Suburban Living in Bulacan

Manilenos' guide in exploring Alternative Living Outside Metro Manila

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OVERVIEW

Bulacan is Metro Manila's gateway to the Northern Part of Luzon. It is the province within the immediate boundary or Metro Manila from the North. As people increasingly feel the congestion and high cost of living in Metro Manila, Bulacan is increasingly being considered by the workers of the busy Metropolis as an alternative place to live.

This capstone project aims to provide the Manilenos a good idea on what Bulacan has to offer as an alternative place to live. Using available data, it will attempt to provide a glimpse on which areas in Bulacan offers specific types of establishments which Manilenos might find necessary and helpful to guarantee a favorable living condition in a would-be new home.

INTRODUCTION

The Province of Bulacan

Dubbed as the "Northern Gateway from Manila," Bulacan enjoys close proximity to Metro Manila as it is the first province that meets travelers heading down the North Luzon Expressway, or NLEX. It's literally just a bus away from Metro Manila's major business hubs such as Makati, Bonifacio Global City, or Alabang. Driving from Bulacan will only take an hour to most areas in Metro Manila, or just few minutes to Quezon City (northernmost city of Metro Manila) on an average driving speed.

It is for this very reason that Bulacan is increasingly becoming a popular alternative to living within the boundaries of Metro Manila to escape from the hustle and bustle of busy and teeming Manila People who have grown weary of the hurried city life are coming to suburban areas like Bulacan to find a peaceful living community that is still proximate and accessible to their day jobs.

In one of the online articles, Loraine Balita (Balita: 2018) outlined her Top Six Reasons why living in Bulacan is Ideal for a family:

- Wide open spaces, lush greeneries, and fresh air make for a perfect environment to raise children. Suburbs like Bulacan allow kids to have a taste of charming suburban life, where life is much simpler, laidback, and the vibe is much more carefree. Something a crowded metropolis can't offer.
- 2. Because it's nice to escape the stress of city life, and come home to relax somewhere peaceful when work's done. This gives people who go to Central Business Districts like Makati, Ortigas, and BGC a chance to escape the busy city, head home daily after work to relax in their peaceful suburban abode
- 3. There are many establishments now in Bulacan that cater to the needs of families living there and tons of activities to try with the family. In recent years, malls and department stores have set-up shop in Bulacan. It is also famous for their scrumptious food and mouthwatering desserts and delicacies. You can explore the many food parks offering patrons the best of what the region has to offer.
- 4. Natural and historical attractions are just a few minutes away. Aside from the many farms and resorts you can visit with your family, Bulacan is also home to natural gems like waterfalls and caves.

- 5. There are many new residential developments all over Bulacan to choose from. Depending on the needs of your family and preferences you can choose to start your home in any of the many new residential developments in the area
- 6. MRT-7 set to be completed soon, will drastically cut travel time to Bulacan. In few years' time, Bulacan will be even more accessible with the completion of the MRT-7. There are also plans to open more roads traversing Bulacan, which will connect the metropolis to more areas up north.

Where to live in Bulacan?

While the idea of moving to the suburbs of Bulacan seems to attractive, one cannot just pack his thinks and decide to move to Bulacan which is almost 2800 square kilometers in total land.

The ultimate question would be – Among the 21 municipalities and three-component cities of Bulacan, where could you comfortably move?

METHODOLOGY

Data Gathered and Data Gathering Methodology

This project intends to identify the important venues and places in the different towns and cities of Bulacan. To gather these data, we extracted the list of towns and cities from the internet and transformed it into a data frame using python:

Town	PostalCode
Balagtas	3016
Baliuag	3006
Bocaue	3018
Bulacan	3017
Bustos	3007
Calumpit	3003
Dona Remedios Trinidad	3009
Guiguinto	3015
Hagonoy	3002
Malolos	3000
Marilao	3019
Maycauayan	3020
Norzagaray	3013
Obando	3021
Pandi	3014
Paombong	3001
Plaridel	3004
Pulilan	3005
San Ildefonso	3010
San Jose del Monte	3023
San Miguel	3011
San Rafael	3008
Santa Maria	3020
Sapang Palay	3024

The list of Towns and Cities where used to identify the important geospatial details to describe the locations. Geopy geocoder script was used to identify the coordinates (latitude and longitude) of each town/city.

