



e P A S A D A

A MULTIPOINT PLATFORM FOR
FUTUREPROOFING AND RETROFITTING THE
PUBLIC UTILITY TRANSPORTATION SECTOR
IN THE PHILIPPINES

An Official Entry to the 2022 Geneva Challenge under the theme "How Can Community-Based Solutions be Used to Reduce Poverty"

by

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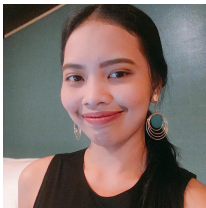
Abstract

The public utility vehicle (PUV) transportation sector is among the heavily stricken groups during the coronavirus crisis. In the Philippines, over an estimated half a million jeepney drivers have either temporarily or permanently lost their jobs due to drastic changes in mobility options and activity systems. This in turn resulted in a disrupted source of income—with some of these drivers resorting to begging on the curb to afford basic commodities.

The ePasada is a multipoint platform that aims to retrofit and futureproof this sector by integrating smart transportation components, resiliency training programs, and alternative income generation schemes. All of these shall be delivered through a multipoint open access platform (mobile application) that offers both logistical solutions and incubation programs. A smart technology project to support humanism and empowerment of a vulnerable sector of the Philippine society, the Jeepney drivers and their families.

The University of the Philippines Campus in the Diliman, Quezon City serves as the pilot site for the project as it fits the degree of land use and mobility complexity needed to establish a proof of concept. Moving forward, we are looking into the possibility of implementing the program on a city-level scale or to explore its multiplicity through other transportation modes.

The Team



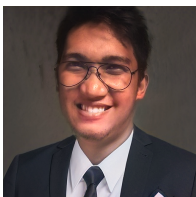
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I. Introduction

Once dubbed “Kings of the Philippine Roads”, jeepneys have been an icon in Filipino culture. In 2018 alone, official registrations showed that there are about 180,000 – 270,000 franchised jeepneys in the Philippines, with 75,000 of these in Metro Manila (Westerman, 2018). This number does not even include unregistered jeepneys. With the majority of Filipinos, including the poorest commuters, depending on jeepneys for daily transportation, it is undeniable that these unique vehicles have become the lifeblood of the country’s public transportation system. Despite this, jeepney drivers and operators don’t earn a lot, and with the pandemic and the recent dramatic increase in oil prices, it has also taken a toll on the income of jeepney drivers. A study showed that on average, a jeepney driver has a daily gross income of around P1,200. After deducting P540 on diesel per day, and P500 for the boundary fee, they are only able to take home P160.

This paper aims to propose a multipoint open access platform (mobile application) that offers both logistical solutions and incubation programs for jeepney drivers and operators. The ePasada Project is a multidisciplinary program that integrates smart transportation components, resiliency training programs, and alternative income generation schemes all in one mobile application.

“Pasada” is a term derived from Spanish influence, used by jeepney drivers to refer to their trip or jeepney route and more often, to talk about their earnings for the day. (Binisaya, n.d.).

It can also mean “making a turn” which has inspired this project to support or assist Jeepney drivers in making their turn to becoming resilient and having a sustainable source of livelihood and detouring from poverty.

II. The Public Transportation Crisis



Figure 1. Commuters Flock to get a Ride Along Commonwealth Avenue
Source: (Luna, 2022)

This is not a festival, not even a political campaign rally, but a scene of Filipino commuters during a jeepney strike in one of the major cities in the country, Quezon City (Luna, 2022). Jeepney drivers had to go on strike amidst the oil price hike with the demand for increase in the base fare for their *pasada*. The ones who were once known to be Kings of the Road are now pushed against the wall of inflation and competition with other alternative modes of transportation to demand the bare minimum in order to survive and to keep their only source of livelihood.

According to Move as One Coalition, the continuous increase in the cost of oil has been causing drivers to lose their incomes, the public transportation supply collapsing which translates to commuters crowding the streets, waiting for longer hours just to get to their place of work on a daily basis. (Peña & Lustan, 2022)

Another challenge that the jeepney drivers are subject to, is the phasing out of jeepneys to give way to modernized public utility buses. According to BBC news, one jeepney driver shared his sentiments during a jeepney strike saying, "jeepney drivers are among the poorest and most vulnerable. And jeepneys are part of our Philippine culture."(Chen, 2017) It makes us wonder, with the cultural value of jeepneys, why do they have to face this challenge of being eliminated as one of the transportation modes of the country. If Jeepneys exist in most developing countries that value culture and heritage, would their existence be even threatened amidst the introduction of alternative transportation modes?

This project aims to give back to the Jeepney drivers who have dedicated their lives in the service of Filipino commuters. It aims to be the voice of the silenced heroes in this ongoing transportation crisis, the ones who are marginalized and more often than not, disregarded members of Philippine society.

III. Project Components

The project aims to use a five-pronged approach based on the pillars of Sustainable Development laid out by the United Nations (UN). These pillars include people (social), planet (environment), prosperity (economic), partnership, and peace. (Costanzo, 2016). In developing the projects components and goals, we wanted to address the prevalent issues linked with these pillars and solve them with focused yet interacting interventions within

