Overseas Fieldwork Report 2022:

Los Baños, The Philippines

Graduate School of International Development

Nagoya University

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Los Baños, The Philippines

March 2023

Graduate School of International Development

Nagoya University

Nagoya, Japan

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Los Baños, The Philippines
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Acknowledgments

Introduction

The twenty-ninth Overseas Fieldwork (OFW 2022) of the Graduate School of International Development (GSID), Nagoya University, was conducted in Los Baños, Philippines, from September 10 to September 21, 2022. Each year, GSID carries out OFW in a developing country in Asia in cooperation with a local partner university of GSID. In the Philippines, GSID has conducted seven successful OFWs since 1994. This year, GSID collaborated with the College of Public Affairs and Development (CPAf), University of the Philippines Los Baños (UPLB), to implement the OFW. Building on the long-standing partnership between the two universities, the OFW 2022 provided an opportunity to strengthen further GSID's ties for academic exchange and collaboration with UPLB.

The OFW 2022 is particularly noteworthy as it was the first after the global outbreak of the COVID-19 pandemic, which significantly impacted international travel and global development efforts in 2020 and 2021. The COVID-19 pandemic, caused by the SARS-CoV-2 virus, has dramatically disrupted global economies, health systems, and social structures. The Philippines, like many other countries, has been severely affected by the pandemic, with significant economic and social consequences. The pandemic has highlighted the importance of sustainable development and equitable access to health care, education, and basic services.

The OFW 2022 program covered a wide breadth of topics, from the challenges in the shift to Face-to-Face classes after the pandemic to the governance of informal settlements in Los Baños to how to leverage the Online Food Delivery system to sustain and expand business in the post-pandemic Los Baños. The research topics were divided into three working groups, namely education (WG1), governance (WG2), and economics (WG3), based on the expertise of the GSID professors, the global COVID-19 environment, and the relevance of the topics to the local context. The program aimed to provide students with practical insights into development issues affecting communities in the Philippines while adhering to the necessary health and safety protocols to mitigate the spread of COVID-19. The students conducted their research in various communities in Los Baños and focused on an integrated approach to understanding the interlinkages between different development sectors.

On September 20, the students presented their research findings to local authorities, resource persons, and stakeholders, who provided feedback and suggestions for further improvement. The OFW 2022 program was a significant milestone for GSID's relationship with UPLB and its commitment to promoting sustainable development in the Philippines, particularly in the context of the ongoing COVID-19 pandemic. The report provides insights into the impact of the pandemic on communities and highlights the need for sustainable and resilient development strategies to mitigate the impacts of future global crises.

Otchia Christian
Associate Professor
Chair of OFW 2022 Committee
Graduate School of International Development
Nagoya University

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Working Group 3

The Economic Impacts of Online Food Delivery (OFD)

List of Participants

Faculty Members (7)

Working Group	Advisors from GSID, Nagoya University	Advisors from University of the Philippines Los Banos (UPLB)
WG1: Education	SHIMADA Yuzuru	SERRANO Evelie
WG2: Governance	PEDDIE Francis	CARADA Mariam
WG3: Economics	OTCHIA Christian	AMIT Mayo
Logistics/Coordination	KONDO Natsuki	

Assistants from UPLB (3)

Working Group	Name
WG1: Education	BUCAL John Vincent J
WG2: Governance	COSEP Johnelda P
WG3: Economics	ABANTE Yolda

GSID Students (15)

Working Group	Name	Country
WG1: Education	FAN Liuxin	China
	SAKAMOTO Ayaka*	Japan
	HORIKE Monika	Japan
	VO Minh Dang	Vietnam
	TRIPATHI Yashasvi Kumar	India
WG2: Governance	NAKAGAWA Akari	Japan
	ZHANG Shidi	China
	DA SILVA LINS Rafael Jose*	Brazil
	ABDIRAHMAN HERSI	Somalia
WG3: Economics	XU Siyu	China
	TRAN Thanh Huy	Vietnam
	KARENGO Catherine	Kenya
	GYAMFI Diana Ama	Ghana
	CHEN Yuchong	China
	ZUMA Magcino *	South Africa

* Group leader

Program of OFW 2022

Preparatory Seminar at GSID

Date	Time	Title of the Lecture	Lecturer(s)
Apr. 20 (Wed)	14:45-16:15	Introduction & Team-building	OFW Committee
Apr. 27 (Wed)	14:45-16:15	Overall introduction of Los Banos, Laguna	Dr. Evelie P. Serrano (CPAf, UPLB)
May. 11 (Wed)	14:45-16:15	Philippines 1: Political issues	Dr. Wataru Kusaka (Tokyo University of Foreign Studies) Dr. Evelie P. Serrano
May. 18 (Wed)	14:45-16:15	Philippines 2: Economic issues	Ms. Yurika Suzuki (Area Studies Center IDE-JETRO) Dr. Evelie P. Serrano
May. 25 (Wed)	14:45-16:15	Philippines 3: Education issues	Dr. Masayoshi Okabe (Kyoristu Women's University) Dr. Evelie P. Serrano
Jun. 1 (Wed)	14:45-16:15	Philippines 4: Migration issues	Dr. Francis Peddie (Nagoya University) Dr. Evelie P. Serrano
Jun. 8 (Wed)	14:45-16:15	Group presentation to share research interests	OFW Committee Dr. Evelie Serrano
Jun. 15 (Wed)	14:45-16:15	Research methods 1: Qualitative research	Dr. Francis Peddie Dr. Evelie P. Serrano
	16:30-18:00	Research methods 2: Quantitative research	Dr. Christian Otchia (Nagoya University) Dr. Evelie P. Serrano
Jun. 22 (Wed)	14:45-16:15	Research ethics	Dr. Christian Otchia Dr. Evelie P. Serrano
Jun. 29 (Wed)	14:45-16:15	Data analysis 1: Qualitative data analysis	Dr. Francis Peddie Dr. Evelie P. Serrano
Jul. 6 (Wed)	14:45-16:15	Data analysis 2: Quantitative data analysis	Dr. Christian Otchia Dr. Evelie P. Serrano

Jul. 13 (Wed)	14:45-16:15	Group presentation on the research proposal	OFW Committee Dr. Evelie Serrano
Jul. 20 (Wed)	14:45-16:15	Risk Management	Dr. Akinari Hoshino Dr. Takashi Sakai (Nagoya University) Dr. Evelie P. Serrano
Jul. 27 (Wed)	14:45-16:15	Filipino Language class	Teaching Assistants Dr. Evelie Serrano

Schedule of Fieldwork in the Philippines

Date	Time	Schedule
Sept. 9 (Fri)	9:30- 14:00	PCR test
Sept. 10 (Sat)	11:00	Meet at Chubu International Airport
	14:00-17:30	Nagoya - Manila (PR 437)
	18:00-19:30	Manila - Los Baños
		Check-in at SEARCA, in UPLB
Sept. 11 (Sun)	10:00-12:00	Orientation Meeting with instructors and student assistants of UPLB
	13:00-18:00	Group work
Sept. 12 (Mon)	10:00-12:00	Opening Program at CPAf
	14:00	Visit to Municipal Hall of Los Baños
Sept. 13 (Tue)	9:00-18:00	Group work (data collection)
Sept. 14 (Wed)	9:00-18:00	Group work (data collection)
Sept. 15 (Thu)	9:00-18:00	Group work (data collection)
Sept. 16 (Fri)	9:00-18:00	Group work (data collection)
Sept. 17 (Sat)		Free time & Group work (preparation for presentation)
Sept. 18 (Sun)		Free time & Group work (preparation for presentation)
Sept. 19 (Mon)	7:30	Group PCR at the University Health Service
		Group work
Sept. 20 (Tue)	10:00-12:00	Presentation at CPAf
	1:00-17:00	Free time
	18:00-20:00	Wrap up dinner
Sept. 21 (Wed)	4:00	Los Baños - Manila
	7:50-13:00	Manila - Nagoya (PR 438)

Interim Presentations of Research Findings

The interim presentation of research findings was held in College of Public Affairs and Development (CPAf), University of the Philippines Los Baños (UPLB) on September 20th, 2022. Each working group presented for 20 minutes, followed by a Q&A session.

Presentation of Research Findings at GSID

The presentation of research findings was held at GSID by each working group to disseminate findings and collect feedback from colleagues on October 26th, 2022.

Los Baños, The Philippines

SERRANO Evelie

College of Public Affairs and Development, University of the Philippines Los Baños

Considered a Special Science and Nature City, Los Baños is located near the shore of Laguna de Bay in the southwestern part of Luzon, Philippines. This eco-friendly science community is committed to being a role model for academic excellence, public health, environmental preservation, and good governance.

"The Baths"

Founded on September 17, 1615, Los Baños used to be one of the many settlements of the town of Bay in Southern Luzon. Because of the hot springs coming from Mt. Makiling, a dormant volcano located near the area, it was initially called "Mainit".

Los Baños, in Spanish, means "the baths." It was said that the hot springs coming from Mt. Makiling attracted the Spaniards to visit frequently. Hence, in 1589, a Franciscan friar named Fr. Pedro Bautista started to establish public baths in the town. Until today, Los Baños is well known for its private and public hot spring resorts.

A University Town

The campus and the experimental farms of the University of the Philippines Los Baños (UPLB) occupy 1,524 hectares of the town. Established on March 6, 1909 as the College of Agriculture of the University of the Philippines, UPLB is a premier educational and research institution with distinctive excellence in agriculture, forestry, veterinary medicine, and other natural, applied, and social sciences.

As a university town, Los Baños is also home to the following international institutions: the International Rice Research Institute (IRRI), the SEAMEO Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA), and the ASEAN Centre for Biodiversity. The Philippine Council for Agriculture Aquatic and Natural Resources Research and Development (PCAARRD) has its headquarters in Los Baños as well.

Economy

Dominant economic activities include commercial and service centers, agriculture, fisheries, industrial, and tourism. Because of the town's closeness to Metro Manila, it has become a popular weekend or summer getaway for tourists from other places in the Philippines and abroad.

Los Baños is also known for its "buko" (coconut) pie. But aside from the stores selling buko pie and other local delicacies, Los Baños has a number food establishments that cater to its diverse population. Along the main avenue leading to the gate of UPLB, one can see different restaurants, cafés, and coffeeshops.

Education

As reported in the 2016 Los Baños Ecological Profile, the municipality has a 100% literacy rate. This university town has 13 public elementary schools; 8 secondary, tertiary, and vocational public schools; and 31 private schools that include 4 vocational schools. Los Baños proudly hosts two constituent universities of the University of the Philippines System. In addition to UPLB, one can also find the University of the Philippines Open University (UPOU) in Los Baños.

Governance

One of the 30 Local Government Units (LGUs)of the province of Laguna, Los Baños is a first class municipality in the 2nd District of Laguna. It has 12 elected officials with 253 permanent employees, 1 contractual employee, 352 job order employees, 24 barangay health workers, 3 doctors, 14 midwives, and 1 nurse (2021 LGU Profile of Los Baños).

According to the 2020 Philippine Statistics Authority (PSA) Report, the town has a total population of 115, 353 living in 13 barangays. The barangay is the smallest administrative division in the Philippines. All in all, there are 28,838 households with an average of 3.6 household size. Furthermore, the PSA (2020) reports 4,510 informal settler households in the municipality.

Los Baños Amidst a Global Health Crisis

Like other municipalities in the Philippines, Los Baños had to grapple with the challenges of the COVID-19 pandemic. Small and medium-sized enterprises were severely affected, and a number of them had to close down. Resorts were temporarily shut down due to community quarantine restrictions. Schools had to shift to other modes of teaching and learning, and many private schools struggled with enrollment. The LGU had to work with limited resources to ensure the health and safety of its constituents. Despite these challenges, Los Baños LGU and its partners have remained steadfast in their efforts to make this Special Science and Nature City a good place to call home.

Working Group 1

Education

Recovery-A Process, Not A Destination:
Challenges in the Shift to Face-to-Face Classes and the Countermeasures to Address Them:
The Case of Selected Schools in Los Baños, Laguna, Philippines

Group Members:
Ayaka SAKAMOTO*

Fan LIUXIN

Monica HORIKE

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John Vincent J. Bucal

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Evelie P. Serrano

* Group Leader

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1. Introduction

The Covid pandemic affected all sectors, to varying degrees, across the globe. Growth rates of various developing economies were dampened, the health sectors across most countries faced severe challenges and numerous other aspects of the global social and economic situation were adversely affected (Feyisa, 2020). Manufacturing, trade, health, service, tourism and all other sectors felt the damaging effects of the pandemic. Unfortunately, the greatest impact has undoubtedly been in the education sector. Much research has been conducted to address the issues that students, parents and schools faced during the pandemic. However, after nearly three years of lockdowns, the resumption of the "normal" presents a new set of challenges. The pandemic has had long-lasting effects on the education sector.

Learning losses due to school closures are one of the biggest global threats to medium and long-term recovery from COVID-19 (Global Education Evidence Advisory Panel, 2022). Moreover, low and middle-income countries and children from lower socioeconomic backgrounds have been the hardest hit (Global Education Evidence Advisory Panel, 2022). According to the UNICEF Director of Education, "recovering the loss that children have experienced requires far more than simply reopening classrooms". School Children need intensive support to get back on track, teachers need access to quality training and resources and education systems need to be transformed" (The World Bank, 2022).

Various policies have been implemented across the globe to try and tackle these challenges and different IOs have come up with their own set of recommendations. These broad recommendations and policies are made for governments across the world. However, the challenges faced by specific communities and localities may differ in terms of the challenges themselves and suitable solutions. Substantial research is still necessary to identify all the new challenges that accompany the post-pandemic era. Such intensive research is beyond the scope of this project. However, considering that knowledge of the local context is paramount in policy-making (Nugroho, Carden, &Antlov, 2018), this research aims to add to the local context knowledge. It aims to discover the specific challenges and needs of the primary-level teachers in Los Baños, Laguna, Philippines to enrich local context knowledge.

The aim of this research is to examine the specific challenges in public and private schools with regard to the transition across both rich and poor neighbourhoods in Los Baños,to identify the countermeasures taken by the Department of Education and the schools to address these challenges, to determine if major differences exist between public, private, rural and urban schools regarding the challenges and countermeasures and to develop some potential recommendations for the improvement of the countermeasures, as informed by the findings.

2. Context

Los Baños, officially the Municipality of Los Baños, is a 1st class municipality in the province of Laguna, Philippines. It has 115,353 residents according to the 2020 census. Its total land area is 56.5 square kilometres and its borders are Mount Makiling to the south and southwest, Laguna de Bay to the north, Calamba to the northwest and the town of Bay to the east.

In an effort to stop the virus from spreading further, the government implemented social isolation policies,

including the closing of schools when the lockdown was initially announced in the Philippines in March 2020. It seemed to move quickly because everything was supposed to be prepared. The Department of Education (DepEd) made the decision to start classes online on August 24, 2020, despite the fact that learning was still restricted. The choice was made taking into account socioeconomic aspects, including avoiding a protracted disruption of education, promoting education-related economic activity and resuming school-managed support services. Students here started taking classes in person again in August 2022. Up until November 2, when all public and private schools will be compelled to bring all kids back into the classroom, only a select few institutions will be able to begin face-to-face lessons five days a week. The remainder will use a combination of face-to-face and online classes.

Education is one of the many facets of social life impacted by the corona virus pandemic. Furthermore, it has made the gap between those who have access to education and those who don't worse. And as the lockdown continues, this line gets finer and finer (Chaturvedi et al., 2021). Based on the situation above, this study will focus on this question: "What are the main obstacles to shifting to face-to-face classes and what solutions have been found?" The following questions will be used to clarify this further:

Q1. What are the major challenges in the transition to face-to-face classes?

Q2. What countermeasures were adopted to tackle these challenges?

Q3. How do the location, affluence or affiliation (public or private) of the schools' management of the transition to F2F classes?

Q4. What strategies can be adopted to improve the countermeasures?

3. Theoretical Framework

The term "learning loss" refers to any particular or general loss of information and abilities and to reversals in academic progress, most frequently brought on by significant pauses or breaks in a student's education. Perhaps the most commonly cited form is "summer learning loss," but it is obvious that covid19 caused a more widespread and longer-lasting learning loss (World Bank Group, 2022). Even in the Netherlands, which has only experienced a relatively short blockade and has an equitable school funding system and the highest broadband access rate in the world. Despite this, studies have found little or no progress when students learn at home. Learning losses were most pronounced among students from disadvantaged families (Engzell et al., 2021). Schultz first proposed human capital theory, and human capital can be broadly defined as the stock of knowledge, skills and other personal characteristics embodied by people that help them to be more productive (Tan, 2014). The damage to children's learning and well-being from school closures is substantial and ongoing, and third-grade children who lose a year of schooling during the outbreak may lose up to three years' worth of learning in the long run, with costs that will be felt for decades to come (World Bank Group, 2022). When all affected groups enter the labour market between 2036 and 2067, the human capital loss is between 0.2% and 0.9%（de la Maisonneuve et al., 2022).

According to Counts, in terms of who has power or control over what and how learning occurs in schools, on important matters, schools adhere to the wishes of the group or class that actually controls society; on less important matters, schools have some autonomy; and teachers, if they make the most of their abilities, have the potential to become a social force and exert control over schools (1978). Teachers should seek for more

authority and then utilize it for the greater good in order to close the gap between the classroom and society (Counts & Urban, 1978). Dewey believed that education was crucial to the survival of society, making the role of the teacher quite important. People learn through informal processes, according to pragmatics, but these processes need to have a goal and a flexible plan of action. The teacher's role is to give the students a flexible learning environment where they can act and think critically in order to evaluate their knowledge and abilities. Teachers serve as the facilitators of the learning process, which meets kids where they are academic because no two kids learn in the same way or at the same rate (Dewey, 1997). Based on such theories, teachers are crucial to make learning loss recover from covid, so this study was conducted from the teachers' perspective.

4. Literature Review

Although some argue that remote learning might be favourable among students with high studying motivation, for instance, undergraduate university students (Rahandani et al., 2021), the perspective towards remote or hybrid learning might be much more negative among lower-grade students. Notably, in the analysis of Koanda et al. (2021), they note that remote learning was introduced in most schools from pre-primary to high school levels in the Philippines during the pandemic. Many families are also struggling to adapt to the new situation. Especially parents with children in elementary schools face many challenges, such as the lack of resources and skills. There were even concerns about the low possibility of their children passing the grade (Koanda et al., 2021).

Indeed, school closures during the pandemic have greatly affected education in the Philippines. According to the report "Where Are We on Education Recovery?" published by the United Nations Children's Fund (UNICEF) in 2022, the effects of the pandemic show decline in learning due to COVID-related school closures. Among the samples, the Philippines has an extended school closure period and a high possibility of learning loss. The incapability to read simple text further emphasizes the significant impact of school closure and remote learning on younger students, especially those in primary school. Indeed, the report accentuates those more considerable losses were observed the most clearly among students in earlier grades than in later grades. Hence, it underlines the importance of a good recovery plan to tackle this issue. Among them, assessing the current learning levels is one of the initial and crucial starts to deal with the problems.

According to Klinger, A, D., Klinger, R, C., and Volante (2022), a key priority in education is to provide children and youth with the opportunity to learn and to demonstrate that learning. As researchers who explore the role of assessment, student outcomes, and education policy, we know that assessment matters to monitor students' ongoing progress and report on that progress and inform future instructional and educational decisions.

Yet, we all know that assessing the students' capability during the pandemic is difficult. As reported by Taylor and Nierenberg (2021), in Chicago, the US, the Board of Education voted to promote every student from elementary and middle schools to the next grades, regardless of their academic performance. It adopted the same policy last spring after schools closed down. Such an example is one of many cases where schools have applied more flexible grade-promoting approaches during the pandemic. Some go through a legal process, like in Chicago, and some go through informal direction for the teachers to go easy on their students. Indeed, the reshaping of forms of assessment and evaluation in times of paucity is likewise evident in education, such

as deferred grades and extensions of requirements, and mass promotion of learners (Estrellado, 2021).

In online assessments, teachers have limited access to monitoring students' performance, especially in quizzes. Teachers find it difficult to verify whether students complete their tasks and regulate cheating on online learning platforms. Some teachers utilize online proctors to minimize cheating during online exams. However, proctoring applications do not necessarily prevent students from cheating. Identifying if students are cheating is challenging, even if suspicious behavior is observed. There are cases where online proctors detect cheating. However, proving that there is an intention to cheat can be difficult. It leads to situations where teachers cannot accurately ascertain the skillsets and capabilities of students, and most of them are still promoted to the next grades.

Mojarro (2022) points out that The Department of Education (of the Philippines) reports that 99 percent have obtained a passing grade, but this does not mean that the students actually learned the contents and the skills that they needed. We agree with him that reopening the schools and continuing teaching without acknowledging the learning loss of the last two years would be a great mistake that cannot be solved by continuously granting passing grades to the students.

