

Mitigating the Effects of the COVID-19 Pandemic on Human Development: The Case of Tortugas, Balanga City, Bataan

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ABSTRACT. This study aimed to analyze how Barangay Tortugas implemented its programs and projects to mitigate the adverse effects of the COVID-19 pandemic in the context of the three elements of human development (health, education, and access to resources). Data were gathered through key informant interviews using a structured questionnaire. Purposive sampling was used in selecting respondents comprised of eight barangay officials, the school principal, 13 teachers, and 60 beneficiaries of the Barangay Kitchen Station and the vaccination program. Results of the study showed that among the various programs and projects being implemented in the barangay, only three (3) were successful. First, the vaccination program was able to keep the number of COVID-19 cases to a minimum when an incentive in the form of rice distribution was given to the recipients. Second, its education project, the Gulong ng Pag-asa project, which was jointly implemented by the school and barangay officials, prevented children from dropping out of school and ensured their continuous acquisition of knowledge amidst the pandemic. Lastly, the Barangay Kitchen Station, an innovative project that prepared and distributed hot meals, was able to supplement the food or nutritional needs of its constituents during the pandemic.

To ensure continuity and sustainability in future undertakings given a similar situation, the following recommendations are given: (a) give priority to programs and projects that address the three elements of human development; (b) nurture the spirit of cooperation and volunteerism; (c)

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use a more precise way of describing or measuring the mitigating effects of barangay programs and projects on human development; and (d) adopt a comparative perspective and experience in future research studies.

Keywords: *barangay, COVID-19 pandemic, human development, mitigation*

INTRODUCTION

In the Philippines, the barangay is the smallest political unit. Health and social welfare are among the basic services that the barangay local government unit (BLGU) is mandated to provide under Book I, Chapter 2, Section 17 of the Philippine Local Government Code (otherwise known as Republic Act No. 7160). Such services include the provision and maintenance of health and day-care centers. The BLGU is also the lead planner and implementor of the policies, programs, and projects of the national government. It is also a forum for the citizens' collective expression of views and dispute settlement (Local Government Code of the Philippines, Book III, 1991). The BLGU, however, often fails to perform these functions because its limited funds are spent mostly on personnel services (Layug et al., 2010).

The greatest challenge to the BLGU's capacity to respond to a health emergency was seen during the upsurge of COVID-19. This infectious disease originated from a new strain of severe acute respiratory syndrome coronavirus 2 (SARS-CoV2) that was discovered in 2019 in Wuhan, China (National Economic and Development Authority Region 3, 2020). To manage COVID-19 suspects and their contacts, the Department of the Interior and Local Government (DILG) issued Memorandum Circular No. 2020-018, which ordered the creation of barangay health emergency response teams (BHERTs) all over the country. A BHERT is composed of an executive officer, a tanned (guard), and two health professionals, such as nurses or midwives, who are appointed by the barangay chair (DILG Philippines, 2020).

Since its global outbreak, COVID-19 has caused a crisis in human development. According to the 2020 United Nations Development Programme (UNDP) report, current conditions are similar to deprivation levels of the mid-1980s on some human development elements. For instance, the largest decrease in income since the Great Depression of the 1930s was observed. In the health sector, over 300,000 deaths were recorded in just the first few months of the pandemic. While in the education sector, out-of-school rates became comparable to the mid-

1980s (UNDP, 2020).

The COVID-19 pandemic has resulted in production and job losses, particularly in Central Luzon. Industries had to either shut down operations or operate below capacity due to lack of manpower, problems in the delivery of raw materials, and other constraints in the supply chain. The agriculture and fisheries sector suffered production losses as a result of restrictions in movement that prevented products from being sold and consequently being spoiled. Based on the 2020 National Economic and Development Authority (NEDA) Region 3 report, the rice subsector alone had recorded a loss of about 118,000 metric tons. In Central Luzon, about 7,000 establishments had to either temporarily close or implement flexible working arrangements such as a work-from-home setup. Over 280,000 workers have been affected by these temporary closures and flexible working arrangements. Economic losses from the implementation of a 60-day Enhanced Community Quarantine (ECQ) were estimated to be Php 174 billion (USD 3.5 billion) – huge enough to pull Central Luzon's regional gross domestic product (RGDP) back to its 2017 level (NEDA Region 3, 2020).