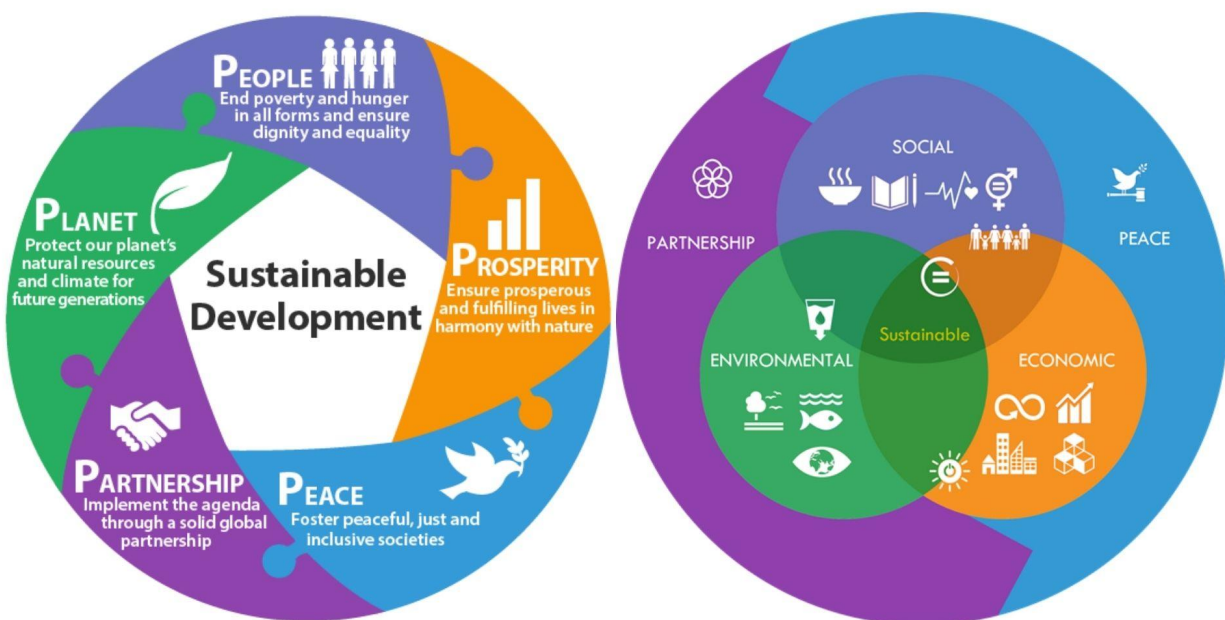


Figure 2. Five Pillars of Sustainable Development, United Nations
Source: (Earthjournalism.net, 2020)

A. People (Social)

There is a mass transport crisis in the Philippines. The fragmented public transport system in the country is highly dependent on jeepneys, despite this sector being highly competitive, informal, and individualistic. A study showed that in Metro Manila alone, there are over 43,000 jeepney franchises operating on 685 jeepney routes. This extremely fragmented system makes it impractical and difficult for the government

to manage when it comes to regulation, creating routes, developing programs and projects for drivers and operators, and building a community for the sector's stakeholders.

A.1. Cooperatives

The goal is to formalize the informal. Currently, jeepney drivers and operators in the Philippines are a fragmented part of the transport industry. A key component of the jeepney modernization program of the Land Transportation Franchising and Regulatory Board (LTFRB) is the consolidation of jeepney drivers and operators under a cooperative or a corporation. If the sector is consolidated under one legal entity, drivers and operators will have access to credit and insurance facilities, will be able to spread out capital and operation and maintenance expenses, develop operational efficiency through organized dispatch of fleet, enhance service quality of public transport for commuters, and reduce on-street competition among drivers.

For example, Singapore's transport issues in the 1970s was slowly overcome through the consolidation of individual operators into three (3) large companies, each of which has a license route over a particular area. Under one group, consolidation of issues and concerns among the key stakeholders will be more practical and efficient, and consultations, dialogues, and communications will be conducted easier. The development of jeepney cooperatives will not only consolidate the sector but also improve the socio-economic conditions of its members.

Under Project ePasada, what we want to achieve is an organized system that would allow drivers to reach out and join cooperatives, and for these cooperatives to be linked to concerned government agencies regarding regulation and franchise renewal, credit facilities, insurance facilities. The app would be a one-stop shop for operators and drivers for the services being offered by the cooperative.

A.2. Leadership and Management Capacity Building

According to Jaime Aguilar, Secretary-General of the National Confederation of Transport Workers' Union (NCTU), the concept of organizing a cooperative is new to many drivers and operators who are used to working independently. Although jeepney cooperatives were introduced in 2008 with the passage of the Philippine Cooperative Code, many cooperatives only exist on paper as a governmental requirement for franchise renewal. Due to the lack of personnel, knowledge, and financial resources, these cooperatives do not function as legitimate institutions (DOTr, 2016).

What is needed is leadership and management capacity-building training programs for those who have expressed interest in being part of the jeepney cooperatives.

B. Planet (Environment)

In June 2017, the Department of Transportation (DOTr) issued the Department Order No. 2017-011 or the Omnibus Guidelines on the Planning and Identification of Public Road Transportation Services and Franchise Issuances or the Public Utility Vehicle Modernization. This prompted jeepney drivers to pivot towards restructured, modern, and more sustainable options—including upgrading their units in accordance with the department's new vehicle standards. (LTFRB, n.d.)

This has become a major point of contention between the government and the jeepney drivers. For one, the cost of upgrading to electric jeepneys cost up to 1.2 million to 1.6 million pesos (approx. 21,000 USD to 28,000 USD). This was a hefty price to pay for a sector that heavily relies on the influx of people and for drivers who does not own their units. (Adrian, 2019).

During the peak of the pandemic, even more clamor to reconsider the modernization program was heard. Its timing was questioned. The term a “just and humane PUVMP” has reverberated across the transportation sector, calling for a smoother and more realistic program.

Our group understands the importance of the modernization program, especially its alignment with the SGDs—and more specifically with protecting the environment. However, we are also concerned with the grievances of the sector and wanted to look into an approach wherein both parties can win.

