

Megawide Construction Corporation

Climate opportunity assessment

February 2025



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Introduction to TCFD opportunities

The Task Force on Climate-related Financial Disclosures (TCFD) framework emphasises the importance of disclosing the risks and opportunities associated with climate change. While the challenges posed by climate change are significant, the TCFD framework underscores that climate-related opportunities provide organisations pathways to enhance their financial performance and resilience.

Efforts to mitigate and adapt to climate change open the door to a wide range of opportunities, including resource efficiency improvements, adoption of low-emission energy sources, innovation in products and services, access to new markets and building operational and supply chain resilience. For example, organisations can reduce operating costs by using more efficient production processes, increase revenue through the development of low-emission products and improve competitive positioning by capitalising on shifting consumer preferences.

The TCFD framework categorises these opportunities into five key areas:

- 1. **Resource efficiency**: Using more efficient transport, recycling processes and energy-efficient buildings can lower costs and increase production capacity
- 2. **Energy source**: Transitioning to low-emission energy sources, utilising policy incentives and participating in carbon markets can reduce operational costs and exposure to fossil fuel price fluctuations
- 3. **Products and services**: Innovating low-emission goods and services or climate adaptation solutions positions organisations to capture new revenue streams and meet shifting market demands
- 4. **Markets**: Exploring new markets and leveraging public-sector incentives can diversify financial assets and increase revenue
- 5. **Resilience**: Enhancing supply chain reliability, improving infrastructure and adopting resource diversification strategies strengthen operational resilience and market valuation

By effectively leveraging these opportunities, organisations can reduce costs, improve revenue and enhance their market position. The TCFD framework encourages companies to integrate such opportunities into their strategic planning and financial disclosures, ensuring they remain competitive and sustainable in a transitioning global economy.

Opportunity type	Climate-related opportunities	Potential financial impact
Resource efficiency	Use of more efficient modes of transport	 Reduced operating costs (e.g., through efficiency gains and cost reductions) Increased production capacity, resulting in higher revenue Increased value of fixed assets (e.g., highly rated energy-efficient buildings) Workforce management and planning benefits (e.g., improved health and safety, employee satisfaction) resulting in lower costs
	Use of more efficient production and distribution processes	
	Use of recycling	
	Move to more efficient buildings	
	Reduced water usage and consumption	

The table below illustrates climate-related opportunities and their corresponding financial impacts.



Opportunity type	Climate-related opportunities	Potential financial impact
	Use of lower-emission sources of energy	 Reduced operational costs (e.g., through use of lowest cost abatement) Less exposure to future fossil fuel price increases Lower exposure to greenhouse gas emissions and therefore less sensitivity to changes in carbon cost Returns on investment in low-emission technology Increased capital availability (e.g., as more investors favour lower-emission producers) Reputational benefits resulting in increased demand for goods/services
Energy source	Use of supportive policy incentives	
	Use of new technologies	
	Participation in carbon market	
	Shift towards decentralised energy generation	
Products/services	Development and/or expansion of low-emission goods and services	 Increased revenue through demand for lower- emission products and services Higher revenue through new solutions for adaptation needs (e.g., insurance risk transfer products and services) Better competitive position to reflect shifting consumer preferences, resulting in increased revenue
	Development of climate adaptation and insurance risk solutions	
	Development of new products or services through research and development, innovation	
	Ability to diversify business activities	
	Shift in consumer preferences	
	Access to new markets	1. Increased revenue through access to new and
Markets	Use of public-sector incentives	emerging markets (e.g., partnerships with governments, development banks) 2. More diversification of financial assets (e.g., green bonds and infrastructure)
	Access to new assets and locations needing insurance coverage	
Resilience	Participation in renewable energy programmes and adoption of energy efficiency measures	 Increased market valuation through resilience planning (e.g., infrastructure, land, buildings) Improved reliability of supply chain and ability to operate under various conditions
	Resource substitutes/ diversification	3. Increased revenue through new products and services related to ensuring resiliency



TCFD-aligned climate opportunities for Megawide

Opportunity 1

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Markets

Primary climate-related opportunity driver

Access to new markets

Primary potential financial impact

Increased revenue through access to new and emerging markets

Company-specific description

Megawide Construction Corporation, through its subsidiary PH1 World Developers, has identified affordable and sustainable housing as a significant climate-related opportunity¹. The Philippines faces a housing backlog of 6.5 million units² and the government's Pambansang Pabahay Para sa Pilipino (4PH) programme targets the construction of one million homes a year from 2023 to 2028³. This programme presents a substantial market for Megawide to deliver affordable housing units while incorporating climate-resilient and sustainable construction practices.