The above situation leads us to the conclusion that even though the pandemic has gotten better and more schools in the Philippines have reopened, the challenges caused by the pandemic have not ended there. In contrast, it leads to many new challenges that teachers and students alike have to face in a post-Covid period, in which the gap between the expected and actual capability of the student is one of them.

Next, according to the official website of the Philippines' Department of Education, a new framework for a learning recovery plan is being developed to instruct the schools regarding the issue of learning gaps due to pandemic-related disruptions. But since the program has not been put into widespread use, there is concern about its effectiveness and feasibility, cooperating with the remedies of individual schools in addressing the new challenges in the post-pandemic period.

5. Methodology

The qualitative research strategy that guides our methodological study encourages multiple case analysis research. In order to assess the information we obtained from parent, teacher, school administration, and department of education interviews, we also considered employing a multi-level stakeholder analysis.

The qualitative case study methodology gives researchers the tools they need to investigate complicated phenomena in their contexts. When used properly, this method can be useful for education research in terms of creating theories, assessing programs, and creating interventions (Baxter & Jack, 2008). Additionally, the transition from online to offline teaching in the "post-epidemic" period involves a variety of stakeholders, from the most fundamental members of the classroom, students and teachers to the rule-makers in the context: education authorities and school administrators. We think that a multi-level stakeholder analysis would lend objectivity to this study. The variations in how investigators and other stakeholders interact in this analytic technique, however, have frequently been overlooked up until now (Keskitalo, 2004). This paper makes the case that it is essential to move beyond stakeholder discussion and concentrate on the intricate institutional variables that influence stakeholders' perceptions and behaviour on many multiple stages.

5.1. Data Collection Methods

The analytical framework and tools for a semi-structured interview are created in the spirit of qualitative research and tailored to the requirements of the data gathered, suitable for the open-ended inquiry method (Schmidt, 2004). The data collection method selected is presented in the following process: first, the questionnaire is designed based on the information collected in advance, and then the questions are updated and refined during the interview process based on the answers and responses of the respondents to form a new questionnaire. The process is repeated in different interviews. For instances where the research participants could not communicate well in English, the field adviser and student assistant from the University of the Philippines Los Baños served as interpreters.

5.2. Data Collection Procedure

After interacting with the interviewees, a brief introduction of the study was first given, and an INFORMED CONSENT FORM was obtained. The interview was simultaneously recorded after gaining consent. Some of the recordings were textualized after the interviews and subsequently analysed.

5.3. Selection of Research Participants

Purposeful sampling was used to select the research participants of this study. In qualitative research, purposeful sampling is frequently employed to find and choose cases with plenty of relevant information on the topic under study (Palinkas et al., 2013).

A selection of different schools is required to ensure that this study's findings are as objective as feasible. Surveying three public elementary schools independently as well as three private elementary schools may result in more objective conclusions because the resources available and other elements of private and public elementary schools are significantly different.

One delegate from the Department of Education (the Public Schools District Supervisor of Los Baños), together with the five school principals, two school directors, one assistant principal and 20 teachers from six different elementary schools across Los Baños, served as research participants of this study. Three parents (a parent of a private school student and parents of a public-school student) were also interviewed to validate the responses of the research participants.

The sample for this study included four major schools and two small schools, including those in urban and rural settings, because school size and geographic location were also taken into consideration as potential factors influencing the outcomes. A Christian school was added to the sample, since, among private schools, religious schools represent a significant and distinct type of institution. Information about these six schools is provided below.

Table 1: Schools' Details

School Pronouns	Scale	Location	Common Economic Background of Students	Number of Teachers Interviewed	Gender of Teachers (F for Female, M for Male)	Population
Public school 1	Large	Urban	Lower to middle-income families	3 teachers	FFF	1,681 students 58 teachers
Public school 2	Large	Urban	Lower to middle-income families	4 teachers	FFFF	2,053 students 61 teachers
Public school 3	Small	Rural	Lower income families	3 teachers	FFF	1,124 students 34 teachers
Private school 1	Large		Middle-income to Upper-middle-income families	3 teachers	MFF	441 students 28 teachers
Private school 2	Large		Middle-income families	3 teachers	FFF	809 students 30 teachers
Private school 3	Small		Lower to middle-income families	4 teachers	FFFF	130 students 17 teachers

6. Findings

6.1. Objective 1: Major issues and challenges

6.1.1. Learning Loss

One of the challenges associated with the return to F2F classes is learning loss. Learning loss refers to any specific or general loss of knowledge and skills or reversal of academic progress. Therefore, in this report, learning loss is gauged and measured in how student academic performance has changed compared to before and after remote learning.

The biggest challenge is that students have not mastered the 3Rs (Reading, wRiting, and aRithmetic) skills. Teachers in all schools mentioned at least one of the 3Rs as an important issue in the interview. The principal of Public School 1 remarked, "We acknowledge there is a learning gap/ loss. We plan to focus on the 3Rs; Reading, Writing, Arithmetic." From here, the details are explained.

Regarding reading, students don't know how to read or even identify letters and phonics. The other students have difficulty reading many texts. For example, a teacher at public school 1 mentioned, "many students have problems with reading and writing skills. They have problems with simple syllable recognition, letter phonetics, and even the basics of reading and writing skills. The majority of students have this problem."

As for writing, some children have difficulty following lines and writing the alphabet because they have been using gadgets in online classes for 2.5 years. Some children cannot distinguish between upper- and lower-case letters, and some do not know how to write the alphabet correctly. According to the principal of public school 1, some children say, "My hands get tired" after writing, even for a short time. Some children also have difficulty expressing themselves. In addition, a teacher at a private school 2 referred to students who had less writing due to online classes, "(I have noticed problems) especially capitalisation or how to write properly." The teacher asked them to submit their answers, but she found a problem. "I can understand their handwriting, but the line, they don't follow the line." That's why teachers really need to check that part again and practice handwriting.

Regarding arithmetic, some children seem to have difficulty reading and understanding large numbers. In terms of learning, including mastery of the 3Rs, it seems that how parents support their children makes a difference. However, parents' failure to devote sufficient time to support their children's learning has resulted in significant learning losses. In some cases, depending on how parents taught, they gave answers too quickly, causing children to stop thinking.

In other cases, the time parents spend with their children may be related to their children's learning. The principal of public school 2 stated, "Students have reading and numeracy problems. During the pandemic, when they were at home nobody could teach them, and sometimes the parents didn't know how to teach, and they didn't know the topics." The above suggests that children's learning during a pandemic is largely related to their parents' learning experience, whether or not parents were able to help their children work on their own initiative to tackle the modules and tasks, and whether parents were able to devote time to their children's education.

6.1.2 Lack of Attention

According to some teachers from private school 2 and 3, compared to pre-pandemic, children's attention span has declined significantly. A teacher at private school 2 revealed that it was difficult to get children's attention in textbook-based classes, and teachers had to use attractive slides to capture students' attention. Another teacher from private school 3 described online classes during the pandemic and hybrid classes at the time, saying, "It is also difficult to get the students' attention. Students are in their own rooms, so it is difficult to focus only on the class." In addition, teachers have to spend a lot of time reviewing because only a minority of students remember what they were taught.

In addition to the two problems mentioned so far, it has been noted that children are highly dependent on gadgets. This is another problem faced by private schools, as is the problem of inadequate attention span. Specifically, when a teacher at the private school 3 asked pupils, "What does this mean?" , one of them tried to answer using a cell phone.

In addition, a teacher from private school 2 shared that some children are finding it more difficult to get up in the morning after F2F than before because they are used to getting up just before class in their online classes. Thus, even after the start of F2F, the learning methods and living environment during the pandemic have become so entrenched that children are no longer able to do what they were previously expected to be able to do, and students sometimes do things that they were not expected to do.

6.1.3. Students' Social Behaviour

As well as a lack of motivation to learn, a lack of social skills is also a major problem. Some children have never had face-to-face classes in elementary school. As a result, children's socialization skills are not as well developed as they were before the pandemic. Children are talking to each other less than before the pandemic. Specifically, according to a teacher at a public school 3, some children try to run away when they understand the content of the class or cry, "Mummy, I want to go home." Parents also mentioned that their children cry and resist going to school away from their parents. The children are distraught because they have not yet adapted to face-to-face classes from the modules and online classes.

6.1.4. Management Issues
6.1.4.1. Preparation for the Start of F2F

A teacher from private school 1 mentioned that teachers had to do all kinds of preparation for F2F classes because of the documents required to be submitted by the DepEd. There are many documents required. In addition, they had to talk to officials, parents, other teachers, students, barangay officials, city and Los Baños officials, and the Department of Health. There were also physical evaluations and document checks of the schools. Also, the other teacher from private school 1 touched upon that her mental condition is not good because she has many things she must do.

6.1.4.2. F2F Curriculum and Classroom Management

DepEd has a curriculum, but in face-to-face classes, the school had to come up with different strategies, such as MELC or remedial classes, depending on the student's level of understanding. Specifically, private

school 2 follows MELC but goes beyond MELC and offers science and computer classes starting in first grade. In addition, a teacher at private school 1 with hybrid classes revealed that it is very difficult to care for students both online and face-to-face. Additionally, a teacher at private school 2 mentioned that the short preparation time before class is problematic in hybrid classes.

Picture1: Preparation and set-up for hybrid classes

6.2. Objective 2: Countermeasures

6.2.1. Countermeasures for learning loss

In the interview, teachers mentioned learning loss, socialisation, and management challenges when transitioning back to face-to-face classes. To tackle these challenges, schools have taken countermeasures. This report divides into three main countermeasures toward learning loss, socialisation, and management.

The Department of Education has taken the Learning Recovery Plan in response to the challenges of learning loss. The Learning Recovery Plan includes EGRA (Early Grade Reading Assessment) and EGMA (Early Grade Math Assessment) as new assessments for remediation. EGRA is aimed at assessing literacy skills in the early grades. EGMA is designated to measure key numeracy and mathematics skills in younger children. Even though EGRA and EGMA can be expected to reduce learning loss, only schools from public 1 incorporated EGRA and EGMA to counteract learning loss. The Department of Education provided seminars that train teachers to implement EGRA and EGMA. However, according to the teacher from public school 2, they have not followed EGRA and EGMA. The principal from public school 3 mentioned that they had not received any instructions or seminars about EGMA and EGRA. Although public schools 2 and 3 didn't follow EGRA and EGMA, they have used their strategies. For example, public school 2 prioritized reading the program. The principal from public 2 reported that students could not read. This program is aimed at addressing the issue. As for the public, 3 utilize the Robot and LETRA program (Learning Activity through Reading Activity). The program Robot is for reviewing mathematics operations through practice and play. LETRA is intended for non-readers, those who have difficulty Reading, and those who do not know how to read. The principal from public school 2 described that the school is adapting to extra effort not only following the Department of Education

but also making certain adjustments so that teachers can ensure what the students should learn based on the lessons that teachers taught. Regarding private schools, they have tackled different strategies. The principal from private school 2 mentioned that they did not just resort to the presentation of the lesson alone. They had to make it interactive as well. And for every activity, they provided an evaluation to see their feedback on how to improve. Also, another teacher from private school 2 referred that they changed their PowerPoint. They needed to enlarge it and lower the words that they review so that students could understand it. They also needed to rephrase it so that they could be understood. In private school 3, they used a website called Quipper. Quipper is a website or link where students can access learning materials and learning guides for both teachers and students. Based on the teacher's intention, teachers can add something to the Quipper. Each school has taken classroom strategies to help students understand by preparing different plans, using teaching aids such as applications, and simplifying explanations for students' better understanding.

Aside from the assessment, schools from public schools 1 and 3 and private school 2 have conducted remedial lessons. Teachers from public school 1 informed parents about children who needed remedial work. As for the students who are falling behind in their classes, teachers from private school 2 provided remedial classes called ASEP (After-School Enrichment Program) and interventions to prevent the learning gap. ASEP was offered to students who needed help with their studies, such as making mistakes, not finishing an activity in class, or needing to learn a lesson well. Schools are attempting to overcome various difficulties through remedial classes.

6.2.2. Countermeasures for socialisation

Schools also have communicated with teachers and parents. Some schools have attempted to communicate by holding seminars and orientations. Teachers from public school 1 have tried to ask parents to invite participation. Teachers from public school 2 supported the parents through Messenger. Private school teachers communicate as well. Teachers from private 1 were given some seminars and talks, even virtual seminars from time to time. The faculty and staff always have our talk about what are the problems that we encounter so that we can solve them right away. Teachers from private 2 have undergone training and workshops. Also, there is a collaboration not only between personnel, students, and parents.

Schools also have communicated with teachers and parents. Some schools have attempted to communicate by holding seminars and orientations. Teachers from public1 have tried to ask parents to invite participation. Teachers from public 2 supported the parents through Messenger. Private school teachers communicate as well. Teachers from private 1 were given some seminars and talks, even virtual seminars. From time to time. The faculty and staff always have our talk about what are the problems that they encounter so that we can solve them right away. Teachers from private 2 have undergone training and workshops. Also, there is a collaboration not only between personnel, but also students and parents as well.

The teacher from private school 3 answered that she could ask senior teachers and consult the problems. In this way, the schools have interacted with teachers and parents and worked together on issues. Especially in response to significant learning change after the Covid-19 pandemic, schools have seemed to collaborate through interaction between teachers and between teachers and parents, respectively.

6.2.3. Countermeasure for management

Moreover, the curriculum has been changed because of Covid-19. In response to the learning delivery challenges posed by Covid-19, MELCs were introduced by the Bureau of Curriculum Development. The MELCs focus on the most essential and indispensable competencies that learners need to acquire. Schools from public schools 3 and private schools 1 and 2 follow the MELCs curriculum. A teacher from public school 3 mentioned that MELC is better and easier for the students, but it might not be enough. She wanted to follow the curriculum, but there were so many guidelines and instructions that she was at a loss as to what to do. Private school 2 was faithfully complying with the MELCs. Another teacher from private school 2 mentioned that the school has lessons that go beyond and enhance the MELCs. The school from private school 3 follows MELC, but they added to the syllabus. While the MELCs allow students to focus their studies and learn efficiently, some teachers find it difficult to follow the MELCs due to the complicated guidelines and instructions, and inadequate only for the MELCs curriculum.

When transitioning back to face-to-face classes, private school 1 conducted online training to prepare for students to come back to school. Students from private school 1 learned how to enter the school and where to go inside and outside the classroom. The teacher from public school 1 encouraged students' socialisation by using songs in the class. On the other hand, the principal of public school 1 expected that students' socialisation would recover in a couple of months. Since students were prohibited from social activities both at home and school, when they came to school, they were prohibited from talking to their friends due to the social distance measurement. Hence the pupils from public school 1 could not express themselves the way they used to. Providing training helps students adjust to school life quickly, and making efforts to help students develop social skills while having fun by singing songs. On the contrary, since students spend a long period of time at home and have had little interaction with other people, teachers need to wait through return face-to-face classes and spend time with friends and teachers to recover their social skills. Online learning at home affects not only issues regarding socialization but also mental issues.

Online learning affects mental health problems as well as socialisation problems. To motivate the students, the teacher from public 1 gave students small rewards. Private school 1 puts up flyers about mental health checks and makes it easier for students to ask for help if they are in trouble.

The school's operations and management needed to be changed and adapted to accommodate face-to-face classes. As for classroom management, 4+1 models were conducted in public schools. 4+1 is that students take face-to-face classes for four days and online classes or modules learning for one day. Public schools 1, 2, and 3 followed by 4+1. In addition, schools ensured safety control against the spreading of Covid-19. Regarding safety control, every school took measures for Covid-19. Both public and private schools installed alcohol sanitisers. Also, all private schools installed remote thermometers. As for the school from private 2 and 3, guests needed to fill in body temperatures. Although there is a difference in how the schools implement the health protocol, they are all taking the necessary steps to ensure the safety of the students in the transitioning process back to face-to-face classes.

In addition, hand-washing stations/sinks were installed in private 2. Posters explaining hand washing were placed in all public schools. This countermeasure encourages students to wash their hands voluntarily and makes them aware of hand washing.

Picture2: classroom with equipments for hybrid mode
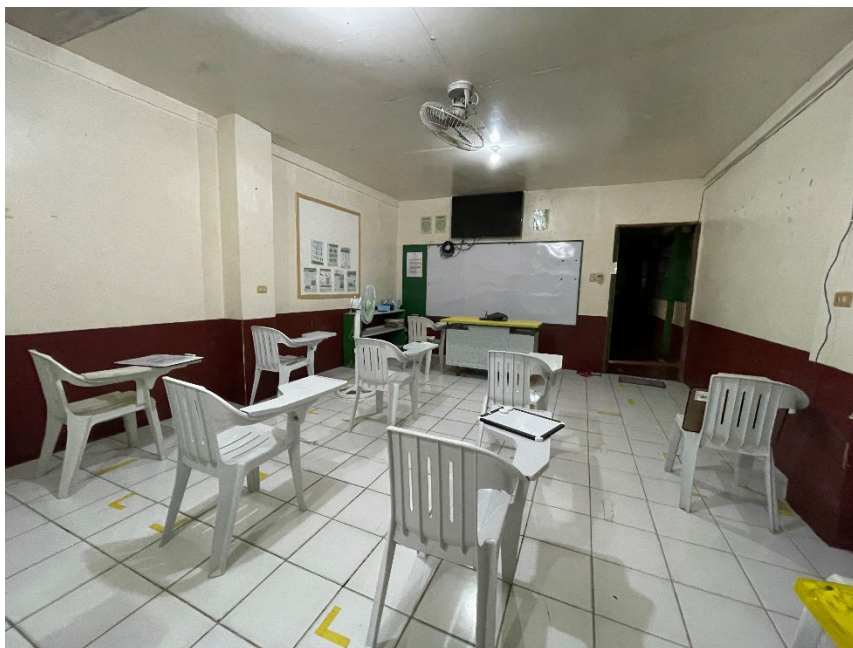
6.3. Objective 3: Patterns and differences

6.3.1. Advantage of private schools in preventing learning loss

Although learning loss is a common issue, not every school suffers the same impact. Public schools have reported greater learning loss. One of the most salient reasons is that private schools have easier access to resources and technology compared with private schools. Normally, private schools have more freedom to utilize resources to form their own educational plans. The director of private school 2 shared: "We offer a hybrid learning modality. In the classroom, we prepare what we call a hybrid classroom, which accommodates online students. So, while the teachers have in-person classes, there would also be some students whom we call "Zoomies" that also attend the class simultaneously." Hence, they can offer more efficient learning means during the pandemic and transition. For instance, the principal of private school 2 listed some online learning tools that the school has purchased and provided their students, such as the "customised learning management system" and subscribed online resource, "front learners," and "educational zoom accounts." Among the private schools we have visited, Private school 2 has a very developed system for remote and hybrid learning, which is convenient for the manager, the teachers, students, and parents. Students can attend online classes, revisit the lessons anytime they need, and have easy access to asking teachers what they are still unclear about or when they need support. Parents can also easily follow their children's learning pace and learn with them.

Additionally, most parents in private schools belong to middle-and-higher income classes, so it is a little easier for them to afford their children following the high-tech approach by the schools. Moreover, better financial conditions come with more spare time they have for their children. Many of them have been able to follow and supervise closely their children's studies at home, which further guarantees their studies quality. A teacher from private school 1 observes: "And the good thing is when we talk to their parents, they help us also. it's not quite like in public school, where the parents are all working and do not have time to teach their kids. But the children here, even if we have our classes online, we can notice that their parents are beside them." As

a result, the students do not depend too much on the modular. They were still offered regular learning classes with teachers through online channels and could ask questions any time they needed through such advanced systems. These various and coherent study conditions, which are superb compared to public school environments, ensure that private school students' learning is still on track. Therefore, it is understandable that learning loss is not as profound in private schools as in public schools.

6.3.2. Private schools and their problems during the pandemic
6.3.2.1 Costly and complex requirements

Ironically, private schools face more financial problems than public schools. Some possible reasons include private schools not receiving financial support from the Department of Education. It is also one of the common confirmations that all private schools' managers we interviewed agreed on. Even when accepting the independent financial situation is a fact, private schools' problems is further aggravated while bearing the responsibility of complying with a high number of requirements during the preparation for transitioning back to F2F classes.

Everything got more complicated when such requirements were frequently changed even after the schools had fulfilled them all and left the schools with little time to maneuverer. For instance, private school 1's principal said: "Because the Department of Health gave private schools a lot of requirements. And those requirements are not easy to prepare, especially the documentation. But after some time, there's a sudden change in the guidelines. So, we must change again, which is very difficult because we've already set up everything." Private school 2's director made a similar comment: "but you know, because of the new memo, they suddenly scraped it (the requirement for opening class in person)." The private school 3's principal shared the same opinion: "The rules by the DepEd change too frequently, so we are struggling to implement them… (we have) worked on that (SSAT list of requirements for reopening) for several months. But DepEd said it is no longer required after we pass the validation." She believes such a change is "Highly disappointing and wasteful."