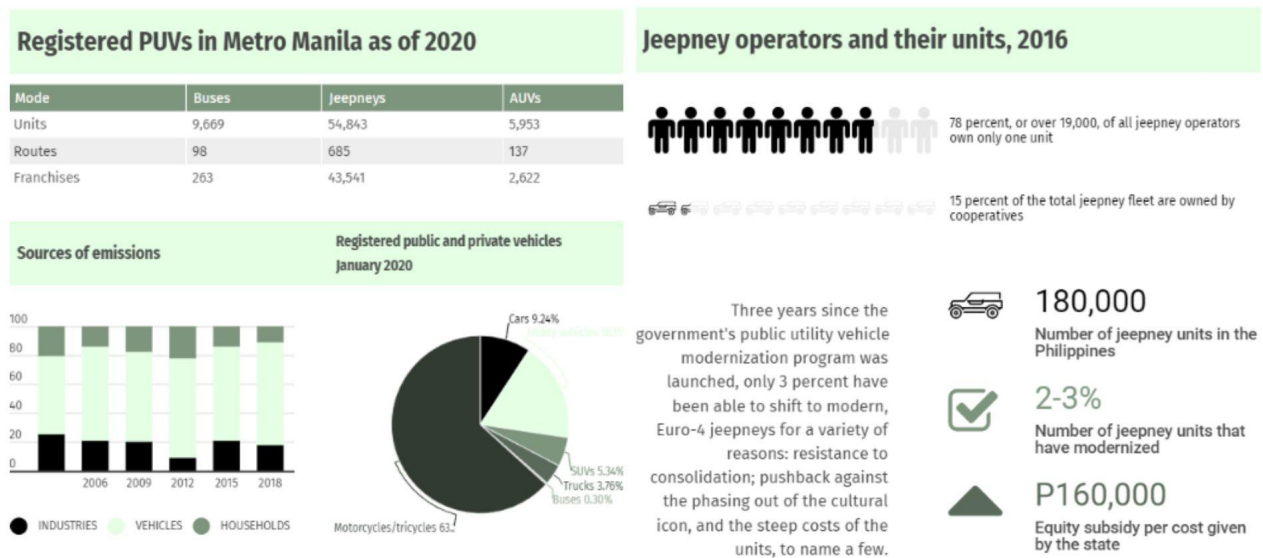


Figure 3. The jeepney modernization program in PH in numbers
Source: (Earthjournalism.net, 2020)

Thus, our proposal aims to fine tune the modernization program and integrate solutions that make it more humane, viable, and realistic.

B.1. Material Upcycling

The original Filipino jeepney was in itself a child of circular material management. At the close of World War II, American GIs left the Philippines with a fleet of Willys Jeeps, which the Filipinos recycled into buses with galvanized or stainless steel bodywork, fabric coverings in place of side windows, and longitudinally placed seats with space for 20 (or more) people. (Meiners, 2016). In short, even from the beginning, it was at the forefront of sustainable transportation.



Figure 4. Photo of a Converted Jeepney in the early 1900s
(Source: BBC, 2020)

We wanted to follow this track by suggesting the upcycling of existing jeepney units instead of totally replacing them. Through the ePasada project, the path to modernization is to be made more proactive and environmentally conscious. Taking a look from how the original Filipino jeepney was made, we propose to explore options in reusing the chassis of the old jeepneys and integrate new technologies into it. The app shall be a platform for finding material and education resources that makes it possible for drivers to make the conversion. We thought that this is also an effective way to find jobs for displaced jeepney drivers-as we provide them with the technical capability to make the upgrade themselves.

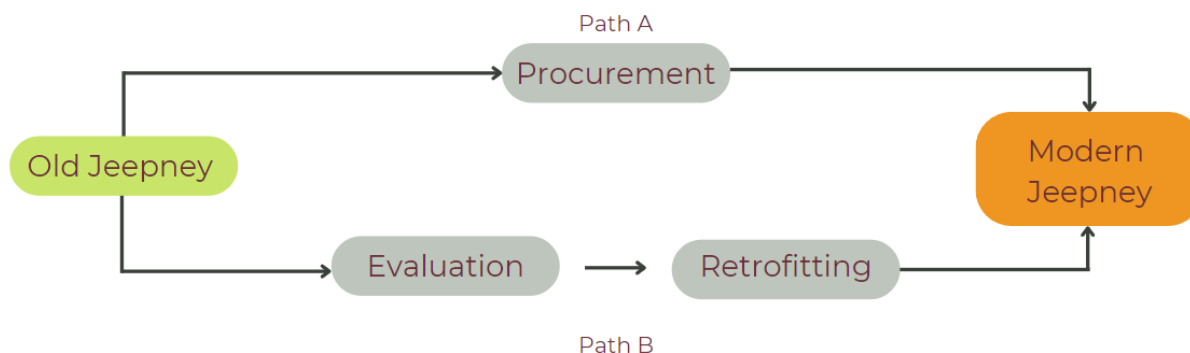


Figure 5. Redefined modernization process for jeepneys.

In this regard, the modernization process shall now take either of the two paths: Path A or the upgrade process recommended by PUVMP or Path B or the upcycling process wherein existing jeepney units will be subjected to evaluation and retrofitting, as prescribed by the guidelines set by the DOTr.

B.2. Renewable Energy Systems Integration

Renewable energy (RE) system integration is not something new in the transport industry. In fact, as early as 2006, the “E-vehicle Strategy” of the Department of Energy (DoE) has already set its eyes on reducing Greenhouse Gas Emissions by looking into alternative energy sources such as LPG, and solar (ADB, 2006). In 2020, DOE has already released Department Circular 2020-10-0023, a policy framework that places emphasis on energy efficiency and conservation. (DOE, 2020) In 2021, guidelines for the development, establishment, and operation of electric vehicle charging stations were already in place (DOE, 2021).

Along with the Jeepney Modernization Guidelines, we think that all of these policy frameworks create a robust environment for making RE integration feasible for

jeepney units. In the context of our project, we wanted to open up avenues wherein drivers could easily look up resources for RE system components, training programs for repair and maintenance, and funding opportunities.

Available RE systems such as solar and hydro energy may be considered. Whether or not they can be partially or fully utilized with the vehicle shall be determined at later project development stages.

