

PROJECT TITLE

AGGREGATES TO INSIGHTS

A Granular Analysis of Philippine Provincial Product
Accounts (2018–2024)

Prepared By: Mark Anthony O. Nene

Date: October 2023

Tools Used: SQL, Excel

EXECUTIVE SUMMARY

This project transforms raw Philippine Statistics Authority data into a clean, structured dataset. It applies advanced SQL and Excel techniques to reveal key economic insights across Philippine provinces from 2018 to 2024.

Data Cleaning & Preparation (Excel)

I resolved data suppression issues in Agriculture and Mining sectors while retaining essential aggregate rows. I prevented double-counting by removing broad regional rows and standardizing names for database mapping.

Analytical Skills (SQL)

I used SQL to rank subnational economies and identify top and bottom performers using window functions. I applied partitioned ranking to understand top performers within specific sectors.

Insights & Findings

- **Extreme Inequality:** Quezon City is approximately 230,000 times larger than Batanes in total output.
- **Sectoral Distinctions:** Service economies are highly urbanized. Agriculture relies on a few specific provinces. Industrial output is shifting to corridors outside Metro Manila.
- **Longitudinal Trends:** The data reveals structural stagnation in Agriculture, decentralized Construction growth, and a rapid Service sector recovery after the pandemic.

1. METHODOLOGY: DATA PREPARATION

The preparation phase relied on Microsoft Excel to establish a clean and reliable dataset before any analysis began. The raw data from the Philippine Statistics Authority came in two separate files (Historical 2018–2021 and Revised 2022–2024).

CORE PREPARATION STEPS (EXCEL)

Handling the National Capital Region Issue

- Microsoft Excel functions were used to address data suppression issues in the Agriculture and Mining sectors.
- I deleted individual city rows for these specific industries because the data is often hidden for privacy.
- However, I retained the total "National Capital Region" row to ensure the analysis captured the full regional value without empty data points.

Preventing Double Counting

- For all other sectors, Excel was used to ensure the analysis focused strictly on specific locations.
- I removed broad regional rows such as "CALABARZON" or "Region I" to avoid counting the same value twice.
- Crucially, I also removed the aggregate "National Capital Region" row for the Services, Manufacturing, and Construction sectors.
- This allowed the study to focus on specific Highly Urbanized Cities like Quezon City and Makati as independent units.

METHODOLOGY (CONTINUED)

Merging the Timeline

- Excel allowed me to solve the overlap between the two datasets.
- I deleted the 2022 and 2023 columns from the old historical file to avoid duplication.
- I then combined the 2018 to 2021 data with the new 2022 to 2024 estimates.
- This process created a seamless six-year timeline that prioritizes the latest corrections from the government.

Structuring for Database Analysis

- The final step involved using Excel to unpivot the data.
- I transformed the dataset from a "Wide Format" where years are listed as columns into a "Long Format" where each row represents a specific year and value.
- This transformation was critical for feeding the data into the SQL database for the next phase.

Gross Domestic Product, by Industry, by Province and HUCs									
	At Current Prices	At Constant 2018 Prices					At Constant 2024 Prices	At Constant 2023 Prices	At Constant 2022 Prices
		2018	2019	2020	2021	2022			
Agriculture, Forestry, and Fishing	National Capital Region (NCR)	397869.79	442597.10	450991.54	503370.47	560698.77	622942.86		
	City of Caloocan	/s	/s	/s	/s	/s	/s		
	City of Las Piñas	/s	/s	/s	/s	/s	/s		
	City of Makati	/s	/s	/s	/s	/s	/s		
	City of Mandaluyong	/s	/s	/s	/s	/s	/s		
	City of Marikina	/s	/s	/s	/s	/s	/s		
	City of Manila	/s	/s	/s	/s	/s	/s		
	City of Navotas	/s	/s	/s	/s	/s	/s		
	City of Pasig	/s	/s	/s	/s	/s	/s		
	City of Parañaque	/s	/s	/s	/s	/s	/s		
	City of Pateros	/s	/s	/s	/s	/s	/s		
	City of Valenzuela	/s	/s	/s	/s	/s	/s		
	Pateros	/s	/s	/s	/s	/s	/s		
	Quezon City	/s	/s	/s	/s	/s	/s		
	City of Antipolo	/s	/s	/s	/s	/s	/s		
	City of Taguig	/s	/s	/s	/s	/s	/s		
	City of Valenzuela	/s	/s	/s	/s	/s	/s		
	Antipolo	/s	/s	/s	/s	/s	/s		
	Cordillera Administrative Region (CAR)	28674698.59	2703458.77	26900335.29	26939183.05	29612962.43	34019542.29	28	
	Abra	280588.00	202954.64	280488.52	310570.30	294932.29	320459.48	2	
	Aba	293789.89	293710.82	285454.82	305750.29	294932.29	320459.48	2	
	Benguet	10736045.55	1037629.77	10439652.92	12093772.88	13593132.45	15515865.78	10	
	Ilocos	473249.44	420840.22	4311644.46	4311381.13	397418.19	394007.04	4	

Gross Domestic Product, by Industry, by Province and HUCs									
	At Current Prices	At Constant 2018 Prices					At Constant 2024 Prices	At Constant 2023 Prices	At Constant 2022 Prices
		2022	2023	2024	2021	2020			
Agriculture, Forestry, and Fishing	National Capital Region (NCR)	506098.27	622442.86	672923.41	/s	/s			
	City of Caloocan	/s	/s	/s	/s	/s			
	City of Las Piñas	/s	/s	/s	/s	/s			
	City of Makati	/s	/s	/s	/s	/s			
	City of Mandaluyong	/s	/s	/s	/s	/s			
	City of Marikina	/s	/s	/s	/s	/s			
	City of Manila	/s	/s	/s	/s	/s			
	City of Navotas	/s	/s	/s	/s	/s			
	City of Parañaque	/s	/s	/s	/s	/s			
	City of Pateros	/s	/s	/s	/s	/s			
	City of Valenzuela	/s	/s	/s	/s	/s			
	Pateros	/s	/s	/s	/s	/s			
	Quezon City	/s	/s	/s	/s	/s			
	City of Antipolo	/s	/s	/s	/s	/s			
	City of Taguig	/s	/s	/s	/s	/s			
	City of Valenzuela	/s	/s	/s	/s	/s			
	Antipolo	/s	/s	/s	/s	/s			
	Cordillera Administrative Region (CAR)	29672961.63	3379889.65	35739903.84	2812185.02				

Figure 1. Raw PSA data in wide format.

subnational_units				industry	year	gva_value
National Capital Region (NCR), Philippines	Agriculture, Forestry, and Fishing	2018	397869.79			
Abra, Philippines	Agriculture, Forestry, and Fishing	2018	2807202.44			
Apaya, Philippines	Agriculture, Forestry, and Fishing	2018	2597781.09			
Benguet, Philippines	Agriculture, Forestry, and Fishing	2018	10736042.55			
Ifugao, Philippines	Agriculture, Forestry, and Fishing	2018	4732429.44			
Kalinga, Philippines	Agriculture, Forestry, and Fishing	2018	477935.34			
Mountain Province, Philippines	Agriculture, Forestry, and Fishing	2018	2235071.46			
City of Baguio, Philippines	Agriculture, Forestry, and Fishing	2018	789126.26			
Ilocos Norte, Philippines	Agriculture, Forestry, and Fishing	2018	17107229.24			
Ilocos Sur, Philippines	Agriculture, Forestry, and Fishing	2018	14118038.90			
La Union, Philippines	Agriculture, Forestry, and Fishing	2018	11301327.27			
Pangasinan, Philippines	Agriculture, Forestry, and Fishing	2018	67200148.80			
Batanes, Philippines	Agriculture, Forestry, and Fishing	2018	232490.48			
Cagayan, Philippines	Agriculture, Forestry, and Fishing	2018	33914777.20			
Isabela, Philippines	Agriculture, Forestry, and Fishing	2018	55549147.52			
subnational_units				industry	year	gva_value
National Capital Region (NCR), Philippines	Agriculture, Forestry, and Fishing	2022	454213.01			
Abra, Philippines	Agriculture, Forestry, and Fishing	2022	2994190.65			
Apaya, Philippines	Agriculture, Forestry, and Fishing	2022	2521131.15			
Benguet, Philippines	Agriculture, Forestry, and Fishing	2022	12527457.81			
Ifugao, Philippines	Agriculture, Forestry, and Fishing	2022	3206006.62			
Kalinga, Philippines	Agriculture, Forestry, and Fishing	2022	3815983.69			
Mountain Province, Philippines	Agriculture, Forestry, and Fishing	2022	2149469.48			
City of Baguio, Philippines	Agriculture, Forestry, and Fishing	2022	907645.62			
Ilocos Norte, Philippines	Agriculture, Forestry, and Fishing	2022	16786578.95			
Ilocos Sur, Philippines	Agriculture, Forestry, and Fishing	2022	14460426.73			
La Union, Philippines	Agriculture, Forestry, and Fishing	2022	10933008.47			
Pangasinan, Philippines	Agriculture, Forestry, and Fishing	2022	66975137.00			
Batanes, Philippines	Agriculture, Forestry, and Fishing	2022	215292.19			
Cagayan, Philippines	Agriculture, Forestry, and Fishing	2022	39649347.42			
Isabela, Philippines	Agriculture, Forestry, and Fishing	2022	58778816.25			

Figure 2. Normalized long-format dataset.