Town	PostalCode	Province	location	point	latitude	longitude
Balagtas	3016	Balagtas, Bulacan	(Balagtas, Bulacan, Central Luzon, 3016, Phili	(14.8177664, 120.9083864, 0.0)	14.817766	120.908386
Baliuag	3006	Baliuag, Bulacan	(Baliuag, Bulacan, Central Luzon, 3006, Philip	(14.9585037, 120.8970405, 0.0)	14.958504	120.897041
Bocaue	3018	Bocaue, Bulacan	(Bocaue, Bulacan, Central Luzon, 3018, Philipp	(14.7996399, 120.9264574, 0.0)	14.799640	120.926457
Bulacan	3017	Bulacan, Bulacan	(Bulacan, Occidental Mindoro, Mimaropa, Philip	(13.66468445, 120.35012872931834, 0.0)	13.664684	120.350129
Bustos	3007	Bustos, Bulacan	(Bustos, Bulacan, Central Luzon, 3007, Philipp	(14.9549111, 120.9181565, 0.0)	14.954911	120.918156
Calumpit	3003	Calumpit, Bulacan	(Calumpit, Bulacan, Central Luzon, 3003, Phili	(14.9151619, 120.7636605, 0.0)	14.915162	120.763661
Dona Remedios Trinidad	3009	Dona Remedios Trinidad, Bulacan	(Doña Remedios Trinidad, Bulacan, Central Luzo	(14.9706036, 121.0647854, 0.0)	14.970604	121.064785
Guiguinto	3015	Guiguinto, Bulacan	(Guiguinto, Bulacan, Central Luzon, 3015, Phil	(14.8289491, 120.8792922, 0.0)	14.828949	120.879292
Hagonoy	3002	Hagonoy, Bulacan	(Hagonoy, Malolos, Bulacan, Central Luzon, 300	(14.8355035, 120.7335206, 0.0)	14.835503	120.733521
Malolos	3000	Malolos, Bulacan	(Malolos, Bulacan, Central Luzon, 3000, Philip	(14.843759, 120.8113694, 0.0)	14.843759	120.811369
Marilao	3019	Marilao, Bulacan	(Marilao, Bulacan, Central Luzon, 3019ALPHA@0M	(14.7563752, 120.9471304, 0.0)	14.756375	120.947130
Meycauayan	3020	Meycauayan, Bulacan	(Meycauayan, Bulacan, Central Luzon, 3020, Phi	(14.7345008, 120.9571635, 0.0)	14.734501	120.957163
Norzagaray	3013	Norzagaray, Bulacan	(Norzagaray, San Jose del Monte, Bulacan, Cent	(14.9056138, 121.0436174, 0.0)	14.905614	121.043617
Obando	3021	Obando, Bulacan	(Obando, Bulacan, Central Luzon, 3021, Philipp	(14.7203043, 120.91724419894557, 0.0)	14.720304	120.917244
Pandi	3014	Pandi, Bulacan	(Pandi, Bulacan, Central Luzon, 3022, Philippi	(14.8633419, 120.9557404, 0.0)	14.863342	120.955740
Paombong	3001	Paombong, Bulacan	(Paombong, Bulacan, Central Luzon, 3000, Phili	(14.8362243, 120.7868318, 0.0)	14.836224	120.786832
Plaridel	3004	Plaridel, Bulacan	(Plaridel, Bulacan, Central Luzon, 3004, Phili	(14.8853685, 120.8586337, 0.0)	14.885369	120.858634
Pulilan	3005	Pulilan, Bulacan	(Pulilan, Bulacan, Central Luzon, 3005, Philip	(14.9017958, 120.8471247, 0.0)	14.901796	120.847125
San Ildefonso	3010	San Ildefonso, Bulacan	(San Ildefonso, Bulacan, Central Luzon, 3010,	(15.0781219, 120.9398068, 0.0)	15.078122	120.939807
San Jose del Monte	3023	San Jose del Monte, Bulacan	(San Jose del Monte, Bulacan, Central Luzon, 3	(14.8110432, 121.0491569, 0.0)	14.811043	121.049157
San Miguel	3011	San Miguel, Bulacan	(San Miguel, Bulacan, Central Luzon, 3011, Phi	(15.1457465, 120.9742207, 0.0)	15.145746	120.974221
San Rafael	3008	San Rafael, Bulacan	(San Rafael, Bulacan, Central Luzon, 3008, Phi (14.995004649999998, 120.96386524465669, 0.0)	14.995005	120.963865
Santa Maria	3020	Santa Maria, Bulacan	(Santa Maria, Bulacan, Central Luzon, 3318, Ph	(14.8204996, 120.9606151, 0.0)	14.820500	120.960615
Sapang Palay	3024	Sapang Palay, Bulacan	(Sapang Palay Proper, San Jose del Monte, Bula	(14.8393635, 121.0431077, 0.0)	14.839363	121.043108