C. Prosperity (Economic)

Economic development often transforms conventional and traditional practices to modernized and proactive systems. Through economic development, the vulnerable and the marginalized are frequently becoming just “one of” the considerations when in fact they should be the main factor as to why modernization is even considered. The public transportation sector in the Philippines is repeatedly turning a blind eye to alleviate PUJ drivers’ cry for help and instead focusing only on building infrastructures to mask the real issues concerning the majority. Generally, mass transportation decreases the cost of moving people and goods and increases investment productivity which drives economic growth. One of the major transportation choices of Filipinos are Jeepneys, hence the need for the increase of labor inputs and technological advancements.

Aligning the need for the increase of labor inputs means the necessity to support the finances of the people involved. Financial resilience and the transition to sustainable public transport are the ways to strengthen financial inclusion for PUJ drivers and a step to aid the public transportation crisis in the Philippines.

C.1. Financial Resilience

O’Neill (2011) defined financial resiliency as the capacity of a person in a society to overcome events that have an impact on their financial-earning capability. A lot of factors in a society challenge the economy of public transportation, may it be social, environmental, and/or political. The Philippine government often romanticizes change but habitually forgets to consider the needs of the public sector which deprives the labor force of their rights and further delays financial resiliency. (O’Neill, 2011)

C.2. Insurance

As of this writing, there is still no legal justification of having an accident or loss-of-income insurance for the public transport drivers. There is only an existing

passenger accident insurance requirement for PUV operators, but it only covers the third-party passengers of the public utility vehicle, which still undermines drivers' and operators' right to have an insurance policy. According to Section 374 of the amended Insurance Code: "It shall be unlawful for any land-transportation operator or owner of a motor vehicle to operate the same in public highways, unless there is in force, in relation thereto, a policy of insurance or guaranty in cash or surety bond issued in accordance with the provisions of this chapter to indemnify the death, bodily injury and/or damage to property of a third party or passenger, as the case may be, arising from the use thereof." The term "third-party passenger" excludes the driver of the public utility vehicle under the required accident insurance henceforth the need for insurance policies for public transport drivers.

C.2.1. Vulnerable population (medical/covid-prone drivers)

The "ePasada" app aims to push for the institution of a comprehensive reform for public utility vehicle drivers. Through this app, and with the possible partnership of various local government units, will help provide public transport drivers insurances specifically accident and loss of income policies. Various countries such as Canada have employment insurance which entitles the labour force to have financial support from the government if undesirable events such as health-related risks (Covid-19) occur and impact the financial capability of the vulnerable people. This app also aims to include the marginalized PUJ drivers who are affected with climate-related and environmental issues which pose health concerns due to bad air quality and climate-induced risks such as being exposed to floods, earthquakes, and air-borne diseases.

D. Partnership

In the words of Marie Laure Salles of the Graduate Institute, Geneva (IHEID) in the introductory video of this challenge, our society's "current problems call for inter-dependent and collective action." A good foundation for a sustainable solution that will combat the ever-changing industrial landscape is a strong and collaborative partnership among the government, private agencies and other relevant stakeholders.

We consider developing features in a user-friendly platform that would support partnerships with different stakeholders to further provide alternative sources of income for the Jeepney drivers.

D.1. Partnerships for Tourism

While Jeepneys are mainly used for urban transportation, with the increase in the use of transport network vehicle service with as Grab as the sole player in this market, modernized public utility vehicles, and support for non-motorized transportation modes like bicycles, a viable alternative where jeepneys can be used is through the industry of tourism. (Lansangan, 2012)

Jeepneys are known to be a testament of Filipino's ingenuity with every unit having unique and colorful designs which often reveals about the love for family and religion of its owner, reflecting the Filipino culture. (UH Manoa, 2010)

Instead of going around the tourist destinations of the Philippines in a foreign-made van or car, a more authentic and value-added experience for tourists is to travel the country on a locally made transportation mode. The opportunity for jeepney organizations to partner with the local tourism office of a city will not only enhance the tourism product offer and the cultural experience of the tourists, but it also gives an alternative source of livelihood for the jeepney drivers and their families by involving them as tour guides for this tourism activity. This way, they would not have to beg for alms on streets but instead have a dignified and viable alternative livelihood.

D.2. Partnership for Capacity-Building

With tourism as a potential economic activity for jeepney drivers and their family members who often accompany them as collectors of transportation fee, it is essential to provide them capacity-building programs in line with tourism. The wives and their young adult children who are eligible to work can be trained for tour guiding and entrepreneurship through the training programs under the government entity, Technical Education And Skills Development Authority (TESDA) (TESDA, n.d.).

From a digital perspective, it is also important to take in consideration that most jeepney drivers are between 30 to 39 years old (42%) and 40 to 49 years old (35%). (Anabel Abuzo et al., 2017). With this age group, we must expect that they have limited knowledge on technology and we must also let them attend training programs to learn about the features of the ePasada program and how they would be able to utilize each feature. In partnership with the local counterpart of the Department of Information and Communications Technology, the government's arm for the promotion of ICT development in the country, we want to ensure that no one is left behind with ePasada.

D.3. Partnership with the Civil Society Organizations, Non-Profit Organizations

Further maximizing the opportunities for partnership is by creating linkages between the Jeepney organization with CSOs and NPOs who are committed to assist the marginalized and vulnerable members of the society.

One potential partnership would be with the Philippine Red Cross which is known to actively offer training programs in line with first aid and mass casualty disaster response. With jeepney drivers being subject to road crashes and accidents on a daily basis, being trained in first aid enhances their capability and confidence to be the first responders to emergencies.

Another partnership is with the Philippine Disaster and Resilience Foundation which actively conducts learning programs for communities vulnerable to disasters. With the Big One, identified as the worst-case scenario of earthquake occurrence once the most active fault in Metro Manila, is pending to happen, building the capacity of jeepney drivers to respond to mass casualty scenarios not only increases the number of emergency responders, but also preparing to include the jeepneys among the emergency vehicles during a time of disaster (Teves, 2021).