According to our own observation, it is true that private schools have a much more modern and abundant health-protocol system, with automatic hand sanitizers, temperature-checking machines, and new water stations. There are further detailed requirements for private schools. For example, private school 1 was called the "air condition school" before the pandemic because it was the first school in Los Baños to equip a temperature conditioning system for every room. Yet, when transiting back to the F2F state, DepEd requires them to purchase a more complex air purifier system to use the air conditions again and allow students to return to school. Yet, the private school doesn't have enough economic conditions for it, so it must choose the option that opens all windows in the school for air ventilation and changes the uniform of students to a shorter, more comfortable one.

Picture3: health checking flyers

6.3.2.2. Unexpected dropout in private schools and increasing enrolment in public schools

　　Hence, without direct support from DepEd, financial issue is a big problem for private schools in Los Baños. Their primary source of income is coming from the school fee. However, since the start of the pandemic, we have seen a high dropout rate and a decline in the enrolment rate in private schools. For instance, private school 3 has seen a more than 50% decline in enrolment. At the lowest point, they only had under 100 students for a whole school, which put them into a further state of financial vulnerability. Its principal told us: "(The school) had a bad dropout rate. It was only 86 students during the pandemic. It used to have 300 students in pre-pandemic. After year 1 (of the school closure due to the pandemic), around 150, then 86." The school's director even told us they had to survive the pandemic by renting their basketball court to local people just to guarantee a stable source of income. The director told us that the situation was so bad that the school would be no more without this basketball field.

　　Such a problem is not seen in public schools. Instead, they even experience an increase in enrolment during the pandemic. "Enrolment was not affected because, in fact, during the pandemic, many children from private schools transferred here," said public school 2's principal. This finding is out of our expectations because we

expect that enrolment decline is a common issue in every school. One possible explanation is that even during the pandemic, parents still want to keep their kids enrolled to ensure no gap in their studies. Yet, since their income is affected and their job is unstable, many of them would prefer public schools where their children can have free education. At the same time period, the gap between 86 students at private school 3 and 1120 students at public school 3 is too significant not to notice.

6.3.2.3. The shortage of manpower

The two above problems lead the private schools to other issues that further distinguish the situation between public and private. First and foremost, the private schools had a lack of experienced teachers and a workforce. Even though the school year started more than two months ago, many private schools are still posting to look for the needed position. All three private schools we visited agree that they are always in the problem of lacking human resources, especially with the enhanced requirements from DepEd that every school needs a full-time specialized medical physician. Private school 1's teacher shared: "one of the requirements of that is for us to have a school nurse. And we still don't have a school nurse during the first week of our class. I tried contacting different schools, even agencies, and other teachers they are they're also looking for a school nurse."

But an even more salient problem is the rapid transfer of experienced teachers from private to public schools, especially during the pandemic. The most transparent reason is that public schools offer a more stable financial situation. Hence, most experienced teachers would want to transfer to these schools to secure their living, especially during the pandemic. According to the principal of public school 1, the average salary of public-school teachers is more than 20000 pesos, whereas, for private teachers, the ideal salary starting salary is 8000 pesos per month, which is too low to afford their lives in the central cities. As a result, many teachers would start working for private schools after graduating. But when they gain more experience and skills, they would be eligible to apply for work at public schools. The director and principal of private school 2 sarcastically commented: "Our school (we hid their school's name for privacy reasons), and other private schools, are being used as a "training ground" to those who would be transferred to public schools." And that is sadly an issue that pushes private schools to a more vulnerable state when they have the same responsibility as public schools to ensure children's studying quality.

Picture4: many hand-washing stations can be found around the private schools

Picture5: advanced online system for studying and management
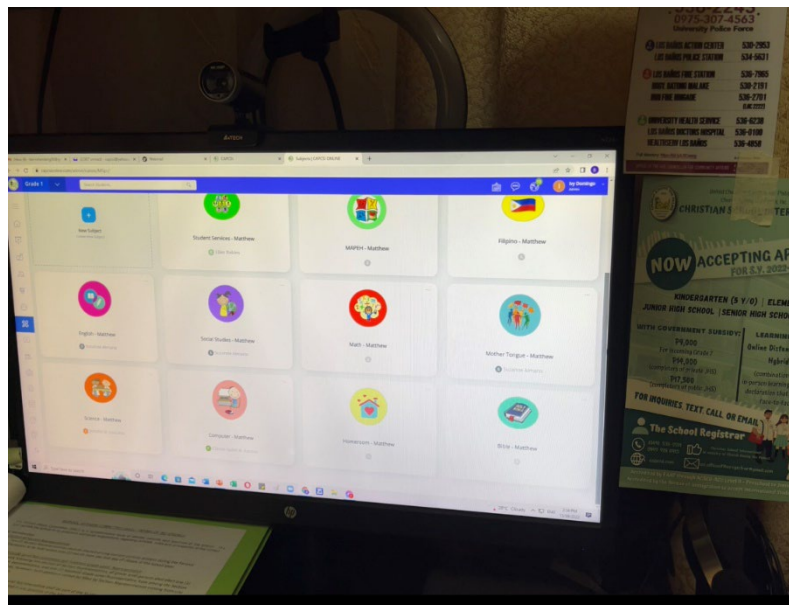
6.3.3. Central schools and central attention

The difference is not only between private school and public schools but also depends on various other factors. One of the crucial factors that distinguish them is their location. According to the share of the principal of public school 3, if a school belongs to a rural area, they have received a lower financial budget from DepEd compared to other schools in an urban and central area like public school 1. She believes that the 72000 pesos given by the minister of education, which is lower than what the central schools receive, are insufficient for them to make the most use of and create an efficient, thorough learning recovery plan. According to our observation, public school 3 has more old, degraded facilities and smaller learning space compared to the public school 1, which is a central school that receives more attention from the DepEd.

There is not only unequal provision in financial support among the schools in Los Baños, but also other

aspects, such as supplementary tools and programs. The principal told us: "Only Central School students were given tablets. Here they don't have this kind of support." Tablets, laptops, and similar electronic devices might not be a huge issue for well-off families. But poor families would feel more than welcome to such assistance for their kids' studying. Moreover, the schools in the rural area, like public school 3, also have slower access to new training programs designed for learning loss recovery. She shared that they have yet to have a seminar in EGMA and EGRA, but only in Phil-IRI, the old program. However, "teachers need to attend the seminar, and only then can we implement the program," said her. Hence, it is not hard to see inequality among resources distributed from DepEd to the schools. Yet, the enrolment numbers are not significantly different, and the need of teachers and students is even more similar. The problem here is not limited to schools that receive less support, training, and programs. But it will create a scenario where the learning recovery pace of each school is not even, which further aggravates the gap between them. Learning loss in Los Baños cannot be treated completely if there are still institutions left behind.

Picture6: automatic hand sanitizers, temperature-checking machines, and new water stations in private schools

6.3.4. The luck from the affiliation

Another factor that further differentiates private schools are affiliation. Among the three private schools we visited, private schools 2 and 3, even though they are a little smaller in size and budget than private school 1, have stronger affiliations and receive more support from the alumni, local community, etc. For instance, public school 2 has received financial support from alumni, local government, and the church it is affiliated with and has more resources to continue education activities during & after the pandemic. The principal and director of private school 2 proudly shared: "Actually, there is a collaboration not only between the personals, students, and parents. This year we are also happy that the powerful alumni took part in the initiative on how they can support and help us…We do have a separate school board and the church council. But it is the church council

who approve mostly the policies." Private school 3 faced a much more significant financial problem than the other two, with a severe decline in enrolment rate, but received support from the alumni and the local community to overcome the challenging period. The director of private school 2 agreed that such supports are indispensable for them to survive during the pandemic and keep the teaching quality from being degraded.

Also, they are both a member of the ESC - Educational Service Contracting program, so they can get subsidies for lowering their tuition, which attracts more parents from the middle-low-income class, and they can afford to continue their children's learning. On the other hand, private school 1 has a higher need to utilize the resource to comply with various and sometimes costly requirements during the transitioning period. Therefore, we observe that the affiliations of a school contribute significantly to their state, their measurement of the issues, and how they would conduct their plan in the short and medium run. We by no means suggest that schools that have fewer affiliations would perform worse. But it is necessary to recognize it together with the location and the characteristic of the school, would impact much to it, especially in the time of a pandemic happens and when they need to overcome such a pandemic.

6.4. Objective 4: Recommendations

The transition back to F2F brought myriad challenges, and the Department of Education in the Philippines, along with the various school-level bodies, all implemented strategies to tackle them. Some of the most prominent strategies and countermeasures have been highlighted in the second section of this paper. Though countermeasures are abundant, strategies and countermeasures are only as good as the implementation. As evident by the interview data presented above, the various parties have experienced these countermeasures differently, with some being satisfied with the response from the authorities while others being dissatisfied. Regardless of the opinions across the various levels, it is undeniable that within every strategy, there is always room for improvement and adjustment. This section will present some key recommendations for the learning recovery constructed by utilizing some of the suggestions provided by the various stakeholders who participated in this research. These recommendations are also analysed according to their feasibility and replicability here.

The schools that suffered the largest consequences of the pandemic were the public schools, as highlighted in the previous section. among the public schools, the one furthest removed from the city had arguably the most difficulty. Therefore, it is appropriate to begin this discussion by addressing the recommendations received from there. Some recommendations were echoed across the public schools, while others were more present at private schools. One of the formers was the need for a better information distribution system. Through the course of data collection, it was found that some of the strategies that the department of education enthusiastically highlighted, the teachers at other public schools, were relatively oblivious to. The principal of public school 3 put her recommendation as "I hope the DepEd could provide the same amount of support to the schools in rural Barangay, as it does to central schools." Considering that the teachers and the principal at public school 3 had to create their internal plans since the DepEd plan did not account for the rural situation appropriately and did not communicate the strategies in an ideal way, it is a safe assumption that the principal's statement regarding DepEd needing a better and more inclusive strategy development and distribution system is not without merit. There is a need to address the specific needs of rural areas, such as providing alternative

strategies that consider the unique challenges students and teachers face in these areas (Barroga, 2008).

The principal also recommended a more equal distribution of resources and effort across all public schools. During the interview with the DepEd representative, they claimed that the gadget distribution plan by the DepEd was necessary. However, speaking to the principal of public school 3, it was discovered that no gadgets were provided to the students in that school. Moreover, the principal struggled to get the school's pre-existing computers fixed. Thus, it can be inferred that the principal wanting a more equitable distribution of DepEd resources is not an invalid suggestion. Abiding by the recommendations of UNESCO (2011), it is recommended for the DepEd to provide adequate funding for rural schools, one of the ways to accomplish this is to encourage cooperation between the government, the private sector, and civil society to improve the quality of education in rural areas.

The principal from public school 1 had one main recommendation, which revolved around student mental health. They stated that it is necessary to have consistent orientations and interventions to help the students mentally reintegrate into schooling and help them cope with the change. This, again, is a fair recommendation. Since this is a big shift for both the students and teachers; therefore, perhaps their orientations should also include the teachers since they are arguably under the most stress due to the shift back. Schwarz et al. highlighted the impact of the pandemic on students' mental well-being; therefore, including strategies to aid the students' mental health is necessary. Moreover, Cohen-Fraade and Donahue (2021) and Sipeki, Vissi, and Túri (2022) state that there is immense stress on teachers due to the pandemic and addressing it within the learning recovery plan is also necessary. Though the principal at public school 3 stated that students' mental health is an important consideration, there was no mention of teacher stress management and mental well-being, incorporating which into the LRP is also a strong recommendation of this report.

As for the principals of the private schools, many of the grievances they stated were with the DepEd guidelines for reopening schools. Due to this, most of the recommendations they provided were for the reopening guidelines of the DepEd. Most of these did not apply to the learning recovery plan but instead called for some level of support for private schools. Principal from private school 2, for instance, stated that even though DepEd may not be able to provide financial support, they should still try and give some moral support by displaying that they exist for the domain of private education too. A private school teacher from private school 1 also stated that even though the private school system is not a part of the government, they still need support. The principals from all three private schools called for a more consistent guideline system. The principal from private school 3 noted that the DepEd guidelines changed drastically and spontaneously, making it hard for them to cope. An example given was the air conditioner rule. The guidelines stated that they would not be allowed to have the ACs on during classes to prevent the spread of Covid. This led the schools to rush and install fans in the classrooms. This was later changed. The new guidelines stated that ACs would be permitted if the rooms had air purifiers. The schools then purchased air purifiers for all the classrooms. This worsened the financial burden on private schools. Therefore, a recommendation echoed throughout all the private schools was for the DepEd to have more well thought long-term guidelines. Private school 3 principal also stated that they painstakingly worked to get the certification to reopen, and a few weeks later, the DepEd made it so that it was not a prerequisite. This caused a significant loss of labour and finances. Removing such inconsistencies was the strongest recommendation. Moreover, the principals and three teachers across two

private schools recommended that the DepEd give more consideration to the situations at private schools and incorporate those elements within their learning recovery plan. Jimenez and Sawada (2001) state that private schools account for a significant chunk of the total enrolment at primary and secondary levels and contribute strongly to the educational outcomes of the Philippines. They also face several challenges, such as a lack of government support and regulation and difficulties securing funding and resources. The private school system is a significant element of the education system (Jimenez, Lockheed, and Pacquaio, 1991), and therefore, more support through better regulations is not an unrealistic request.

As for the teachers, a wide range of recommendations was received. starting from the public schools, the first teacher at public school 1 that we spoke to wanted to continue the level-based class splitting. This was later echoed by two teachers at public school 2 as well. They strongly suggested this model to help the teachers better help the students reach the appropriate levels. However, one teacher from the first public school had a different recommendation where the students at a higher level could aid their struggling peers. Therefore, she disagreed with the splitting idea. Though both sides of these suggestions have merit, the remediation that was being provided to the students who scored low in the diagnostic tests would serve a similar purpose as splitting. This is a decision that the schools can take independently, as the learning loss levels at the different schools were also different. In a 2020 report, the Global Education Evidence Advisory Panel (GEEAP) recommended an education model developed by Pratham called "Teaching at the Right Level" to low-and middle-income countries (Pratham Education Foundation, n.d.). This model groups students based on levels instead of grades to provide remediation. This model has significantly improved learning gaps (Banerjee et al., 2016). A similar level-based split on remediation could help in prompt learning recovery.

A recommendation that a teacher at public school 1 gave, which the parents also seconded we spoke to, was that the timetables and schedules for the students need to be lighter as the students lost the habit of staying at school. The teacher stated that some students would become agitated and cry around 1 or 2 PM. This is perhaps due to the sudden nature of going from zero school hours to full-day classes plus compulsory remedial classes in some schools. Younger students need to be eased into the process of attending school, and therefore a more gradually expanding schedule would be a better choice than going from 0 to 100. The parents also stated that their daughter was struggling and resisting attending school due to this drastic shift. They also stated that their kid was feeling depressed, and they wanted the school to make the remedial lessons optional. Another issue raised by the parents was that on the first day back to school, the students had to take a test to identify their levels. Though important, perhaps the first few days back needed to be lighter and more engaging to make the students want to attend. Alleviating the sudden nature of the tight schedule and demanding classes was strongly opposed by the parents, who stated that it negatively affected their child's mental well-being. Considering this, and the earlier recommendation regarding the mental well-being of the students, it is recommended that a more gradual shift be implemented.

Following up on this point, one of the countermeasures taken by the first public school was to momentarily suspend extracurricular activities (ECA) to reinforce reading, writing, and math. A teacher at the same school opposed this idea and stated that she wanted the students to continue to experience such activities as they reinforce the learned knowledge and would also provide the students with a break from the tight study schedules. ECA help improve both students' motivation (Shaffer, 2019) and their academic performance (Seow

& Pan, 2014; Penjor & Dorji, 2022); therefore, it is necessary to continue to incorporate learning and ECA within the current learning schedules at schools.

One of the teachers at public school 2 recommended that the current schedule of 4+1, coupled with smaller class sizes, should continue later than November as it gave them some needed room to aid the students in their learning recovery. Another teacher mentioned that the promotion leniency should be reduced now as some students needed to repeat a year to catch up appropriately. A teacher from public school 3 stated that the paperwork had increased many folds due to the transition, which inhibits the teachers from focusing on the learning recovery of the students. OECD (2021) stated that a high teacher workload affects teachers' mental wellbeing and student achievement. Therefore, strategies to reduce this increased teacher workload must also be implemented.

Moving on to some recommendations received from teachers at the private schools, again, a pattern emerges with most leaning towards continuing some form of hybrid learning style education for longer. the teachers stated that some parents still wanted to continue the hybrid system as well. at the second private school, they had some students who, since the start of the pandemic, had migrated overseas and needed to attend classes online. Therefore, a continuation of hybrid learning would be suitable to accommodate everyone and make the transition more gradual and manageable. However, a counter to this position was also held by three different private school teachers who wanted to move to a fully F2F model as soon as possible.

A teacher at the second private school strongly recommended a more malleable curriculum development system and called for better teacher training for this purpose. They and two other interviewees stated that the MELCs were insufficient for their classes. Therefore, they had to supplement them. A one-size-fits-all style MELC curriculum is likely not appropriate since the levels of learning losses were different across the different schools; therefore, giving the teachers some freedom to modify the MELCs and providing apt support to do so is necessary.

7. Implications and analysis

DepEd, the school's leadership, and teachers have applied various efficient and creative countermeasures to deal with issues during the transition period back to face-to-face classes. However, there are some gaps that can be filled to yield better results. Hence, before the closing remark, a discussion about some policies that might be helpful and usable to DepEd and the schools in Los Baños is paramount.

First, there is a contradiction between the effort to recover from the learning loss and the need to ensure students' mental and emotional health (we used the term "socialization" in previous sections). Many managers and teachers recognize that the student's mental health is a salient concern as much as academic recovery. Yet, the plan to address the learning loss unintentionally increases pressure on the student's mind. For instance, in the first week of this school year, some students at some schools have already undergone the pre-test, or the number of remedial classes is too much for some. According to two of the parents who participated in this research, their kids have changed from being very excited for learning to hating school and having bad behaviour whenever they hear about their schools, even distancing themselves from everything related to their school, such as their former best friends. Even though it is hard to conclude a sure reason for this case, the parents thought that the sudden return to school and change in learning mode had put their kid into a much

more vulnerable state than before. Hence, this implies that more thoughtful consideration for balancing academic recovery and students' mental and emotional health through suitable and gradual change is essential.

Next, an even assessment test for all schools is necessary to correctly assess the level of learning loss in Los Baños. Only by correctly assessing the learning competency level of each school with the same measurement can DepEd formulate and implement more robust recovery plans and guidelines. Such plans and guidelines should be designed with detailed and diverse scenarios that each school can choose to apply to their case accordingly. There should be no one-size-fits-all solution for a very serious but divergent problem like learning loss, which also involves the mental well-being of the elementary school student.

Lastly, there is a concern among parents about the lateness in giving a sure direction for transitioning back to face-to-face classes. The parents clarified that the school only surely informed them about the plan to fully come back to school in November in late August. Hence, educational departments and institutions should consider giving parents adequate preparation time to deal with such a big change. Accordingly, the information regarding new and important changes needs to be distributed evenly and early to all schools.

Another implication we draw from our research is the need for schools to communicate with parents in a more efficient way. DepEd suggested schools enhance communication with parents for help with teaching the kids, and the teachers mentioned that they had provided channels for parents to ask when there is a concern, such as a group chat and phone. However, it is notable that, as much as schools need to have earlier access to information, the teachers need to be more active in communicating with parents about the necessary preparation and what plans will come in the future. Parents might be busy, especially for those families where both the child's father and mother must go to work. That is why a proactive approach from the school is indispensable.

Yet, it is necessary to accentuate the disclaimer that our research is only in the early-stage analysis of a significantly serious issue. Hence, the implication here might need to be modified further according to each school's situation and conditions. With a dedicated plan and efforts from every stakeholder, the transition period would become smoother and create a good environment for the students to go back to face-to-face classes.

8. Summary, Conclusion, and Recommendations

The sudden nature of the pandemic that almost put the entire world on pause created numerous problems. The pandemic affected all sectors ranging from business, economy, and education. However, education is arguably the sector which is expected to suffer the longest lasting after effects. Los Baños, Laguna in the Philippines is no exception. Throughout this research, it was established that there were significant learning losses along with various other challenges that the pandemic caused for the state of education in the municipality. Teachers, parents, students, school management, school staff, and the DepEd, have faced significant challenges during the pandemic and continue to do so during the transition back to face-to-face learning.

This research had four main objectives, to identify the major challenges with transitioning to F2F, to note the countermeasures in place at the time of the research, to identify the differences within these challenges and

countermeasures across public and private schools of different sizes, and to identify some recommendations that the various stakeholders had. Several challenges such as learning loss, student behavior, financial issues, and management issues were identified. The major countermeasures in place, like the DepEd guidelines, enhanced focus on the 3Rs, and the new curricula were then highlighted. The maintain differences such as the differing levels of learning losses incurred, the different set of challenges for private schools such as high dropouts and unsteady guidelines, and the unique challenges for the rural schools were then identified. Lastly, the recommendation provided by the different teachers, parents, and principals were listed. Some of the policy implications based on the analysis of these were also stated.