Based on the 2020 Philippine Statistics Authority (PSA) report, in April 2020 the unemployment rate and inflation in Central Luzon rose to 27.3% and 2.6%, respectively. The country's inflation rate from June to December 2022, however, is running between 6.1% and 8.1% (BSP, 2023). The incidence of poverty in the country increased to 18.1% in 2022 from 16.7% in 2018 (PSA, 2022). This means that an estimated 20 million Filipinos have fallen below the poverty line. The poverty threshold for a family with five members is a monthly income of Php 12,000 (USD 242) (NEDA 2022; PSA, 2022).

The COVID-19 pandemic, however, has not only caused these economic problems, but it has also brought problems in education. The United States Agency for International Development (USAID) has recorded an increase in the country's number of out-of-school youth from 16.9% in January 2020 to 25.2% in April 2020 (Bautista, 2022). Although the Department of Education (DepEd) considered the implementation of distance or remote learning modality a success, around 1.1 million students were unable to enroll in the school year 2020-2021 due to various reasons (Bautista, 2022). The DepEd, however, denied the increase in the dropout rate. Students remained in school, and they only had a change in learning modality or moved to a new geographic location (DepEd, 2021). Raitzer et al. (2020), meanwhile, found that the effectiveness of school closure was limited when compared with alternative COVID-19 control measures.

Given these national and regional contexts, this study investigated how Barangay Tortugas in Balanga City, Bataan, as a case study site, mitigated the effects of the COVID-19 pandemic on the three human development dimensions: health, education, and access to resources.

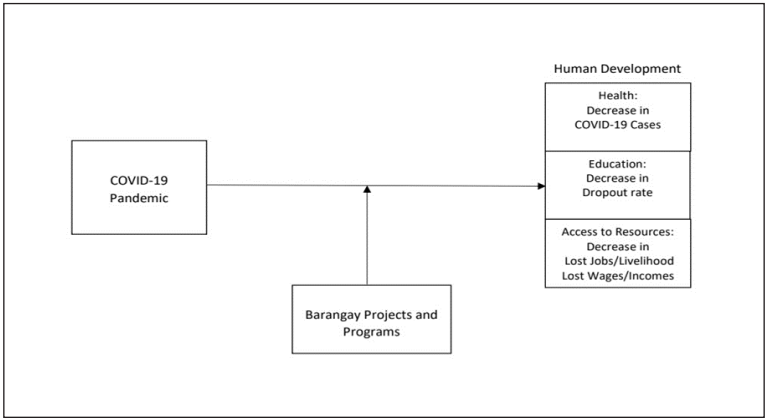
The study used the human development concept of Amartya Sen (1999) as a framework. According to Sen, human development means expanding the capability of people to live a life of their own choice. Alternatively, human development is the expansion of freedom that people enjoy and also refers to the process of enlarging peoples' choices (Sen, 1999). According to Sen, there are four factors that convert income into the capacity to live an acceptable life, namely; 1) personal heterogeneities such as age, illness, and disability; 2) diversity in environment such as dwelling, clothes, and fuel; 3) variation in social climate such as crime, civil unrest, and violence fall; and 4), differences in relative deprivation or the extent to which being poor decreases a person's capacity to participate in the community. Economic development will not be achieved unless these sources of deprivation are alleviated.

In 1990, the United Nations Development Program (UNDP) published the first Human Development Report, which discussed the quantification of three human development elements, namely: a) having a healthy and long life, b) knowledge acquisition, and c) resource access to a decent standard of living. These elements have particular measures that are combined into the Human Development Index (HDI) which uses the following indicators: life expectancy at birth, number of years in school, and gross national income (GNI) per capita or gross national product (GDP) per capita.