With resilience demanding a system-wide approach in the preparations for any crisis or disaster, viewing the jeepney drivers as essential actors in the emergency response not only reflects a collective action in addressing our problems, but it also gives the drivers a sense of dignity and responsibility in their livelihood.

E. Peace

“Mass transport was killed.” This was the statement of Mody Floranda, President of Piston transport group, during the height of the COVID-19 lockdown in Metro Manila back in 2020 (Alegado & Calonzo, 2020). In June 2020, three (3) months after the lockdown in the country’s capital, six (6) jeepney drivers were arrested for protesting lost wages. In their protest, they were asking the government to allow them to operate and to provide government aid to jeepney drivers. A week after their arrest, four of the six drivers were released after posting bail of P3000 (\$60) each.



Figure 6. A group of jeepney drivers with placards strapped along their bodies with writings
 “Mam/sir, we’re jeepney drivers, asking for your help”
 (Source: Inquirer.net, 2020)

The arrests have led many to believe that this is another attempt on the crackdown of dissent in the Philippines. The six drivers who were arrested are all members of Piston, a transport group, who has been in hot waters with the national government over the jeepney modernization program. In 2017, President Rodrigo Duterte told protesters to be ready to “face rubber bullets” from the police and military. He also threatened to drag away their vehicles if they do not comply with the Public Utility Vehicle modernization program. (Ranada, 2017)



Figure 7. The ‘Piston 6’ who were arrested on June 2, 2020 for alleged violation of health protocols
 (Source: One News, 2020)

According to then Secretary of Justice Menardo Guevarra, rallies remain banned “solely for public health reasons and nothing else”. However, upon their release, the “Piston 6’s” COVID test results showed that two of the six drivers were infected by the disease, which is believed to be due to the unsanitary conditions in the detention facilities. Activist group Anakbayan believes that the arrest of the Piston 6 was in fact an attempt to silence critics, and not to reprimand alleged health protocol violations. According to them “the arrests over the military lockdown were never about preventing the spread of disease but to stifle dissent and to send a chilling effect to critics”. (Lalu, 2020)

The 2030 Agenda for Sustainable Development recognizes that peace and security are prerequisites for achieving sustainable development, but that sustainable development provides the pathway to peaceful societies. However, with the Philippine government’s crackdown on peaceful protests, it is the government itself that is preventing the goal of peaceful societies. The development of the transportation sector of the Philippines is simply not a priority of the government, and the failure of public transportation programs in the country has pushed jeepney drivers into deeper poverty because of low income.

With Project ePasada, jeepney drivers will have access to various programs that will help address the root causes of why they are forced to conduct mass protests in the first place. Through the project, it is hoped that a collaborative effort between the jeepney drivers and the government will allow the latter to understand the former better and to create better programs and policies for the transport sector.

IV. The Pilot Site

We thought that the University of the Philippines-Diliman Campus in Quezon City serves as the perfect pilot site for the project as it possesses the degree of land use and mobility network complexity that allows us to establish a proof of concept. A total of 493 hectares of land make up the campus (1,220 acres). The majority of this land is used by the university for infrastructure and research buildings; while the remainder is either wooded, set aside for future construction and residential usage, or vacant.

University Avenue connects the University of the Philippines Diliman campus to Commonwealth Avenue. Where traffic reaches the campus or moves in the direction of C.P., it extends for 800 meters (2,600 feet). Garcia St., which runs from Katipunan Avenue to Commonwealth Avenue. The Oblation Plaza of the Diliman campus is located at the end of University Avenue and faces the street. The Quezon Hall, which serves as the university’s admin building, is seen behind it.