With education returning to normal, a strong plan of action and effective execution by all parties involved is necessary to control the amount of damage the pandemic caused. There have been promising and well-intentioned strategies planned by the DepEd and the Schools which have good chances of aiding the recovery process. Though the implementation of certain elements of this plan are perhaps less than ideal, it is possible to make small adjustments to the approach and make the recovery smoother. A better more uniform implementation of the plan across all schools, a more inclusive plan formation mechanism, a co-creationary approach alongside the parents, teachers, and the Deped, can lead to the current creases being promptly ironed out resulting in a much more efficient and timely recovery.

This paper has highlighted some of the concerns that various stakeholders have regarding this trying time period and hopes that it has added some alternative perspective to the discussion regarding effective learning recovery. It can only be hoped that necessary changes in the process and approach could benefit the students in Los Baños.

One of the biggest limitations of this study was the short time frame. Accordingly, this inhibited a more in-depth study. Linguistic and cultural barriers as well, though small, were not absent. This led to certain interviews being interpreted, and likely some details were lost to translation. Therefore, this study should be regarded as a starting point for further, more detailed research regarding the effectiveness of the learning recovery and transition process in the municipality. The study can be upscaled to include other schools in Los Baños.

References

American Psychological Association. (2020, September 22). Student mental health during and after COVID-19: How can schools identify youth who need support? https://www.apa.org/topics/covid-19/student-mental-health

Banerjee, A., Banerji, R., Berry, J., Duflo, E., Kannan, H., Mukherji, S., Shotland, M., & Walton, M. (2016). Mainstreaming an effective intervention: Evidence from randomized evaluations of "teaching at the right level" in India. https://doi.org/10.3386/w22746

Baxter, P., & Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *The qualitative report*, *13*(4), 544-559.

Barroga, R. S. (2008). Improving the Quality of Education in Rural Schools in the Philippines. *International Journal of Learning*, 14(10), 225-234.

Cohen-Fraade, S. and Donahue, M. (2021) "The impact of covid-19 on teachers' mental health," Journal for Multicultural Education, 16(1), pp. 18–29. Available at: https://doi.org/10.1108/jme-08-2021-0131.

Counts, G. S., & Urban, W. J. (1978). *Dare the School Build a New Social Order? (Arcturus Paperbacks, No. AB 143)*. Southern Illinois University Press.

de la Maisonneuve, C., Égert, B., & Turner, D. (2022). Quantifying the macroeconomic impact of COVID-19-related school closures through the human capital channel. *OECD Economics Department Working Papers*. https://doi.org/10.1787/eea048c5-en

Department of Education (Deped). (2022). *Deped Develops Learning Recovery Plan As More Schools Conduct Face-To-Face Classes*. Retrieved from https://www.deped.gov.ph/2022/03/29/deped-develops-learning-recovery-plan-as-more-schools-conduct-face-to-face-classes/

Dewey, J. (1997). *Democracy And Education* (LATER PRINTING.). Free Press.

Engzell, P., Frey, A., & Verhagen, M. D. (2021). Learning loss due to school closures during the COVID-19 pandemic. *Proceedings of the National Academy of Sciences*, *118*(17), e2022376118.

Estrellado, C. J. (2021). Transition to Post-Pandemic Education in the Philippines: Unfolding Insights. *International Journal of Scientific and Research Publications*, 11(12), 507. https://doi.org/10.29322/IJSRP.11.12.2021.p12074

Feyisa, H. L. (2020). The World Economy at COVID-19 quarantine: contemporary review. *International journal of economics, finance and management sciences*, 8(2), 63-74.

Global Education Evidence Advisory Panel. (2022). PRIORITIZING LEARNING DURING COVID-19: The Most Effective Ways to Keep Children Learning During and Post-Pandemic. *The World Bank*. Retrieved from https://thedocs.worldbank.org/en/doc/5f911bdf7c5c8abf060467865acf1abd-0200022022/original/Prioritizing-Learning-GEEAP-Report-Final-01-24-2022.pdf

Jimenez, E., Lockheed, M. E., & Paqueo, V. (1991). The relative efficiency of private and public schools in developing countries. The World Bank Research Observer, 6(2), 205-218.

Keskitalo, E. C. H. (2004). A framework for multi-level stakeholder studies in response to global change. Local Environment, 9(5), 425-435.

Klinger, A, D., Klinger, R, C., & Volante, L. (2022). High school grades matter for post-secondary study, but is pandemic assessment fair? (Online article). Retrieved from https://theconversation.com/high-school-

grades-matter-for-post-secondary-study-but-is-pandemic-assessment-fair-177187

Koanda, A.W., Oliveira, J, V, A, C., Umeda, K., Flores, G., & Kobayashi, Y. (2021). Elementary Education in Philippines and COVID-19 pandemic: A Case of Study of National Capital Region (NCR). *Overseas Fieldwork Report 2021*.

Mojarro, J. (2022). Post-Covid education. *The Manila Times*. Retrieved from https://www.manilatimes.net/2022/02/08/opinion/columns/post-covid-education/1832145

Nugroho, K., Carden, F. and Antlöv, H. (2018). "Introduction: local knowledge matters!" in *Local knowledge matters: Power, context and policy making in Indonesia* (*1st ed., pp. 1–28)*. Bristol University Press. https://doi.org/10.2307/j.ctv3hvc26.6

OECD. (2021). Building teachers' well-being from primary to upper secondary education. Teaching in Focus. https://doi.org/10.1787/722fe5cb-en

Penjor, U., Dorji, T. (2022). Impact of extra-curricular activities on students' academic performance at secondary schools in Samdrup Jongkhar. Asian Journal of Education and Social Studies, 8–19. https://doi.org/10.9734/ajess/2022/v32i330769

Rahandini, D, A., Putri, O, B., Claro, M, D., & Zhu, J. (2021). University Student's Perception and Expectations Towards Flexible Learning in The Philippines. *Overseas Fieldwork Report 2021*.

Schmidt, C. (2004). The analysis of semi-structured interviews. *A companion to qualitative research*, *253*(258), 7619-7374.

Schwartz, K.D. et al. (2021) "Covid-19 and student well-being: Stress and mental health during return-to-school," Canadian Journal of School Psychology, 36(2), pp. 166–185. Available at: https://doi.org/10.1177/08295735211001653.

Seow, P.-S., Pan, G. (2014). A literature review of the impact of extracurricular activities participation on students' academic performance. Journal of Education for Business, 89(7), 361–366. https://doi.org/10.1080/08832323.2014.912195

Shaffer, M.L. (2019) "Impacting student motivation: Reasons for not eliminating extracurricular activities," Journal of Physical Education, Recreation & Dance, 90(7), pp. 8–14. Available at: https://doi.org/10.1080/07303084.2019.1637308.

Sipeki, I., Vissi, T. and Túri, I. (2022) "The effect of the COVID-19 pandemic on the mental health of students and teaching staff," Heliyon, 8(4). Available at: https://doi.org/10.1016/j.heliyon.2022.e09185.

Tan, E. (2014c). Human Capital Theory. *Review of Educational Research*, *84*(3), 411–445. https://doi.org/10.3102/0034654314532696

Taylor, K., & Nierenberg, A. (2021). Should Every Student Move Up to the Next Grade? NY Times. Retrieved from https://www.nytimes.com/2021/05/26/us/covid-grade-promotion.html

The World Bank. (2022). Learning Loss Must be Recovered to Avoid Long-term Damage to Children's Wellbeing and Productivity, New Report Says. Retrieved from https://www.worldbank.org/en/news/press-release/2022/01/26/learning-loss-must-be-recovered-to-avoid-long-term-damage-to-children-s-wellbeing-and-productivity-new-report-says

United Nations Childerns Fund (UNICEF). (2022). *Where Are We on Education Recovery?*

UNESCO (2011). *Education for Rural Development: Towards New Policy Responses*.

World Bank Group. (2022). *Prioritizing Learning during COVID-19 : The Most Effective Ways to Keep Children Learning during and Post-Pandemic : Recommendations of the Global Education Evidence Advisory Panel.* from https://documents.worldbank.org/en/publication/documents-reports/documentdetail/114361643124941686/recommendations-of-the-global-education-evidence-advisory-panel

Acknowledgements

**The Governance of Informal Settlements
in the Municipality of Los Baños, Laguna**

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1. Introduction

The global growth of the urban population worldwide has been accompanied by the growth of informal settlements, slums and low-quality residential neighborhoods that are associated with poor socio-economic conditions and governance gaps. An informal settlement is defined as a land occupation without a legal claim and the houses on the land are usually not following planning or building codes (UN-Habitat, 2017). According to the UN Habitat World Cities Report 2022, one billion people live in slums and informal settlements and those people tend to face difficulties, such as the lack of access to water and to sanitation facilities, land entitlement, inadequate infrastructure and poor quality and overcrowded housing. Moreover, the global trend of the rapid increase of house prices and the global housing crisis affects low-income people in developing countries and limits their housing choices to informal settlements or slums (UN-Habitat, 2022; Victoria, 2022).

In the Philippines, the capital area and nearby regions of Calabarzon and Central Luzon have experienced fast population growth as a consequence of internal migration to the urban and peripheral regions (UN-Habitat, 2016). Rapid urbanization and inadequate capability of the government to cope with the housing needs of people in urban areas have contributed to the development of informal settlements.

Los Baños is a municipality in Laguna Province in the Calabarzon region. It is composed of 14 *barangays* (small territorial and administrative areas representing the most local level) and located on the south shore of Laguna de Bay, and borders Mount Makiling in the south. This municipality has the same issues regarding informal settlements as in other parts of the Philippines and in other developing countries, such as rapid population growth and lack of land. According to official information, there are 4,334 informal settler families (ISFs), including people living in danger areas, in areas affected by infrastructure projects and in private land subject to eviction. To deal with this situation, the municipality has been carrying out relocation projects for ISFs.

To understand the dynamics of informal settlements and the governance mechanisms to deal with them in Los Baños, there were visits to municipal offices, to relocation sites, and to an informal settlement in Magnetic Hill in Barangay Timugan. The findings of this research are further discussed and explained, highlighting positive and negative aspects of the governance issues.

1.1. Problem Statement

The right to adequate housing is a human right. Adequate housing is part of the right to an adequate standard of living according to the 1948 Universal Declaration of Human Rights and in the 1966 International Covenant on Economic, Social and Cultural Rights. Poor economic conditions and uncontrolled urbanization threaten the fulfillment of this right. Social, economic, and political issues, as well as a natural process of modernization, especially in developing countries, contribute to the existence of informal settlements.

The worldwide problem of informal settlements affects countries in different ways and creates different responses. Countries have been trying to find solutions and resorting to different strategies to overcome them since this global problem creates exposure and vulnerabilities to environmental hazards and pollution and decreases the quality of living.

The Los Baños Comprehensive Land Use Plan (2014-2022) shows that the Municipality of Los Baños (MLB) has projects and a set of Executive Orders to manage and interact with informal settler families in its barangays. However, despite this official structure, informal settler families are still a persistent reality in Los Baños. According to the MLB, there are currently 4,334 ISFs in Los Baños, which might reveal gaps in the implementation of the Municipal Plan and the existence of policies that might not be addressing the real needs of the population.

The concept of vulnerability is at the heart of social policies and is an important starting point to understand and provide responsive policies to the pieces of the research puzzle related to social issues, such as slums and informal settlements. Most studies have been limited to solutions using economic incentives rather than looking into what proper governance can do despite limited resources. For Heijmans & Victoria (2001), natural events are the main cause of vulnerability of people and determine the intensity, magnitude and duration of shocks. He also advocates for economic and financial instruments as the solution for reducing people's vulnerability, as well as understanding the socio-economic and political processes, but does not consider it in light of governance.

As Figure 1 shows, the relocation governance question involves three actors: the MLB, the relocated people, and the ISFs.

Figure 1: The Key Actors in Relocation in Los Baños Municipality
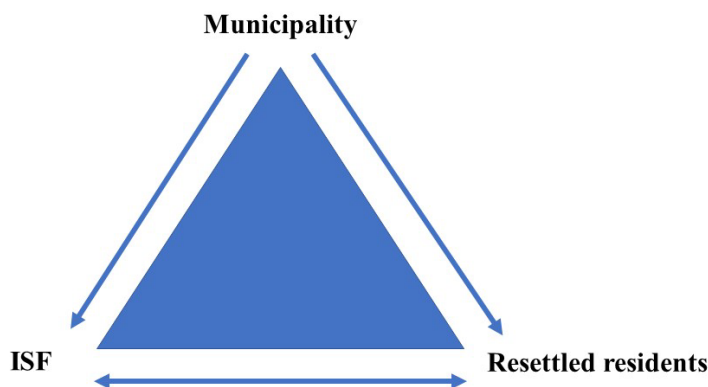
Furthermore, vulnerability is the main issue with which everyone in the triangle is concerned. ISFs may perceive the relocation process as an intensifier of their vulnerabilities, especially because they might lose their kinship networks. Even people within the same informal settlement may have different perceptions of their vulnerabilities, which might explain why some decided to move to the relocation areas to live in formal settlements. On the other hand, the government argues that people's safety needs will be fulfilled if they are relocated; therefore, the problem of different vulnerability perceptions arises and might be one of the reasons behind the delays in the relocation project of Los Baños. These opposed perceptions of vulnerability might be minimized if some principles of good governance, such as participation, inclusiveness, transparency, accountability, responsiveness, and effectiveness are properly applied (United Nations Economic and Social Commission for Asia and the Pacific, 2009). Despite being a benchmark for good governance, a comprehensive application of these principles seems challenging to apply.

The existence of informal settlements in Los Baños, Laguna, reveals that, even in a prosperous municipality, there are citizens who fall outside the formal governance structure. The objective of this study is to understand and describe the governance mechanism the MLB is using to address the issue of relocation from the informal settlements in Los Baños.

1.3. Research Questions

Question 1 - How is the municipality dealing with resettlement?

      Sub-question 1 – Why does MLB have a resettlement plan?

      Sub-question 2 – How is this resettlement plan currently being implemented?

      Sub-question 3– What are the positive and negative outcomes derived from this resettlement plan?

Question 2 – Why do people live in informal settlements?

      Sub-question 1 – What factors led people to live in informal settlements?

      Sub-question 2 – Do informal settler families want to be relocated? If yes, why? If no, why not?

      Sub-question 3 – What are the main challenges for relocation?

Question 3 – Why do people decide to leave informal settlements and join government settlements?

      Sub-question 1 – Why do people choose to be relocated?

      Sub-question 2 – What was the relocation process?

      Sub-question 3 – Are resettled people satisfied with their new living conditions?

2. Literature Review

Strategies for addressing informal settlements involve large-scale slum clearance, relocation, and on-site upgrading (Beardsley and Werthmann, 2008). Del Mistro and Hensher (2009) point out "total redevelopment" and "in situ upgrading" as the two dominant approaches of improving informal settlements. The first refers to a situation in which residents are evacuated and later relocated, while the latter refers to gradually developing the informal settlement by creating infrastructure, ensuring land tenure and providing social services. Relocation strategies are compared to a double-edged sword, since, on the one hand, relocation of a community to a new place can create benefits with the provision of adequate housing (Terminski, 2015), and on the other hand, displacement might also be associated with direct impacts on livelihood and create risks of impoverishment (Cernea, 1999).

Among the approaches to address the issue of informal settlements, good governance is highlighted as one of the tenable ways to reach satisfactory outcomes theoretically and empirically. Qian (2014) evaluates the land administration system in Kathmandu Valley, Nepal, from the perspective of good governance in his thesis by taking a series of indicators and weighing their scale to produce an aggregate measure.

Qian's evaluation framework is based on five principles and indicators: equity, transparency, accountability, public participation and effectiveness and efficiency, used to evaluate four categories: land policy, land registration and cadastre, land use planning and land development, to carry out evaluations from a different perspective of good governance within the domain of the land administration system. Qian's

findings suggest that although the transparency aspect of the municipality has noticeably improved over the years, local governments still lack sufficient tools, human resources and most importantly, administrative experience to fill the gaps in equity, accountability, public participation and effectiveness and efficiency in good governance. Thus, Qian's proposal focuses on strengthening collaboration between government and private authorities.

Other studies illustrate the experience of the Philippines with informal settlement issues, emphasizing the reasons why informal settlers disagree with government relocation programs in different contexts. Studies have explained several reasons that contribute to the unwillingness of informal settlers to accept and join resettlement programs. One such study is about the Mt. Pinatubo resettlement program, in which people were opposed to giving up their place of worship and traditional ceremonial events, where they meet their village mates (Gaillard, 2008). Accordingly, Gaillard also stated that the ethnic group known as Kapampangans of Bulaon had strong ties to their native village and produced a territorial mark as protection of their territories. This entailed both rejection of new settlers, which perhaps the government was planning to bring to that relocation site and disagreement with being relocated. A different problem is pointed out in Yoshie Yamamoto's study on Bautista in Dasmariñas, Cavite, which highlighted the fact that people opposed resettlement programs, due to the potential socio-cultural disruptions (exchanging and borrowing from each other, mutual support, childcare arrangements, neighborhood connection and kinship network) it could cause to their livelihood (Yamamoto, 1996). However, Yamamoto goes further and argues that relocation leads to serious adverse effects such as displacement over large distances, which tends to allocate people to farther areas. The author argues that people's relocation impoverishes them, due to larger distance displacements and decreases their standard of living enjoyed before the relocation.

A study in Cagayan de Oro, Mindanao by Santiago et al (2018) found the existence of disparate outcomes from different relocation programs jointly conducted by the national and local governments as well as non-government organizations, especially in terms of physical infrastructure, provision of basic utilities, and people's attitudes toward the recovery process after relocation. Furthermore, after the Washi tropical storm that hit Cagayan de Oro City in December 2011, households relocated to the Calaanan Site of Mahogany Village were not satisfied with the houses they received since the houses were not suited to their needs, activities, and goals (Carrasco et al., 2016). Building and investing in complementary spaces was considered a violation of the occupancy agreement; therefore, the authors argue that local characteristics of resettled communities and their physical context were not taken into account during the planning stage of the resettlements.

In brief, the literature stressed good governance as important to be successful in dealing with informal settlements and some compelling reasons to oppose government relocation programs. Qian's research is thematically and methodologically similar to the study of ISFs and relocation in Los Baños, Philippines. Also, the two research sites, Kathmandu and Los Baños, show many similarities in terms of development obstacles and the administrative model of the government. Therefore, the conclusions of the study of Kathmandu Valley can contribute to the study of informal settlements in Los Baños, Philippines. While Qian's proposal is to strengthen dialogue with government and private authorities to promote good governance, this research proposes the improvement of the administrative model of the government itself. Concerning the reasons to oppose relocation, the first is socio-cultural. In Cavite, Yamamoto stated that relocation programs are

associated with socio-cultural disruptions underlining people's loss of neighborhood ties, kinship network and mutual support. Similarly, Gaillard pointed out people's commitment to protect their native village and the connection with their village mates. The second compelling reason is related to socioeconomic issues, as Santiago et al explained the problem of physical infrastructure and basic utilities like water and electricity that increase people's reluctance to accept government relocation programs. Similarly, Yamamoto's Cavite study confirms that basic services, livelihood, and housing issues are major barriers to relocation programs, while on the other hand, Carrasco et al found that the government was reluctant to consider attributes of resettled communities and their physical context in the relocation plan, which led communities to be unsatisfied with the housing provided. Against this background, the present study aims to understand the governance structure created by the local government to address informal settlements in Los Baños and how the relocation process has been affected by it.

2.1. Theoretical Framework

The research project is based on a theoretical model that discusses, evaluates, and measures government performance, namely the Good Governance principles developed by ECOSOC (Banerji, 2015). Scholars and political theorists have stated that good governance emerges from the concepts, which give effectiveness to institutions and rules (Asaduzzaman & Virtanen, 2016). The United Nations defines and measures good governance based on eight major elements which are equally important: Participation, Rule of Law, Transparency, Responsiveness, Consensus Oriented, Equity and Inclusiveness, Effectiveness and Efficiency and Accountability (Banerji, 2015) and core concepts of these elements are also being advocated by International institutions like UNESCO, the IMF, and the World Bank.