The conceptual framework of this study is shown in Figure 1. COVID-19 directly affects all three dimensions or elements of human development in a negative way. People get sick or even die when they contract COVID-19. The severe health risks posed by the pandemic and the associated enforcement of strict quarantine, restrictions on movement, lack of internet access, and poverty, among other factors, force children to drop out of school. The pandemic also causes people to lose their jobs or livelihood and their wages or incomes, which consequently deprives them of their daily needs. The negative effects of COVID-19 on human development are mitigated by the programs and projects being implemented by the barangay. This study aimed to analyze how Barangay Tortugas, in particular, implemented its programs and projects to mitigate the adverse effects of the COVID-19 pandemic in the context of the three elements of human development (health, education, and access to

resources)

Figure 1
Barangay projects and programs mitigating the effects of the COVID-19 pandemic on health, education, and access to resources



METHODOLOGY

Research Design and Sampling

This study used qualitative research and case study approaches. The qualitative and quantitative data were collected through key informant interviews with the aid of a structured questionnaire. Purposive sampling was used in the selection of respondents, who were comprised of eight barangay officials, the school principal, 13 teachers, and 60 beneficiaries of the Barangay Kitchen Station and other related programs and projects. Data collection was done from August 29 to October 30, 2022.

Case Study Site Selection. Tortugas is one of the 25 barangays of Balanga City, Bataan, which has a land area of 32.09 hectares (<https://www.cityofbalanga.gov.ph>). It is classified as an urban area based on Balanga City’s Comprehensive Land and Water Use Plan for the period 2012-2020. It has a population of around 3,900 and 750 households. Fishing is the primary source of livelihood in the barangay, and some residents are manufacturing bagoong (fish paste) and patis (fish sauce). Recently, the barangay has become a tourist attraction because of its wetlands, mangroves, and migratory birds. Tortugas is a multi-awarded barangay. It is a three-time recipient of the Gawad Kalasag from the Office of Civil Defense. It has also won awards from the Balanga City Government and

the Bataan Provincial Government for its outstanding programs in child care, literacy, fire protection, environmental conservation, peace and order, and anti-drug abuse. These awards imply that Tortugas has the capacity to successfully implement programs and projects to mitigate the adverse effects of the COVID-19 pandemic on its constituents' health, education, and access to resources. Hence, its selection as a case study site is justified.

Data Collection. The barangay officials and the Tortugas Integrated School principal and teachers were asked what programs and projects they implemented to alleviate the adverse effects of the COVID-19 pandemic on their constituents' health, education, and access to resources. They were also asked: (1) how many COVID-19 cases they had in their barangay; (2) what has happened to the dropout rate in their integrated school since the COVID-19 pandemic; (3) how many of their constituents jobs or livelihoods, or the amount of wages or incomes have been lost since the pandemic; (4) whether their financial and human resources were enough to implement their programs and projects; and (5) whether they received enough guidance and support from higher authorities for their programs and projects.

Using a 5-point Likert scale, they were also asked to rate the degree of sufficiency of their financial and human resources, and the amount of guidance and support from higher authorities. The study used Likert scale to obtain more definite responses using the following legend: 5 = most sufficient; 4 = sufficient; 3 = neither sufficient nor insufficient; 2 = insufficient; and 1 = most insufficient.

Meanwhile, the program or project beneficiaries were asked: (1) how those programs and projects mitigated the adverse effects of the pandemic on their health, their children's education, and their access to resources; (2) whether they got infected with COVID-19; (3) whether their children dropped out of school because of the COVID-19 pandemic; (4) the other reasons, aside from the COVID-19 pandemic, for their children's dropping out of school; (5) whether they lost their jobs or livelihoods and wages or incomes because of the COVID-19 pandemic; and (6) how much wages or incomes they lost due to the COVID-19 pandemic.

Using a 5-point Likert scale, they were asked to rate the sufficiency of the barangay programs and projects in mitigating the negative results of the pandemic on their health, their children's education, and their access to resources. The numerical scores and their adjectival equivalents of this Likert scale were similar to the ones used for the barangay officials

and the Tortugas Integrated School principal and teachers – with 5 as the most sufficient and 1 as the most insufficient.

Data Analysis. The responses of all interviewees or participants were summarized in a spreadsheet. The modal responses and the mean of the Likert scale scores were used to identify emerging themes and answer the study's research question. The themes that emerged from the modal responses were subsequently checked or assessed to determine whether or not they would likely lead to what Sen (1999) calls the "expansion of peoples' capability to live an acceptable life" or "a life of their own choice." Sen equates capability expansion to the expansion of peoples' choices. For instance, getting vaccinated against COVID-19 increases a person's chance of surviving the illness in case he or she contracts it. In a sense, the same vaccine will likely help the recipient have a healthy and long life. Similarly, if students or pupils are able to continue their education despite the pandemic, they will have higher chances of graduating and getting decent and good paying jobs. In turn, their good paying jobs will enable them to acquire the resources they need to lead the life of their own choice.