Megawide is uniquely positioned to capture this opportunity because of its expertise **in precast construction technology**, **which reduces construction time by 40%**⁴, lowering costs and enhancing scalability. Additionally, the company integrates climate-resilient solutions, such as solar-powered systems, rainwater harvesting and passive cooling designs, to align with national climate goals and meet the rising demand for low-emission housing. By leveraging its green building capabilities and participating in public-private partnerships, Megawide is poised to address both the housing deficit and climate challenges, ensuring long-term market growth and profitability.

Time horizon

Medium term

Likelihood

More likely than not

¹ https://www.bworldonline.com/corporate/2023/07/13/533895/megawide-eyes-affordable-homes-after-acquiring-ph1/ ²https://www.pids.gov.ph/details/news/in-the-news/phI-s-worsening-housing-

backlog#:~:text=A%20report%20by%20UN%2DHabitat,or%20the%20National%20Capital%20Region.

³ https://tribune.net.ph/2024/09/17/dhsud-to-miss-2023-housing-target-builds-only-13000-units-under-4ph-program

⁴ https://www.habitat.org/sites/default/files/documents/Green-Housing-Solutions-in-the-Philippines.pdf



Magnitude of impact

Medium to high

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not applicable>

Potential financial impact figure - minimum (currency)

₱34 billion

Potential financial impact figure - maximum (currency)

₱170 billion

Explanation of financial impact figure

The financial impact calculation is based on the projected market size of the 4PH programme. The average price of a home is estimated at ₱0.85 million⁵, resulting in a market potential of ₱850 billion annually or ₱3.4 trillion over four years (2025 to 2028).

Megawide's revenue potential is calculated based on capturing between 1% and 5% of the total market. At a 1% market share, the company could generate **P8.5 billion annually, totalling P34 billion by 2028**. At a 5% market share, the annual revenue would rise to **P42.5 billion, totalling P170 billion over the same period**. These estimates highlight the significant revenue growth opportunities available to Megawide through strategic participation in the 4PH programme.

Cost to realise opportunity

Zero

Strategy to realise opportunity and explanation of cost calculation

Situation: Addressing the dual challenges of climate resilience and housing affordability in the Philippines presents a unique growth opportunity for Megawide. The government's push for sustainable housing under initiatives like the **4PH** programme provides strong policy support and incentives for private sector participation.

Task: To capitalise on this opportunity, Megawide must expand its portfolio of affordable green housing projects, incorporating sustainable materials, energy-efficient designs and modular construction methods.

⁵ https://www.adb.org/news/adb-lhoopa-sign-deal-expand-green-affordable-housing-philippines



Action:

- Utilise existing precast construction technology to reduce costs and timelines for green housing projects
- Partner with organisations such as the Asian Development Bank (ADB) and United Nations Development Programme (UNDP) to access green financing opportunities⁶, such as green bonds and sustainability-linked loans
- Enhance community engagement to promote awareness of the long-term benefits of sustainable housing, addressing misconceptions about cost
- Scale up affordable housing projects with renewable energy systems like **solar-powered streetlights and e-shuttles** to reduce operational emissions

Result: The integration of sustainable practices into affordable housing is expected to drive revenue growth, improve environmental, social and governance (ESG) performance and position Megawide as a leader in climate-smart construction

Timescale: Megawide's ongoing investments in affordable and green housing, aligned with climate goals, are expected to generate significant financial impact over the next three to five years, with revenue scaling as projects mature and market demand grows.

Cost calculation: Seizing this opportunity requires minimal additional cost, as Megawide's expertise in precast construction and renewable energy systems is already integrated into existing operations. Knowledge sharing and continuous improvement across projects will ensure scalability without significant new expenses.

Opportunity 2

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type Products and services

Primary climate-related opportunity driver

Development and/or expansion of low-carbon construction and infrastructure solutions

Primary potential financial impact

Increased revenue through demand for lower emissions products and services

⁶ https://sdgprivatefinance.undp.org/leveraging-capital/sdg-investor-platform/affordable-and-resilient-housing-infrastructure

Company-specific description

Megawide Construction Corp is a key player in the Philippine infrastructure and construction sectors, known for its innovative approaches such as **precast construction systems (PCS)** and **engineering, procurement, and construction (EPC)** expertise. The company derives a significant portion of its revenue from large-scale transport and infrastructure projects.

The global push for sustainable infrastructure has created significant opportunities for companies focusing on **low-carbon designs** and **sustainable infrastructure development**. Major international organisations such as the Organisation for Economic Co-operation and Development (OECD)⁷, World Bank⁸, and UNEP's Sustainable Infrastructure Investment Initiative⁹, emphasise the urgent need for sustainable projects that align with net-zero emissions by 2050.

Real world case studies demonstrate that **10–30% reduction in embodied carbon** can be achieved at little to no additional cost¹⁰, which is expected to drive demand across sectors such as transportation, energy, and urban development. A **\$2.6 trillion annual global investment gap** in sustainable infrastructure needs to be filled through 2030¹¹. According to the UNEP, emerging markets need **70% of the required investment** in sustainable infrastructure, with opportunities for companies to lead in these regions.