The principles mentioned above will be utilized to assess the governance performance of the Municipality of Los Baños from two perspectives, informal settler families and relocation. However, there is no universally accepted governance framework or index which aims to evaluate good governance within the field of relocation or ISFs. Therefore, selected principles will be evaluated for how well the local government unit deals with the issue related to ISFs and relocation based on their relevance and the observations from the group in the field. Lastly, multiple indicators will be used in the evaluations and be reflected in the discussion and policy implications. The visualization of the evaluation framework is as follows:

Figure 2:   Evaluation Framework

Evaluation Domain		Principles	Indicators
Informal Settler Families		Transparency	Free access to information about resettlement
		Accountability	Addressing the community`s basic needs

		Equity and inclusiveness	Equal access to public services
		Participation	Dialogue with community leader
Relocation		Transparency	Free access to information about resettlement
		Accountability	Clear mandate for the relocation process
		Rule of Law	Specific laws for relocation
		Effectiveness and Efficiency	Multi-agency collaboration
		Participation	Multi-level cooperation

Source: Created by the authors

This model emphasizes the need for improving institutions (Aguilera & Cuervo-Cazurra, 2009) and public trust (Huther & Shah, 2005). According to UNICEF, the two-way trust and engagement between the government and citizens are important measurements for good governance (2022). As a result, the good governance model is considered appropriate for this research for its reflection of both perspectives of local government units and the public and its universal applicability regardless of the country context. Through interviews and surveys with municipal officials, ISFs and resettled people, this research tried to identify the perceptions of these groups regarding the 8 UN principles of good governance.

3. Methodology

3.1. Research Site

Los Baños is one of the 30 municipalities in the Province of Laguna. It has a total land area of 5,650 hectares, representing 3.21% of the province's total area. It is also composed of 14 barangays and is classified as urban (Los Baños Local Shelter Development Plan 2014-2022). In Los Baños, ISFs live along the railways, rivers, creeks, lakeside, land and rockslide-prone areas and private-owned lots.

3.2. Data Collection:

The study used primary and secondary data to gather information. Among the tools, the study relied on key informant interviews, surveys, in-person visits to the informal settlement in Magnetic Hill and to the relocation sites (Core Shelter Assistance Program [CSAP] and Betterland), analysis of official document and

review of research of informal settlements in the Philippines as a parameter for comparison.

For the key informants, at the Local Government Unit (LGU) level, the Vice-Mayor of the Municipality of Los Baños, as well as focal people from the Municipal Planning and Development Office (MPDO), the Municipal Urban, Development and Housing Office (MUDHO) and the Barangay Captain of Barangay Timugan were interviewed in order to have a better understanding of the governance structure in Los Baños, how the resettlement program is being carried out and if it is transparent, participatory, accountable and inclusive. One official from the Makiling Center for Mountain Ecosystems (MCME) linked to the University of the Philippines Los Baños, was also interviewed and provided additional information for understanding the governance structure.

Moreover, community leaders in the relocation sites of CSAP Lalakay and Betterlands 1 and 2 and the community leader of Magnetic Hill were also interviewed to identify the vulnerabilities and problems of informal settlements according to their perceptions and to understand how the government is approaching ISFs to carry out resettlement.

This research also conducted surveys with 17 ISFs living in Magnetic Hill. They were informed about the study and gave their consent to record their responses. Their data and perceptions were obtained to create a demographic profile of the community in Magnetic Hill as well as to obtain information about their relationship with the MUDHO, to check their level of satisfaction with the treatment they are receiving from the municipality and to discover the main reasons people want to be relocated or not.

Some key official documents were also analyzed, such as the Los Baños Comprehensive Land Use Plan (2005-2020), which provides details of sectoral development plans, including programs and projects regarding the social sector. One of the social development plan projects is the housing sub-sector, whose primary concerns are the rise in ISFs and the growing demand for housing. Another official document is the Los Baños Local Shelter Plan (2014-2022), which aims to set strategies for identifying ISFs residing in danger zones, building resettlement areas and housing units, relocating ISFs, reducing the number of displaced households annually, providing access to electricity to households and providing and upgrading potable water and sanitation facilities. A third document analyzed was the Republic Act 7279, also called the Urban Development and Housing Act of 1992, which is the umbrella legislation for housing and informal settlements in the Philippines. This Republic Act underlines the responsibility of local governments to plan housing, rational land use and LGU capacity-building for urban development and housing programs and projects. Finally, Republic Act 6967 of 1990, which vests control, jurisdiction and administration of the forest reserve in Mount Makiling in the University of The Philippines Los Baños (UPLB), was also analyzed.

4. Results and Discussion

4.1. The Governance Structure in the Municipality of Los Baños Regarding Relocation

Republic Act 7279, also known as the Urban Development and Housing Act (UDHA) of 1992, establishes in Article X, Sec 39, the role of the LGUs as the main organ responsible for the implementation of the Act in their respective localities in coordination with the Housing and Urban Development Coordinating Council. In this regard, the LGU coordinates an interagency task addressing the informal settlement problem. The normal

flow of interactions, Municipality–Barangay–Community Leaders, is complexified when considering the roles of important organs such as the Municipal Environment and Natural Resources Office (MENRO), the Municipal Planning and Development Office (MPDO) and the Municipal Urban, Development and Housing Office (MUDHO). MPDO is responsible for MLB's annual planning and budget allocation, while MENRO is responsible for implementing environmental programs and projects in Los Baños. Regarding resettlement, MENRO provides training in sustainable management of natural resources in protected areas to ISFs.

According to the Local Shelter Plan (2014-2022), the Municipal Urban, Development, and Housing Board is the policy-making organ for issues regarding urban development, housing programs and shelter, whose operational branch is MUDHO. MUDHO was a response to the growing problem of housing and migrants in Los Baños and is responsible for the implementation of programs and projects of the municipality to address issues and problems related to informal settlements. It has many responsibilities, such as the preparation of the Local Shelter Plan, the formulation of the Comprehensive Land Use Development Plan, the evaluation of the issuance of development permits, the prospection of idle lands suitable for housing programs, the monitoring of the land development of some programs, the provision of assistance to community associations related to housing concerns, advising on issues related to taxation that might affect the local government socialized housing program and the evaluation of projects and applications for housing permits. MUDHO is also responsible for creating a framework for rational resettlement, considering the urgent needs of the population in disaster-prone areas and as interviews revealed, controlling the further expansion of informal settlements.

This governance structure becomes more complex, when we add the exceptional case of Magnetic Hill. Since Magnetic Hill is in an area that falls out of the control of the LGU, UPLB also enters in the governance structure for dealing with informal settlements in Los Baños, as Figure 3 shows.

Figure 3: The Governance Structure in MLB Regarding Relocation of Informal Settlements.
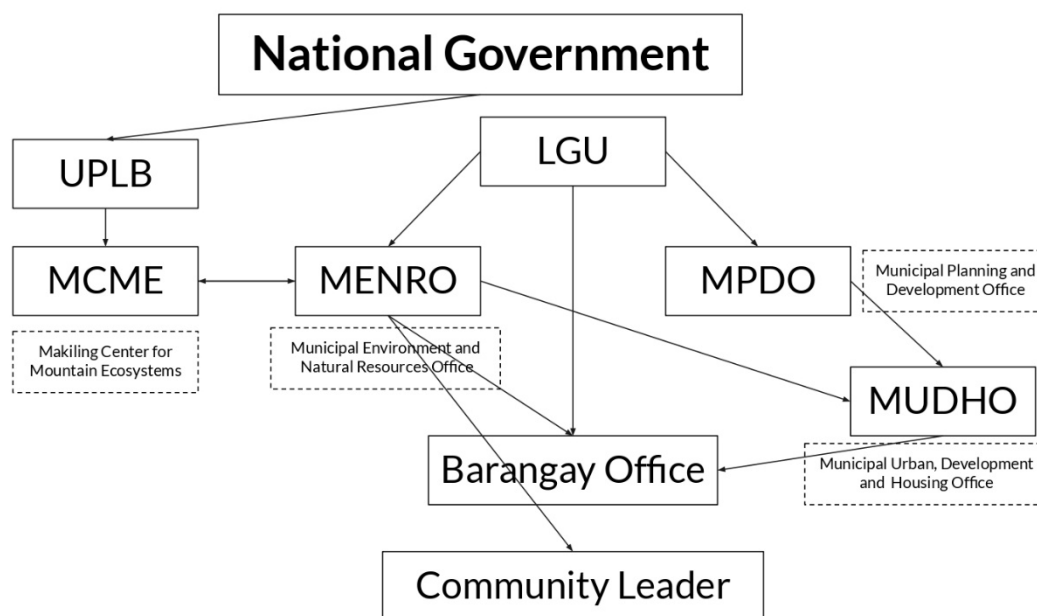
Source: Created by the authors

From an administrative perspective, the research found that the governance structure is prepared to deal with informal settlements and relocation in the Municipality of Los Baños. The structure is aligned with national legislation, and its main organs, MUDHO and MPDO, have the mandate and capabilities to address resettlement effectively. The decentralized administration, by vesting the LGU with the implementation of resettlement, seems more efficient since decisions are conceived and generated at the grassroots level, demonstrating an approach based on transparency and participation. MUDHO also achieved some important gains for the local population, such as the resettlement of around 1,000 families over 10 years and the acquisition of 4 relocation sites (2 Core Shelter Assistance Plans and 2 Betterlands) in different barangays, which has translated into real gains in the quality of life of the population who were in dangerous areas. Moreover, the MLB acquired 4.8 ha for further relocation, indicating a continuous commitment to the welfare of the ISFs, based on the LGU's approach to responsiveness to needs and accountability. However, from the interviews, the three following problems were understood. Firstly, the supply of land in Los Baños is limited, mainly because 60% of the municipality's land is part of the Mount Makiling Forest Reserve, whose areas fall outside the mandate of R.A. 7279. Secondly, the limited human resources in MUDHO (only three full-time staff) might significantly impact the length of implementation of the resettlement plan, specifically because they have to cover all the ISFs in 14 different barangays and establish priorities. Thirdly, budgetary constraints are an important consideration when carrying out resettlement in a context where the local government has competing areas like health, welfare, and education to which it must allocate money.

Although some problems persist which are common in developing countries, the governance structure in the Municipality of Los Baños can reasonably respond to the challenges of resettlement.

4.2. Magnetic Hill

Magnetic Hill is one of many sloped areas on the northward side of Mt. Makiling near Jamboree Road. It is located in Barangay Timugan in Los Baños, with a population of 219 households (MUDHO). The Magnetic Hill informal settlement is named for its proximity to the area. The group selected the Magnetic Hill informal settlement as one of several research sites for the purpose of conducting a case study of governance practices regarding relocation in Los Baños. Later, it was discovered that it has unique characteristics for being somewhat in a "gray zone" due to overlapping jurisdiction problems, collective action problems, and priority problems regarding ISFs and relocation.

Magnetic Hill informal settlement, along with the Magnetic Hill area, falls under the jurisdiction of Mt. Makiling Forest Reserve (MFR) according to Republic Act (RA) 3523 (1963) to serve as the land resource for carrying out a program of public education and information in forestry. Later, in 1990, RA 6967 transferred the administration of the MFR to UPLB as a training laboratory for advancing scientific and technical research, which also vested complete control to UPLB of the mentioned area. According to Makiling Center for Mountain Ecosystems (MCME), Magnetic Hill lies within the range of 6-7 hectares of unutilized Military Reservation Zone, used as a public forest (with 80% of the slope as alienable and disposable land). This area also has an allowance for human activity confirmed by the Comprehensive Land Use Plan. Therefore, the ISFs living in Magnetic Hill are recognized as citizens of MLB. However, the overlapping jurisdiction over the land affects how the MLB fulfills its duties to the residents living there. It also disrupts the administrative processes

that the LGU uses to provide social services and welfare to its citizens.

Secondly, there are specific priorities for LGUs to consider regarding relocation. According to the Comprehensive Land Use Plan, people living within an area covered by the Philippines National Railroad (PNR) program and in disaster-prone areas, specifically areas prone to typhoons, landslides and floods, are prioritized to be relocated. This prioritization is also followed by MUDHO, but the lack of land forces them to make selections in decision-making. As a result, ISFs in Magnetic Hill are not being prioritized by the LGU for relocation. Despite facing some natural disasters, residents of Magnetic Hill will be evacuated to specific sites in the barangay when natural disasters occur but are expected to return to their houses after.

Lastly, having multiple stakeholders involved in the issue of ISFs further complicates the problem. First, the Magnetic Hill residents reported having little to no intention to relocate. According to a sample survey of 17 residents from ISFs of Magnetic Hill, almost all have lived in Magnetic Hill for more than 20 years and 13 of the 17 respondents reported that they had no intention to leave Magnetic Hill. People have attached themselves to their socio-economic activities, kinship relations and a deep sense of community in Magnetic Hill. Moreover, the MLB has no intention of relocating ISFs from Magnetic Hill because other informal settlements are more prone to disaster than Magnetic Hill. A severe shortage of available land and a lack of human resources have prevented the MLB from prioritizing the relocation of the ISFs of Magnetic Hill. The only thing they can do, according to the officers, is to monitor and control the population of Magnetic Hill from expanding. Lastly, UPLB, which directly controls the lands of Magnetic Hill, tolerates the presence of ISFs. However, when ISFs explore more commercial activities that might cause environmental impacts in this area, MCME or other related administrative organs will likely start to intervene.

In conclusion, many problems that the LGU face regarding relocation relate to land scarcity, namely the amount of land capacity that MLB can reserve for ISFs to relocate. However, the Magnetic Hill informal settlement is unique and complicated since it falls under the jurisdiction of multiple administrative stakeholders and all of them expect different, if not opposite, outcomes. The lack of interest from the LGU and Magnetic Hill residents in relocation raises an intriguing yet untouched territory to be studied further.

4.3. The Relocation Process in Los Baños

The information about the relocation process in this section is based on interviews with MUDHO and community officers (COs) in three resettlement sites. The COs are members of Community Associations (CAs) which are organizations established in each resettlement site for technical help with the housing projects.

According to R.A. 7279, to apply for the social housing program, the applicant for relocation must be an underprivileged and landless Filipino citizen without any real property who is not a professional squatter or a member of squatting syndicates.

The first step of relocation is the application for resettlement by those who seek relocation and meet the mentioned qualifications. The people who want to relocate can either go to the MUDHO office or find information on a bulletin board at the municipal hall, at groundbreaking ceremonies, or on social media, such as Facebook. That information is provided by MUDHO. The ISFs who get information will apply to MUDHO for relocation. The next step is the evaluation of eligibility for relocation. This process is conducted by MUDHO and supported by other stakeholders, such as COs in resettlement areas. Also, COs from the

community the applicants are living in could be involved in this process. They check the information of applicants' family demography, income and expenditure, and land and house status. This process sequentially proceeds based on the availability of the slots and space in relocation sites and the assistance of MUDHO and COs.

After passing this evaluation process, the third step is to complete and submit the required documents, which come from the Department of Human Settlements and Urban Development and Housing (DHSUD). Applicants need to collect and fill out forms with all the requirements and submit them to MUDHO with the help of DHSUD and its five related organizations: the National Housing Authority (NHA), Home Development Mutual Fund, Home Guarantee Corporation, Housing and Land Use Regulatory Board and National Home Mortgage Finance Corporation (NHMFC). The applicants need to prepare some required documents such as contract statements or statements of account. They must submit all these documents within three months after passing the evaluation process. If they fail to collect them in three months, the land will be allocated to different families and the applicant will have to apply again and wait until a place in a relocation site is vacant.

After successfully submitting all the documents, the applicants can finally move to the relocation sites with the help of CAs. However, only the land will be given to the applicants, and they are responsible for building their own houses, following a housing plan. Barangay Lalakay, however, is an exception, as a house is already provided for the relocated family in addition to land. As a next step, MUDHO gives the relocated families the Certificate of Lot Award or title. At that time, the land is not the possession of the relocated family but under the name of the resettlement site or association and/or lot number. The resettled people need to submit further documentation to acquire the land title. To obtain the land title, the applicants need to file a tax declaration form, which is granted and processed by the Municipal Assessor's Office (MAO). COs serve as the go-between for MAO and the applicants. They collect the granted documents from MAO, prepare them with the applicants and hand them over to MAO.

After all these processes have been successfully completed, the relocated families can finally get their land titles. What is worth mentioning, however, is that the allocated land will revert at any time if the family fails to make the required payments during and after the process.

4.4. Findings from Interviews with Community Officers in the Three Relocation Sites

From the interviews with the COs in three relocation sites, the study found that people are largely satisfied with the living conditions there. They also recognized that the process is transparent and that the LGU is constantly in contact with them. All three interviewees mentioned the safety of the sites from flooding and other natural disasters, the achievement of land tenure and continuous support from the barangay and the LGU. This is reflected in the policy in R.A. 7279. It defines that the LGU or NHA must provide the basic facilities and services in cooperation with the private sector and the concerned agencies, such as drinking water, electricity, sewage and waste disposal systems and road and transportation facilities. However, there are some difficulties and needs. One out of three mentioned the need to build a community office, the difficulty in finding and continuing jobs near the relocation community and the creation of a better sewage system respectively. Two out of three highlighted that some families cannot pay the monthly amortization and the road conditions should be improved. Finally, all of them indicated that the titling process is time-consuming and complex.

Therefore, the results of the interviews reveal two essential problems with the relocation process: it is time-consuming and costly.

The process itself is long, complicated and involves many actors. If there is little available land, applicants need to wait until a spot is available. For people who have a low literacy rate, there may be additional difficulty with the documentation, so they will proceed with those processes slowly. Also, the study found that it takes some time to move to the relocation sites after people pass the process of collecting documents because they need to build houses by themselves. For example, in Betterland Phase 1, only 44 families out of 241 had built their houses and only 31 families out of the 44 were living there. In Betterland Phase 2, only 25 residences were under construction out of 223 lots.

Another issue is the cost. Although the housing for relocation should be affordable, as prescribed by R.A. 7279, the cost for relocation might not be affordable for ISFs. The costs families need to bear are for the registration as taxpayers (105 pesos per square meter within ten years), land (330 pesos per square meter for 25 years amortization on average; the average land size is 40 square meters) and the costs of house construction. Among those costs, the cost of land, not to mention the cost for building a house, is problematic. There is the Community Mortgage Program provided by NHMFC for the family to acquire land more easily. According to COs, however, the qualification for a housing loan is whether the family members are employed and have a salary of 8000 pesos/month minimum or not. Therefore, if the family does not have enough income for the qualification, they cannot afford the mortgage.

In short, as shown in the relocation process, the MLB helps ISFs actively by continuously relocating residents, providing basic services and offering a mortgage plan. However, there is still room for improvement of the relocation sites and of the resettlement process. Regarding the latter perspective, the complex and time and money-consuming process may represent a burden to some people.

5. Summary and Conclusion

The issue of relocation of ISFs in the Municipality of Los Baños is being taken care of in a reasonable manner. In response to the challenge of informal settlements in the MLB, a complex governance structure exists and reflects the governmental priorities of providing services to the population. Although complex, the government is accountable and the multiple relations, including the direct contact from MUDHO with community officials and leaders demonstrate that the process is transparent and participatory, trying to address all the difficulties of the ISFs despite material limitations. Moreover, the acquisition of four relocation sites and the relocation of 1,000 families demonstrate that the LGU is very responsible toward the needs of its citizens. However, this research also identified a complex and bureaucratic relocation process that lacks effectiveness in some ways.

Perceptions of vulnerability underlie the decisions taken by the LGU, the ISFs, and the resettled families. Sometimes these perceptions coincide and the government allocates land to people from danger zones, which identify this vulnerability, exposure to disaster, as an existential threat. Sometimes, however, the vulnerabilities do not coincide and the ISFs decide to stay in a given community because of potential social disruptions and changes in their socio-economic relations, as with the ISFs in Magnetic Hill, who showed interest in staying rather than relocating.

The fieldwork also highlighted an exceptional situation in Magnetic Hill. Apart from the overlapping jurisdiction over the area, which requires the LGU to take careful and limited action, the ISFs there are likely to be relocated after those living by the PNR and in danger zones. Additionally, according to national legislation, the UPLB is responsible for administering the land where Magnetic Hill is located. So far, since there are no major environmental impacts, the region is not deemed a danger zone and further expansions are controlled, the UPLB is not pushing ISFs out of the Magnetic Hill. Although the ISFs in Magnetic Hill want to stay, they will be relocated some day, as part of the MLB's policy.

To sum up, the MLB addresses relocation the best it can with its limited resources. The process is transparent because all information is available in the LGU and in the barangay offices, accountable since the government is responsible and is taking care of the problem, with demonstrable results, participative since the LGU is constantly dialoguing with the barangay officers and the community officials to know the needs of the population, inclusive since all the ISFs are eligible for relocation, and law-oriented since there is a corpus of Executive Orders that structure the process of relocation. The LGU is aware of the ISF vulnerabilities and is actively working on solutions to provide for the improvement of their quality of living. The informal settlement in Magnetic Hill represents one point outside the curve for its jurisdiction but has not been neglected by the LGU in the relocation process.