2. ECONOMIC OVERVIEW: THE REALITY OF INEQUALITY

After the data was cleaned, SQL ranking functions were applied to identify the true hierarchy of wealth in the Philippines. The results reveal a massive disparity.

TECHNICAL LOGIC: RANKING THE ECONOMIES

```
SELECT
    RANK() OVER (ORDER BY SUM(gva_value) DESC) as
    Rank_2024, subnational_unit, FORMAT(SUM(gva_value), 0)
    as Total_Output_2024
FROM ppa_gva_master
WHERE year = 2024 GROUP
BY subnational_unit
LIMIT 20;
```

A. THE TRILLION-PESO POWERHOUSES

Rank 1: The Service Giant (Quezon City)

Output: 1.32 Trillion PHP

Dominant Sector: Services (87.3%)

Insight: The city thrives on government spending and consumption.

Rank 2: The Corporate Core (City of Makati)

Output: 1.20 Trillion PHP

Dominant Sector: Services (94.3%)

Insight: Operates as the financial brain of the country with almost no reliance on factories.

Rank 3: The Industrial Hub (Laguna)

Output: 1.08 Trillion PHP

Dominant Sector: Manufacturing

Insight: Proves that industrialization is the only alternative path to reaching trillion-peso status outside Metro Manila.

Rank	Province	Total GVA (Peso)	Dominant Sector	Dependency Rate
1	Quezon City, Philippines	1,326,675,988	Services	87.3%
2	City of Makati, Philippines	1,204,479,069	Services	94.3%
3	Laguna, Philippines	1,080,885,989	Manufacturing	54.7%
4	City of Manila, Philippines	1,039,579,461	Services	78.2%
5	Cavite, Philippines	822,154,507	Services	52.8%
6	Batangas, Philippines	688,624,634	Services	47.8%
7	Bulacan, Philippines	675,524,594	Services	48.0%
8	City of Taguig, Philippines	656,197,021	Services	90.8%
9	Pampanga, Philippines	595,358,788	Services	49.0%
10	City of Davao, Philippines	574,715,455	Services	71.8%
11	City of Pasig, Philippines	513,162,018	Services	83.4%
12	Cebu, Philippines	441,139,744	Services	66.7%
13	Pangasinan, Philippines	391,616,159	Services	59.6%
14	Rizal, Philippines	381,026,165	Services	70.6%
15	City of Parañaque, Philip...	366,386,145	Services	80.0%
16	Pasay City, Philippines	359,071,997	Services	87.7%
17	City of Cebu, Philippines	334,479,101	Services	92.5%
18	Nueva Ecija, Philippines	331,958,426	Services	53.0%
19	City of Mandaluyong, Phi...	320,379,440	Services	84.9%
20	Bataan, Philippines	300,609,267	Manufacturing	46.8%

Figure 3. Top 20 subnational economies in the Philippines (2024).

B. THE SCALE GAP

Comparing the top economy to the bottom economy reveals a staggering reality about equitable development.

The Disparity (Quezon City vs. Batanes)

Metric: Total Gross Value Added (All Sectors)

Magnitude: Approximately 230,000 times difference

Insight: This gap highlights that economic opportunities are not geographically distributed evenly but are heavily clustered in urban centers.

Rank (Bottom)	Province/City	Total GVA (Peso)	Dominant Sector	Dependency Rate
1	National Capital Region (NCR), Philippines	928,531	Mining and Quarrying	50.3%
2	Batanes, Philippines	5,732,165	Services	67.8%
3	Pateros, Philippines	9,623,334	Services	80.2%
4	Apayaо, Philippines	12,066,333	Services	53.5%
5	City of Isabela, Philippines	12,647,037	Services	59.6%
6	Camiguin, Philippines	13,373,340	Services	65.7%
7	Siquijor, Philippines	13,776,763	Services	74.6%
8	Dinagat Islands, Philippines	13,835,946	Services	43.3%
9	Mountain Province, Philippines	16,404,092	Services	71.1%
10	Guimaras, Philippines	18,149,016	Services	58.9%
11	Biliran, Philippines	18,294,936	Services	54.8%
12	Quirino, Philippines	22,997,371	Services	42.9%
13	Basilan, Philippines	23,454,806	Services	47.9%
14	Marinduque, Philippines	24,814,401	Services	60.9%
15	Abra, Philippines	25,900,638	Services	63.3%
16	Tawi-Tawi, Philippines	26,022,945	Services	53.9%
17	Ifugao, Philippines	28,244,154	Services	69.2%
18	Kalinga, Philippines	29,896,581	Services	72.1%
19	Catanduanes, Philippines	32,627,922	Services	48.2%
20	Romblon, Philippines	33,055,593	Services	62.7%

Figure 4. Bottom 20 subnational economies.

3. SECTORAL PATTERNS: ENGINES OF GROWTH

TECHNICAL LOGIC: SECTORAL RANKING

```
SELECT
    sector, subnational_unit, SUM(gva_value) AS Total_Output,
    RANK() OVER (PARTITION BY sector ORDER BY SUM(gva_value) DESC)
FROM ppa_gva_master WHERE year = 2024
GROUP BY sector, subnational_unit;
```

A. SERVICES: THE PEOPLE ECONOMY

The pattern is clear. Service output is tied to population density and urbanization.

THE URBAN CONCENTRATION

Observation: The top list is dominated by cities within the National Capital Region.

Insight: This confirms that the Service Economy is strictly an urban phenomenon.

Rank	City/Province (Services)	Service Value (Peso)
1	Quezon City, Philippines	1,157,679,289
2	City of Makati, Philippines	1,136,203,407
3	City of Manila, Philippines	813,146,328
4	City of Taguig, Philippines	595,891,372
5	Laguna, Philippines	450,214,865
6	Cavite, Philippines	434,323,208
7	City of Pasig, Philippines	427,811,705
8	City of Davao, Philippines	412,693,886
9	Batangas, Philippines	328,830,523
10	Bulacan, Philippines	324,494,690

Rank	City/Province (Services)	Service Value (Peso)
11	Pasay City, Philippines	314,936,577
12	City of Cebu, Philippines	309,286,195
13	Cebu, Philippines	294,414,905
14	City of Parañaque, Philip...	293,281,120
15	Pampanga, Philippines	291,826,961
16	City of Mandaluyong, Phi...	272,141,549
17	Rizal, Philippines	269,068,410
18	City of Cagayan de Oro,...	237,366,526
19	Pangasinan, Philippines	233,239,781
20	City of Muntinlupa, Philip...	212,219,421

Figure 5. Top 20 Service Economies (2024).

THE ISLAND LAG

Observation: Small islands such as Batanes and Camiguin appear at the bottom.

Insight: Their service sectors cannot scale without mass tourism or large populations.