Countries such as the Philippines, under programmes such as **Build**, **Better**, **More**¹² and the **Green Building Code**¹³, are aligning public and private investments with these global initiatives, creating a robust pipeline of projects. By offering innovative, sustainable, and efficient infrastructure solutions, Megawide is in a position to capture a larger share of this growing market and significantly increase its revenue in the coming years.

Time horizon Medium term

Likelihood More likely than not

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

⁷ https://www.oecd.org/en/publications/2024/04/infrastructure-for-a-climate-resilient-future_c6c0dc64.html

⁸ https://www.worldbank.org/en/events/2024/10/16/high--level-panel-on-pooled-investment-vehicles

⁹ https://www.unep.org/explore-topics/green-economy/what-we-do/sustainable-infrastructure-investment

¹⁰https://part-z.uk/blog/low-carbon-at-low-cost#:~:text=A%20frequently%20asked%20question%20is,are%20regularly%20found%20for%20free.

¹¹ https://www.gihub.org/sustainable-infrastructure/

¹²https://www.bsp.gov.ph/Pages/IRG/ROP%20Infra%20Presentation%20A%20Glimpse%20into%20the%20Philippines%E2%80%99%20Infrastructure% 20Flagship%20Projects%20%28Jan2024%29.pdf

¹³ https://www.dpwh.gov.ph/dpwh/sites/default/files/laws_codes_orders/pgbcbooklet23march.pdf



Potential financial impact figure - minimum (currency)

₱36 billion

Potential financial impact figure – maximum (currency)

₱54 billion

Explanation of financial impact figure

Megawide's annual revenue from transport and infrastructure projects is currently estimated at ₱18 billion. Based on market trends and climate-related scenario analyses, the demand for sustainable infrastructure is expected to **double by 2030**¹⁴.

Reports from the **World Bank** and **UNEP** indicate that sustainable infrastructure investments are critical for achieving SDG targets and net-zero emissions, with emerging markets such as the Philippines requiring significant investment.

The **Build**, **Better**, **More** programme is expected to accelerate demand for low-carbon, climate-resilient infrastructure. And the real world case studies demonstrate 10-30% carbon savings can be achieved at no additional cost, making green infrastructure projects financially viable and attractive. Applying these growth trends to Megawide's current revenue suggests a financial impact of **P36 billion to P54 billion by 2030**, assuming a conservative doubling of the market size for sustainable infrastructure, driven by increased government spending and private investment.

Cost to realise opportunity

₱0

Strategy to realise opportunity and explanation of cost calculation Situation: With increasing risks from climate change, the Philippine government and private sector are prioritising climate-resilient infrastructure, creating a significant opportunity for Megawide to expand its market share. Global and local demand for sustainable infrastructure is expected to grow rapidly as governments and industries align with SDG targets and net-zero goals.

Task: Megawide must align its operations with sustainable infrastructure demands by incorporating climate-resilient designs and low-carbon materials to strengthen its competitive position in the growing market.

Action:

- 1. **Expand precast manufacturing facilities** to support low-emission construction and improve efficiency in delivering sustainable projects.
- 2. Integrate low-carbon concrete technologies and renewable energy systems into the construction processes to reduce embodied carbon in infrastructure.
- 3. Strengthen partnerships with government agencies and private sector clients to secure contracts for green infrastructure projects, leveraging programmes and standards such as the Build, Better, More initiative and the Philippine Green Building Code.

¹⁴ https://blogs.worldbank.org/en/ppps/mind-gap-time-rethink-infrastructure-finance



Result: Megawide can establish itself as a leader in sustainable infrastructure by leveraging its expertise in **precast systems** and **large-scale infrastructure**. This will enable it to increase revenue, expand market share, and align with national and global sustainability goals.

Timescale: Megawide has already demonstrated its ability to deliver green infrastructure projects through initiatives such as **MRT-7** and **PITX**. It plans to expand its portfolio over the next **5-10 years** to capture the growing demand for sustainable and climate-resilient infrastructure solutions.

Cost calculation: Megawide may need to invest in expanding its precast manufacturing capabilities and adopting lowcarbon technologies. However, these costs will be offset by significant reductions in project costs through increased efficiency, reduced construction waste, and lower material usage. Precast systems and low-carbon solutions streamline operations and reduce overall expenses, making the cost to realise this opportunity **minimal, if not effectively P0**, when accounting for long-term savings and market advantages.

