



STRONG BUILT (MINING) DEVELOPMENT CORPORATION

Brgy. San Pedro, MacArthur, Leyte

Item No: 37

Date: 23 2026 OCT

12 October 2026

HON. LEONARDO M. JAVIER JR.

Vice Governor and Presiding Officer
Sangguniang Panlalawigan
Province of Leyte
Provincial Capitol
Tacloban City, Leyte

Sangguniang Panlalawigan
Province of Leyte

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Date:
By:

Subject: Submission of Economic Impact Study and Request for Support for the Proposed Titano-Magnetite Sand Mining Project in MacArthur, Leyte

Dear Vice Governor and Honorable Members of the Sangguniang Panlalawigan:

We respectfully submit for your review and consideration the enclosed **Economic Impact Study of the Proposed Titano-Magnetite Sand Mining Project in MacArthur, Leyte**, outlining the anticipated economic, fiscal, employment, social, and environmental contributions of the proposed investment to the Province of Leyte and its host communities.

The project involves an initial investment of approximately **₱300 million**, with planned additional investments of approximately **₱500 million** to expand annual production capacity from 300,000 metric tons to one million metric tons of magnetite concentrate.

The proposed operations are expected to generate up to **300 direct employment opportunities initially, increasing to approximately 450 upon expansion**, with priority given to local residents. The project will likewise create business opportunities for local contractors, transportation providers, equipment suppliers, agricultural producers, and other small and medium enterprises.

The enclosed study estimates that, upon expansion, the project could contribute approximately **₱1.6 billion to ₱2.1 billion annually in direct and associated economic activity and value added within Leyte**. More significantly, the economic impact on the host municipality of MacArthur could be substantial, with the potential to increase its estimated municipal economic output by approximately **25% to 45%**, depending on the extent to which employment, procurement, and related expenditures are retained within the locality.

The project is also expected to contribute to government revenues through applicable mining taxes, local business taxes, regulatory fees, and the statutory allocation of national-wealth revenues to local government units.

We wish to emphasize that the proposed investment is intended to be more than a mineral extraction enterprise. A central component of the project is the establishment of **sustainable social and environmental development programs**, including agricultural assistance, livelihood generation, technical education, community infrastructure, environmental rehabilitation, and capacity building for local enterprises.

Recognizing the agricultural character of MacArthur and the historical concerns surrounding mining operations in the area, we intend to place particular emphasis on the protection of agricultural productivity, responsible land management, progressive rehabilitation, environmental monitoring, and meaningful participation by affected communities.

We believe that the Sangguniang Panlalawigan has an important role in helping establish a policy environment that encourages responsible investments while protecting the long-term interests of the Province and its people.

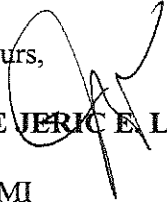
In this regard, we respectfully request the **consideration, support, and guidance of the Honorable Sangguniang Panlalawigan**, consistent with its statutory powers and applicable national and local regulations, in facilitating responsible mineral development and maximizing the economic benefits that may accrue to the Province.

We would welcome the opportunity to present the findings of the study before the appropriate committee or the Sangguniang Panlalawigan, should the Honorable Body deem it appropriate.

It is our sincere belief that, with appropriate safeguards, sound governance, and constructive collaboration between the private sector, government, and host communities, this investment can become a meaningful instrument for economic growth, employment generation, poverty reduction, and sustainable development in Leyte.

Thank you for your time and consideration. We look forward to working with the Provincial Government in advancing investments that promote the long-term welfare and prosperity of the people of Leyte.

Very truly yours,


SILVESTRE JERIC E. LAPAN
President
SBMDC/NAMI

Enclosure: Economic Impact Estimate – Titano-Magnetite Sand Project, MacArthur, Leyte

Economic Impact Estimate: Titano-Magnetite Sand Project, MacArthur, Leyte

Below is a structured economic-impact study using project assumptions and the latest official verifiable statistical data available. Because municipal GDP is not officially published for MacArthur, municipal GDP effects are modeled estimates, while Leyte figures use PSA provincial accounts.

1. Executive Assessment

Given a hypothetical but realistic estimates, the proposed project will be potentially modest at the provincial scale but economically transformative at the municipal scale.