Rank (Bottom)	Province/City (Services)	Service Output (Peso)	Rank (Bottom)	Province/City (Services)	Service Output (Peso)
1	Batanes, Philippines	3,888,064	11	Basilan, Philippines	11,239,388
2	Dinagat Islands, Philippines	5,997,216	12	Mountain Province, Philipp... rhyxeee.github.io	11,669,414
3	Apayao, Philippines	6,456,520	13	Tawi-Tawi, Philippines	14,019,678
4	City of Isabela, Philippines	7,531,593	14	Marinduque, Philippines	15,118,629
5	Pateros, Philippines	7,717,270	15	Catanduanes, Philippines rhyxeee.github.io	15,718,681
6	Camiguin, Philippines	8,781,283	16	Maguindanao del Sur, Phil... rhyxeee.github.io	15,857,573
7	Quirino, Philippines	9,857,658	17	Abra, Philippines	16,406,098
8	Biliran, Philippines	10,027,727	18	Ifugao, Philippines	19,546,195
9	Siquijor, Philippines	10,270,841	19	Aurora, Philippines	20,140,978
10	Guimaras, Philippines	10,696,101	20	Romblon, Philippines	20,711,567

Figure 6. Lowest 20 Service Economies (2024).

B. AGRICULTURE: THE FOOD SECURITY RISK

THE OUTLIER (BUKIDNON)

Observation: The analysis verified that Bukidnon produces 129 Billion PHP, significantly outperforming the runner-up.

Insight: This suggests that national food security is heavily dependent on the output of this single province.

Rank_2024	Province (Agriculture)	2018	2019	2020	2021	2022	2023	2024 (Current)
1	Bukidnon, Philippines	110,532,382	112,363,745	116,223,273	123,161,198	125,407,141	128,437,353	129,026,484
2	Nueva Ecija, Philippines	82,725,938	82,815,732	80,715,012	80,417,607	79,734,339	82,027,086	82,046,875
3	Pangasinan, Philippines	67,200,149	67,490,493	67,701,868	64,689,449	66,975,137	69,244,539	68,690,232
4	Pampanga, Philippines	56,043,272	58,899,511	58,316,715	64,133,903	62,708,362	67,437,861	65,456,629
5	Isabela, Philippines	55,549,148	60,860,878	59,743,620	58,415,152	58,778,816	58,978,119	59,365,566
6	Batangas, Philippines	50,262,884	51,665,417	47,268,169	45,441,464	47,814,713	50,621,925	51,829,803
7	Davao del Norte, Philippines	53,037,371	50,555,509	50,231,492	49,514,277	50,991,004	51,446,258	51,818,084
8	Negros Occidental, Philippines	52,885,525	51,794,745	55,278,228	57,709,786	54,148,104	55,591,430	49,980,626
9	Tarlac, Philippines	42,850,900	44,435,059	43,785,463	35,080,550	41,370,044	42,718,091	44,965,071
10	Quezon, Philippines	49,794,155	48,573,997	47,945,477	47,409,963	47,098,931	44,698,889	42,481,667
11	Iloilo, Philippines	48,092,637	47,244,850	52,095,039	54,039,412	53,818,896	49,464,853	41,588,916
12	Cagayan, Philippines	33,914,777	36,205,791	36,872,870	39,394,770	39,649,347	41,575,935	40,148,752
13	Cebu, Philippines	32,217,705	33,413,923	34,749,350	37,491,882	35,420,380	36,587,232	37,334,315
14	South Cotabato, Philippines	35,626,566	35,078,719	35,372,720	33,867,436	35,604,906	34,429,898	36,419,023
15	Camarines Sur, Philippines	34,370,006	35,673,749	35,609,617	36,501,781	39,532,916	35,991,448	36,238,366
16	Cotabato, Philippines	38,411,053	37,729,202	37,906,620	38,479,329	37,038,393	35,882,552	35,307,287
17	Palawan, Philippines	29,524,194	31,825,641	32,370,871	31,758,221	29,348,049	32,421,564	32,573,222
18	Bulacan, Philippines	50,857,108	45,802,890	37,007,328	26,725,063	29,284,268	29,377,343	29,285,947
19	Davao de Oro, Philippines	27,330,655	26,429,886	27,325,870	27,601,282	27,466,907	27,867,703	26,988,656
20	Sultan Kudarat, Philippines	26,935,465	25,829,351	26,049,163	27,504,278	27,842,506	28,374,764	26,843,726

Figure 7. Top 20 Agricultural Performance (2018–2024).

THE URBAN VOID

Observation: Cities such as Mandaue and Olongapo have near-zero agricultural output.

Insight: The pattern shows that food production drops to zero as cities develop. This necessitates food imports from the provinces.

Rank_2024	Province/City	2018	2019	2020	2021	2022	2023	2024 (Current)
1	City of Mandaue, Philippines	29,831	31,485	33,699	37,715	35,151	35,817	35,199
2	City of Olongapo, Philippines	100,749	103,771	116,608	111,054	111,011	96,660	90,411
3	Batanes, Philippines	232,490	238,204	207,370	207,730	215,292	247,382	257,328
4	City of Angeles, Philippines	361,380	347,696	344,341	386,659	387,342	415,110	428,288
5	National Capital Region (NCR), Philippines	397,870	410,906	397,530	419,571	434,213	457,740	461,374
6	City of Lapu-Lapu, Philippines	413,045	428,330	457,305	513,771	504,670	518,245	506,936
7	Dinagat Islands, Philippines	638,577	636,561	666,031	703,406	641,107	647,215	731,955
8	City of Tacloban, Philippines	815,624	844,032	812,555	788,998	748,095	771,982	799,264
9	City of Baguio, Philippines	789,126	831,632	826,602	869,268	907,646	885,046	916,684
10	City of Iligan, Philippines	1,184,217	1,222,258	1,282,730	1,327,066	1,287,284	1,197,484	1,254,479
11	City of Butuan, Philippines	1,580,874	1,562,788	1,537,633	1,516,076	1,537,949	1,573,788	1,581,431
12	Siquijor, Philippines	1,525,250	1,559,646	1,652,697	1,631,184	1,578,140	1,689,151	1,607,010
13	City of Lucena, Philippines	1,949,918	2,032,195	2,133,181	1,917,710	1,984,222	1,783,533	1,641,989
14	Camiguin, Philippines	1,240,265	1,422,208	1,389,207	1,524,791	1,456,718	1,638,707	1,740,216
15	City of Cebu, Philippines	1,325,377	1,378,002	1,471,580	1,651,247	1,542,732	1,556,647	1,802,203
16	City of Puerto Princesa, Philippines	1,439,597	1,557,257	1,695,711	1,750,649	1,753,031	1,840,505	1,854,377
17	City of Cagayan de Oro, Philippines	1,685,963	1,686,806	1,735,658	1,775,001	1,887,352	1,905,522	1,922,142
18	Marinduque, Philippines	2,077,484	2,126,339	2,176,301	2,192,056	1,986,117	1,865,259	2,043,320
19	Mountain Province, Philippines	2,235,071	2,158,220	2,185,387	2,196,188	2,149,469	2,145,317	2,116,381
20	Apayao, Philippines	2,597,781	2,754,254	3,155,703	2,785,226	2,521,131	2,450,623	2,224,957

Figure 8. Lowest 20 Agricultural Performance (2018–2024).

C. MANUFACTURING: THE SHIFT TO CORRIDORS

THE CALABARZON BELT

Observation: Laguna, Cavite, and Batangas dominate this sector and maintained high output even during the pandemic.

Insight: This proves they are the resilient backbone of the economy.

THE LOGISTICAL BARRIER

Observation: Mountainous provinces like Apayao appear at the bottom with an output of only 129,634 PHP.

Insight: This confirms that without access to ports and highways, industrialization cannot occur.

DE-INDUSTRIALIZATION

Observation: Manila and Makati are seeing a decline in manufacturing.

Insight: This correlation suggests that factories relocate to the provinces as land values rise in the capital.

Rank	Province (Manufacturing)	Factory Output (Peso)	Rank	Province (Manufacturing)	Factory Output (Peso)
1	Laguna, Philippines	591,677,409	11	City of Pasig, Philippines	70,336,297
2	Cavite, Philippines	341,507,900	12	Cebu, Philippines	66,544,052
3	Batangas, Philippines	277,254,326	13	City of Valenzuela, Philippines	66,028,057
4	Bulacan, Philippines	206,914,312	14	Leyte, Philippines	65,858,974
5	City of Manila, Philippines	195,714,399	15	City of Davao, Philippines	65,114,061
6	Pampanga, Philippines	185,615,729	16	City of Caloocan, Philippines	49,876,855
7	Bataan, Philippines	140,747,514	17	City of Muntinlupa, Philippines	49,857,893
8	Quezon City, Philippines	122,280,887	18	City of Cagayan de Oro, Philippines	45,729,513
9	Rizal, Philippines	80,600,407	19	City of Makati, Philippines	43,330,870
10	City of Lapu-Lapu, Philippines	74,669,948	20	Pangasinan, Philippines	41,794,536

Figure 9. Top 20 Manufacturing Economies (2024).