After identifying the coordinates, the Foursquare API was used to identify all important venues within the immediate vicinity of each town/city.

Review and Analysis of Data

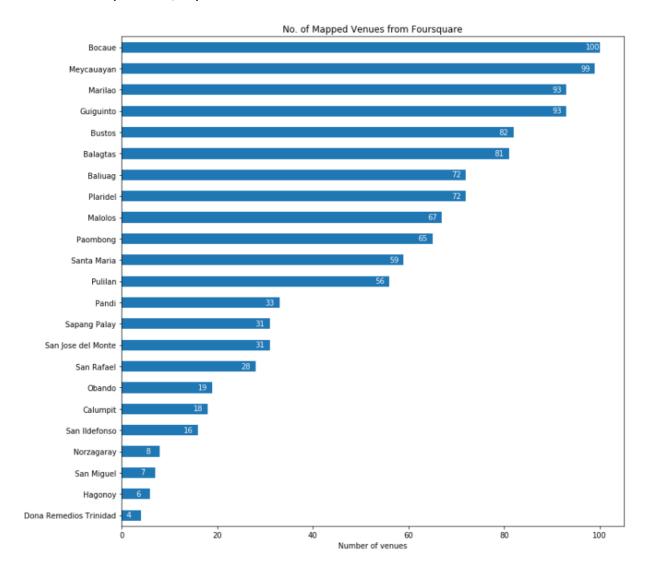
From the data extracted thru Foursquare API, venues were reviewed based on their category and location using python. Top 10 venues per Town/city were also identified to provide a view of what are the predominant venues or businesses that are present in each location.

K-means clustering was used to cluster the towns into three. The clustering was done to aggregate the data points and identify similarities among the towns/cities.

RESULTS AND DISCUSSION

Number of Popular Venues

Using the Foursquare API, the query returned 1,145 venues. The table below describes the number of venues found per town/city:

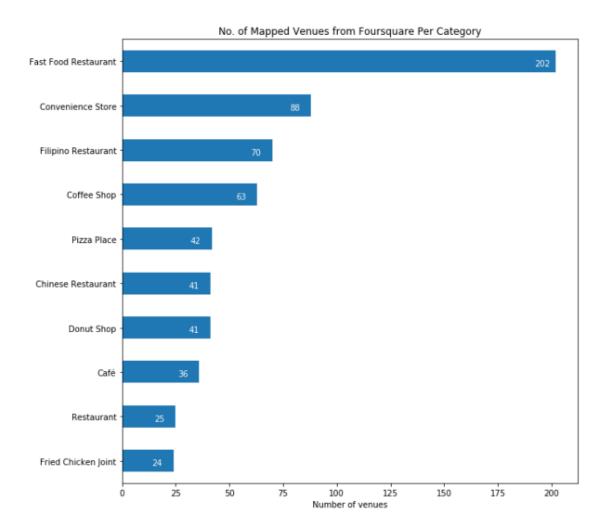


The towns of Bocaue, Meycauayan, Marilao, and Guiguinto have the most number of recognizable venues according to the Foursquare, with number of venues that ranges from 90 to 100.

The towns Norzagaray, San Miguel, Hagonoy, and Dona Remedios Trinidad have the least number of recognizable venues according to the Foursquare, with venues of less than 10.

Top Ten Venue Categories in Bulacan

Out of the 1,145 venues, all of the top 10 categories are related to food business in one way or another. The table below provides a good idea of the different types of food establishments that made it to the top 10 categories.