Ethical Considerations. For ethical reasons, the written consent of the interviewees or participants was obtained prior to the interviews. Permission to conduct the interviews was also obtained from the barangay chair. The identities of the interviewees were also kept anonymous. Lastly, permission to use the photographs of the hot meals in the Barangay Kitchen Station and some of the elderly residents being vaccinated against COVID-19 was likewise obtained from the barangay chair.

RESULTS AND DISCUSSION

The BLGU's Projects and Programs

Since the COVID-19 outbreak in 2020, Tortugas has implemented five projects (Table 1), namely, (1) the COVID-19 awareness drive; (2) the distribution of COVID-19 kits; (3) the provision of hot meals; (4) the distribution of food packs or relief goods; and (5) provision of financial aid. It has also implemented programs for the enforcement of health protocols, quarantine, and vaccination. Innovations were introduced in the provision of hot meals and the implementation of the vaccination program. Hot and nutritious meals were prepared by volunteer cooks in the Barangay Kitchen Station, neatly packed in individual plastic containers, and delivered directly to the households. A total of 120 families per day for 100 days were provided with these hot meals (Figure

2). On the other hand, to ensure the vaccination program's success, the barangay implemented an incentive scheme wherein five (5) kilograms of rice were given to each recipient of the COVID-19 vaccine. (Figure 3). The barangay officials recognized the assistance of the Balanga City Government and the Bataan Provincial Government in implementing said programs and projects.

Table 1
Summary of qualitative responses of Barangay Tortugas officials:
Projects and programs implemented

Types of programs and projects	Total number
Projects implemented	
• Covid-19 awareness drive, COVID-19 kits hot meals, food packs, and financial aid	6
• Hot meals, relief goods, and “ayuda”	2
Program implemented	
• Health protocols/quarantine and vaccination	6
• Vaccination	2
Total observation (n=8)	

Not everyone, however, received financial aid or ayuda. The Barangay Chair explained the basis for the financial aid: *“Hindi lahat nabigyan ng ayuda. Depende kasi sa guidelines ng DSWD. Yung nabigyan lang ay ang mga nawalan ng trabaho, mahihirap, at kasama sa 4Ps. Hindi nakatanggap yung mga pamilya na may kita na hindi bababa sa P14,000 sa isang buwan, may mga tindahan na patuloy na kumikita, at mga empleyado ng gobyerno”* [Not everyone received financial aid. The provision of financial aid is dependent on the guidelines of the Department of Social Welfare and Development. Those who were given financial aid are people who had lost their jobs, the poor, and the beneficiaries of the *Pantawid Pamilyang Pilipino Program* (4Ps). Meanwhile, families with a monthly income of at least Php 14,000 (USD 283), those with stores that continuously earn, and government employees did not receive the financial aid.

Tortugas had zero cases of COVID-19 in 2020. However, starting 2021, the barangay has already recorded 70 confirmed cases despite having a 95% vaccination rate of its adult population (R. De Guzman, personal communication, August 29, 2022). Most of these patients were treated

Figure 2
Hot meals prepared at the
Barangay Kitchen Station



Figure 3
COVID-19 Vaccination Program for
the residents of Barangay Tortugas



Source: Rogelio De Guzman, Chairman of Barangay Tortugas

at the Bataan General Hospital and Medical Center, while others were brought to the isolation facility in Mariveles, Bataan. This number of Tortugas constituents who have had COVID-19 represents a mere 1.8% of the total barangay population.

Meanwhile, the barangay officials claimed that they were proud that there were no school drop outs during the COVID-19 pandemic

Table 2
Summary of qualitative responses of Barangay Tortugas officials:
Provider of assistance and reason for zero dropout

	Number
Received assistance from	
Balanga City Government, Bataan Provincial Government	8
Reasons for zero drop out	
Gulong ng Pag-asa (GngP)	8

(Table 2). This can be attributed to the *Gulong ng Pag-asa* (Wheel of Hope) project which was established by their integrated school and barangay council. This project literally had a cart, teacher, and *tanod* (guard) who went around to monitor and ensure that children’s learning would continue. Only a few of their constituents had lost jobs or livelihoods because companies had allowed work-from-home arrangements and had put some of their employees on skeleton force. On the other hand, their fishermen, had continued fishing since this was their only means to survive.