Opportunity 3

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Markets

Primary climate-related opportunity driver

Access to green financing and sustainability-linked funds

Primary potential financial impact

Increased access to capital

Company-specific description

The increasing global emphasis on climate-resilient infrastructure and sustainable development presents a significant opportunity for Megawide to capitalise on green financing and sustainability-linked funds¹⁵¹⁶¹⁷. As the Philippines faces a substantial infrastructure funding gap of ~**P9 trillion by 2022**¹⁸, the demand for green and sustainable projects is growing. Financial institutions, including the Asian Development Bank (ADB) and World Bank, are actively promoting green bonds and innovative financing solutions to bridge this gap and support private sector participation. In the Philippine market, green bond issuances are becoming more prominent, with investors displaying a preference for mid-sized issuances, **typically ranged P500 million to P1 billion**¹⁹. This trend reflects growing confidence in sustainable projects and the alignment of financing mechanisms with sustainability standards.

Megawide, with its strong focus on infrastructure development, is well-positioned to leverage these market trends to fund its pipeline of climate-resilient and sustainable projects. By aligning its operations with international frameworks such as the **ASEAN Green Bond Standards, ICMA Green Bond Principles, and the Philippine Green Building Code**, Megawide can enhance its eligibility for green financing. These funds could be directed toward renewable energy integration, low-

¹⁵ https://www.adb.org/news/adb-lhoopa-sign-deal-expand-green-affordable-housing-philippines

¹⁶ https://www.ifc.org/content/dam/ifc/doc/2024/emerging-market-green-bonds-2023.pdf

¹⁷ https://www.climatebonds.net/files/reports/cbi_giio_phillipines_20_06a_final.pdf

¹⁸ https://www.adb.org/sites/default/files/publication/813001/green-bond-market-survey-philippines.pdf

¹⁹ https://www.treasury.gov.ph/wp-content/uploads/2023/10/Sustainable-Bond-Report-and-DNV-External-Review.pdf



carbon transport systems such as the Metro Manila Subway, and energy-efficient housing developments under PH1 World Developers.

The demand for sustainable infrastructure financing offers Megawide a substantial opportunity to structure mid-sized green bonds or sustainability-linked loans, effectively reducing the cost of capital, while unlocking long-term value.

Time horizon

Short-term

Time horizon

Short-term

Likelihood

More likely than not

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure - minimum (currency)

₱2 billion

Potential financial impact figure - maximum (currency)

₱5 billion

Explanation of financial impact figure

The financial impact figures are based on observed trends in the Philippine green bond market, where bonds exceeding ₱2 billion are being supported by the market, especially for infrastructure developers with a strong environmental, social and governance (ESG) track record and alignment with sustainable financing principles. This provides Megawide an opportunity to launch multiple sustainable bonds. Additionally, Megawide can partner with institutions such as the ADB and the World Bank to raise more capital. For Megawide, accessing these funds would enable significant investment in renewable energy systems, climate-resilient transport infrastructure, and energy-efficient housing projects. This range reflects the potential capital that could be raised under the current market dynamics and investor preferences.

Cost to realize opportunity

₱2.4 million to ₱ 10.4 million



Strategy to realise opportunity and explanation of cost calculation

Situation: Investors and financial institutions increasingly prioritise companies with strong sustainability credentials, creating an opportunity for Megawide to access green financing.

Task: Megawide must demonstrate its commitment to sustainability by aligning with green financing frameworks, securing certifications, and enhancing transparency in its ESG performance.

Action:

- Develop a robust sustainability strategy and align operations with global sustainability standards such as Leadership in Energy and Environmental Design (LEED), Building for Ecologically Responsive Design Excellence (BERDE), and Philippine Green Building Code.
- Publish **annual sustainability and Task Force on Climate-related Financial Disclosures (TCFD) reports** to highlight progress on climate-related goals.
- Collaborate with financial institutions to structure and issue green bonds or secure sustainability-linked loans.
- Seek third-party certifications to validate the environmental and social benefits of Megawide's projects.

Result: By accessing green financing, Megawide can secure low-cost capital to expand its sustainable infrastructure and housing projects, strengthen its market position, and meet stakeholder expectations.

Timescale: Megawide aims to secure green financing within the next two to three years to fund its ongoing and upcoming projects such as renewable energy integration and low-carbon transport systems.

Cost Calculation: The cost to realise this opportunity includes certification expenses ($\mathbb{P}0.2$ million to $\mathbb{P}0.4$ million) and consultancy fees ($\mathbb{P}2$ million to $\mathbb{P}4$ million for a $\mathbb{P}2$ billion bond or $\mathbb{P}5$ million to $\mathbb{P}10$ million for a $\mathbb{P}5$ billion bond) to align with green financing frameworks such as ASEAN Green Bond Standards. These costs are minimal compared to potential interest savings, which range from $\mathbb{P}10$ million to $\mathbb{P}30$ million for a $\mathbb{P}1$ billion bond and $\mathbb{P}25$ million to $\mathbb{P}75$ million for a $\mathbb{P}5$ billion bond over 5 years, depending on the greenium achieved (10 to 30 basis points).

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