Leyte's official 2024 GDP was P275.99 billion, with provincial GDP per capita of P151,355. The province grew by 5.8% in 2024. MacArthur, meanwhile, had a 2024 population of 22,256 and is classified as a 4th-class municipality.

Using a planning exchange rate of ₱60 / US\$, the project would hypothetically generate the following:

Indicator	Initial operation	Expanded operation
1. Production	300,000 tpa	1,000,000 tpa
2. Price	US\$45/t	US\$45/t
3. Annual gross sales	P810 million	P2.7 billion
4. Operating cost	P630 million	P2.1 billion
5. Operating spread	P180 million	P600 million
6. Direct jobs	300 (est.)	454 (est.)
7. Land under lease	10 ha	35 ha
8. Annual land rentals	P1.50 M	P5.25 M
9. Social/environment Programs	P30 M	P50 M+
10. Initial/expansion CAPEX	P300 M	+P500 M
11. Local share of CAPEX	P105 M	+P175 MT

The central estimate developed below suggests that once expanded to 1 million tonnes per year, the project could support approximately P1.15 billion of direct annual value added

and around P1.85 billion of total provincial economic activity/value added after reasonable indirect and induced effects.

That corresponds to roughly 0.42% direct and about 0.67% total of Leyte's 2024 GDP base. For MacArthur itself, the relative effect is much larger.

2. Economic Profile of Leyte

Leyte remains one of the principal economies of Eastern Visayas. PSA estimated its GDP at P275.99 billion in 2024, representing growth of 5.8%. Its GDP per capita reached P151,355. Professional and business services grew particularly rapidly, while manufacturing declined by 1.7%.

The latest PSA Provincial Product Accounts release now covers economic performance through 2025, although the readily accessible PSA release confirms the national provincial-account rollout rather than providing the Leyte number in the text itself. The study will therefore use the fully verified 2024 Leyte GDP as the economic baseline, which is conservative and readily auditable.

Leyte also has a meaningful poverty and employment challenge. Poverty incidence among families was 21.7% in 2023, although the latest 2025 data indicate a substantial improvement to approximately 12.4%.

Employment conditions remain important. PSA's 2025 labor-force estimates indicate that Leyte's unemployment rate increased from about 3.1% in 2024 to 5.3% in 2025, while underemployment declined from 18.9% to 13.9%.

Consequently, a project creating 300 – 450 regular jobs has significance beyond its simple share of provincial employment: mining positions tend to create formal wage employment, contractor activity and demand for transport, equipment, accommodation, food, maintenance and professional services.

3. Economic Profile of MacArthur

MacArthur had a population of 22,256 in the 2024 POPCEN and contains 31 barangays. It is presently categorized as a 4th-class municipality.

There is an important statistical limitation: PSA does not presently publish official municipal GDP for MacArthur. Provincial Product Accounts cover provinces and highly urbanized cities. An approximate baseline municipal GDP can nevertheless be derived for impact-analysis purposes:

$$\begin{aligned}\text{Estimated MacArthur GDP} &= \text{MacArthur Population} \times \text{Leyte GDP per capita} \\ &= 22,256 \times 151,355 = 3.37 \text{ billion}\end{aligned}$$

This is not an official PSA municipal GDP estimate. It assumes MacArthur initially has approximately the same productivity per resident as the Leyte provincial average. Given MacArthur's relatively rural economic structure, actual GDP per capita could be lower, meaning the mining project's percentage impact could in practice be larger than estimated here.

4. Project Economics

At the initial 300,000-ton production level: $300,000 \text{ tons} \times \text{US\$ } 45 = \text{US\$ } 13.5 \text{ million}$
At ₱60/US\$: $\text{US\$ } 13.5 \times 60 = \text{P810 million}$

Operating costs: $300,000 \text{ tons} \times \text{US\$ } 35 \times 60 = \text{P630 million}$
Therefore: $\text{Operating Spread} = \text{P810 million} - \text{P630 million} = \text{P180 million}$

The gross operating margin is therefore approximately: $\text{US\$ } 10 / \text{US\$ } 45 = 22.2\%$
At expanded production: $1,000,000 \text{ tons} \times \text{US\$ } 45 \times 60 = \text{P2.7 billion}$

Costs: $1,000,000 \text{ tons} \times \text{US\$ } 35 \times 60 = \text{P2.1 billion}$
Operating spread: $\text{P2.7 billion} - \text{P2.1 billion} = \text{P600 million}$

These figures are before corporate income tax, mining royalty, financing, depreciation and other project-specific adjustments.