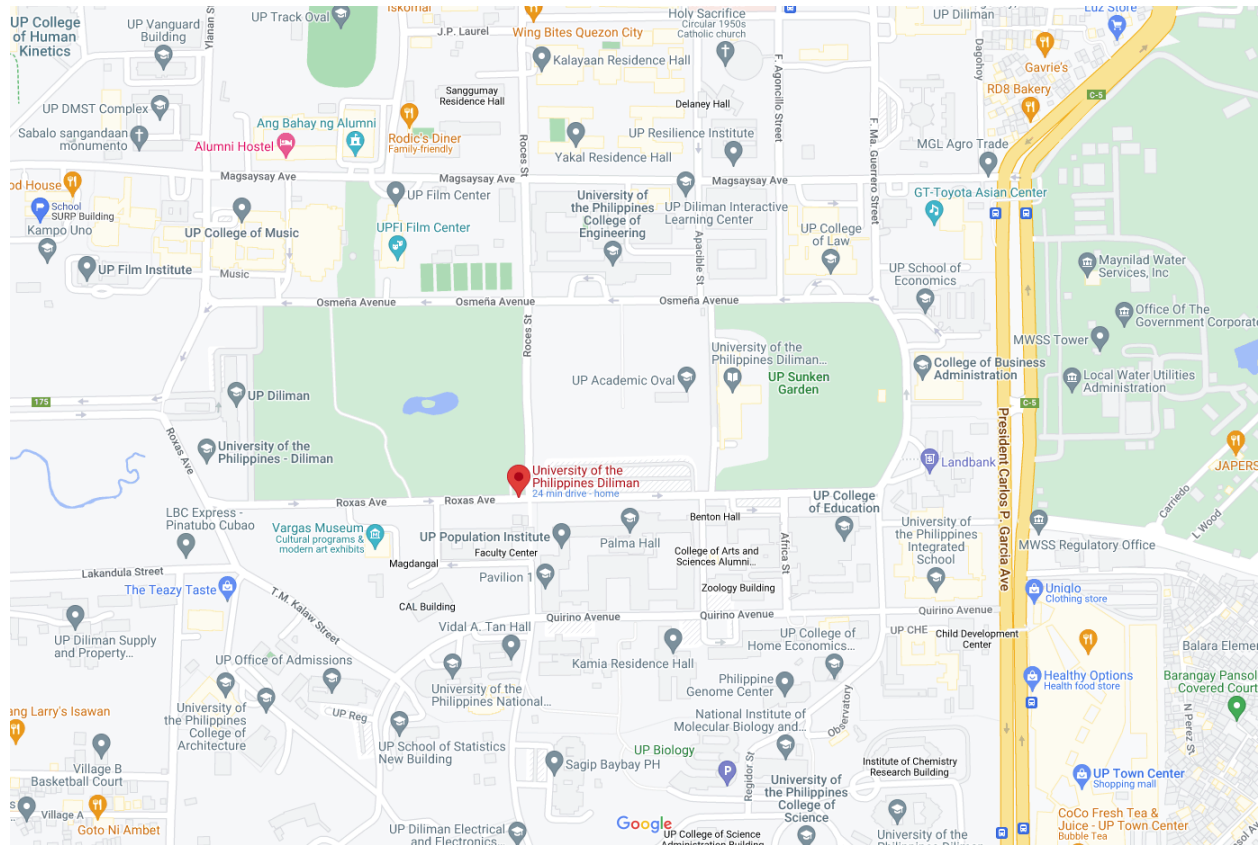


Figure 8. Map of the UP Diliman Campus
Source: (Google Maps, 2022)

A. Land Use Mix

The most recent zoning map of Quezon City places the university campus under the Institutional Zone. However, the existing land use map from the Office of the Campus Architect (OCA) and the Office of the Vice President for the Development (OVPD) provides a more detailed insight into the land use characteristics of the area. Aside from the expected mix of educational facilities that includes the campus core and academic units, the campus also has a mix of resource generation areas, residential buildings, community services, recreational facilities, and protected forest areas (OVPD, 2014). Such a unique mix of land uses and intricate fabric of activity system makes the campus comparable to any organic community unit.

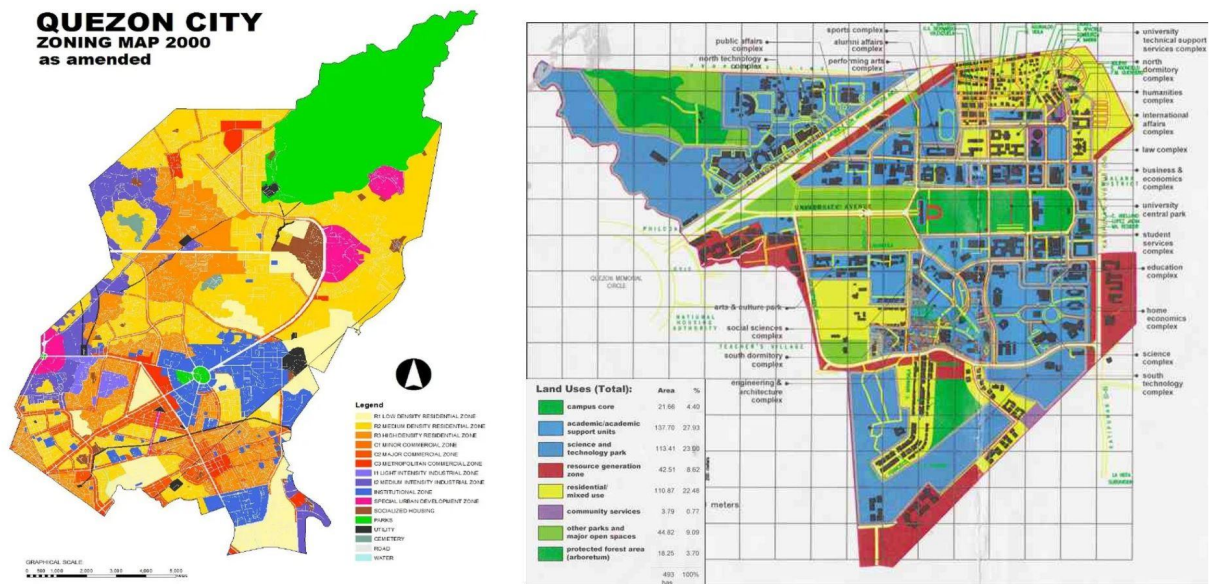


Figure 9 and 10. Zoning Map of Quezon City (Source: Quezon City Planning Office) and Existing Land Use Map of UP Diliman (Source: UP OVPD).

In 2006, the Manila Times even called the university as the microcosm of the nation—not only because of the mix of infrastructure in the campus but also because it reflects the ever-changing political climate in the Philippines (Tiglao, 2006).

B. Existing Mobility Network

The university is connected to an intricate network of roads that caters to various mobility options and needs. The Commonwealth Avenue, a six-to-eighteen-lane national highway links the northwest side of the campus to major nodes in Quezon City. The same thing goes for Katipunan Avenue and CP Garcia Avenue. The University Avenue and Academic Oval appears to serve as a collector road which connects the campus core to the lower-order streets and service roads in the vicinity.

Figure 12. UP Diliman IKOT Jeepney Route
Source: (UP Diliman, 2020)

Figure 13. UP Diliman Philcoa Jeepney Route
Source: (UP Diliman, 2020)

The only available public transportation option within the campus are public utility vehicles or jeepneys. At the very least, the routes of these PUVs can be

classified into two groups: inbound and outbound. Inbound routes are those that travel only within the campus' premises. These include the IKOT and TOKI jeeps which traverses the campus counterclockwise and clockwise respectively. The outbound routes on the other hand includes those that travel outside the campus premises. These include jeepneys that use these nodes as stops: SM North EDSA (far west of the campus), Katipunan LRT-2 Station (far south side), Philcoa (southwest side), and Quezon Avenue MRT-3 Station (far southwest side).

The campus' administration also strongly advocates for sustainable and smart transportation. As such facilities are designed to accommodate soft mobility options or non-motorized transportation. (UP Diliman, n.d.)