Fast Food Restaurants got the top spot with a huge difference from its far second. Fast food restaurants are known to be the fastest go-to places to eat before going home after a long day of work. Convenience store follows next for people who prefer to grab instant foods that they can immediately consume as soon as they are home. The rest of the categories in the top 10 are also related to food establishment where people come to spend time to eat with friends and families.

Top 10 Venues Categories per Town/City

The table below shows the tops venue categories per town or city:

Town	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue
Balagtas	Fast Food Restaurant	Convenience Store	Coffee Shop	Donut Shop	Chinese Restaurant	Pizza Place	Bakery	Breakfast Spot	Shopping Mall	Diner
Baliuag	Fast Food Restaurant	Convenience Store	Filipino Restaurant	Fried Chicken Joint	Pizza Place	Bakery	Restaurant	Japanese Restaurant	Movie Theater	Coffee Shop
Bocaue	Fast Food Restaurant	Donut Shop	Convenience Store	Coffee Shop	Filipino Restaurant	Pizza Place	Asian Restaurant	Breakfast Spot	Chinese Restaurant	Bar
Bustos	Fast Food Restaurant	Convenience Store	Pizza Place	Bakery	Filipino Restaurant	Ice Cream Shop	Café	Soup Place	Comfort Food Restaurant	Coffee Shop
Calumpit	Fast Food Restaurant	Convenience Store	Resort	BBQ Joint	Café	Department Store	Dessert Shop	Filipino Restaurant	Pharmacy	Asian Restaurant
Dona Remedios Trinidad	Pool	Resort	Waterfall	Trail	Fast Food Restaurant	Donut Shop	Church	Coffee Shop	Comfort Food Restaurant	Convenience Store
Guiguinto	Fast Food Restaurant	Coffee Shop	Convenience Store	Chinese Restaurant	Filipino Restaurant	Pizza Place	Café	Shopping Mall	Donut Shop	Diner
Hagonoy	Grocery Store	Fast Food Restaurant	Filipino Restaurant	Gas Station	Garden Center	Coffee Shop	Comfort Food Restaurant	Convenience Store	Cupcake Shop	Deli / Bodega
Malolos	Filipino Restaurant	Convenience Store	Fast Food Restaurant	Pizza Place	Asian Restaurant	Breakfast Spot	Japanese Restaurant	Korean Restaurant	Restaurant	Resort
Marilao	Fast Food Restaurant	Coffee Shop	Bar	Restaurant	Donut Shop	Filipino Restaurant	Fried Chicken Joint	Breakfast Spot	Diner	Grocery Store
Meycauayan	Fast Food Restaurant	Convenience Store	Coffee Shop	Bar	Donut Shop	Fried Chicken Joint	Chinese Restaurant	Grocery Store	Spa	Café
Norzagaray	Convenience Store	Bubble Tea Shop	Farm	Supermarket	Donut Shop	Filipino Restaurant	Waterfall	Coffee Shop	Comfort Food Restaurant	Cupcake Shop
Obando	Fast Food Restaurant	Grocery Store	Convenience Store	Spa	Resort	Restaurant	Burger Joint	Diner	Donut Shop	Bistro
Pandi	Fast Food Restaurant	Filipino Restaurant	Convenience Store	Restaurant	Donut Shop	Shop & Service	Park	Campground	Multiplex	Pool
Paombong	Filipino Restaurant	Fast Food Restaurant	Convenience Store	Pizza Place	Asian Restaurant	Korean Restaurant	Supermarket	Coffee Shop	Tea Room	Restaurant
Plaridel	Fast Food Restaurant	Filipino Restaurant	Chinese Restaurant	Convenience Store	Café	Pizza Place	Coffee Shop	Outlet Store	Pool	Fried Chicken Joint
Pulilan	Fast Food Restaurant	Convenience Store	Café	Chinese Restaurant	Filipino Restaurant	Pizza Place	Coffee Shop	Pool	Spa	Restaurant
San Ildefonso	Diner	Donut Shop	Filipino Restaurant	National Park	Spa	Fast Food Restaurant	Shopping Mall	Café	Coffee Shop	Gas Station
San Jose del Monte	Fast Food Restaurant	Chinese Restaurant	Coffee Shop	Pizza Place	Filipino Restaurant	Shopping Mall	Other Great Outdoors	Pool	Resort	Donut Shop
San Miguel	Convenience Store	Fast Food Restaurant	Diner	Café	Rest Area	Restaurant	Dessert Shop	Bubble Tea Shop	Snack Place	Chinese Restaurant
San Rafael	Fast Food Restaurant	Pool	Hotel	Resort	Café	Soup Place	Snack Place	Nature Preserve	Bubble Tea Shop	Donut Shop
Santa Maria	Fast Food Restaurant	Convenience Store	Filipino Restaurant	Donut Shop	Coffee Shop	Asian Restaurant	Breakfast Spot	Fried Chicken Joint	Multiplex	BBQ Joint
Sapang Palay	Fast Food Restaurant	Convenience Store	Pizza Place	Café	Filipino Restaurant	Grocery Store	Basketball Court	Bus Station	Coffee Shop	Snack Place
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Consistent with the previous tables, Fast Food Restaurants and other food—related establishments are on the top spot of what you can see in almost every town in Bulacan. Someone moving to Bulacan will surely not ran out of options on where and what to eat.