5. Gross Value Addition for GDP

A common economic-impact error would be to say that P2.565 billion of sales means Leyte's GDP automatically rises by P2.565 billion. It should not.

GDP measures value added, broadly:

$$\text{Gross Value Addition} = \text{Gross Output} - \text{Intermediate Inputs}$$

Mining GDP therefore includes components such as:

- wages and employee compensation;
- operating surplus/profit;
- depreciation or consumption of fixed capital;
- production-related taxes less subsidies.

Payments for fuel, imported machinery, outside contractors and other intermediate inputs cannot be counted as contributors to Leyte GDP.

Because the exact project's cost breakdown has not yet been established, the study uses a 45% direct-value-added ratio as the central economic-impact assumption and provide sensitivity around it.

6. Direct contribution to Leyte GDP

Initial production volume: **300,000 tpa**

Central case: **$P810 \text{ million} \times 45\% = P364.5 \text{ million}$**

Relative to Leyte GDP: **$P364.5 \text{ million} / P275.99 \text{ billion} = .132\%$**

So initial operations could directly increase Leyte's economy by approximately 0.13%, assuming the operation is incremental to the existing provincial economy.

At 1 million tpa: **$P2.7 \text{ billion} \times 45\% = P1.215 \text{ billion}$**

Relative to provincial GDP: **$P1.215 \text{ billion} / P275.99 \text{ billion} = .44\%$**

Thus the expanded mine could directly represent approximately 0.44% of Leyte GDP. For a single project located in one municipality, that is economically material.

7. Multiplier effect

There are three impact channels:

1. **Direct impact** arises from the mining operation itself: wages, profits, depreciation and taxes.
2. **Indirect impact** arises from project purchases from suppliers, transportation, mechanical repairs, construction, security services, logistics, fuel distribution, catering and other professional services.

3. **Induced impact** arises when mine workers, contractors and landowners spend their additional incomes on housing, food, retail, schooling, transport and other services.

Without a project-specific Philippine input-output model, it would be inappropriate to claim a precise MacArthur mining multiplier. To be conservative with the approach, the study is using a range of 1.4 – 1.8, with 1.6 (median) as the planning case.

At 1.6:

Initial phase: ***P364.5 million x 1.6 = P583.2 million***

This is approximately: ***P583.2 million / P275.99 billion = .21%*** of Leyte GDP.

Expanded phase: ***P1.215 billion x 1.6 = P1.944 billion***

or: ***P1.944 billion / P275.99 billion = .70%*** of the current provincial GDP base.

Thus a reasonable planning range is:

Scenario	Initial Project	Expanded Project
Direct GVA	P364.5 M	P1.215 B
Total impact at 1.4×	P510 M	P1.701 B
Central 1.6×	P583.2 M	P1.944 B
Total impact at 1.8×	P656.1 M	P2.187 B

The multiplier should be lower if most supplies, machinery and services come from Manila or overseas, and higher if procurement is deliberately localized within Leyte.

It needs to be understood that industry multiplier normally stands at 6x to 8x. However, due to the local conditions and by reason of being conservative in data utilized, we are limiting the use of a multiplier band, between 1.4x to 1.8x, 1.6x as the median.

8. Impact on Leyte GDP Per Capita

The PSA's 2024 figures imply a provincial economic population base of approximately 1.82 million people. The direct initial project contribution therefore adds approximately:

= *Direct GVA / Population*

= *P364.5 million / 1.82 million people*

= P200 per capita per annum to provincial GDP per capita.

Including the 1.6 multiplier:

= P583.2 million / 1.82 million people = P320 / capita / annum

Leyte GDP per capita would therefore rise approximately from:

₱151,355 → ₱151,675, assuming all other economic activity stays constant.