Rank (Bottom)	Province/City (Manufacturing)	Factory Output (Peso)	Rank (Bottom)	Province/City (Manufacturing)	Factory Output (Peso)
1	Apayao, Philippines	129,634	11	Mountain Province, Philippines	1,109,030
2	Batanes, Philippines	391,252	12	Abra, Philippines	1,332,486
3	Sulu, Philippines	586,001	13	Tawi-Tawi, Philippines	1,888,576
4	Pateros, Philippines	656,698	14	Quirino, Philippines	2,030,243
5	City of Isabela, Philippines	779,336	15	Lanao del Norte, Philippines	2,086,824
6	Siquijor, Philippines	809,024	16	Basilan, Philippines	2,117,241
7	Camiguin, Philippines	956,368	17	Kalinga, Philippines	2,188,355
8	Dinagat Islands, Philippines	977,230	18	Davao Oriental, Philippines	2,216,688
9	Guimaras, Philippines	1,019,556	19	Ilocos Sur, Philippines	2,247,789
10	Biliran, Philippines	1,051,654	20	Romblon, Philippines	2,560,728

Figure 10. Lowest 20 Manufacturing Economies (2024).

D. MINING: GEOLOGY IS DESTINY

THE SHIFT

Observation: Antique has risen to number one while Palawan has dropped significantly.

Insight: The decline in Palawan indicates potential resource depletion or policy restrictions.

Rank_2024	Province (Mining)	2018	2019	2020	2021	2022	2023	2024 (Current)
1	Antique, Philippines	22,103,654	27,911,305	23,390,269	25,200,900	27,819,993	28,311,379	29,303,648
2	Palawan, Philippines	38,778,820	38,142,146	34,185,930	30,476,453	28,846,924	23,545,230	21,613,159
3	Surigao del Norte, Philippines	12,044,683	12,643,973	8,899,524	9,809,212	8,223,180	9,779,412	11,231,310
4	Davao de Oro, Philippines	7,063,424	6,802,153	5,701,588	6,930,844	8,788,034	9,486,548	9,591,363
5	Nueva Vizcaya, Philippines	8,516,657	8,131,376	3,370,058	4,973,869	8,873,546	10,040,362	9,079,120
6	Benguet, Philippines	8,738,810	9,005,183	7,769,488	9,114,442	9,062,342	8,892,264	8,665,993
7	Surigao del Sur, Philippines	5,330,050	5,619,711	5,826,076	6,129,295	5,975,334	7,129,346	7,546,035
8	Rizal, Philippines	3,481,680	4,550,604	3,551,433	4,258,016	4,896,741	4,857,630	5,210,294
9	Masbate, Philippines	3,709,899	3,793,828	2,933,236	3,808,879	3,983,200	4,004,557	4,264,383
10	Pampanga, Philippines	2,884,485	2,514,995	1,672,126	2,276,360	2,820,629	3,530,908	3,644,544
11	Agusan del Sur, Philippines	5,722,343	6,237,797	5,621,170	4,338,413	4,501,663	4,584,768	3,528,916
12	Dinagat Islands, Philippines	2,946,450	3,015,368	2,261,388	4,176,623	2,633,620	2,876,046	3,470,146
13	Negros Occidental, Philippines	2,020,580	2,035,258	2,016,409	2,226,032	2,688,196	2,909,292	3,191,668
14	Camarines Norte, Philippines	2,254,567	2,218,507	1,789,349	2,137,350	2,412,730	2,755,514	3,016,991
15	Bulacan, Philippines	2,745,571	2,666,579	1,807,267	2,194,959	2,735,197	3,454,997	2,994,346
16	Albay, Philippines	3,132,997	2,856,793	2,115,876	2,379,419	2,640,030	2,878,109	2,964,047
17	Cebu, Philippines	8,725,834	8,787,708	6,316,005	2,928,987	2,736,335	2,807,537	2,843,984
18	South Cotabato, Philippines	526,495	358,903	365,243	474,830	380,805	408,885	2,267,579
19	Isabela, Philippines	540,024	556,294	536,986	766,749	1,558,084	1,389,439	1,502,868
20	City of Iligan, Philippines	1,326,570	1,169,464	916,829	1,035,000	1,137,587	1,127,431	1,206,035

Figure 11. Top 20 Mining Economies Performance (2018–2024).

URBAN INCOMPATIBILITY

Observation: Major cities record virtually zero mining output.

Insight: This confirms that you cannot have extractive industries in dense population centers.

Rank_2024	Province/City	2018	2019	2020	2021	2022	2023	2024 (Current)
1	City of Tacloban, Philippines	376	334	155	172	181	188	195
2	City of Olongapo, Philippines	168	163	137	181	197	201	201
3	City of Bacolod, Philippines	241	238	213	241	273	280	293
4	City of Iloilo, Philippines	264	260	234	252	288	298	301
5	City of Baguio, Philippines	1,072	977	639	640	658	668	682
6	City of Angeles, Philippines	700	672	620	818	855	881	893
7	Abra, Philippines	2,144	1,974	1,913	2,175	2,249	2,256	2,207
8	Batanes, Philippines	1,820	2,071	1,965	2,359	2,406	2,434	2,480
9	City of Butuan, Philippines	7,466	7,300	5,631	5,482	6,024	6,469	6,621
10	City of Isabela, Philippines	13,080	12,289	8,058	8,517	9,588	9,782	9,913
11	Aurora, Philippines	9,805	9,696	6,874	8,965	10,207	12,640	13,197
12	Bataan, Philippines	17,930	17,136	10,743	13,918	15,413	19,392	16,857
13	Biliran, Philippines	29,261	24,013	12,586	15,501	16,144	16,637	16,925
14	City of General Santos, Phil... ...	18,490	12,189	14,319	17,115	18,107	18,659	19,040
15	City of Puerto Princesa, Phil... ...	27,646	31,816	20,530	21,969	23,867	24,324	23,511
16	Mountain Province, Philippines	19,523	21,713	22,973	23,498	23,860	25,225	24,879
17	Davao Occidental, Philippines	21,240	25,118	22,498	25,654	27,604	28,915	26,837
18	Ifugao, Philippines	30,999	24,023	27,495	28,534	29,368	29,790	28,461
19	Samar, Philippines	45,805	40,105	30,205	32,080	33,555	33,355	33,096
20	Sarangani, Philippines	46,230	30,696	29,390	36,455	38,689	40,979	45,119

Figure 12. Lowest 20 Mining Economies Performance (2018–2024).

E. CONSTRUCTION: THE DECENTRALIZATION

THE SHIFT

Observation: Bulacan (111.8 Billion PHP) has overtaken Quezon City as the top builder.

Insight: This confirms that infrastructure investment is moving out of the capital and into the neighboring provinces.

Rank	Province (Construction)	Construction Value (Peso)	Rank	Province (Construction)	Construction Value (Peso)
1	Bulacan, Philippines	111,835,300	11	City of Parañaque, Philippines	33,747,472
2	City of Davao, Philippines	73,111,484	12	Cavite, Philippines	31,059,316
3	Pampanga, Philippines	48,814,925	13	City of Manila, Philippines	30,718,734
4	Leyte, Philippines	48,461,991	14	Camarines Sur, Philippines	30,377,063
5	Pangasinan, Philippines	46,961,120	15	Cagayan, Philippines	30,064,550
6	Quezon City, Philippines	46,715,812	16	Batangas, Philippines	29,926,517
7	Cebu, Philippines	40,002,488	17	La Union, Philippines	28,046,514
8	Nueva Ecija, Philippines	38,984,296	18	Bukidnon, Philippines	27,917,562
9	Negros Occidental, Philippines	37,147,175	19	Tarlac, Philippines	27,764,513
10	Bataan, Philippines	34,007,963	20	Albay, Philippines	26,177,999

Figure 13. Longitudinal Performance of the Top 20 Construction Economies.

THE INFRASTRUCTURE GAP

Observation: Remote islands like Tawi-Tawi record the lowest construction growth and an output of only 456,140 PHP.

Insight: This highlights that the high cost of shipping materials to the deep south remains a major barrier to development.