They considered their financial and human resources more than enough to implement the programs and projects against COVID-19. All of them gave the highest sufficiency score of 5 on the 5-point Likert scale. The adjectival equivalent of this Likert scale score is most sufficient. They said they were fortunate to have volunteers in the barangay and the budget from the Balanga City Government and the Bataan Provincial Government (Table 3). They also felt that they received more than enough

Table 3
Summary of qualitative responses of Barangay Tortugas officials:
Sufficiency of financial, human resources, and guidance from higher authorities

	Number
Description of financial and human resources	
Plenty of funds from city and provincial governments, many volunteers from barangay	6
Enough funds from city and provincial governments	2
Description of guidance from higher authorities	
A lot of guidance from city and provincial government official	6
Enough guidance from city and provincial government officials	2
Total observation (n=8)	

guidance and support from higher authorities in the implementation of the COVID-19 programs and projects. All of them gave the highest sufficiency rating of 5 on the 5-point Likert scale. They noted that it was a good thing that their city mayor, provincial governor, and congressman are siblings which resulted to well-coordinated efforts.

With most sufficient financial and human resources, as well as more than enough guidance from higher authorities during the pandemic, these barangay officials are fortunate not having the situation of other street-level bureaucrats or frontline government workers. Lipsky (1969, 1980) defined street-level bureaucrats as government employees who, despite the high demand for their services, face resource scarcity and little guidance from authorities.

In summary, the barangay administration's most noticeable or with high impact efforts during the pandemic were: (a) the COVID-19 vaccination program which provided incentives in the form of rice distribution; (b) the *Gulong ng Pag-asa* project; and (c) the innovative provision of hot meals through their Barangay Kitchen Station. The COVID-19 vaccination program corresponds to the first element of human development, that is living a long and healthy life. It addresses one of what A. Sen (1999) calls personal heterogeneities, which is illness. Tortugas's residents who had themselves vaccinated against COVID-19 were expected to survive the illness in case they contract the disease.

The *Gulong ng Pag-asa* project, on the other hand, corresponds to the second element of human development, knowledge acquisition. The *Gulong ng Pag-asa* project allowed the students or pupils of the Tortugas Integrated School to continue acquiring knowledge despite the pandemic. It prevented them from dropping out of school. In the long run, they will graduate from school and will be better prepared to enter the labor force and get higher chances of getting decent and good paying jobs. Their jobs, in turn, will provide them the access to resources that are necessary in leading the lives of their own choice.

Finally, the provision of hot meals through the Barangay Kitchen Station corresponds to the third element of human development, that is access to resources. The program allowed the residents of Tortugas, especially the poor, to supplement their food and nutritional needs during the COVID-19 pandemic. The respondents perceive that the food from the Barangay Kitchen Station provided them the energy they needed to continue fishing, processing patis and bagoong, or working for companies or enterprises. It also prevented them from losing their jobs or source of livelihood.

Collectively, the COVID-19 vaccination program which provided incentives in form of rice distribution, the *Gulong ng Pag-asa* project, and the innovative provision of hot meals through the Barangay Kitchen Station, can be considered as social opportunities. According to

Sen (1999), social opportunities are arrangements that the government or society make for health, education, and resource access that enable people to live better. These arrangements are necessary not only for surviving the pandemic, but also in ensuring peoples' participation in the community. In hindsight, these programs and projects achieved something much bigger than the aim of mitigating the adverse effects of the pandemic. They contributed much to the development of the people of Barangay Tortugas.

The Tortugas Integrated School Project and Perspective. The Tortugas Integrated School was established in 1945. It has nine grade levels, from kindergarten to 8th grade. As of August 31, 2022, it has a total student population of 421 which is divided into 215 males and 206 females. Each grade level has a minimum class size ranging from 35 to 45. The main building of the Tortugas Integrated School is shown in Figure 4.