At 1 Mtpa, direct uplift:

= P1.215 billion / 1.82 million people = P668 per capita per annum

Total 1.6× effect:

P1.944 billion / P1.82 = P1,068 per capita per annum

The corresponding indicative provincial GDP per capita becomes approximately:

₱151,355 + P1,068 = ₱152,423, or roughly 0.67% higher than otherwise.

9. Impact on MacArthur GDP

This is where the impact becomes considerably larger. Using the estimated municipal GDP baseline of: P3.37 billion, the initial operation's direct value added of ₱346 million would equal:

P364.5 million / P3.37 billion = 10.81% of MacArthur's estimated baseline economy.

With a 1.6 multiplier: P583 million / P3.37 billion = 17.30%

At expanded production: P1.215 billion / P3.37 billion = 36.00% direct contribution.

If MacArthur retained all multiplier effects: P1.944 billion / P3.37 billion = 58%

That latter figure should be viewed as an upper local-capture scenario because some supplier spending and household spending will leak into Tacloban, Palo, Ormoc and other parts of Leyte.

A more realistic MacArthur outcome may therefore be approximately 25–45% expansion of municipal economic output after the project reaches 1 Mtpa, depending primarily on how much procurement, payroll and contracting will remain within MacArthur.

10. MacArthur Projected GDP Per Capita

The baseline approximation is Leyte's ₱151,355 per resident. If the entire direct mining GVA is assigned to MacArthur as the location of production, the initial operation adds:

P364 million / 22,256 = P16,355

Therefore estimated municipal GDP per capita becomes:

$P151,355 + P16,355 = P167,710$, or about 10.8% higher.

With the modeled multiplier: $P583.2 \text{ million} / 22,256 = P26,204$, giving approximately:

$P177,559$ per resident, a 17.3% increase.

At 1 Mtpa, direct value added adds approximately:

$P1.215 \text{ billion} / 22,256 = P54,592$, giving direct estimated GDP per capita of: $P205,947$

With full local capture of the multiplier: $P1.944 \text{ billion} / 22,256 = P87,347$, the theoretical figure becomes approximately: $P238,702$, or 57.7% above the estimated pre-project baseline.

Again, GDP per capita is not household income per capita. Mining profits, depreciation and corporate income are included in GDP even when they do not accrue directly to residents.

11. Employment effect

The initial 300 direct jobs equals: $300 / 22,256 = 1.35\%$ of MacArthur's entire population.

Expansion to 450 jobs equals: $450 / 22,256 = 2.02\%$ of population.

The relevant percentage of the labor force would be substantially higher. If an average household contains approximately 4 – 4.2 persons, MacArthur would have roughly 5,300 – 5,600 households.

Therefore 300 local jobs potentially place one direct mining income into roughly 5 – 6% of MacArthur households, while 450 jobs could potentially reach approximately 8% of households, assuming the jobs are distributed across different households.

This may be one of the project's most powerful poverty-reduction channels.

12. Payroll Effect

Actual salaries were not supplied, so a sensitivity range is preferable.

At average compensation of $P20,000$ – $P35,000$ per month:

<i>Employment</i>	<i>P15,000/month</i>	<i>P20,000/month</i>	<i>P25,000/month</i>
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300 employees	₱58.5 million	₱78 million	₱97 million
450 employees	₱87 million	₱117 million	₱146 million

At a ₱20,000 monthly average, the expanded mine would inject approximately ₱117 million of wages annually.

If 70% is spent locally or elsewhere in Leyte: $P135 \text{ million} \times 70\% = P94.5 \text{ million}$ of annual household purchasing power would circulate through food, housing, transport, education, retail and services.

13. CAPEX Impact

Initial investment: P300 million

Local sourcing requirement: $35\% \times P300 \text{ million} = P105 \text{ million}$

Expansion investment of P500 million, additional locally sourced amount:
 $35\% \times P500 \text{ million} = P175 \text{ million}$

Total local CAPEX procurement: P280 million

This is separate from recurring operating impact. However, ₱280 million cannot all be treated as GDP because part may represent imported equipment resold by Philippine distributors.

If approximately 50% represents domestic/local value added, construction and services, the temporary GDP contribution would be approximately: ₱52.5 million during the first investment phase, and ₱87.5 million during expansion.

