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Introduction

At 12:50 p.m. local time on March 28, 2025, a devastating magnitude 7.7 earthquake unzipped 460 kilometers of the Sagaing Fault, from Singu to Phyu. This powerful event was quickly followed by a 6.4 magnitude aftershock that caused further destruction. Aftershocks continued for several days, gradually decreasing in strength, though mild tremors were still disrupting the lives of affected communities as of early May.

Could this disaster have been forecast—possibly saving more than 3,800 lives? In practical terms, predicting the earthquake would have meant that authorities, advised in time by experts interpreting reliable and consistent earthquake precursors, could have issued a warning to more than six million people, allowing them to prepare without panic, perhaps half a day or a full day in advance, similar to a cyclone alert.

Let's see whether there are warning phenomena prior to the event that could be monitored, analyzed and integrated into a practical forecast model. But first, let's revisit the basics: What is an earthquake?

What Is an Earthquake?

An earthquake is the shaking of the ground caused when the Earth's crust suddenly breaks, releasing stress that had built up along a fault, separating two rock compartments, such as continental plates.

Three elements characterize an earthquake: the epicentre, the magnitude and the intensity.

- The epicentre is simply the surface location directly above the source of the earthquake—specifically, the first point where the fault begins to rupture. This is typically where the heaviest damage occurs.
- The magnitude measures the energy released during the quake. Each earthquake is assigned a single magnitude value. A commonly used scale is the Richter scale, which ranges from the weakest (magnitude 1) to the strongest (magnitude 10). Every notch or each whole-number on the Richter scale indicates about 32 times more energy released and produces seismic waves 10 times larger. For example, an earthquake of magnitude 7 releases 32 times more energy than a magnitude 6. Earthquakes below 2.5 are rarely felt and occur frequently. By contrast, earthquakes above magnitude 7 occur globally about 10 to 20 times per year, with one or two reaching magnitude 8 or higher.

- The intensity refers to the earthquake's impact on the environment, specifically the damage caused to buildings, infrastructure and people. For each earthquake, this number varies depending on the distance from the epicentre and the nature of the ground. Soft, muddy ground tends to behave like jelly and shake more violently than solid rock. Intensity is commonly measured using the Mercalli scale, which ranges from I to XII. Shaking below level II is barely noticeable, while level IX makes it nearly impossible to stand and causes severe structural damage.

Let's not mix up **magnitude** with **intensity**. Magnitude is like the wattage of a light bulb, it tells you how much energy is being emitted. Intensity, on the other hand, depends on where you are standing and your surroundings, much like how the brightness of the bulb feels different from various vantage points.

Two main types of seismic waves rock the scenes of earthquakes: the primary (or pressure) waves, known as **P-waves**, and the secondary (or shear) waves, known as **S-waves**, as shown in Figure 1).

- P-waves vibrate vertically, similar to ripples on a lake surface. They travel fast (typically 8,000 kilometers per hour) and generally cause minimal damage
- S-waves vibrate laterally and travel relatively slower (at about 4,000 kilometers per hour). Despite their slower speed, S-waves are responsible for the majority of structural damage during an earthquake.

Can Earthquakes Be Forecast?

Zaw Win Aung & Dr. Eloi Dolivo

Modern earthquake early warning systems rely on the difference in speed between these two types of waves. By detecting the faster-traveling P-waves, these systems can provide a few crucial seconds of warning