Figure 4
The main building of the Tortugas Integrated School



Source: Patrick C. De Leon

To ensure continuity of learning despite the outbreak of COVID-19 and to cultivate the students' love for reading, the integrated school together with the barangay council implemented the *Gulong ng Pag-asa* (Wheel of Hope) project. The project had seven carts loaded with books, modules, and other learning materials that were brought to students' places of residence. Each cart was accompanied by a teacher and a tanod (guard). Table 4 shows the responses of the principal and teachers. Contrary to the barangay officials' claim of zero dropouts during the pandemic, the principal's record reveals that there were at least two students who had stopped schooling due to a lack of financial

resources. One student was also reported to have contracted COVID-19. Meanwhile, the principal and the teachers did not have any information on the number of jobs or livelihoods and the incomes or wages lost due to the COVID-19 pandemic.

Table 4
Summary of quantitative responses of Tortugas Integrated School principal and teachers

	Number
Total COVID-19	1
Total Drop out	2
Total people lost their job	Not applicable
Sufficiency of resources*	
Most insufficient	3 (21%)
Insufficient	8 (57%)
Neither sufficient nor insufficient	0
Efficient	3 (21%)
Most efficient	0 (0)
Sufficiency of guidance*	
Most insufficient	0 (0)
Insufficient	1 (7%)
Neither sufficient nor insufficient	1 (7%)
Efficient	9 (64%)
Most efficient	3 (21%)
Total observation (n=8)	

***Legend: 5 = most sufficient; 4 = sufficient; 3 = neither sufficient nor insufficient; 2 = insufficient; 1 = most insufficient**

Percentages are inside the parenthesis.

According to the school principal and the 13 teachers, their financial and human resources were not enough to implement the *Gulong ng Pag-asa project* (Table 4). The mean of the Likert scale scores that they gave was 2, which had an adjectival equivalent of insufficient. This was in sharp contrast to the rating of 5, with an adjectival equivalent of most sufficient, given by the barangay officials.

They felt that they had received enough guidance and support

from higher authorities in the implementation of their *Gulong ng Pag-asa* project. The mean of the Likert scale scores they gave was 4, which had an adjectival equivalent of sufficient. They referred to the Department of Education and local government officials including barangay officials.

Understandably, in the interviews with the integrated school principal and teachers, it was emphasized that there should be continuity in learning despite the pandemic. Clearly, they achieved this goal through their *Gulong ng Pag-asa* project which corresponds to the second element of human development, knowledge acquisition. The project made the dropout rate almost negligible. Only two out of 421 students dropped out of school (a dropout rate of only 0.48%). The success of the project, however, goes beyond keeping the dropout rate to a negligible level. It ensured the continuity of knowledge acquisition among the students or pupils of the school. It is relatively easy to visualize that this will significantly increase their chances of graduating from school and become better prepared for employment. Assuming that the country's labor market conditions improve by the time they graduate from college, they will be able to obtain decent and good paying jobs. These jobs will provide them a steady income stream that, in turn, will provide them access to the resources they need to lead the lives of their own choice.

The Beneficiaries' Perspective. According to the beneficiaries, the vaccination program, the *Gulong ng Pag-asa* project, and the Barangay Kitchen Station greatly helped in mitigating the negative effects of the pandemic on their health, their children's education, and their families' access to food or nutritional requirements. The mean of the Likert scale scores they gave was 4, the adjectival equivalent of which was sufficient. Out of the 60 beneficiaries, only two had tested positive for COVID-19. They were treated at the Bataan General Hospital and Medical Center. All of them have already been vaccinated for COVID-19 twice and even received at least one booster shot. Many of them admitted that the five-kilogram rice incentive made them endure the long lines and waiting time. The success of the vaccination program was attributed to the incentive scheme implemented by the barangay Table 5.

The average household size is nine (9) which includes children and extended family members. The respondents had at least four children attending school who reportedly did not drop out of school despite the tremendous financial and technological difficulties brought about by the pandemic. They acknowledge the *Gulong ng Pag-asa* project and the modules given by the Tortugas Integrated School for their children's continuous schooling amidst the pandemic.

Table 5
Summary of quantitative responses of beneficiaries of Barangay Kitchen Station and related programs and projects

	Number
Average household member	9
Average number of children	5
Average number of children in school	4
Sufficiency of Barangay programs and project	
Most sufficient	60 (100%)
Infected with COVID-19	
Yes	58 (97%)
No	2 (3%)
Number of people who lost jobs	20 (33%)
Number of people lost wages (Refused)	20 (33%)
Total observation (n=60)	

***Legend: 5 = most sufficient; 4 = sufficient; 3 = neither sufficient nor insufficient; 2 = insufficient; 1 = most insufficient**
Percentages are inside the parenthesis.