The long-term benefit is greater where the money establishes local suppliers with continuing businesses beyond the mine. This is the reason why government program should promote local entrepreneurs to invest in industries that may provide direct supplies and services to this particular kind of projects.

Likewise, the project should provide priorities to established local suppliers and service providers.

14. Landowner Income

Year 1: 10 hectares x P150,000 = P1.5 million per year

Expanded operation: 35 hectares x P150,000 = P5.25 million

Over ten operating years at the expanded footprint, this alone represents approximately: P52.5 million in gross landowner payments, excluding escalation.

Because the project occupies parcels temporarily "at any given time," a rotating land-access system could distribute these benefits across considerably more landowners over the mine life.

15. Social and Environmental Spending

The stated commitment of, at least P50 million annually is particularly material relative to MacArthur's population.

Equivalent spending per resident: P50 million / 22,256 = P2,247 per person per year

If targeted carefully, P50 million annually could finance combinations of:

- scholarships and vocational training;
- community health;
- water systems;
- farm productivity;
- coastal or river rehabilitation;
- road maintenance;
- livelihood programs;
- disaster preparedness;
- mangrove and watershed rehabilitation;
- mine rehabilitation;
- environmental monitoring.

Philippine mining regulations require mechanisms including the Environmental Protection and Enhancement Program and Annual Environmental Protection and Enhancement Program, including progressive rehabilitation measures.

Large-scale miners are also required under the SDMP framework to allocate a minimum 1.5% of operating costs for community development, mining-technology/geoscience development and public-information programs.

With project operating costs of approximately ₱1.995 billion at 1 Mtpa:

$1.5\% \times \text{P1.995 billion} = \text{P29.93 million}$. The stated P50 million planned expenditure includes project environmental programs.

16. Mining taxation and government revenues

The fiscal framework for large-scale metallic mining changed materially following Republic Act No. 12253, the Enhanced Fiscal Regime for Large-Scale Metallic Mining Act, approved September 5, 2025.

The project's specific treatment depends critically on whether its mineral agreement predates the legislation, its contract provisions, and whether the operation is inside or outside a mineral reservation.

RA 12253 preserves certain existing contractual regimes while applying the new framework to relevant large-scale operations.

Under the new regime, operations outside mineral reservations face a margin-based royalty ranging from 1% to 5% of mining income, depending on mining margin. Operations within mineral reservations are subject to a different royalty structure, including a 5% gross-output royalty under the statutory framework.

RA 12253 also imposes a windfall-profits tax beginning when the defined mining margin reaches 30%.

The stated project operating spread is: $10 / 45 = 22.2\%$ which, on a simplified basis, is below the statutory windfall threshold. Actual statutory mining margin will differ because allowable deductions are specifically defined in the law.

Corporate income tax is generally 25% for domestic corporations, subject to applicable qualifications and investment-incentive regimes.

Summary of mining taxation and government revenues:

- Leyte mining tenements:
 - a. Outside of Mineral Reservation - no Royalty to government (5% of Gross revenue)
 - b. No Ancestral Domain - no Royalty to Indigenous People (at least 1% of Gross revenue)

- Excise Tax: 4% of gross revenue – 60% to the National government and 40% to LGUs
- RA 12235 – windfall-profit tax when margin reaches 30%
- Occupation fee (annual) – Php 75.00 per hectare (7,412 has. tenement area)
 - a. Province: 30% of Occupation fee
 - b. Municipalities: 70% of Occupation fee

17. LGU fiscal effect

RA 12253 provides that LGUs collectively receive 40% of national-government collections derived from qualifying excise taxes, mining royalties and other national-wealth charges generated within their territorial jurisdiction.

The Act additionally states that this is over and above the business tax that an LGU may impose on mining contractors, subject to a ceiling equivalent to 0.5% of gross output.

At 1 Mtpa: P2.7 billion x 0.5% = 13.5 million

Thus the maximum gross-output-linked local business tax alone could potentially reach about ₱13.5 million annually, subject to the applicable local tax ordinance and legal classification.

This does not yet include MacArthur's appropriate share of national-wealth revenues, real-property taxes, permits, occupational charges and other lawful LGU revenues.