Clustering

The clustering analysis using K-means shows that 22 out of the 24 towns or cities of Bulacan belong to one cluster. These towns have equally diverse venues and consistently have Fast Food and other types of restaurants in their top spots. The towns that belong to the first cluster as follows:

Town	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue
Balagtas	Fast Food Restaurant	Convenience Store	Coffee Shop	Donut Shop	Chinese Restaurant	Pizza Place	Bakery	Breakfast Spot	Shopping Mall	Diner
Baliuag	Fast Food Restaurant	Convenience Store	Filipino Restaurant	Fried Chicken Joint	Pizza Place	Bakery	Restaurant	Japanese Restaurant	Movie Theater	Coffee Shop
Bocaue	Fast Food Restaurant	Donut Shop	Convenience Store	Coffee Shop	Filipino Restaurant	Pizza Place	Asian Restaurant	Breakfast Spot	Chinese Restaurant	Bar
Bustos	Fast Food Restaurant	Convenience Store	Pizza Place	Bakery	Filipino Restaurant	Ice Cream Shop	Café	Soup Place	Comfort Food Restaurant	Coffee Shop
Calumpit	Fast Food Restaurant	Convenience Store	Resort	BBQ Joint	Café	Department Store	Dessert Shop	Filipino Restaurant	Pharmacy	Asian Restaurant
Guiguinto	Fast Food Restaurant	Coffee Shop	Convenience Store	Chinese Restaurant	Filipino Restaurant	Pizza Place	Café	Shopping Mall	Donut Shop	Diner
Malolos	Filipino Restaurant	Convenience Store	Fast Food Restaurant	Pizza Place	Asian Restaurant	Breakfast Spot	Japanese Restaurant	Korean Restaurant	Restaurant	Resort
Marilao	Fast Food Restaurant	Coffee Shop	Bar	Restaurant	Donut Shop	Filipino Restaurant	Fried Chicken Joint	Breakfast Spot	Diner	Grocery Store
Meycauayan	Fast Food Restaurant	Convenience Store	Coffee Shop	Bar	Donut Shop	Fried Chicken Joint	Chinese Restaurant	Grocery Store	Spa	Café
Norzagaray	Convenience Store	Bubble Tea Shop	Farm	Supermarket	Donut Shop	Filipino Restaurant	Waterfall	Coffee Shop	Comfort Food Restaurant	Cupcake Shop
Obando	Fast Food Restaurant	Grocery Store	Convenience Store	Spa	Resort	Restaurant	Burger Joint	Diner	Donut Shop	Bistro
Pandi	Fast Food Restaurant	Filipino Restaurant	Convenience Store	Restaurant	Donut Shop	Shop & Service	Park	Campground	Multiplex	Pool
Paombong	Filipino Restaurant	Fast Food Restaurant	Convenience Store	Pizza Place	Asian Restaurant	Korean Restaurant	Supermarket	Coffee Shop	Tea Room	Restaurant
Plaridel	Fast Food Restaurant	Filipino Restaurant	Chinese Restaurant	Convenience Store	Café	Pizza Place	Coffee Shop	Outlet Store	Pool	Fried Chicken Joint
Pulilan	Fast Food Restaurant	Convenience Store	Café	Chinese Restaurant	Filipino Restaurant	Pizza Place	Coffee Shop	Pool	Spa	Restaurant
San Ildefonso	Diner	Donut Shop	Filipino Restaurant	National Park	Spa	Fast Food Restaurant	Shopping Mall	Café	Coffee Shop	Gas Station
San Jose del Monte	Fast Food Restaurant	Chinese Restaurant	Coffee Shop	Pizza Place	Filipino Restaurant	Shopping Mall	Other Great Outdoors	Pool	Resort	Donut Shop
San Miguel	Convenience Store	Fast Food Restaurant	Diner	Café	Rest Area	Restaurant	Dessert Shop	Bubble Tea Shop	Snack Place	Chinese Restaurant
San Rafael	Fast Food Restaurant	Pool	Hotel	Resort	Café	Soup Place	Snack Place	Nature Preserve	Bubble Tea Shop	Donut Shop
Santa Maria	Fast Food Restaurant	Convenience Store	Filipino Restaurant	Donut Shop	Coffee Shop	Asian Restaurant	Breakfast Spot	Fried Chicken Joint	Multiplex	BBQ Joint
Sapang Palay	Fast Food Restaurant	Convenience Store	Pizza Place	Café	Filipino Restaurant	Grocery Store	Basketball Court	Bus Station	Coffee Shop	Snack Place