6. Limitations of the Study

This study touched upon the issues of informal settlements and the governance challenges in Los Baños, with a particular emphasis on the informal settlement in Magnetic Hill. However, the analysis was based only on the qualitative method. The themes such as the provision of basic services, socio-economic issues, governance processes and mechanisms and the regulatory framework set for informal settler issues were all studied broadly. Therefore, each topic in any further research requires particular focus and deeper analysis. This research paves the way for a deeper exploration of this theme in future studies, in particular the exceptional case of Magnetic Hill, to which, apparently, not much attention has been given. Likewise, this study was limited in time, since all the fieldwork was carried out in only one week, and therefore only 17 ISFs were interviewed in Magnetic Hill.

7. Policy Implications

The study found that there are two main problems regarding the relocation process: it is time-consuming and costly. The time-consuming aspect of the process is caused by different factors such as the various documents the applicants must process, the lack of human resources to process these applications on the LGU side, land scarcity and the fact that houses need to be built by the applicants themselves. The interview with MUDHO revealed a plan to build vertical housing (such as apartment buildings) which can accommodate twice the number of residents of the normal houses. This plan would be an appropriate solution to the scarcity of land and would reduce the time spent on the process. The cost aspect relates to the relocation plans and processes. The target of the plan is ISFs who have a formal job but are either homeless or landless; however, unemployed, landless and homeless people are not eligible. While this latter category of ISFs is not eligible

for relocation, ISF in the former, who have low-paid jobs, may experience difficulties in paying the amortization or even being eligible to get it.

Perhaps lengthening the amortization period could be used to circumvent the cost problem, since it would contribute to a drop in prices. The vertical housing plan might also contribute since it is expected to make the price of the land cheaper. Another aspect that should be considered in the relocation plan refers to the multiple agencies involved. According to the interview, MUDHO, DHSUD and other related agencies are involved in the relocation process. Since many steps are required and they involve multiple governmental organs, if the process is concentrated in a single unit, responsible for processing all the information, there might be considerable benefits in saving time for the citizen, since all the information would be centralized in a single agency. For the public administration side, that would probably create gains in efficiency, since the process would be faster.

Moreover, research has suggested that until the work of government is automated, agency performance will depend on having a well-qualified, engaged and committed workforce (Risher, 2015). Effective management and work experience are the keys to ameliorating the performance of government units. Although the LGU's approaches to ISFs and relocation are responsive, transparent and law-oriented, a lack of human resources in some offices that impedes their full performance was observed, namely in the MUDHO. Therefore, more professional staffers may contribute to expediting the process of carrying out ISF-related issues. According to the testimonies from informants in Magnetic Hill, this research found that many have concerns about their economic activities, namely cultivating land. People in Magnetic Hill are vulnerable to losing their economic activities once they are relocated. As reflected in the literature review, this must be taken into consideration in order to meet people's demands and basic requirements to maintain livelihood. Evidence suggested that Somali refugees in Maine, USA, successfully resolved the dilemma of having many landless households and proper means for livelihood through community farmland (Hay, 2020). This may also be a solution for Magnetic Hill.

To sum up, the result of this study revealed that the relocation process is more challenging for the ISFs than any other requirement of the relocation plan; therefore, the government should provide a smooth, flexible and comprehensive relocation program. Indeed, effective contingency planning by the authority to overcome any adverse and unpredicted outcome in relation to vertical housing should be taken into account while balancing the trade-off between housing and farming needs, which is essential for the livelihoods of ISFs from Magnetic Hill.

8. References

Aguilera, R. V., & Cuervo-Cazurra, A. (2009). Codes of Good Governance. *Corporate Governance: An International Review*, 17(3), 376-387. https://doi.org/10.1111/j.1467-8683.2009.00737.x

Asaduzzaman, M., & Virtanen, P. (2016). Governance Theories and Models. *Global Encyclopedia of Public Administration, Public Policy, and Governance*, 1-13. https://doi.org/10.1007/978-3-319-31816-5_2612-1

Banerji, A. (2015). *Implementing the 2030 Agenda the Challenge of Conflict*, *The UN Chronicle* Vol. LII. Retrieved 10 January 2022 from https://www.un.org/en/chronicle/article/global-and-national-leadership-good-governance

Beardsley, J., & Werthmann, C. (2008). Improving Informal Settlements. *Harvard Design Magazine Spring*, 31-34.

Carrasco, S., Ochiai, C., & Okazaki, K. (2016). A Study on Housing Modifications in Resettlement Sites in Cagayan de Oro, Philippines. *Journal of Asian Architecture and Building Engineering*, *15*(1), 25–32. https://doi.org/10.3130/jaabe.15.25

Cernea, M. M. (Ed.). (1999). *The Economics of Involuntary Resettlement: Questions and Challenges*. World Bank Publications.

Del Mistro, R., & A. Hensher, D. (2009). Upgrading Informal Settlements in South Africa: Policy, rhetoric and what residents really value. *Housing Studies*, *24*(3), 333-354. https://doi.org/10.1080/02673030902869279

Ferrer, R. M. (2019). What Makes a Community: Displaced People's Sense of Community and Human Rights in Resettlement. *Philippine Journal of Social Development*, 11, 51-81. Retrieved 17 August 2022, from http://cswcd.upd.edu.ph.

Gaillard, J. C. (2008). Differentiated Adjustment to the 1991 Mt Pinatubo Resettlement Program Among Lowland Ethnic Groups of the Philippines. *Australian Journal of Emergency Management*, 23(2), 31-39. Retrieved from https://www.preventionweb.net/files/8661_GaillardAJEM2008.pdf

Hay, E. (2020, November 5). A Community Approach to Farmland. *Local NPR for the Cape, Coast & Islands*. Retrieved November 15, 2022, fromhttps://www.capeandislands.org/in-this-place/2020-11-05/a-community-approach-to-farml

Heijmans, A. (2001). *Vulnerability: A Matter of Perception*. University College of London, 2.

Heijmans, A., & Victoria, L. (2001). *Citizenry-Based & Development-Oriented Disaster Response.* Centre for Disaster Preparedness and Citizens' Disaster Response Centre.

Huther, J.,& Shah, A. (2005). Applying a Simple Measure of Good Governance to the Debate on Fiscal Decentralization. *Policy Research Working Papers*, 2(2). https://doi.org/10.1596/1813-9450-1894

Kardos, M. (2012). The Reflection of Good Governance in Sustainable Development Strategies. *Procedia - Social and Behavioral Science*s, 58, 1166-1173.https://doi.org/10.1016/j.sbspro.2012.09.1098

Municipality of Los Baños. (2012). *Comprehensive Development Plan and GIS-assisted Tax Mapping of Los Baños, Laguna 2005-2020*. Los Baños: Municipality of Los Baños.

Municipality of Los Baños. (n.d.). *Comprehensive Land Use Plan (2014-2022)*. The Philippines.

Municipality of Los Baños. Executive Order No. 6 Series of 2021 (2021). 2021. The Philippines.

Municipality of Los Baños. Executive Order No.45 Series of 2021 (2021). 2021. The Philippines.

Municipality of Los Baños. Executive Order No.86 Series of 2022 (2022). The Philippines.

Municipality of Los Baños. *2021 Ecological Profile*. Los Baños: Municipality of Los Baños.

Municipality of Los Baños. (n.d.). *Los BañosComprehensive Local Shelter Development Plan 2014-2022.*

Nanda, V. P. (2006). The "Good Governance" Concept Revisited. *The ANNALS of the American Academy of Political and Social Science*, 603(1), 269-283.   https://doi.org/10.1177/0002716205282847

National Housing Authority. Programs. (2022). Retrieved 17 August 2022, fromhttps://nha.gov.ph/programs/

Qian, L., (2014). *Evaluating Land Administration System from The Perspective of Good Governance: A Case Study of Informal Settlement in Kathmandu Valley*[Master's thesis, University of Twente].UTwente Library, Retrieved January 11, from https://library.itc.utwente.nl/papers_2014/msc/la/qian.pdf

Risher, H. (2015, August). *Government is Losing the War for the Best and Brightest*. Government Executive. Retrieved January 10, 2023, from https://www.govexec.com/management/2015/08/government-losing-war-best-and-brightest/119048/

Santiago, J., Manuela Jr, W., Tan, M., Siegfried, K., & Tong, A. (2018). Agency-Driven Post-Disaster Recovery: A Comparative Study of Three Typhoon Washi Resettlement Communities in the Philippines. *International Journal of Disaster Risk Reduction*, 27, 480-489.

Terminski, B. (2015). *Development-induced Displacement and Resettlement: Causes, Consequences, and Socio-legal Context*. Columbia University Press.

UNICEF. Governance. Unicef.org. (2022). Retrieved 14 August 2022, from   https://www.unicef.org/globalinsight/governance.

United Nations Economic and Social Commission for Asia and the Pacific. (2009). *What is Good Governance?*. United Nations Economic and Social Commission for Asia and the Pacific.

UN-Habitat. (2015). *HABITAT III Issue Papers 22- Informal Settlements*. New York: United Nations.

UN-Habitat. (2016). *A New Urban Agenda: Better, Greener, Smarter Cities in an Inclusive Philippines* (Ser. HABITAT III: The Philippine National Report). United Nations Human Settlements Programme.

UN-Habitat. (2017). *GLOSSARY OF THE HABITAT III Preparatory Process and the Conference*. United Nations.

UN-Habitat. (2022). *World Cities Report 2022*. Available at:https://unhabitat.org/sites/default/files/2022/06/wcr_2022.pdf

Victoria, M. (2022). *What Has Caused the Global Housing Crisis and How Can We Fix It?* World Economic Forum. Retrieved January 12, 2023, from https://www.weforum.org/agenda/2022/06/how-to-fix-global-housing-crisis/

Yamamoto, Y. (1996). *Involuntary Resettlement in Urban Development Projects: Project Experiences from the Philippines*. [Master's thesis, University of   Massachusetts Institute of Technology]. DSpace@MIT. http://dspace.mit.edu/handle/1721.1/7582

Appendix

I -Informed Consent

Name：

Office：

Dear

  We are students from the Graduate School of International Development (GSID) of Nagoya University. We hereby invite you to participate in our interview and answer the questions relevant to your field of responsibilities in MUDHO.

  The objective of this study is to understand the governance mechanism the MLB is using to address the issue of relocation of the informal settler families in Los Baños and to describe what are the main reasons behind informal settlers` decision not to accept moving to a different area. We will ask you questions in accordance with this subject.

  During the interview, you are informed that the interviewers will note your answers to the questions and responses. The interviewers may take photos, videos, and audio recordings of our conversation for documentation purposes and future studies.

  All your responses and information you provide to us will be used for academic research purposes only. Any academic paper, journal, research, and publication based on this research activity will not be used for commercial purposes. All participants will receive copies of the publications based on this research activity.

  You are given the right to refuse to participate in this research activity, as well as

1. Refusal to reply to any parts of the questions.

2. Participating anonymously.

3. Withdraw from the ongoing activity at your discretion.

4. Withdraw part or all of your responses from our records after the activity.

  By signing this consent letter, you acknowledge that you have been informed about the research and agree with the terms and conditions listed above.

Date:

Signature:

Contact information

peddie@gsid.nagoya-u.ac.jp

Francis Peddie, Associate Professor, Graduate School of International Development, Nagoya University

II – Questionnaires

1. Questions for ISFs

Type	Question
Profile	How old are you?
	Are you married?
	How many people are there living in your house?
	How long have you been living here?
	Where have you lived before?
	What do you do to receive money?
	What is your monthly income?
	Do you have access to electricity? Clean water?
	What is your level of education?
Background	Would you like to relocate? (If yes, why? If no, why not?)
	What are your main difficulties living here?
	Are you afraid of losing contact with your community here, after relocation?
	Do you have access to health service, education, transportation near here?
	In a scale from 0-10, when 0 is the lowest and 10 is the highest, how would you evaluate where you live?
Participation	Has the municipality given you opportunities to listen to your demands?
	Is there any association that you can participate and claim for better conditions?
Rule of Law	Do you think the relocation process is impartial?
	Has the Municipality taken any action you consider to be abusive?
Transparency	Has the municipality ever talked to you about relocation?
	How do you usually get the information from the MLB?
Responsiveness	Are there other things that the municipality could do to help you?
	Are the responses from the municipality in adequate time? or do you think they take too long to act?
Consensus	Do you think relocation is the top priority? Or other sectors are more important, like education, health?
Equity and Inclusiveness	Do you feel represented by the policies from MLB?
	Are women, older people, and people with disabilities equally assisted by the municipality?
Effectiveness and efficacy	Are you waiting too much to relocate?
	What do you think is lacking for making relocation programs more effective?
Accountability	Can you rely on the government to ask for public services?
	Can you make pressure on the government to have a claim heard?

2. Questions for relocated people

Type	Question
Background	Why did you decide to relocate?
	How much does this house cost you?
	How is your life living here compared to previously?
	What are the main challenges of living here?
Participation	Has the municipality given you opportunities to listen to your demands?
	Is there any third party that can communicate your claims to MLB?
Rule of Law	Do you think the relocation process was impartial?
	Do you think your rights were respected in the relocating process?
Transparency	Do you think the information for the relocation process was clear?
	Were you informed about the total costs of this relocation program?
Responsiveness	How long did you wait to be relocated?
	Are there any other actions that the Municipality could take to help you?
Consensus	Were you able to choose where you want to be relocated and stick with your former neighborhood?
Equity and Inclusiveness	Were women, older people, and people with disabilities assisted by the municipality in the relocating process?
Effectiveness and efficacy	Are you satisfied with the relocation process?
	In which aspects do you think the relocation process can be ameliorated?
Accountability	Did you receive any assistance with relocation?
	Can you feel you can count on the government for your future needs?

3. Questions for the MLB

Type	Question
Background	Who are considered informal settlers` families?
	What is MLB's perception of the main vulnerabilities of the informal settlers?
	Which offices of MLB are involved in resettlement?
	Does the MLB have help from entities outside the governmental structures, like NGOs, charity?
Relocation Plan	How do you plan to carry out the relocation process?
	What are your criteria for choosing a relocation site?
	What are the main challenges for the implementation of the relocation plan?
	Are you providing housing, access to electricity, water, transportation to the

	relocated people?
	In the case of the absence of these services and others, like education and health, how do you plan to provide it?
	Is there any incentive to encourage people to relocate?
	Is there any amortization support for people? *
	Are there cases of relocated people returning from formal settlements to informal settlements?
Participation	Is there any institution that represents the interests of the informal settlers` families?
	Do you adopt a participatory approach in the formulation of the relocation plan?
	Is civil society involved in the formal and informal decision-making process?
Rule of Law	Are the Executive Ordinances periodically implemented, reviewed and updated?
	Is the relocation process in accordance with human rights protection?
Transparency	How do you disclose information for informal settler's families?
	Do you have any accomplishment reports measuring defined targets, proposed and on-going projects and other crucial information clearly available?
Responsiveness	Do you have any social assistance program that constantly monitors the needs of the settlers?
Consensus	Given other social demands of the municipality, how would you prioritize and allocate money for the resettlement process?
Equity and Inclusiveness	Do you have any special plan to deal with some special groups, such as elder people, single mothers, disabled people, LGBT+ communities?
Effectiveness and efficacy	How do you examine the effectiveness of the relocation program?
Accountability	Do you provide assistance services after relocation?
	Is there performance measurement of projects and appraisal system of officials?

4. Questions for Municipal Urban, Development and Housing Office (MUDHO):

1. Can you tell us briefly about the resettlement program you are conducting?

What are the objectives? what are the goals?

2. Why is the LGU concerned with informal settlements?

What do they want to achieve?

3. How is the MUDHO carrying out the resettlement program?

What are the mechanisms? who are the stakeholders? What are the incentives, and amortizations? who is responsible for what? What are the laws, Executive orders and plans in practice? How do you communicate with the settler`s family about the program?

4. What are the requirements for defining an informal settler`s family?

Who is the Target group? who are the beneficiaries? (are their needs considered in the planning and how do they contribute to it?), how do they receive incentives?, and what are the differences between the people who have been relocated and those who haven't?

5. Is there an action plan in place for the people to be relocated?

Timeline (how long are they planning to implement this program?), initiatives, etc.?

6. What are the main challenges that the relocation program is facing? What are the accomplishments?

Money?, shortage of HR?, what is the composition of your team? Do they have clear roles and responsibilities in the resettlement program?

7. What are the outcomes for the government and for the people when this project is successfully achieved?

When people are relocated, are they entitled to the ownership of land?

What are the benefits people get from relocation?

8. What is the perspective of the new administration regarding the resettlement program?

Does the leadership change affect the resettlement program and in what capacity?

5.Questions for MakilingCenter for Mountain Ecosystem (MCME)

1. Can you tell us briefly what MCME is?

What areas are you governing? What kind of relationships do you have with the people in the area, especially those in barangay Timugan and the community in magnetic hill?

2. Can you explain the jurisdiction and the governance over the land?

Who are the stakeholders? How do you collaborate with them? Are there any challenges regarding the governance in the area? Can we have access to the memorandum agreement?

3. How do you deal with the informal settlers' families in the Makiling Forest Reserve?

How do you communicate with the settler`s family about the program? Are there programs which you offer to them? Livelihood? Relocation?

4. Is there an action plan in place for the people inside the forest reserve to be relocated?

Can you share the timeline and program?

5. Are there any challenges that your operation is facing regarding Magnetic Hill?

Are there any environmental concerns?

The Economic Impacts of Online Food Delivery (OFD)
in Los Baños, Laguna, Philippines

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1. Introduction and Background

Under policy response to the COVID-19 pandemic, governments' lockdown restrictions and stay-at-home regulations significantly promoted online shopping growth in a virtual environment due to the closure of physical stores (Chang et al., 2021; Talwar et al., 2021). Particularly in the food business, diners avoided going to restaurants for fear of COVID-19 infection (Hakim et al., 2021). The COVID-19 pandemic has significantly impacted the food industry. As lockdowns and social distancing measures were implemented to help curb the virus spread, many restaurants and food establishments were forced to close their doors to dine-in customers. In response, many of these businesses turned to online food delivery to continue serving customers and generating revenue. The shift in customer behavior subsequently affects the business of restaurants and home kitchens in the country. This shift triggered a strong desire for customers to opt for Online Food Delivery (OFD) as an alternative to getting food directly from restaurants and home-cook kitchens.

OFD refers to the online transactions for ordering food, either through mobile devices (smartphones) or specific platforms (applications and websites) (Ngai & Gunasekaran, 2007). Food is an essential part of everyday human consumption, so the OFD service has grown more popular mainly due to its convenience. The industry is fast-growing in 2021, generating $296 billion worldwide revenue, and is projected to reach $466 billion by 2027 (Statista, 2022). Utilizing this online platform to access food, customers can look up all nearby restaurants, decide based on the reviews or ratings, and select their favorite meals from the menu options. Then, they can enjoy meals at leisure together with family or friends in their homes or workplace.

This study focuses on the Philippines because the government implemented one of the longest lockdowns in the world, and the residents could not go outside to buy groceries or have meals at restaurants. As a result, demand for delivery services increased unprecedentedly, especially during the quarantine period. In February 2022, the government announced its steady lifting of lockdown as COVID-19 cases throughout the country decreased. By May 2022, the health department classified the country as a "minimal-risk case." However, because variants of the coronavirus can cause subsequent waves of the pandemic, customers' behavior and preference may stay the same for a while.

The Los Baños municipality had several active registered food businesses. In 2020, there were about 441 food businesses, decreasing to 214 in 2021 and 171 in 2022 (MGLB). Despite the decreasing trend, it was noted that the number of home-cooked kitchens mushroomed in the same municipality. Los Baños municipality has possible growth prospects with the envisaged plans to transform into a tourist attraction.

In 2021, the OFD platforms in the Philippines were dominated by two applications, Grab and FoodPanda (Statista, 2021). The applications competing for market share often try to maintain their delivery fees as low as possible, complemented by regular promotions (free shipping and discounts). With the right combination of prices and promotion, customers' actual usage is the critical determinant for the OFD platform in keeping loyal customers to rely on the services more in the future. Ultimately, regular usage will lead to customer satisfaction and loyalty.

In the following sections, the impact of OFD before and during Covid-19 will be analyzed using qualitative methods. The findings from the established restaurants, home cook restaurants, and the riders will be used to establish if the overall OFD impact was positive or negative based on the key informants interviewed. Lastly, this study will show the literature gap, the limitations of the study, and the need for future research.

1.1 Statement of the problem

Recent evidence has shown that the OFD is essential during a lockdown. Abasolo (2021) argues that OFD is convenient as it allows people to order food from their favorite restaurants without leaving their homes, which is particularly appealing in a country with heavy traffic and limited public transportation options. He added that online food delivery could be a valuable tool for business owners in the Philippines, helping them reach new customers, increase sales, and reduce operational costs. The rapid growth of the online food delivery industry in the Philippines has significantly impacted the country's economy. However, there needs to be more research on the specific economic effects of this trend, particularly on small businesses and the restaurant industry. The OFD industry in the Philippines has experienced rapid growth in recent years, but its impact on the country's food industry and economy needs to be better understood. With more and more consumers opting to have their meals delivered to their doorstep, OFD utilization has rapidly increased. However, this increased demand for OFD services has also led to various issues.