Rank (Bottom)	Province/City (Construction)	Construction Output (Peso)	Rank (Bottom)	Province/City (Construction)	Construction Output (Peso)
1	Tawi-Tawi, Philippines	456,140	11	Mountain Province, Philippines	1,484,389
2	Sulu, Philippines	458,411	12	Sarangani, Philippines	1,537,309
3	Maguindanao del Sur, Philippines	863,931	13	Sultan Kudarat, Philippines	1,755,341
4	Basilan, Philippines	972,546	14	Camiguin, Philippines	1,841,886
5	Siquijor, Philippines	975,672	15	Kalinga, Philippines	2,465,206
6	Lanao del Sur, Philippines	1,163,031	16	Aklan, Philippines	2,532,347
7	Batanes, Philippines	1,193,041	17	Dinagat Islands, Philippines	2,659,399
8	Pateros, Philippines	1,249,367	18	Ifugao, Philippines	2,669,433
9	Guimaras, Philippines	1,272,924	19	Maguindanao del Norte, Philippines	2,774,151
10	City of Isabela, Philippines	1,380,220	20	Apayao, Philippines	2,985,612

Figure 14. Longitudinal Performance of the Lowest 20 Construction Economies.

4. LONGITUDINAL TRENDS (2018–2024)

A year-over-year comparison via SQL is crucial for understanding resilience. This analysis looks beyond current wealth to identify which economies effectively survived the crisis and how they recovered.

TECHNICAL LOGIC: LONGITUDINAL PIVOTING

```
SELECT
    subnational_unit,
    FORMAT(SUM(CASE WHEN year = 2020 THEN gva_value ELSE 0 END), 0) AS Output_2020,
    FORMAT(SUM(CASE WHEN year = 2024 THEN gva_value ELSE 0 END), 0) AS Output_2024
FROM ppa_gva_master
GROUP BY subnational_unit
ORDER BY SUM(CASE WHEN year = 2024 THEN gva_value ELSE 0 END) DESC;
```

A. SERVICES: THE V-SHAPE RECOVERY

THE PATTERN

Observation: Every single major city crashed in 2020. However, Quezon City and Makati rebounded to all-time highs by 2024.

Insight: This indicates that Services are vulnerable to lockdowns but recover very fast once mobility returns.

Rank_2024	Province (Services)	2018	2019	2020	2021	2022	2023	2024 (Current)
1	Quezon City, Philippines	988,096,883	1,059,902,582	963,764,252	992,844,292	1,061,317,895	1,111,604,270	1,157,679,289
2	City of Makati, Philippines	913,880,418	970,659,311	915,985,521	966,128,683	986,280,633	1,052,621,956	1,136,203,407
3	City of Manila, Philippines	640,198,007	691,690,369	648,502,692	688,085,161	744,827,321	770,889,062	813,146,328
4	City of Taguig, Philippines	425,933,557	458,025,237	430,481,542	450,915,258	533,209,669	566,040,884	595,891,372
5	Laguna, Philippines	341,647,371	363,308,211	332,429,317	349,750,551	383,263,384	418,915,105	450,214,865
6	Cavite, Philippines	329,286,127	349,808,679	322,091,058	341,822,278	375,108,928	403,163,571	434,323,208
7	City of Pasig, Philippines	335,412,363	359,057,267	339,563,425	348,305,564	381,405,067	400,979,358	427,811,705
8	City of Davao, Philippines	307,021,764	337,897,704	308,965,180	324,283,962	356,496,972	384,761,387	412,693,886
9	Batangas, Philippines	249,086,395	265,066,727	243,930,918	261,878,748	283,608,713	303,804,899	328,830,523
10	Bulacan, Philippines	248,557,916	266,963,222	244,856,504	261,517,925	286,590,095	303,049,999	324,494,690
11	Pasay City, Philippines	250,472,464	273,099,655	223,961,950	231,646,803	274,996,421	295,363,529	314,936,577
12	City of Cebu, Philippines	232,214,242	249,562,280	228,254,149	244,720,344	266,701,830	288,888,338	309,286,195
13	Cebu, Philippines	221,964,441	235,214,019	225,262,046	241,419,523	255,759,337	272,936,201	294,414,905
14	City of Parañaque, Philip...	266,955,945	277,345,966	206,471,444	220,307,976	247,436,874	273,434,449	293,281,120
15	Pampanga, Philippines	225,843,030	243,840,602	216,388,546	229,800,550	249,611,325	269,475,095	291,826,961
16	City of Mandaluyong, Phi...	222,376,191	234,577,239	212,710,622	222,592,027	240,225,693	256,125,997	272,141,549
17	Rizal, Philippines	215,773,941	228,295,288	210,370,184	221,028,441	236,853,391	251,702,166	269,068,410
18	City of Cagayan de Oro,...	176,244,699	192,341,012	173,823,417	188,783,082	207,605,162	221,481,133	237,366,526
19	Pangasinan, Philippines	181,861,094	195,671,530	178,652,639	186,674,886	204,385,949	218,092,592	233,239,781
20	City of Muntinlupa, Philip...	190,312,980	199,266,215	172,214,228	181,920,095	191,453,606	201,453,492	212,219,421

Figure 15. Longitudinal Performance of the Top 20 Service Economies.

THE UNEVEN RECOVERY

Observation: The analysis shows that tourism-dependent islands such as Batanes took years longer to recover than corporate cities.

Insight: This reveals a fragility in economies that rely solely on tourism compared to diversified urban centers.

Rank_2024	Province/City (Services)	2018	2019	2020	2021	2022	2023	2024 (Current)
1	Batanes, Philippines	2,979,250	3,375,564	2,602,357	2,692,356	3,075,479	3,568,417	3,888,064
2	Dinagat Islands, Philippines	4,434,469	4,905,206	4,548,430	4,777,226	5,213,904	5,627,770	5,997,216
3	Apayaо, Philippines	4,632,173	4,877,306	4,778,929	5,182,973	5,594,134	6,061,113	6,456,520
4	City of Isabela, Philippines	6,026,927	6,324,225	6,031,040	6,273,644	6,803,020	7,241,080	7,531,593
5	Pateros, Philippines	6,644,905	7,001,723	6,343,351	6,648,594	7,019,217	7,351,660	7,717,270
6	Camiguin, Philippines	6,899,370	7,363,959	6,150,109	6,380,574	7,193,443	8,016,802	8,781,283
7	Quirino, Philippines	7,733,648	8,313,818	7,687,141	7,946,585	8,740,361	9,347,965	9,857,658
8	Biliran, Philippines	7,266,770	7,916,235	7,520,903	7,954,936	8,628,029	9,397,635	10,027,727
9	Siquijor, Philippines	7,610,899	8,006,721	7,699,768	8,240,640	8,829,874	9,387,062	10,270,841
10	Guimaras, Philippines	7,836,023	8,413,296	7,379,286	7,911,562	8,970,276	10,063,967	10,696,101
11	Basilan, Philippines	8,130,198	8,523,893	8,436,900	8,771,029	9,896,721	10,635,626	11,239,388
12	Mountain Province, Philippines	8,895,031	9,545,274	8,852,370	9,300,890	10,260,806	11,090,096	11,669,414
13	Tawi-Tawi, Philippines	10,267,612	11,022,552	10,699,387	11,452,730	12,819,420	13,231,813	14,019,678
14	Marinduque, Philippines	11,662,517	12,381,448	11,404,953	12,075,099	13,120,036	14,163,763	15,118,629
15	Catanduanes, Philippines	11,735,420	12,900,187	12,070,668	12,657,460	13,600,367	14,782,852	15,718,681
16	Maguindanao del Sur, Philippines	12,042,559	12,901,159	12,448,285	13,088,851	14,287,310	15,108,463	15,857,573
17	Abra, Philippines	12,131,042	12,581,211	12,366,431	13,322,685	14,570,060	15,494,829	16,406,098
18	Ifugao, Philippines	14,318,062	15,151,277	14,742,485	15,504,782	17,233,955	18,300,218	19,546,195
19	Aurora, Philippines	16,815,480	17,706,300	15,933,450	16,178,058	17,630,054	18,559,902	20,140,978
20	Romblon, Philippines	16,195,702	17,123,200	15,806,866	16,169,630	17,901,274	19,523,581	20,711,567

Figure 16. Longitudinal Performance of the Lowest 20 Service Economies.