Only 1 town was categorized under the second cluster. While the top categories are consistently related to food business, the number of venues in this town is comparatively lesser than those that are in numbers.

Town	1st Most	2nd Most	3rd Most	4th Most	5th Most	6th Most	7th Most	8th Most	9th Most	10th Most
	Common	Common	Common	Common	Common	Common	Common	Common	Common	Common
	Venue	Venue	Venue	Venue	Venue	Venue	Venue	Venue	Venue	Venue
Hagonoy	Grocery Store	Fast Food Restaurant	Filipino Restaurant	Gas Station	Garden Center	Coffee Shop	Comfort Food Restaurant	Convenience Store	Cupcake Shop	Deli / Bodega

Only 1 town was also categorized under the third cluster. Unlike the other towns in Bulacan, Dona Remedios Trinidad has more alternative life experience to offer than Fast Food and other restaurants. Its top spots belongs to Pool, resorts, and waterfall

Town	1st Most	2nd Most	3rd Most	4th Most	5th Most	6th Most	7th Most	8th Most	9th Most	10th Most
	Common	Common	Common	Common	Common	Common	Common	Common	Common	Common
	Venue	Venue	Venue	Venue	Venue	Venue	Venue	Venue	Venue	Venue
Dona Remedios Trinidad	Pool	Resort	Waterfall	Trail	Fast Food Restaurant	Donut Shop	Church	Coffee Shop	Comfort Food Restaurant	Convenience Store

CONCLUSION

Bulacan as an alternative suburban living paradise has all the basic things in life that will guarantee convenient survival. Food establishments are abundant, dominated by Fast Food Restaurants, Convenience Stores, Coffee Shops, and Filipino or Chinese Restaurants. Groceries and supermarkets are also abundant. For a typical family, Bulacan is a good place to live.

Bulacan is also a hope to several resorts, pools, waterfall, and national parks! Basic needs described above plus these extra perks of living in Bulacan are perfect recipes for an ideal get away from the busy hustle of Metro Manila especially during weekend rest days.

But unlike Metro Manila, Bulacan has significantly less to offer when it comes to nightlife gigs and bars. The profile of venues within even the busiest towns doesn't have these establishments in their top list. If you are a party person and a bar hopper, you might need to find these places in Quezon City in Metro Manila, so be ready to travel a bit for a dose of nightlife.

The clustering also confirms that the general profile and establishments in most of the towns of Bulacan are generally homogenous. Living within any of the town will provide access to all the basic needs particularly of Food Establishments such as Fast Food Chains, Fast Food Restaurants, Convenience Stores, Coffee Shops, and other Restaurants. If you are up for more choices, you may consider moving to areas of Bocaue, Meycauayan, Marilao, and Guiguinto.

REFERENCE:

Bulacan Zip Code

https://sites.google.com/site/departmentofphilippines/philippine-zip-codes/provincial-zip-codes/bulacan-zip-code

Top 6 Reasons Why Living in Bulacan is Ideal for Your Family by Loraine Balita https://pursuitofpassion.ph/places/reasons-living-in-bulacan-ideal-family/