More than half (67%) of the respondents said that they did not lose jobs or livelihoods during the pandemic because they were allowed to continue fishing and manufacturing patis (fish sauce) and bagoong (fish paste). Meanwhile, establishment employees were either put on skeleton force or allowed to work from home. Less than half (33%) of the respondents lost their jobs or livelihoods during the pandemic, and they refused to give an estimate of their lost incomes or wages.

Whether or not they lost jobs or livelihoods and incomes or wages during the pandemic, all the respondents considered the hot meals prepared and distributed by the volunteers of the Barangay Kitchen Station a big help in meeting their families' food or nutritional needs. They said that the hot meals were delicious, nutritious, neatly packed, and delivered in a timely manner. These attributes of the hot meals and how they were delivered ultimately gave the beneficiaries a sense of dignity. One beneficiary further explained: "Sa ibang mga barangay at bayan, maaawa ka sa mga tao. Pinaglalabas ng upuan sa tapat ng bahay para makatanggap ng kaunting relief goods na kadalasan ay sardinas at noodles. Pero dito sa amin sa Tortugas, masarap at masustansyang lutong ulam at kanin ang inihahatid mismo sa aming mga bahay" (In

other barangays and towns, you would pity the people. They were being asked to put a chair in front of their houses to receive a few relief goods which often consisted of sardines and noodles. But here in our Barangay Tortugas, delicious and nutritious cooked viand and rice were delivered directly to our houses).

SUMMARY & CONCLUSIONS

Results of the study showed that from among the various programs and projects being implemented in the barangay, only three (3) were successful. First, the vaccination program was able to keep the number of COVID-19 cases to a minimum when an incentive in form of rice distribution was given to the recipients. Second, its education project, the Gulong ng Pag-asa project which was jointly implemented by the school and barangay officials prevented children from dropping out of school and ensure their continuous acquisition of knowledge amidst the pandemic. Lastly, the Barangay Kitchen Station, an innovative project which prepared and distributed hot meals was able to supplement the food or nutritional needs of its constituents during the pandemic. The COVID-19 vaccination program assured them that in case they contracted the disease, they would be able to survive. This corresponds to the first element of human development, that is living a long and healthy life. The Gulong ng Pag-asa project, on the other hand, prevented the beneficiaries' children from dropping out of school. It allowed the children to continue acquiring knowledge during the pandemic. Finally, the hot meals prepared at the Barangay Kitchen Station, allowed the beneficiaries to supplement their food or nutritional needs. They perceived that the food from the Barangay Kitchen Station provided them the energy they needed to continue fishing, and process fish sauce (patis) and fish paste (bagoong) for companies or enterprises based in Bataan. Their steady income stream provided them the access to the resources they need in living the lives of their choice. Collectively, these barangay programs and projects are social opportunities or arrangements that allowed Tortugas's residents to survive during the pandemic and to continue participating in community activities despite such situation. TLTM conducted the study, collected and analyzed the data, and wrote the article. BPGF guided TLTM in the data analysis and discussion of research results.

RECOMMENDATIONS

To ensure continuity and sustainability in future undertakings given a similar situation, the following recommendations are given: a) give priority to programs and projects that address the three elements of

human development, such as vaccination against common and emerging diseases, supplemental feeding programs for children, and livelihood or skills training; b) nurture the spirit of cooperation and volunteerism; and c) use a more precise way of describing or measuring the mitigating effects of barangay programs and projects on human development; and d) adopt a comparative perspective and experience in future research studies.

CONFLICT OF INTEREST

The author declares that the research was conducted without any commercial or financial relationships that could be construed as a potential conflict of interest.

PERMISSION TO REUSE AND COPYRIGHT

An earlier version of this work was presented at the 3rd International Conference on Governance and Development (ICGD3) held on 19-21 July 2023.

DATA AVAILABILITY

Data used by the author can be accessed upon request.

AUTHOR CONTRIBUTIONS

P. C. De Leon is the sole author of this paper. As such, he is solely accountable for the contents of his work.

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