B. AGRICULTURE: STRUCTURAL STAGNATION

THE FLATLINE

Observation: Traditional rice-producing giants such as Nueva Ecija and Pangasinan show zero real growth over six years. The trend line is flat.

Insight: This stagnation suggests productivity has hit a ceiling in these established agricultural hubs.

Rank_2024	Province (Agriculture)	2018	2019	2020	2021	2022	2023	2024 (Current)
1	Bukidnon, Philippines	110,532,382	112,363,745	116,223,273	123,161,198	125,407,141	128,437,353	129,026,484
2	Nueva Ecija, Philippines	82,725,938	82,815,732	80,715,012	80,417,607	79,734,339	82,027,086	82,046,875
3	Pangasinan, Philippines	67,200,149	67,490,493	67,701,868	64,689,449	66,975,137	69,244,539	68,690,232
4	Pampanga, Philippines	56,043,272	58,899,511	58,316,715	64,133,903	62,708,362	67,437,861	65,456,629
5	Isabela, Philippines	55,549,148	60,860,878	59,743,620	58,415,152	58,778,816	58,978,119	59,365,566
6	Batangas, Philippines	50,262,884	51,665,417	47,268,169	45,441,464	47,814,713	50,621,925	51,829,803
7	Davao del Norte, Philippines	53,037,371	50,555,509	50,231,492	49,514,277	50,991,004	51,446,258	51,818,084
8	Negros Occidental, Philippines	52,885,525	51,794,745	55,278,228	57,709,786	54,148,104	55,591,430	49,980,626
9	Tarlac, Philippines	42,850,900	44,435,059	43,785,463	35,080,550	41,370,044	42,718,091	44,965,071
10	Quezon, Philippines	49,794,155	48,573,997	47,945,477	47,409,963	47,098,931	44,698,889	42,481,667
11	Iloilo, Philippines	48,092,637	47,244,850	52,095,039	54,039,412	53,818,896	49,464,853	41,588,916
12	Cagayan, Philippines	33,914,777	36,205,791	36,872,870	39,394,770	39,649,347	41,575,935	40,148,752
13	Cebu, Philippines	32,217,705	33,413,923	34,749,350	37,491,882	35,420,380	36,587,232	37,334,315
14	South Cotabato, Philippines	35,626,566	35,078,719	35,372,720	33,867,436	35,604,906	34,429,898	36,419,023
15	Camarines Sur, Philippines	34,370,006	35,673,749	35,609,617	36,501,781	39,532,916	35,991,448	36,238,366
16	Cotabato, Philippines	38,411,053	37,729,202	37,906,620	38,479,329	37,038,393	35,882,552	35,307,287
17	Palawan, Philippines	29,524,194	31,825,641	32,370,871	31,758,221	29,348,049	32,421,564	32,573,222
18	Bulacan, Philippines	50,857,108	45,802,890	37,007,328	26,725,063	29,284,268	29,377,343	29,285,947
19	Davao de Oro, Philippines	27,330,655	26,429,886	27,325,870	27,601,282	27,466,907	27,867,703	26,988,656
20	Sultan Kudarat, Philippines	26,935,465	25,829,351	26,049,163	27,504,278	27,842,506	28,374,764	26,843,726

Figure 17. Top 20 Agricultural Performance (2018–2024).

THE DECLINE

Observation: Agricultural output is trending downward in urbanizing cities like Lucena and Olongapo.

Insight: Agricultural output is trending downward in urbanizing cities like Lucena and Olongapo.

Rank_2024	Province/City	2018	2019	2020	2021	2022	2023	2024 (Current)
1	City of Mandaue, Philippines	29,831	31,485	33,699	37,715	35,151	35,817	35,199
2	City of Olongapo, Philippines	100,749	103,771	116,608	111,054	111,011	96,660	90,411
3	Batanes, Philippines	232,490	238,204	207,370	207,730	215,292	247,382	257,328
4	City of Angeles, Philippines	361,380	347,696	344,341	386,659	387,342	415,110	428,288
5	National Capital Region (NCR), Philippines	397,870	410,906	397,530	419,571	434,213	457,740	461,374
6	City of Lapu-Lapu, Philippines	413,045	428,330	457,305	513,771	504,670	518,245	506,936
7	Dinagat Islands, Philippines	638,577	636,561	666,031	703,406	641,107	647,215	731,955
8	City of Tacloban, Philippines	815,624	844,032	812,555	788,998	748,095	771,982	799,264
9	City of Baguio, Philippines	789,126	831,632	826,602	869,268	907,646	885,046	916,684
10	City of Iligan, Philippines	1,184,217	1,222,258	1,282,730	1,327,066	1,287,284	1,197,484	1,254,479
11	City of Butuan, Philippines	1,580,874	1,562,788	1,537,633	1,516,076	1,537,949	1,573,788	1,581,431
12	Siquijor, Philippines	1,525,250	1,559,646	1,652,697	1,631,184	1,578,140	1,689,151	1,607,010
13	City of Lucena, Philippines	1,949,918	2,032,195	2,133,181	1,917,710	1,984,222	1,783,533	1,641,989
14	Camiguin, Philippines	1,240,265	1,422,208	1,389,207	1,524,791	1,456,718	1,638,707	1,740,216
15	City of Cebu, Philippines	1,325,377	1,378,002	1,471,580	1,651,247	1,542,732	1,556,647	1,802,203
16	City of Puerto Princesa, Philippines	1,439,597	1,557,257	1,695,711	1,750,649	1,753,031	1,840,505	1,854,377
17	City of Cagayan de Oro, Philippines	1,685,963	1,686,806	1,735,658	1,775,001	1,887,352	1,905,522	1,922,142
18	Marinduque, Philippines	2,077,484	2,126,339	2,176,301	2,192,056	1,986,117	1,865,259	2,043,320
19	Mountain Province, Philippines	2,235,071	2,158,220	2,185,387	2,196,188	2,149,469	2,145,317	2,116,381
20	Apayao, Philippines	2,597,781	2,754,254	3,155,703	2,785,226	2,521,131	2,450,623	2,224,957

Figure 18. Lowest 20 Agricultural Performance (2018–2024).

C. CONSTRUCTION: THE DECENTRALIZATION

THE SHIFT

Observation: Bulacan has overtaken Quezon City as the top builder. Bulacan is surging while Quezon City is stagnant.

Insight: This confirms that infrastructure investment is moving out of the capital and into the neighboring provinces.

Rank_2024	Province/City (Construction)	2018	2019	2020	2021	2022	2023	2024 (Current)
1	Bulacan, Philippines	93,150,759	108,095,694	77,834,590	77,907,314	92,711,290	99,896,377	111,835,300
2	City of Davao, Philippines	41,119,119	55,729,916	44,410,445	49,527,078	55,158,609	61,406,165	73,111,484
3	Pampanga, Philippines	38,634,727	40,831,497	28,715,249	35,178,148	39,484,473	42,146,936	48,814,925
4	Leyte, Philippines	55,245,557	53,757,956	33,489,052	37,183,380	41,289,310	43,910,970	48,461,991
5	Pangasinan, Philippines	32,569,240	36,054,502	33,483,143	37,245,073	40,710,563	44,868,105	46,961,120
6	Quezon City, Philippines	45,447,959	49,495,648	37,174,631	38,618,763	41,191,017	42,165,521	46,715,812
7	Cebu, Philippines	34,075,388	38,075,102	25,065,057	27,629,404	33,286,723	37,312,054	40,002,488
8	Nueva Ecija, Philippines	34,987,594	39,067,500	26,535,942	27,335,886	30,928,586	33,078,442	38,984,296
9	Negros Occidental, Philippines	19,946,399	19,705,027	18,148,829	21,804,554	26,707,144	30,879,245	37,147,175
10	Bataan, Philippines	34,975,012	37,730,604	22,848,784	25,008,076	26,789,193	28,803,970	34,007,963
11	City of Parañaque, Philippines	33,798,386	37,613,629	28,252,975	29,487,974	30,867,580	31,275,786	33,747,472
12	Cavite, Philippines	28,785,799	30,473,900	17,573,108	23,539,635	25,796,860	28,445,456	31,059,316
13	City of Manila, Philippines	26,517,918	32,291,147	24,902,058	26,059,395	27,310,587	27,608,231	30,718,734
14	Camarines Sur, Philippines	30,007,825	30,176,914	22,659,867	24,337,977	27,726,731	29,466,866	30,377,063
15	Cagayan, Philippines	28,606,013	28,965,953	19,771,499	20,004,508	23,463,273	27,020,989	30,064,550
16	Batangas, Philippines	21,103,835	22,770,853	18,121,134	20,601,775	22,249,270	25,789,773	29,926,517
17	La Union, Philippines	19,315,241	22,226,317	19,855,952	23,193,107	23,747,597	25,956,620	28,046,514
18	Bukidnon, Philippines	19,247,749	20,911,080	19,955,532	22,955,446	23,398,973	25,419,871	27,917,562
19	Tarlac, Philippines	28,834,829	30,781,087	21,317,019	22,440,955	23,862,069	24,970,932	27,764,513
20	Albay, Philippines	21,503,003	25,080,711	18,431,227	21,115,717	22,726,747	24,808,606	26,177,999

Figure 19. Longitudinal Performance of the Top 20 Construction Economies.