18. Poverty impact

The project should not be evaluated merely by GDP. Leyte's family poverty incidence was approximately 21.7% in 2023, falling substantially to around 12.4% in 2025.

Mining can reduce poverty most effectively when local economic participation is deeper than direct employment.

For example, an annual P30 million community development program combined with:

- P58–117 million annual payroll;
- P5.25 million land rentals;
- local procurement;
- transport contracts;
- food procurement;

- mechanical services;
- construction contracts;
- LGU revenues

could have a disproportionately large effect on a municipality of only 22,256 people. The project should therefore target not merely local employment, but local value capture.

19. Recommended Local Economic Targets

The 35% local CAPEX commitment is positive, but I would recommend expanding the economic-development framework into measurable KPIs:

1. At least 80–90% of non-specialized workers from MacArthur/Leyte.
2. Progressive localization of technical positions.
3. At least 40–50% local procurement by value where commercially feasible.
4. Establishment of a MacArthur supplier-development program.
5. Vocational certification for equipment operators, mechanics, electricians and laboratory personnel.
6. Agricultural procurement from local farmers.
7. Local haulage and transportation contracts.
8. Scholarships tied to mining engineering, environmental science, geology and mechanical technology.
9. A rehabilitation fund measurable per hectare disturbed.
10. Public reporting of jobs, procurement, taxes, SDMP spending and environmental indicators.

The objective should be to turn a finite mineral resource into durable human, infrastructure and business capital.

20. Overall quantitative impact

The most useful summary is:

Metric	Pre-project / baseline	300k tpa	1 Mtpa
Annual project sales	—	P769.5 million	P2.56 billion
Direct project GVA			
base case	—	P346 M	P1.154 B
Total impact, 1.6×	—	P554 M	P1.847 B
Leyte GDP baseline	P275.99 B	+0.20% total	+0.67% total
Leyte GDP/capita	P151,355	P151,659	P152,368

Estimated MacArthur GDP	P3.37 B	+10.3% direct	+34.3% direct
MacArthur total effect*	—	16.4%	up to 54.8%
Direct jobs	—	300	450
Jobs as % of municipal			
Population	—	1.35%	2.02%
Annual land rent	—	P1.50 million	P5.25 million
Annual social/environment			
Spending	—	P30 million	P50 million
Local CAPEX	—	P105 million	P175 million

*The 54.8% represents a full-local-capture multiplier scenario. A prudent planning assumption would be 25 – 45% municipal economic expansion, because a portion of indirect expenditures will leak to Tacloban, Ormoc, Manila, overseas equipment suppliers and other locations.

Conclusion:

At the provincial level, the mine is meaningful but not dominant: at full production, it could directly generate approximately ₱1.15 billion in annual value added and support approximately ₱1.6 – ₱2.1 billion in total economic activity/value added, equivalent to roughly 0.6 – 0.8% of Leyte's current GDP, depending on multiplier assumptions.

At the MacArthur level, however, the project is potentially economically transformative. Even before multiplier effects, the expanded operation could represent approximately one-third of MacArthur's estimated existing economic output. With strong localization of procurement, payroll and services, the local economy could plausibly become 25 – 45% larger than its counterfactual without the project.

The strongest economic-development case therefore rests not merely on producing 1 million tonnes of concentrate, but on maximizing the proportion of each mining peso retained in MacArthur and Leyte through local jobs, supplier development, landowner income, taxes, infrastructure, education, environmental rehabilitation and reinvestment.

The greatest economic legacy of mining will be for MacArthur and the rest of the Province of Leyte to continuously sustain their economic activity and progress post-mining, after rehabilitation and capacity building programs benefits have been realized. It can be noted that a lot of the economic components tend to seize once mineral resource have been

exhausted, whereby, impact localities would dwell back to its economic state pre-mining operations.

The next level of analysis should be a 10-year economic-impact model incorporating production ramp-up, inflation, iron-concentrate price scenarios, exchange rates, payroll by occupational class, detailed OPEX, Philippine mining royalty/taxes, LGU revenue sharing, SDMP/EPEP expenditures, direct/indirect/induced jobs, poverty reduction, and three GDP-multiplier scenarios. That would turn this into an investment and government-grade economic impact study rather than simply a project-impact estimate.