Despite the growing demand for OFD in the Philippines, the service still needs to improve in terms of reliability, speed, and cost-effectiveness. Many customers need help accessing their preferred restaurants or finding delivery times are longer than expected. In contrast, others face high delivery fees, making the service less affordable. Inconveniences cause customer dissatisfaction and limit the potential growth of the OFD industry in the Philippines. The problem to be addressed is to evaluate the effects of the rise of the OFD platforms on the traditional food service industry, local restaurants, and food delivery workers in the Philippines. This study aims to understand the economic impact of OFD in the Philippines, including its effects on revenue, employment, and competition for small businesses and the restaurant industry.

1.2 Research Objectives

The study aims to realize the following objectives:

- To examine the economic impacts of OFD on restaurants in Los Baños.
- To understand how restaurants leveraged OFD to sustain and expand their business during and after the COVID-19 pandemic.

1.3. Research Questions

- How does Online Food Delivery impact the welfare of food business owners in Los Baños?
- How did business owners leverage Online Food Delivery to sustain and expand their business during and after the COVID-19 pandemic?

2. Literature Review

2.1 Online Food Delivery

Li et al. (2020) defined Online to offline (O2O) as a form of e-commerce in which consumers are attracted to a product or service online and induced to complete a transaction offline. He added that OFD is a process in which food ordered online is prepared and delivered to the consumer. Prasetyo Y. et al. (2019) borrowed the Ngai, E.W.; Gunasekaran definition of the OFD to refer to any food delivery as a transaction that possesses a monetary value using mobile devices such as smartphones or other personalized digital assistance. The use of the OFD varies significantly among different countries around the world. In some countries, such as the United States, OFD is a well-established and widely-used service, with many famous food delivery apps and participating restaurants. In other countries, such as India, OFD is a newer concept rapidly growing in popularity, with several new apps and startups entering the market.

In many Asian countries, such as India and the Philippines, the OFD has become viral. Many consumers have embraced OFD due to the heavy use of mobile apps and the convenience of food delivery (Pandey et al., 2021). The large population and high urbanization rate drive this trend. In addition, prominent Chinese market players dominate the OFD business, such as Eleme (Zhao et al., 2021) and Meituan (Kong et al., 2022), making the competition intense. In contrast, in many European countries, such as Italy, the OFD is less popular and less widely used, with many people preferring to order food for delivery by phone or in person. The trend is partly due to Italians' strong tradition of family-owned restaurants and local cuisine. In summary, online food delivery varies significantly among different countries, with factors such as population, urbanization, competition, and cultural preference playing a role in determining the level of adoption.

2.2 Types of online food delivery in the Philippines

There are several online food delivery services, including the following.

2.2.1 Restaurant-to-consumer delivery.

This service allows customers to order food directly from local restaurants and deliver it to their homes or offices. Restaurant-to-consumer delivery in the Philippines has risen in recent years thanks to the growing demand for convenience and the rise of online platforms that make ordering and delivery easier. One of the most popular platforms for restaurant delivery in the Philippines is Foodpanda. This online platform allows customers to order food from a wide variety of restaurants in their area and has it delivered to their doorstep. Foodpanda partners with thousands of restaurants across the Philippines, making it easy for customers to find the food they want, from pizza and burgers to Filipino favorites like Lechon and adobo.

Another popular platform for restaurant delivery in the Philippines is GrabFood. This platform, owned by Grab, a ride-hailing and delivery company, allows customers to order food from various restaurants in their area and deliver it to their doorstep. GrabFood also partners with thousands of restaurants across the Philippines, making it easy for customers to find the food they want, from street food and fast food to fine dining.

The rise of these online platforms has also led to the growth of delivery-only restaurants in the Philippines.

These restaurants have physical locations but deliver their food directly to customers online. Delivery services allow restaurants to operate with leverage on profits and offer customers to select various options, which is excellent for customers looking for a good deal.

Overall, restaurant-to-consumer delivery in the Philippines is becoming increasingly popular, thanks to online platforms' convenience and ease of use. The trend has growth potential as more customers seek convenient and affordable ways to get their food. Another challenge is the high industry competition as more restaurants, and food delivery companies enter the market. Stiff competition makes it difficult for businesses to stand out and attract customers and lead to intense price competition, making it difficult for businesses to maintain profitability.

There are also logistics and coordination issues, as the coordination between the restaurant, delivery drivers, and customers can be difficult. Poor navigation can lead to delays and mistakes, negatively impacting customer satisfaction. Finally, the need for more regulations and oversight in the industry can also be challenging. There are currently no specific regulations for food delivery services in the Philippines, which can lead to potentially unsafe and unsanitary practices, potentially causing food-borne illness.

2.2.2 Cloud kitchen/Virtual restaurant

A *cloud kitchen* is a commercial kitchen used solely to prepare food for delivery to customer's places who order through a food delivery app (Choudhary, 2019). In the Philippines, cloud kitchens have gained popularity in recent years as a way for food businesses to expand their reach and reduce costs by eliminating the need for a physical storefront. Distinctively, Li et al. (2020) noted that a new trend emerged during the pandemic besides typical restaurants with physical outlets in the UK, USA, and India. The rise of "ghost kitchens," the so-called Cloud or dark kitchens, dominated the pandemic era. This business model allows restaurants to operate exclusively online, with orders placed through third-party delivery apps or their website. Some popular cloud kitchen providers in the Philippines include Food Panda, GrabFood, and Lalafood (Lim, S., & Noroña, M, 2021). These platforms allow local restaurants to connect with customers and expand their delivery radius. With the growth of e-commerce in the Philippines, the cloud kitchen market may continue growing in the coming years.

Despite their growing popularity, cloud kitchens in the Philippines face several challenges. One major challenge is the intense competition in the food delivery market. With the rise of food delivery platforms, more and more restaurants and food businesses are turning to cloud kitchens to reach customers. New entrants have increased competition for orders, making it difficult for cloud kitchens to stand out and attract customers.

Additionally, there is increased demand for more kitchen staff and delivery drivers for cloud kitchens. Finding and retaining qualified kitchen staff can be difficult, and delivery drivers are in high order. Inadequate staffing can lead to delivery delays and customer dissatisfaction (Susilowati, E, 2021).

Finally, the Philippines government has yet to regulate cloud kitchens fully. Deficient policies can make it difficult for cloud kitchen operators to navigate legal and regulatory requirements, further complicating their challenges. In summary, cloud kitchens in the Philippines face challenges, including high costs, intense competition, lack of staff, and lack of regulation.

2.3 Economic impacts of OFD

The OFD has significantly impacted the economy in recent years. The technology growth and the increasing use of smartphones have made ordering food online more accessible, leading to a rise in demand for food delivery services. The industry has been seeing significant growth due to its convenience and user-friendliness, especially when countries are trying to manage the spread of COVID-19; it has become crucial for people to order food online and have it delivered to their doorsteps. The OFD uptake has created jobs in the food delivery industry and related fields such as logistics and transportation. Online food delivery has increased revenue for restaurants and other food businesses (Arghya, R. et al. 2019).

OFD has had a positive impact on the economy of the Philippines. OFD services have had a significant impact on the restaurant industry. One of the major benefits of these services is that they provide a way for restaurants to reach new customers and increase their sales (Van Veldhoven et al., 2021). The rise of the OFD has significantly impacted the restaurant industry, including the emergence of "cloud kitchens." They do not have dine-in seating and are not open to the public. One of the key benefits of cloud kitchens is that they allow restaurants to expand their reach by offering delivery and takeout without needing a physical storefront. Cloud kitchens can be less expensive and risky than opening a new location. Additionally, it allows for building brand awareness by launching new concepts at a lower cost.

Another benefit is optimizing and streamlining the kitchen and delivery operations, leading to increased efficiency, lower labor costs, and increased scalability (Susilowati, 2021). It has created jobs for drivers and other logistics personnel and helped small and local restaurants expand their customer base and increase revenue. Social media services can also help save on marketing costs, as they provide an easy way to promote new menu items or special deals. Indeed, the OFD platforms have made it easier for consumers to access a broader range of food options, including those from local and specialty restaurants that may not have been easily accessible. The OFD in the Philippines has also benefited the country's tourism industry by making it easier for tourists to find and order food from local restaurants. The industry has become so big that it attracted big players like Amazon, Uber, and GrubHub. Due to the convenience and flexibility of online food delivery, it will continue to grow in popularity (Li, C. et.al., 2020).

The OFD services have also had negative impacts on the economy. One potential issue is that the OFD services can create increased competition for restaurants, which can be incredibly challenging for small or independent establishments. Moreover, the increased competition from online delivery platforms and the rise of cloud kitchens can be a challenge for brick-and-mortar restaurants, which may need help keeping up with virtual kitchens' convenience and lower costs (Choudhary, 2019). On the other hand, increasing competition for delivery drivers has led to a decline in wages, a concern for people working in this industry. The potential for labor disputes and challenges as delivery drivers work as independent contractors rather than employees has rapidly increased. Higher operating costs for shippers, as they must invest in new technology and infrastructure to keep pace with changing consumer demands, adds to their difficulties.

OFD has also impacted how goods are delivered by introducing new challenges, such as the need for thermal packaging and proper delivery timing.
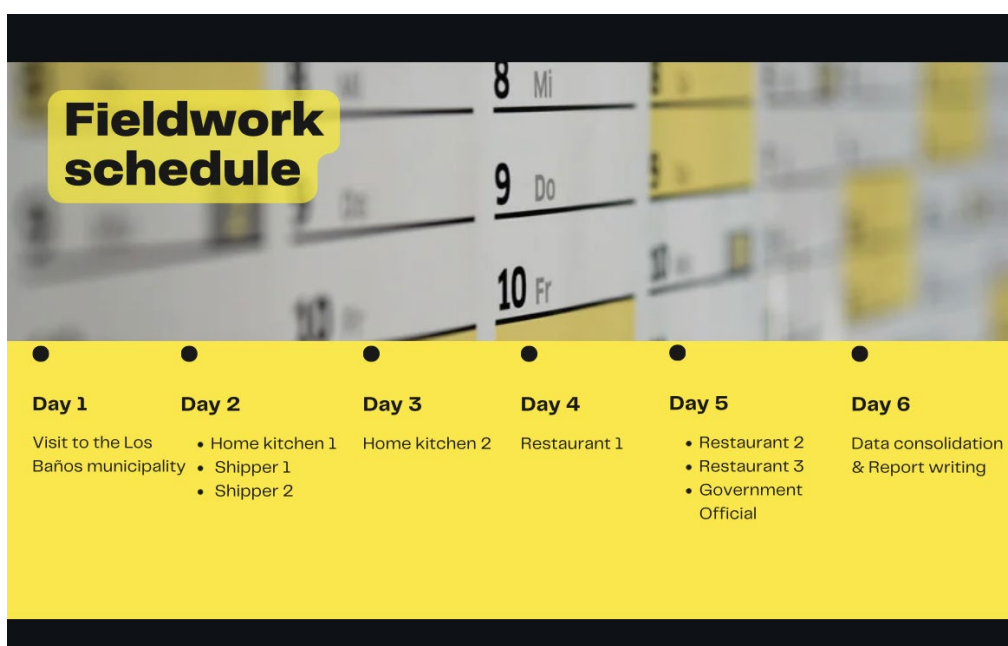
2.4 Impact of Covid-19 on OFD

The COVID-19 pandemic has significantly impacted the online food delivery industry in the Philippines. With lockdowns and quarantine measures in place, more people have been turning to online platforms to order food for delivery. Pandey et al. (2021) argue that OFD led to increased demand for online food delivery services and a shift in consumer behavior towards contactless delivery options.

Many restaurants and food businesses have also had to adapt to the new normal by shifting their operations to focus on online delivery. The change has led to an increase in the number of food delivery apps and platforms in the Philippines and a rise in the number of small food businesses using these platforms to reach customers (Prasetyo Y. et al., 2019).

However, the pandemic has also challenged the online food delivery industry in the Philippines. There have been disruptions in the supply chain, leading to difficulty sourcing ingredients and supplies for some restaurants. Additionally, many delivery drivers have faced health risks, and there have been reports of delays and disruptions in delivery services.

3. Data Collection and Methodology

The data collection method employed a qualitative technique through interviewing restaurant owners in Los Baños, Philippines. The team conducted in-depth interviews with the respondents to help answer the research questions. The primary interview objectives captured the impact of the OFD, as presented in the discussion below. The Economic team designed interview guidelines, as affixed in the appendices. The first questionnaire focused on the restaurant and home kitchens. The interviews established the businesses' income growth, startup capital requirements, and constraints and challenges during and after Covid -19. Respondents narrated their unique encounters to understand OFD's impact on food businesses before, during, and after the Covid-19 pandemic.

Fieldwork schedule

Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
Visit to the Los Baños municipality	• Home kitchen 1 • Shipper 1 • Shipper 2	Home kitchen 2	Restaurant 1	• Restaurant 2 • Restaurant 3 • Government Official	Data consolidation & Report writing

The paper mentions three significant durations to capture the respondent's narrative—first, the pre-pandemic referred to as the period before March 2020. Second," during" refers to governments' lockdown and movement restrictions on the public from April 2020 to October 2021. The "after Covid-19 period" refers to easing the lockdown restrictions from November 2021 until 2022. The second interview focused on municipal government officials to unravel any government policy intervention related to Online Food delivery and business owners' plights. The third questionnaire captured the shipper's role in delivering food from restaurants to the customers. The shippers' findings augmented the narration from both restaurants. The interview gathered extensive information on the shipper's starting capital, running cost, fees, how the OFD App charges worked, and its impact on the overall welfare of the rider and the food businesses. Relationships may be visualized better with the study framework below.

Figure 1: Initial OFD Framework

4. Results and discussions

The field research conducted in Los Baños revealed that the OFD framework consisted of two critical sides: supply and demand. On the supply side, there are business owners, formal restaurants, and home-cooked kitchens; on the demand side, there are customers. Both sides interact with each other using the OFD platform. In the middle of the two sides, social media platforms like Facebook, Instagram, FoodPanda, and Grab company facilitates the transaction between the two sides. The platform allows clients to make payments directly to restaurants and permits riders to access commissions from the orders. The riders are responsible for bringing the food to the customers to conclude the transaction.

The most exciting agent discovered in the Los Baños was the home-cooked kitchen. This agent mushroomed because of the Covid-19 restrictions. This newly formed agent took the opportunity to use the available resources and expertise to prepare food within their premises and deliver it to the customers using

the OFD framework.

The research revealed that before Covid-19, the two home-cooked kitchen businesses were operating in different businesses. One was the owner of the grocery shop selling cold meats and other grocery products before the introduction of the Covid-19 lockdown restrictions. The other home-kitchen owners were a dad with two sons who had lost their jobs during the lockdown restrictions. They used his car to deliver food cooked by both sons, who were employed in the food business service before the pandemic that closed during Covid-19. They decided to join efforts to operate the home kitchen, bringing together their cooking skills, the social media marketing skills of one of the sons, and the courier services of their father, which was considered an essential service to deliver food and medication during the pandemic.

4.1 Restaurants

4.1.1 Restaurant 1

This restaurant started operating in 2011 under a partnership agreement between the owner and the wife. The owner had a previous working experience with Manilla, a 7-star cruise line, and saved some money to start his own business. On the other hand, the wife was responsible for bringing in ideas and running the digital marketing platform. The business closed during the implementation of the covid-19 lockdown restrictions. However, after the government's action to ease some restrictions, the restaurant opened with 15 of its kitchen staff compliments. It is to be noted that this number dropped from 25. The owner took the initiative of using the OFD to increase the revenue, as most were dine-in customers. The owner established an online food application called Gloria Food App with the help of YouTube videos that were customized for their Los Baños business. At the same time, the restaurant was approached by FoodPanda to offer delivery services. Still, the service quality did not meet the restaurant's expectations, and the contract with FoodPanda was terminated after a month.

Besides the Gloria Food App, the restaurant owner revealed that customers still enjoy the benefits of using the restaurant's five different Facebook pages; these OFD platforms helped promote the brand image. Regarding the shippers, some of the restaurant servers also served as the riders so that they could earn more money by delivering food. The number of riders increased from three to seven with the help of the OFD platform, and the number of deliveries increased. The restaurant experienced some challenges, such as a decline in sales of approximately 40% during the inception of covid19 restrictions. In 2021 sales started to increase again, amounting to about 20%. As much as the rent was a burden to the restaurant, the landlord offered the flexibility option and allowed the restaurant to do whatever they could afford and to settle the remainder at the last stage.

The owner classified the restaurant as a niche market; to him, there is no competition in the Los Baños since the business theme is unique. There was minimal government support, such as providing food packages for individual use. As for the employees, they received a token from social security.

4.1.2 Restaurant 2

The restaurant operated as a cooperation between the brothers in 2004. The primary owner was the pilot

before becoming a professional chef. Before the pandemic, the owners were running three restaurants all at the same time. The owners devoted some time to studying the pandemic's impact and swiftly converted their dine-in menu to a delivery menu. Such imminent measures were carried out before the lockdown restrictions were implemented, and that prevented the business from closing. About 80 percent of the employees agreed to work during the lockdown. The owner ensured that all the means of getting the necessary ingredients would be available at all times. Since the business was well established, the owner only needed to invest a little money and time to do the marketing.

Regarding online food delivery, before the pandemic, the restaurant was using Food Panda. Online Delivery service but they were too expensive for our business. The restaurant had to add up almost 50% to the food price because they were getting 31% of the food cost for delivery. Food panda also charges 1 500 pesos for every gross 4 500 pesos on their terminal monthly. Customers sometimes talk about the higher delivery costs, and the explanation is given to them, which is attributed to the use of FoodPanda. The restaurant uses two riders; when customers call, we deliver it to them. The restaurant uses the services of third-party couriers, and it is convenient because it only charges a fare rate. The restaurant mainly uses Instagram and Facebook pages to reach out to customers.

The overall impact of the OFD was positive for the restaurant. The evidence is in the increasing number of sales accompanied by the increase in employees. In the first month of operating under the lockdown restrictions, the restaurant made approximately 40 000 pesos per day, sufficient to cover the operational costs. The owner managed to secure online food delivery contracts with pharmaceutical companies in Los Baños. With such a good clientele base, the restaurant now has 20 employees.

4.1.3 Restaurant 3

The owner engaged with the family-run meal delivery service from a young age. She helped deliver food orders for her family as a student in her community. Her mother and sister usually prepared the food and sold it to office workers around their house. They also advertised their business by having the newspaper delivery man insert an advertisement for their family restaurant in the morning paper.

The restaurant was established in 2010 and has been in business for 12 years. The owner still owns and is also funding the business by herself. There are 12 employees in the restaurant now. Although the restaurant lost some employees during the pandemic, 60% of the employees still insisted on staying. Before the pandemic, customers who dined in restaurants were their primary source of income. Although restaurants provided food delivery services, the proportion of food delivery accounted for only about 10% of their business. During the lockdown period, all orders came from food delivery. After the pandemic, the primary income source revived due to customers' restaurant dining in, but online orders increased. The owner has yet to cooperate with any food delivery platform, and her restaurant's delivery method is done by a Rider exclusive to the restaurant.

The owner also spoke about her son, who works in Manila. According to her, her son has a large refrigerator in his house in Manila, and they often take food to store in his son's refrigerator. The ELBI riders in Manila deliver the food to local customers. At the same time, the owner also mentioned that during the lockdown period, the landlord waived their rent for one and a half years, which was of great help to them.

At the end of the interview, the owner mentioned the opportunities and challenges of the food delivery

industry—first, the enormous opportunity from the increasing development of social networks. Many merchants like them can use online media to promote their businesses and receive orders. At the same time, The owner also believes that the biggest challenge in food delivery is to make quality food as good as the one made in the restaurant when delivered to customers. She believes this issue is a problem that restaurant operators, takeaway delivery personnel, takeaway platforms, and even food packaging designers must consider together.

4.2 Home Kitchen Case Study

4.2.1 Home Kitchen 1

The kitchen owner invested capital in making necessary modifications to the kitchen at home. One of the partners (the owner's nephew) was a skilled cook responsible for making all the necessary purchases. The other nephew delivered the food. The two partners shared the profit 60/40 percent ratio and paid the rider a flat daily rate of 215 pesos. The home-cook kitchen embarked on the OFD platform to promote its business through Facebook Messenger. The owner decided to use something other than the popularly known services, notably foreign applications such as FoodPanda and GRAB or the locally-developed LB Delivery service. That being said, the owner decided not to register with any of these applications, as the commission could negatively affect the profit prospect and customers' experience. Particularly, FoodPanda approached the owner to ask for the home kitchen's partnership on the platform in 2021, as the business was eligible by having a physical store and official registration. However, she declined the offer because the 5% commission of the platform for each order significantly reduced the existing low-profit margin of the business. On the other hand, if she wanted to maintain the current profitability, she would have to raise the base price of the items on the menu. Using Facebook Messenger helped the home-cooked kitchen maintain reasonable prices for dishes.