THE INFRASTRUCTURE GAP

Observation: Remote islands like Tawi-Tawi record the lowest construction growth and an output of only 456,140 PHP.

Insight: This highlights that the high cost of shipping materials to the deep south remains a major barrier to development.

Rank_2024	Province/City (Construction)	2018	2019	2020	2021	2022	2023	2024 (Current)
1	Tawi-Tawi, Philippines	278,056	312,566	199,756	249,013	325,299	365,457	456,140
2	Sulu, Philippines	224,415	293,216	192,634	239,899	316,933	356,080	458,411
3	Maguindanao del Sur, Philippines	516,743	646,384	439,723	538,220	598,656	628,886	863,931
4	Basilan, Philippines	681,131	906,712	519,692	545,133	600,498	710,224	972,546
5	Siquijor, Philippines	676,014	785,609	664,407	693,809	717,401	772,463	975,672
6	Lanao del Sur, Philippines	882,245	995,458	574,691	739,141	758,984	850,081	1,163,031
7	Batanes, Philippines	679,353	839,698	725,356	862,396	935,358	1,042,364	1,193,041
8	Pateros, Philippines	1,374,195	1,517,719	1,089,882	1,151,122	1,183,959	1,190,642	1,249,367
9	Guimaras, Philippines	702,635	690,430	686,067	912,903	1,081,168	1,242,155	1,272,924
10	City of Isabela, Philippines	1,177,795	1,231,282	871,424	1,022,301	1,207,988	1,360,481	1,380,220
11	Mountain Province, Philippines	1,375,846	1,361,951	1,298,539	1,376,833	1,429,970	1,542,316	1,484,389
12	Sarangani, Philippines	1,348,079	1,288,904	903,934	985,910	1,074,246	1,283,469	1,537,309
13	Sultan Kudarat, Philippines	1,429,906	1,169,546	1,038,821	1,155,692	1,320,389	1,604,940	1,755,341
14	Camiguin, Philippines	1,404,996	1,486,680	1,409,073	1,482,957	1,534,056	1,705,181	1,841,886
15	Kalinga, Philippines	1,610,158	1,558,062	1,657,123	2,002,345	2,491,789	2,598,486	2,465,206
16	Aklan, Philippines	2,229,510	2,078,541	1,530,583	1,569,635	2,010,871	2,483,217	2,532,347
17	Dinagat Islands, Philippines	2,870,400	2,774,517	1,822,799	1,854,215	2,466,152	2,513,814	2,659,399
18	Ifugao, Philippines	1,945,762	1,931,226	2,140,734	2,569,371	2,693,796	2,753,534	2,669,433
19	Maguindanao del Norte, Philippines	2,638,551	2,680,382	1,731,694	1,794,757	2,248,906	2,399,278	2,774,151
20	Apayao, Philippines	2,269,927	2,239,211	2,431,868	2,909,349	3,045,129	3,156,109	2,985,612

Figure 25. Longitudinal Performance of the Lowest 20 Construction Economies.

D. MANUFACTURING: URBAN DE-INDUSTRIALIZATION

THE RESILIENCE

Observation: The CALABARZON region (Laguna, Cavite, Batangas) maintained high output levels even during the 2020 pandemic shock.

Insight: This proves that export-oriented manufacturing is more resilient to local lockdowns than the domestic service sector.

THE EXODUS

Observation: The City of Manila saw its manufacturing output drop from 217.4 Billion PHP in 2018 to 195.7 Billion PHP in 2024, while provincial hubs like Leyte nearly doubled their output.

Insight: This confirms that as land values rise in Metro Manila, industrial operations are being priced out and are relocating to provincial industrial zones.

Rank_2024	Province (Manufacturing)	2018	2019	2020	2021	2022	2023	2024 (Current)
1	Laguna, Philippines	530,160,979	538,181,562	524,010,123	543,285,504	574,365,580	572,132,443	591,677,409
2	Cavite, Philippines	308,127,756	308,797,083	242,641,879	290,787,983	317,116,122	333,984,048	341,507,900
3	Batangas, Philippines	233,435,893	254,159,410	198,586,079	243,411,155	261,303,979	264,467,134	277,254,326
4	Bulacan, Philippines	177,718,685	185,432,844	155,061,451	182,577,322	186,731,019	195,554,568	206,914,312
5	City of Manila, Philippines	217,432,327	223,057,566	204,571,640	192,674,260	194,098,066	189,252,904	195,714,399
6	Pampanga, Philippines	153,882,795	160,222,858	135,158,296	161,389,670	177,318,532	183,736,203	185,615,729
7	Bataan, Philippines	119,630,166	124,190,676	100,747,733	114,495,002	122,468,306	129,176,223	140,747,514
8	Quezon City, Philippines	109,669,588	116,462,951	104,845,497	109,022,680	113,359,589	117,479,720	122,280,887
9	Rizal, Philippines	67,694,764	74,127,735	71,358,549	73,719,641	77,220,892	78,541,524	80,600,407
10	City of Lapu-Lapu, Philippines	69,444,314	67,433,348	63,012,216	66,686,253	71,429,782	71,883,700	74,669,948
11	City of Pasig, Philippines	62,534,443	67,185,220	56,349,137	63,347,941	65,565,360	67,705,241	70,336,297
12	Cebu, Philippines	67,946,915	66,675,637	59,477,144	60,216,332	60,857,504	61,479,332	66,544,052
13	City of Valenzuela, Philippines	67,885,251	75,522,934	61,976,364	61,687,413	62,515,517	62,515,879	66,028,057
14	Leyte, Philippines	38,159,388	44,306,070	57,682,588	64,305,416	66,100,208	67,004,236	65,858,974
15	City of Davao, Philippines	63,553,355	61,059,521	55,128,581	59,017,240	61,082,683	63,338,076	65,114,061
16	City of Caloocan, Philippines	46,192,349	47,228,087	42,795,491	47,249,190	47,643,989	46,450,067	49,876,855
17	City of Muntinlupa, Philippines	51,442,663	53,936,291	45,725,210	50,560,348	52,137,803	52,355,809	49,857,893
18	City of Cagayan de Oro, Phil...	31,992,739	33,724,612	36,388,259	41,511,418	43,596,669	44,150,453	45,729,513
19	City of Makati, Philippines	47,192,017	49,409,765	44,574,206	43,830,653	44,227,301	44,872,898	43,330,870
20	Pangasinan, Philippines	38,156,771	38,670,344	35,787,007	39,227,472	39,944,707	41,939,038	41,794,536

Figure 24. Longitudinal Performance of the Top 20 Manufacturing Economies.

THE LOGISTICAL TRAP

Observation: Apayao remains the smallest manufacturing economy, with its output contracting from 138,285 PHP in 2018 to 129,634 PHP in 2024.

Insight: This decline confirms that without access to ports and highways, remote landlocked provinces cannot sustain industrial growth and are slowly de-industrializing.

THE URBAN CEILING

Observation: Pateros has shown zero real growth, moving flatly from 653,173 PHP in 2018 to 656,698 PHP in 2024.

Insight: This indicates that small, land-constrained municipalities within the capital have hit a physical limit for industrial expansion and cannot scale further.