C. The Campus Amidst the Transportation Crisis

On the onset of the pandemic, the university was forced to suspend classes and adapt to remote setups. (UP OVPPA, 2020). In turn, this resulted in a drastically plummeting level of activity within the campus. The jeepney driver's steady income was among the major casualties as the lack of people coming into the campus only meant less passengers for these drivers. Without assistance from civil society organizations, and the presence of alternative income streams, these drivers wouldn't have survived the pandemic.

As of 2022, the university has yet to reimplement a fully face-to-face classroom setup. Leaving the burden of finding another way to make a living to the drivers.

D. The Campus as a Model

The parallelism of the situation within the campus community and that of the entire nation clearly makes it a great pilot site for our project. Data collected from this test site through project implementation will be examined, evaluated and used to enhance the program, manage the pain points, and create more effective policy frameworks--ideally, until we can implement at a much larger scale.

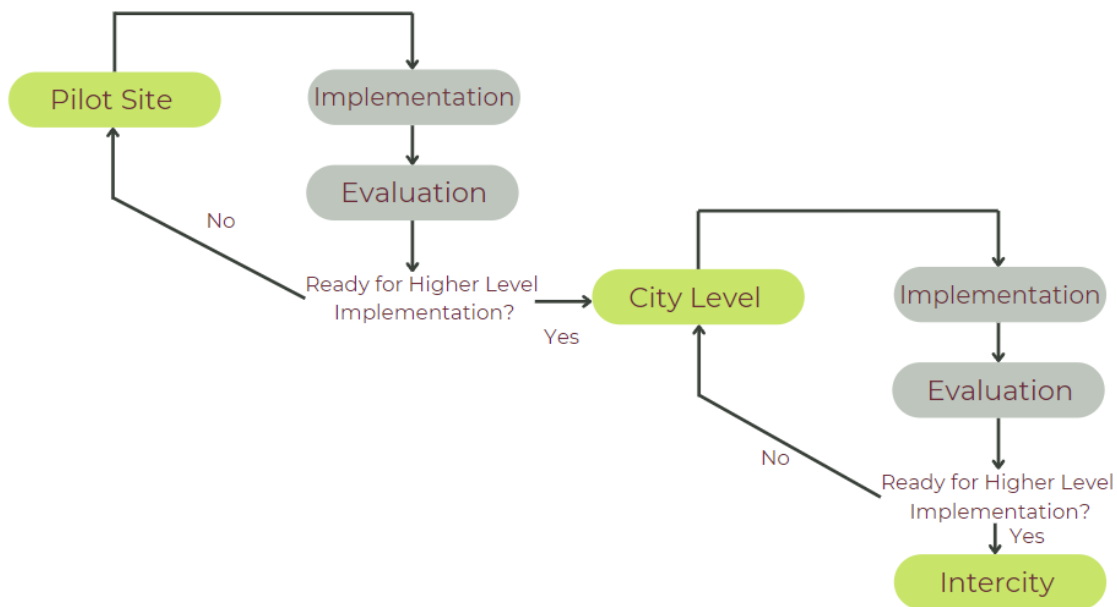


Figure 14. Proposed Project Development Framework from the Pilot Study to City and Intercity Level Implementation

We propose an initial three-period of testing on the pilot site. Each period shall have a length of six months. The success and the viability of the project shall be evaluated through a more detailed set of key performance indicators (KPIs) that will be defined during the pre feasibility study/ies. Afterwhich, implementation on the city, and intercity level shall be studied and coordinated with the local government units.

V. Project Delivery System: The ePasada App



Figure 15. A Mockup Pubmat for ePasada showcasing its most salient features.

The ePasada app is a multipoint open access platform that will serve as the service delivery and implementation system of the project. The app will come in two forms: the driver app, which will be made available to partner jeepney drivers, and the client app, which will be made available to individuals, and enterprises that want to make use of the drivers' services. Features of both of these app variants shall embody the project components discussed in the previous section.

A. ePasada for Drivers

Aside from the job board, the ePasada for Drivers app will have these features:

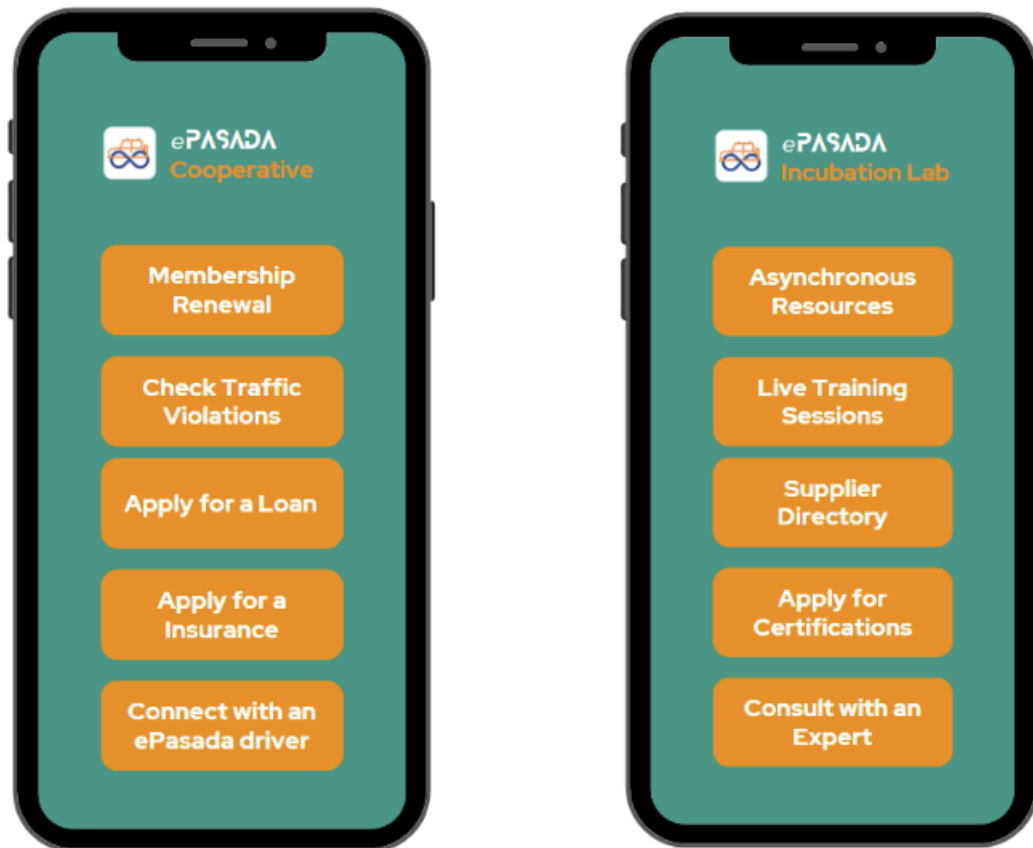


Figure 16 and 17. Initial Mockups for the features of ePasada for drivers.

- **ePasada Cooperative:** allows drivers to renew and manage their membership, check traffic violations, apply for loans, apply for insurance, and connect with an ePasada Driver.
- **ePasada Incubation Laboratory:** gives driver access to asynchronous educational resources on smart transportation systems and technologies, to live training sessions, and to supplier director for smart jeepney components.

B. ePasada for Clients

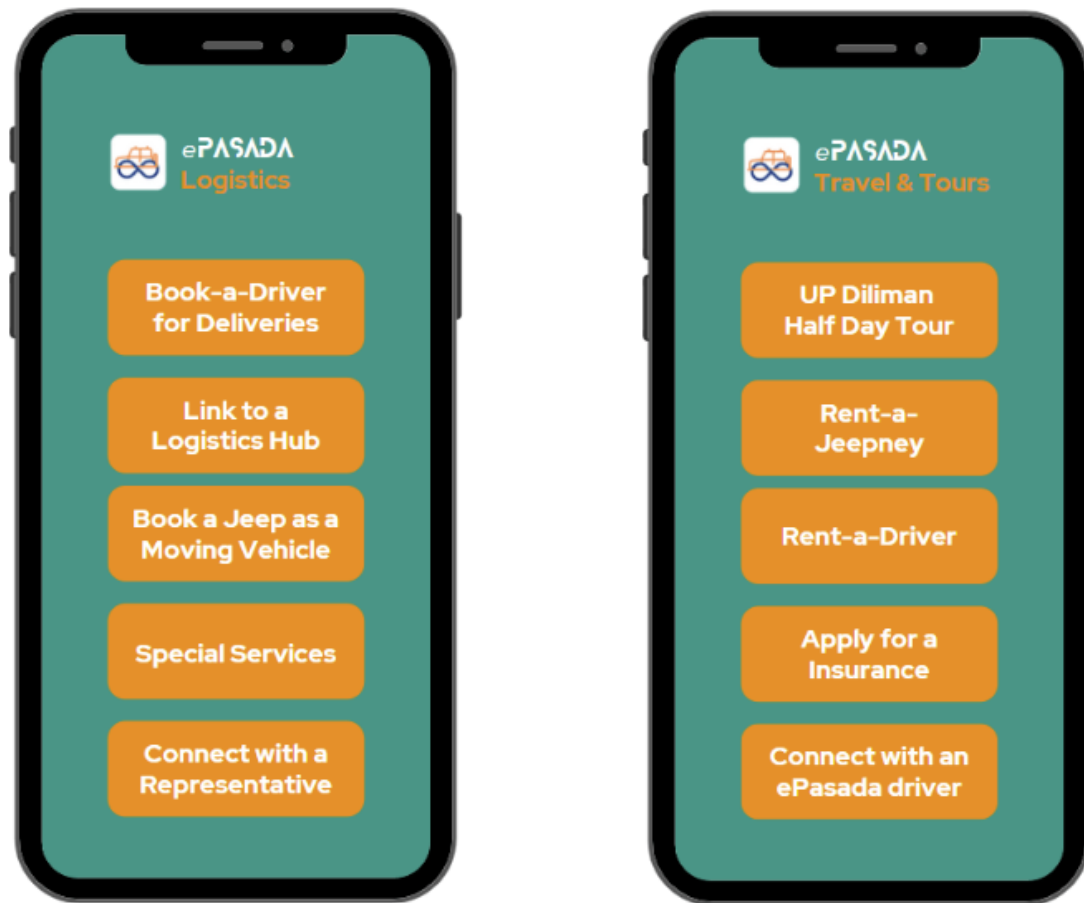


Figure 18 and 19. Initial Mockups for the features of ePasada for clients.

ePasada for Clients will be comprised of these features:

- **ePasada Logistics:** allows customers to book logistic solutions with partner drivers including door to door deliveries, point to point parcel drop offs, and moving services.
- **ePasada Travel & Tours:** allows customers to book a tour, use the jeepney as a service vehicle, and rent a driver. Short-term travel insurances shall also be made accessible through the app.

All of these features shall be enhanced and redeveloped on the succeeding stages of the project.

VI. Recommendations and Waysforward

Reach more locations

Through our open-source program, we aim to promote the same advocacy across the country knowing that jeepneys are widely used not only in major cities, but also in rural areas in different parts of the Philippines.

Reach more drivers

While the current focus of the app is the Jeepney drivers, we can also include the drivers of other public transportation modes in the country, especially the *tricycles*, another local transportation mode in the country with fewer passenger capacity.

Reach every Filipino

In every phase of the project, the group aspires to gain the support of national agencies namely the Department of Transportation, Department of Information and Communication Technology, and the Department of Interior and Local Government to further enhance the program to be able to involve every public transportation driver and serve every Filipino commuter across the nation.

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