Interestingly, after the business built up its reputation and decent customer base, the stay-at-home diners would ask the riders from FoodPanda to pick up the meals from the home kitchen for a small fee instead of ordering through the application. Similarly, the home kitchen developed a good rapport with these frequent riders, who could deliver the food directly to the customers without going through the platform. This way, the business and its customers could leverage the OFD to minimize their potential costs while optimizing their profit prospects and utility. The home-cooked kitchen emphasized the need for government to assist them in formalizing their business so that they can be taxed like other businesses. The government could further assist by improving the current network issues attributed to the slow internet speed. With this, the impact of OFD was positive, given that the owners and the riders are still working.

4.2.2 Home Kitchen 2

The owner was not the first to complain about the high commission that online food delivery takes:" we had a few exchanges (with the platforms). Moreover, if we use their app, we discover that their commission is around; 10% to 15 % commission on the profit. Furthermore, there is a platform fee of 1,000 pesos if the business's revenue exceeds 4,000. if the monthly revenue exceeds 4,000, businesses must pay 1,000 pesos for the platform, 10 % + the 1,000 platform peso, and then a 15% commission fee on products; it is pretty costly." Currently, they are running a small business, so it is significant to keep their capital revolving.

Instead of spending on the delivery platform (Apps), the owner bought a motorcycle to minimize the delivery cost. Nevertheless, the family restaurant does not have employees in the traditional sense. Raymond invites his two sons and friends who lost their job during Covid-19 to join the business and promises to share the profit equally, about 25%. By doing so, the gross sale "Big Brothers" made float from 16 000 pesos to 60 000 pesos a month, and the net profit rate is more than 20%.

In Los Baños, more and more family restaurants are using social media for promotion rather than delivery App platforms. The entry barrier to takeaway platforms(Apps) and the high platform fees have turned many small family restaurants away. Nevertheless, traditional social media like Facebook also brings new questions to new entrants: how to market on the internet. One of the owner's sons is systematically learning online marketing. As much as the home kitchen worked so well using the OFD, it was unfortunate that the owners had to go separate ways and pursue other ventures.

4.3 Riders Case study

4.3.1 Rider 1

The respondent is a rider working for Food Panda, who is 32 years old. The rider started to work for Food Panda in Los Baños in February 2019 during regular working hours. However, after finishing his regular work, he used to work for Shakey's (a pizza outlet that had dine-in and delivery services). The main reason that motivated him to join the Shakey's as a Rider was that he could not find employment elsewhere; he needed money to support himself and his family. Comparing the two companies, Shakis offered poor wages (370 pesos), the same amount he received after 4 hours at FoodPanda. He ended up resigning from Shakis and joined FoodPanda permanently.

Regarding the entry requirements, the rider needed several documents at Shakey's compared to Food Panda, which only required a license and PIN. Additionally, there were many supervisors to whom he had to report at Shakey's, thus demotivating him. In contrast, he had no supervisors at FoodPanda, and the job was flexible. Shakey's had previously provided a motorcycle for him to use, and he would own that motorcycle should he stay with the company for two years; in his case, he only served for six months, given that that salary was insufficient. In FoodPanda, there were only three working hours, and the shipper's ability determined the maximum number of orders delivered. Since he used his motorcycle to deliver, he had to pay for his maintenance, which varies occasionally. Currently, he is earning about P1500 less gasoline price, which is about P200 a day. He changes the motorcycle's oil once in two to three weeks, approximately P400. After three months, tire maintenance costs approximately P3000. The rider usually gets tips daily (between P150 to P300), but that depends on the customers and how he interacts with them. He spends the tips on buying his daily lunch.

At the inception of Covid-19 lockdown restrictions, he made more than double what he currently earns. Around April 2020, he earned approximately P4500, excluding tips. According to the shipper, he prefers to continue working in FoodPanda, given that the salary is even better than in other sectors. What he is getting from Food Panda is good enough to support his family of three. He further stated that as much as the shippers' supply is saturated, only a few riders are active for unknown reasons. He believes that about 40% of them are

still active; he knows they tend to share information because he is the team leader.

There is an excellent story to tell; for instance, the income is good, and flexibility is guaranteed. Despite the income motivation, the business network is significant as riders need help reaching customers. Fake order booking is a major problem in the delivery business, wasting rider's time and gasoline. The rider lamented about the dropping of delivery fees over time. In 2021, delivery fees were around 40 Pesos, and in 2022 dropped by half to 20 Pesos, which is working against the shippers. Riders have complained about measures to revive the falling delivery charges, which cut their income. He is hoping that the government will intervene and solve declining delivery fees.

The OFD platform's availability helped the rider sustain his job, given that most people lost their jobs because of the pandemic. The impact of the OFD reflected to be favorable to the riders.

4.3.2 Rider 2

The second rider interviewed was 29 years old and working at Grab as a rider and assuming the team leader role in Los Baños. The rider holds a diploma in computer sciences that he obtained while working for Jollibee in 2012. The rider used to work for FoodPanda before he joined Grab. The difference between the two is that at FoodPanda, riders must work shifts, whereas at Grab, they work flexible daily hours. The rider typically works until tired but does not work past midnight. The main challenge is that Grab is not popular in Los Baños, so there is a need to work additional hours to earn good money. The rider makes approximately 1 200 pesos daily, and only 2% is going to Grab. For daily expenditures such as meals and gas, the rider usually takes 800 pesos as his profit for the day.

The main challenges experienced by the rider are that sometimes the packaging gets damaged as it is mainly the paper bags, the location mismatch makes it difficult to locate the customers, and it takes much time to make the phone calls. The worse thing the rider has experienced is the fake orders made by the customers. Fake orders are deducted straight from the rider's daily proceedings. The rider is working to save money to further his studies abroad. The rider's appeal is for companies like Grab to hire them as permanent staff members so that they can be entitled to other benefits received by other permanent staff members.

5. Limitations of the study

Time constraints made capturing areas outside Los Baños in the Philippines impossible, and the small sample size denies the findings' generalization. However, the limitation is not only the number of respondents but, more importantly, the selection of respondents based on willingness and convenience in the schedule. The other constraint is that this research intended to focus on three major groups: customers, restaurant owners, and shippers. However, due to time constraints, the team did not interview the desired number of riders and had no customers per the demand side perspective to estimate customer satisfaction.

The study aimed to establish the overall impact of the OFD on all the value chain members. Given the short duration of this study, it was only feasible to interview some critical vital players. Also, given the nature

of the business they all participate in, they could not give us their undivided attention. Due to the short notice given to the respondents, the team skipped some vital activities. The team faced serious sample size problems as restaurant owners were unavailable. In the field, getting many participants is suitable for the research to derive some recommendations. Notably, selecting respondents was an overall challenge based on willingness and convenience in the schedule.

The paper recommends similar research to address the limitations discovered in the field. The study envisaged that the current COVID-19 curfew restrictions posed a significant challenge in obtaining the necessary information. The participants had to reach their targets within the limited and permissible statutory working hours.

6. Conclusion and future research

This paper examined OFD's economic impacts on restaurants in Los Baños. It explored how they leveraged OFD to sustain and expand their business during and after the COVID-19 pandemic. The team conducted fieldwork research using the questionnaire to obtain the information to analyze if the impact was positive or negative. Overall, the OFD had a positive economic impact on restaurant home-cooked kitchens and restaurants based on the number of our sample in Los Baños. First, it helped revamp closed-down businesses, acted as a platform for entrepreneurs, and provided livelihood means for those who lost their jobs. Moreover, another critical outcome from the research was that those restaurant owners, including the new home kitchen and food business owners, leveraged OFD to diversify and expand their businesses.

The initial study framework was elaborated into the framework below in figure 2 after the fieldwork. It came to light that business owners can explore social media to their advantage in online food delivery by creating avenues through social media, thereby bypassing the significant players in the food delivery platforms. Either way, the riders benefit. The riders appeal to the government to intervene on the issue of the fake order as it reduces their earnings. From the restaurant's point of view, the government could help with the waste management plan measures that will promote cleanliness in the city. The findings recommend centralizing business registration to minimize traveling to different cities to do the registration. The home-cooked kitchen emphasized the need for government to assist them in formalizing their business and contribute through taxation. Internet speed is among the hindrances that affect the OFD in Los Baños, which businesses seek government interventions.

7. Adaptability

Based on the research conducted in Los Baños, both the home-cooked kitchens and the restaurants managed to survive because of their ability to adapt to the OFD system. The use of social media platforms like Facebook Messenger and Instagram played a crucial role in linking the supply and demand side, especially in the case of home-cooked kitchens. Additional findings noted that restaurants that converted their dine-in menus online helped them stay in operation. Indeed, findings noted that restaurants did not highly utilize well-known OFD applications like FoodPanda and Grab due to high commission fees.

Home-cooked kitchens and restaurants have expanded their delivery ranges by hiring rider services, improving the shippers' welfare. They can choose to prioritize their dine-in customers and the customers using the OFD platform. Notably, some restaurants engaged applications not previously used in Los Baños, like the Gloria Food App, to market the dishes.

Figure 2: Los Baños OFD Framework based on the findings
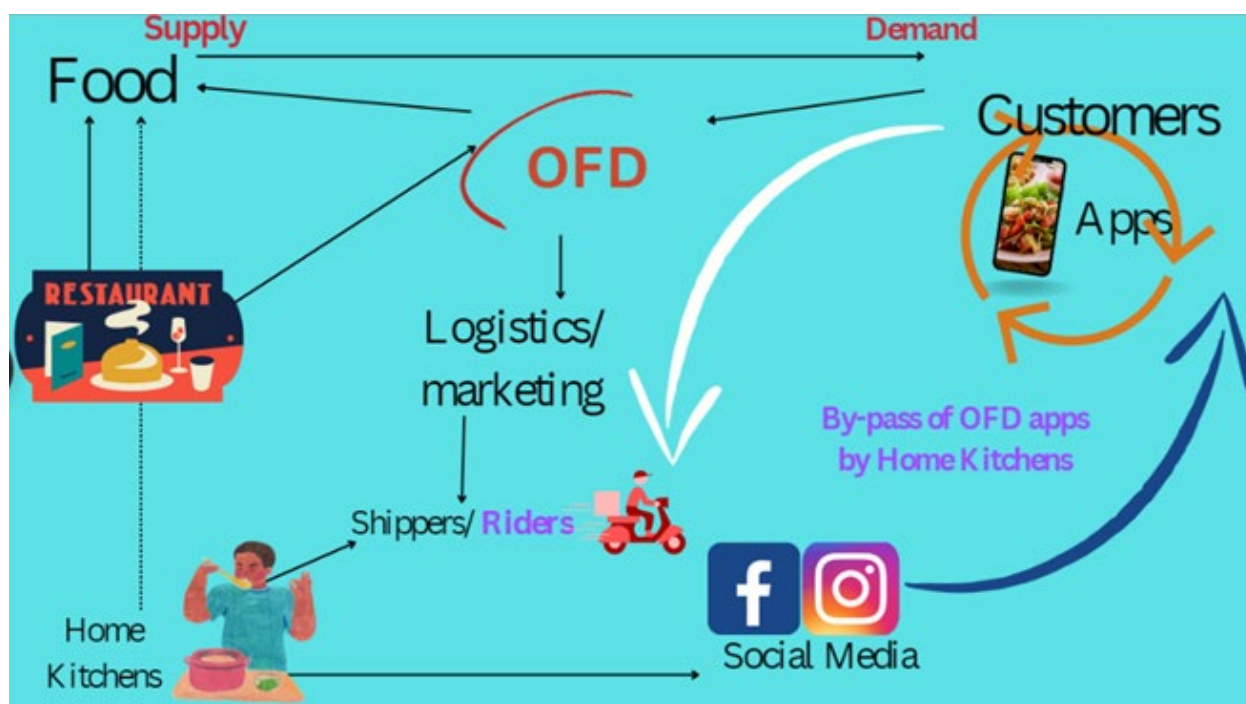
In conclusion, the Online Food Delivery (OFD) system has played a significant role in restaurants revamping during and after the COVID-19 pandemic. OFD was instrumental in the resilience and diversification of other businesses within and beyond the food chain business that lost their jobs during the heat of the pandemic. Without the online food delivery system, businesses would otherwise encounter detrimental challenges that would hinder diversification. Also, the research found that the OFD system has led to the growth of the informal food sector, creating unhealthy competition among the formalized players who pay taxes to the government.

The dine-in system keeps reviving following the ease of the pandemic, and clients prefer to meet up and

dine at the restaurant and socialize; hence OFD is a compliment to the dine-in system and cannot wholly be a substitute.

Future research recommends a comparative study between OFD and dine-in services. The impact of cost, including hidden charges, delivery time, and food quality, on customers' maximum utility and how these impact both the shippers' and restaurant owners' welfare needs to be studied to estimate the sustainability of the OFD system its economic sustainability in Los Baños.

Acknowledgment

References

Abasolo, MBA, H.D. (2021). Operational Strategies of Online Food Delivery Businesses in Camarines Norte, Philippines. *International Journal of Current Science Research and Review*.

Arghya, R., Amandeep, D., Amandeep, D., Pradip, K, Bala., Puneet Kaur. (2019). Why do people use food delivery apps (FDA)? A uses and gratification theory perspective. Journal of Retailing and Consumer Services, 51:221-230. Doi: 10.1016/J.JRETCONSER.2019.05.025

Bare, M. A. D., Castro, F. M. F., & Dahilig, J. A. V. (2021). A Comparison of Food Delivery Applications (GrabFood, FoodPanda, and Pick. A. Roo) in the Philippines through Utilization of Analytical Hierarchy Process.

Candra, S., Ayudina, M., & Arashi, M. A. (2021). The impact of online food applications during the covid-19 pandemic. *International Journal of Technology*, *12*(3), 472-484.

Chang, S., Pierson, E., Koh, P. W., Gerardin, J., Redbird, B., Grusky, D., & Leskovec, J. (2021). Mobility network models of COVID-19 explain inequities and inform reopening. *Nature*, *589*(7840), 82-87.

Choudhary, N. (2019). Strategic analysis of cloud kitchen–a case study. *Management Today*.

Gamilla, C. O. (2021). Revenue boom of Online Food delivery industry amidst Pandemic: Evidence from the Philippines. International Journal of Progressive Research in Science and Engineering

Hakim, M. P., Zanetta, L. D. A., & da Cunha, D. T. (2021). Should I stay, or should I go? Consumers' perceived risk and intention to visit restaurants during the COVID-19 pandemic in Brazil. *Food Research International*, *141*, 110152.

Kong, X., Zou, G., Qi, H., & Tang, J. (2022). Optimization of O2O Food Delivery Strategy in Smart Cities. *2022 IEEE International Smart Cities Conference (ISC2)*, 1-7.

Li, C., Mirosa, M., & Bremer, P. (2020). Review of online food delivery platforms and their impacts on sustainability. *Sustainability*, *12*(14), 5528.

Lim, S., & Noroña, M. I. A,(2021). Study of Stakeholders' Perception of Factors Affecting Online Food Delivery Service Industry in the Philippines.

Manivannan, P., & Anuradha, R. (2020). Impact of Covid 19 on the Online Food Delivery Industry With Reference To Operational and Revenue Parameters.

Ngai, E.W.; Gunasekaran, A. A review of mobile commerce research and applications. Decis. Support Syst. 2007, 43, 3–15.

Pandey, S., Chawla, D., & Puri, S. (2021). Food delivery apps (FDAs) in Asia: An exploratory study across India and the Philippines. *British Food Journal*, *124*(3), 657–678. https://doi.org/10.1108/bfj-01-2020-0074

Prasetyo, Y.T., Tanto, H., Mariyanto, M., Hanjaya, C., Young, M.N., Persada, S.F., Miraja, B.A. and Redi, A.A.N.P., (2021). Factors affecting customer satisfaction and loyalty in online food delivery service during the COVID-19 pandemic: Its relation with open innovation. *Journal of Open Innovation: Technology, Market, and Complexity*, *7*(1), p.76.

Statista. (2022). eServices Report 2022 - Online Food Delivery. Available from:
https://www.statista.com/study/40457/food-delivery/.

Susilowati, E., Yuwono, A. A., & Leonnard, L. (2021, December). Cloud Kitchen Development Analysis in Food and Beverage Industry: A Case Study in Jakarta. In *RSF Conference Series: Business, Management and Social Sciences* (Vol. 1, No. 6, pp. 29-39).

Talwar, M., Talwar, S., Kaur, P., Tripathy, N., & Dhir, A. (2021). Has financial attitude impacted the trading activity of retail investors during the COVID-19 pandemic?. *Journal of Retailing and Consumer Services*, *58*, 102341.

Yang, Y., Liu, H., & Chen, X. (2020). COVID-19 and restaurant demand: early effects of the pandemic and stay-at-home orders. *International Journal of Contemporary Hospitality Management*.

Appendix

<u>**Interview guide for restaurant operators**</u>

<u>**Section A: Establishment Type**</u>

1. Are you owning the business alone or with someone?

- Sole proprietorship
- Partnership
- Limited company
- Others specify ()

2. What type of establishment do you run?

- Café
- Western restaurant
- Seafood Restaurant¥Hot Pot
- Fast food shop
- Philippines (local) Cuisines
- Ordinary restaurant
- Others

3. How long has the restaurant been operating?

4. Education level of the managerial sector?

5. Which region is the business located in?

6. Is this restaurant a subsidiary or a major firm?

7. What is the estimated monthly sale revenue?

<u>**Section B: Business activity**</u>

1. Do you have online delivery services? Yes, No

2. Which online food delivery application do you use? (Multiple responses can be selected)

- Grab
- Food Panda
- Elbi Delivery
- Other

Column1	Column2	Column3	Column4	Column5
Business	2019	2020	2021	2022 (latest)
No of online orders delivered				
Annual Revenue				
Operational costs				
Profit Margins				
Employees (Casual)				
Employees (Permanent)				

3. How long have you been using OFD

4? What was your approximate income per month before joining the online delivery platform?

5. What are the challenges of using the online food delivery platform?

Challenges	Level of Challenges		
	Not a challenge	Minor Challenge	Severe Challenge
OFD costs			
Promotions and advertisement			
Customers' satisfaction			

Impact of OFD

1. What impact did Covid -19 have on your restaurant?

- Highly negative impact, unable to operate normally or forced to stop work due to Covid-19

- Negative impact in general, although affected but still able to sell through delivery and other means

- Less negative impact, basically maintain normal business

- No negative impact, sales have increased

2. The biggest reasons for the impact of this outbreak of Covid-19 on your restaurant are? (Multiple choices)

- Stopped work due to policy reasons

- Low employee return to work rate, unable to operate normally

- No shutdown but lower market demand, orders, and customers decrease

- Various operating costs still need to be covered during the Covid-19

- Transportation restrictions make it difficult to get goods in and out

3. What measures have you taken or planned to take in response to the outbreak of Covid 19?

- Subcontracting orders

- Work remotely or use automation as much as possible

- A salary reduction or layoff

- Innovative Product Services

- Increase revenue by using delivery platforms

- Increase working capital by borrowing or applying for subsidies

- No special measures are taken

4. Do you have confidence in the development of the restaurant after Covid-19?

- No confidence

- Have a little confidence

- Relatively have confidence

- Have strong confidence

5. What policies would you like the government to implement to restore the economy after the epidemic?

- Increased tax cuts for severely affected industries

- Promote flexible employment in response to emergencies

- Subsidies for small companies or stores

- Implementing consumer stimulus policies

- Others

Sustainability

1. Would you rely on OFD for business sustainability after the pandemic?

Riders Data Collection Form

Section 1: Demographics

1. **Age**

2. **Gender**

3. **Marital Status**

- Single

- Married

- Divorced

- Widow or Widower

4. **Educational Attainment**

Section 2: Motivation to join OFD services

1. Which company were you working for before?

- Food Panda

- Grab

- LB Delivery

- Other (Please specify)

2. Which sector were you working on before Covid-19?

3. How many delivery trips do you make in a day?

Establishment costs?

1. How much capital was required, e.g., bike uniform, etc.?

2. Statutory requirements, including taxes.

3. Do you get tips from customers?

Section 3:

What challenges do you experience while at work?

Section 4: Sustainability

Would you keep your job after the Covid-19 pandemic, is this job sustainable?

Government Officials   Interview guide

1. Was any support granted by the local authorities to support the restaurant owners before COVID-19?

2. Are there any business associations like the chamber of commerce?

3. Were the local business owners aware of such initiatives?

4. What was the most hardship period that could be defined as a peak of COVID-19?

5. How was the tracing done to curb the spread of COVID-19?

6. During COVID-19, did the local authorities offer any aid to support the OFD to survive

7. Was it in the form of tax relief or rental support, or salaries or wages?

8. What are the policies or programs to support restaurant owners post-COVID-19?