Rank_2024	Province/City	2018	2019	2020	2021	2022	2023	2024 (Current)
1	Apayao, Philippines	138,285	133,351	101,124	112,920	123,147	128,276	129,634
2	Batanes, Philippines	297,233	310,237	305,708	333,690	343,767	371,074	391,252
3	Sulu, Philippines	451,332	511,011	519,659	533,015	512,725	574,544	586,001
4	Pateros, Philippines	653,173	629,848	570,536	547,013	590,844	590,320	656,698
5	City of Isabela, Philippines	527,316	529,032	607,448	686,260	746,511	709,725	779,336
6	Siquijor, Philippines	685,565	691,938	644,659	704,124	778,344	798,100	809,024
7	Camiguin, Philippines	754,692	762,904	831,122	842,294	869,304	900,911	956,368
8	Dinagat Islands, Philippines	904,551	920,935	893,480	1,025,689	1,046,737	964,105	977,230
9	Guimaras, Philippines	864,372	930,220	862,276	882,082	939,095	990,337	1,019,556
10	Biliran, Philippines	819,358	849,410	881,882	876,920	928,711	972,917	1,051,654
11	Mountain Province, Philippines	961,361	979,802	909,136	918,221	1,024,428	1,067,...	1,109,030
12	Abra, Philippines	1,378,...	1,347,...	1,031,...	1,155,131	1,224,738	1,275,...	1,332,486
13	Tawi-Tawi, Philippines	1,301,...	1,536,...	1,533,...	1,654,907	1,734,728	1,774,...	1,888,576
14	Quirino, Philippines	1,715,...	1,775,...	1,746,...	1,845,161	1,896,418	1,913,...	2,030,243
15	Lanao del Norte, Philippines	1,799,...	1,794,...	1,898,...	1,919,108	1,975,533	2,023,...	2,086,824
16	Basilan, Philippines	1,772,...	2,005,...	1,910,...	2,149,918	2,054,058	2,038,...	2,117,241
17	Kalinga, Philippines	2,322,...	2,235,...	1,838,...	1,851,434	2,053,258	2,090,...	2,188,355
18	Davao Oriental, Philippines	2,401,...	2,358,...	2,148,...	2,097,799	2,148,591	2,159,...	2,216,688
19	Ilocos Sur, Philippines	1,916,...	1,963,...	1,774,...	1,861,516	1,977,704	2,097,...	2,247,789
20	Romblon, Philippines	2,247,...	2,445,...	2,488,...	2,386,835	2,418,517	2,445,...	2,560,728

Figure 24. Longitudinal Performance of the Lowest 20 Manufacturing Economies.

E. MINING: VOLATILITY AND SHIFTS

THE REVERSAL

Observation: Antique has risen to the number one spot with 29.3 Billion PHP (driven by Coal), while Palawan (formerly the leader in Nickel) dropped significantly from 38.8 Billion PHP in 2018 to 21.6 Billion PHP in 2024.

Insight: This illustrates the "Boom and Bust" nature of mining. Economies rely entirely on the lifespan of specific mines and are highly sensitive to environmental regulations.

THE URBAN VOID ("GHOST DATA")

Observation: Highly urbanized cities like Tacloban (195 PHP) and Olongapo (201 PHP) record statistically negligible output.

Insight: These "ghost values" likely represent minor administrative fees rather than actual extraction, confirming that mining is structurally incompatible with dense urban landscapes.

THE GEOLOGIC CONSTRAINT

Observation: Provinces like Abra (2,207 PHP) and Batanes (2,480 PHP) show flat, near-zero output across all six years.

Insight: This proves that without major geological deposits, a province cannot force a mining industry to exist. Unlike Services or Construction, you cannot build a mining sector where the resources are absent.

Rank_2024	Province (Mining)	2018	2019	2020	2021	2022	2023	2024 (Current)
1	Antique, Philippines	22,103,654	27,911,305	23,390,269	25,200,900	27,819,993	28,311,379	29,303,648
2	Palawan, Philippines	38,778,820	38,142,146	34,185,930	30,476,453	28,846,924	23,545,230	21,613,159
3	Surigao del Norte, Philippines	12,044,683	12,643,973	8,899,524	9,809,212	8,223,180	9,779,412	11,231,310
4	Davao de Oro, Philippines	7,083,424	6,802,153	5,701,588	6,930,844	8,788,034	9,486,548	9,591,363
5	Nueva Vizcaya, Philippines	8,516,657	8,131,376	3,370,058	4,973,869	8,873,546	10,040,362	9,079,120
6	Benguet, Philippines	8,738,810	9,005,183	7,769,488	9,114,442	9,062,342	8,892,264	8,665,993
7	Surigao del Sur, Philippines	5,330,050	5,619,711	5,826,076	6,129,295	5,975,334	7,129,346	7,546,035
8	Rizal, Philippines	3,481,680	4,550,604	3,551,433	4,258,016	4,896,741	4,857,630	5,210,294
9	Masbate, Philippines	3,709,899	3,793,828	2,933,236	3,808,879	3,983,200	4,004,557	4,264,383
10	Pampanga, Philippines	2,884,485	2,514,995	1,672,126	2,276,360	2,820,629	3,530,908	3,644,544
11	Agusan del Sur, Philippines	5,722,343	6,237,797	5,621,170	4,338,413	4,501,663	4,584,768	3,528,916
12	Dinagat Islands, Philippines	2,946,450	3,015,368	2,261,388	4,176,623	2,633,620	2,876,046	3,470,146
13	Negros Occidental, Philippines	2,020,580	2,035,258	2,016,409	2,226,032	2,688,196	2,909,292	3,191,668
14	Camarines Norte, Philippines	2,254,567	2,218,507	1,789,349	2,137,350	2,412,730	2,755,514	3,016,991
15	Bulacan, Philippines	2,745,571	2,666,579	1,807,267	2,194,959	2,735,197	3,454,997	2,994,346
16	Albay, Philippines	3,132,997	2,856,793	2,115,876	2,379,419	2,640,030	2,878,109	2,964,047
17	Cebu, Philippines	8,725,834	8,787,708	6,316,005	2,928,987	2,736,335	2,807,537	2,843,984
18	South Cotabato, Philippines	526,495	358,903	365,243	474,830	380,805	408,885	2,267,579
19	Isabela, Philippines	540,024	556,294	536,986	766,749	1,558,084	1,389,439	1,502,868
20	City of Iligan, Philippines	1,326,570	1,169,464	916,829	1,035,000	1,137,587	1,127,431	1,206,035

Figure 25. Longitudinal Performance of the Top 20 Mining Economies.

Rank_2024	Province/City	2018	2019	2020	2021	2022	2023	2024 (Current)
1	City of Tacloban, Philippines	376	334	155	172	181	188	195
2	City of Olongapo, Philippines	168	163	137	181	197	201	201
3	City of Bacolod, Philippines	241	238	213	241	273	280	293
4	City of Iloilo, Philippines	264	260	234	252	288	298	301
5	City of Baguio, Philippines	1,072	977	639	640	658	668	682
6	City of Angeles, Philippines	700	672	620	818	855	881	893
7	Abra, Philippines	2,144	1,974	1,913	2,175	2,249	2,256	2,207
8	Batanes, Philippines	1,820	2,071	1,965	2,359	2,406	2,434	2,480
9	City of Butuan, Philippines	7,466	7,300	5,631	5,482	6,024	6,469	6,621
10	City of Isabela, Philippines	13,080	12,289	8,058	8,517	9,588	9,782	9,913
11	Aurora, Philippines	9,805	9,696	6,874	8,965	10,207	12,640	13,197
12	Bataan, Philippines	17,930	17,136	10,743	13,918	15,413	19,392	16,857
13	Biliran, Philippines	29,261	24,013	12,586	15,501	16,144	16,637	16,925
14	City of General Santos, Phil... ...	18,490	12,189	14,319	17,115	18,107	18,659	19,040
15	City of Puerto Princesa, Phil... ...	27,646	31,816	20,530	21,969	23,867	24,324	23,511
16	Mountain Province, Philippines	19,523	21,713	22,973	23,498	23,860	25,225	24,879
17	Davao Occidental, Philippines	21,240	25,118	22,498	25,654	27,604	28,915	26,837
18	Ifugao, Philippines	30,999	24,023	27,495	28,534	29,368	29,790	28,461
19	Samar, Philippines	45,805	40,105	30,205	32,080	33,555	33,355	33,096
20	Sarangani, Philippines	46,230	30,696	29,390	36,455	38,689	40,979	45,119

Figure 26. Longitudinal Performance of the Lowest 20 Mining Economies.