in Partido District, Camarines Sur, Philippines. *Journal of Southeast Asian Studies*, *25*(1), 210-236.

Chakrabarti, A. (2021). Status of women: A comparative study of female and male household heads in India. *China Population and Development Studies*, *4*(4), 405-438

Clarke, N. (2003). The politics of training needs analysis. *Journal of Workplace Learning*, *15*(4), 141-153.

Hennink, M. M., Kaiser, B. N., & Weber, M. B. (2019). What influences saturation? Estimating sample sizes in focus group research. *Qualitative Health Research*, *29*(10), 1483-1496.

Henrikson, R., & Bishop, D. (2023). Conducting a community-level needs assessment through dynamic engagement with stakeholders. *Evaluation Review*, 1-17.

Hill, K. (2011). “Male providers” and “responsible mothers”: Gender and livelihood politics in the rural Philippines. *Gender, Technology and Development*, *15*(2), 223-247.

Maclure, L. (2023). Augmentations to the asset-based community development model to target power systems. *Community Development*, *54*(1), 4-17.

Masangkay, F. R., Milanez, G. R., GL Ormita, L. A., Alvarez Jr., A. V. P., Quinto, M., Lanestosa, F. F., Diaz, C. V., Johnson, L., & Paul Karanis, P. (2020). Water quality as a priority area of community needs assessment: Community extension service with the indigenous tribe of Hanunuo Mangyan in the Philippines. *Asian Journal of Biological and Life Sciences, 9*(2), 220-226. https://doi.org/10.5530/ajbls.2020.9.34

Pathak, G., Nichter, M., Hardon, A., Moyer, E., Latkar, A., Simbaya, J., Pakasi, D., Taqueban, E., & Love, J. (2023). Plastic pollution and the open burning of plastic wastes. *Global Environmental Change*, *80,* Aritcle 102648.

PhilAtlas. (n.d). *Gubat, Province of Sorsogon.* PhilAtlas. https://www.philatlas.com/luzon/r05/sorsogon/gubat.html

Rabiee, F. (2004). Focus-group interview and data analysis. *Proceedings of the Nutrition Society*, *63*(4), 655-660.

Ravaghi, H., Guisset, A. L., Elfeky, S., Nasir, N., Khani, S., Ahmadnezhad, E., & Abdi, Z. (2023). A scoping review of community health needs and assets assessment: Concepts, rationale, tools and uses. *BMC Health Services Research*, *23*(1), 1-20.

Raza, A., Razzaq, A., Mehmood, S. S., Zou, X., Zhang, X., Lv, Y., & Xu, J. (2019). Impact of climate change on crops adaptation and strategies to tackle its outcome: A review. *Plants*, *8*(2), 2-29.

Salces, A. J., Medino N. Yebron, J., Salces, C. B., & Dominguez, J. M. (2015). Phenotypic and genetic characteristics of Boholano genetic group of Philippine native chicken (*Gallus gallus domesticus*, L.). *Philippine Journal of Veterinary Science*, *41*(1), 1-11.

Salihu, H., Wilson, R. E., King, L. M., Marty, P. J., & Whiteman, V. E. (2015). Socio-ecological model as a framework for overcoming barriers and challenges in randomized control trials in minority and underserved communities. *International Journal of MCH and AIDS (IJMA)*, *3*(1), 85-95.

Sam, M. J., & Fung, H. N. (2023). Exploring Asset-Based Community-led Development (ABCD) elements for determining farm technologies in rural rice farming community - Kelabit Highlands, Sarawak. *Journal of Borneo-Kalimantan*, *9*(1), 36-49.

Schaffler, Y., Kuska, M., Barke, A., Doering, B. K., Gossmann, K., Meier, Z., Kascakova, N., Tavel, P., Humer, E., Pieh, C., Stippl, P., Schimböck, W., Haid, B., & Probst, T. (2022). Psychotherapists' reports regarding the impact of the Covid-19 pandemic on their patients: A cross-national descriptive study based on the Social-Ecological Model (SEM). *International Journal of Environmental Research and Public Health*, *19*(11), Article 6825.

Singh, P. (2023). Crop models for assessing impact and adaptation options under climate change. *Journal of Agrometeorology*, *25*(1), 18-33.

Tuominen, L. S., Helle, S., Helanterä, H., Karell, P., Rapeli, L., Richmond, D., Vuorisalo, T., & Brommer, J. E. (2022). Structural equation modeling reveals decoupling of ecological and self‐perceived outcomes in a garden box social‐ecological system. *Scientific Reports*, *12*(1), Article 6425.

United Nations Framework Convention on Climate Change (UNFCCC). (2011). *Fact sheet: Climate change science - The status of climate change science today.* United Nations Framework Convention on Climate Change. https://unfccc.int/files/press/backgrounders/application/pdf/press_factsh_science.pdf

Wing, I. S., De Cian, E., & Mistry, M. N. (2021). Global vulnerability of crop yields to climate change. *Journal of Environmental Economics and Management*, *109*, Article 102462.

World Health Organization (WHO). (2020). *WHO supports scientifically-proven traditional medicine.* World Health Organization. https://healthalert.whofreebasics.org/sections/news/who-supports-scientifically-proven-traditional-medicine/

Yoon, D. K. (2012). Assessment of social vulnerability to natural disasters: A comparative study. *Natural Hazards*, *63*(2), 823-843.