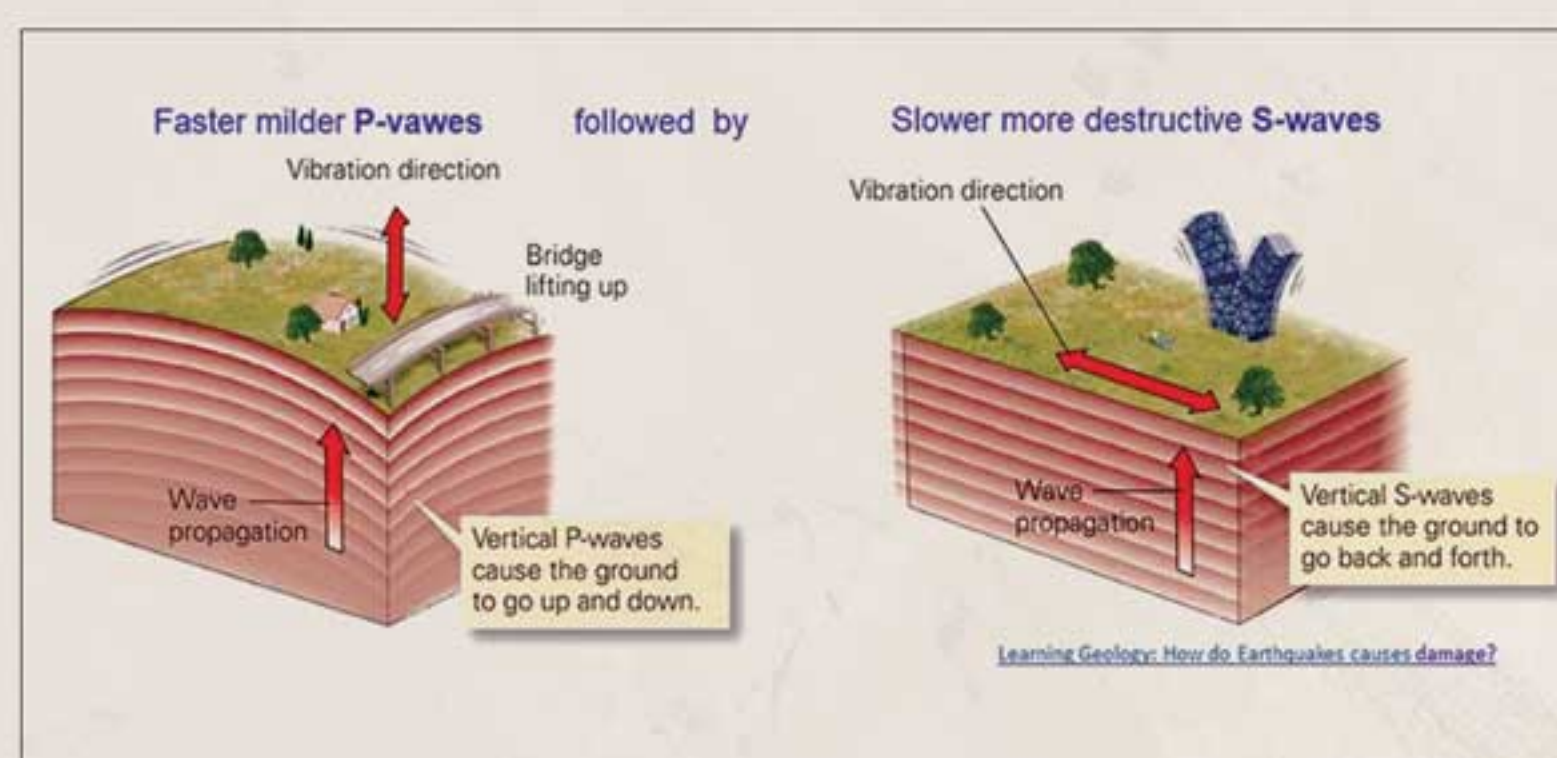


Figure 1: The main types of seismic waves rocking in earthquakes

before the more damaging S-waves arrive. To see an example of this in action, consider watching a video on YouTube called "Japan's Earthquake Early Warning System", which provides advance alerts just seconds before a seismic event strikes.

Why are Earthquakes a Frequent Occurrence in Myanmar?

Country lies on jigsaw puzzle: Much of central Myanmar sits on a jigsaw puzzle of continental plates, the northward-moving Myanmar Platelets. These platelets are jammed between the India Plate beneath the Bay of Bengal, also moving toward the Himalayas, and the relatively quiet Sunda Plate, which broadly lies from the Kachin Mountains to the Shan Plateau and beyond to Thailand and the South China Sea. These plates are bounded by faults.



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From the Desk of the Editor

Dear Readers,

Welcome to the mid-year edition of our company newsletter! This issue brings together valuable insights and inspiring stories from colleagues across the MPRL E&P Group of Companies.

I am proud to be part of a team that continues to move forward and achieve great things, even in the face of challenges. Whether sharing technical expertise, personal career journeys, or highlighting impactful community initiatives, each contribution adds depth and meaning to our publication. These stories aim to inform, encourage, and connect us—not only across departments and roles—but with readers around the world.

I would also like to take a moment to express my deepest sympathies to those affected by the recent earthquake in Myanmar. Although I was not in the country at the time, my thoughts are with everyone impacted. I wish you strength and a smooth recovery.

In every issue, as editor, I strive to feature departmental achievements, important milestones, and highlight team members whose contributions are shaping our company's long-term success. In this issue, I had the opportunity to speak with U Kyaw Soe Win, our Geoscience Manager, who shared his inspiring career journey in Petroleum Engineering and Geology. He also provided insights into Myanmar's unique geological landscape, how it influences our exploration strategies, and where future opportunities lie—featured on page 9.

Staying with the theme of geology, this issue features technical and scientific insights on earthquakes, contributed by several departments. From a geological perspective, we take a closer look at where Myanmar stands today. I'm always excited to read scientific articles from our Exploration Manager, fondly known by some of us as the Old Geezer. In this issue, he teamed up with another expert in geology to contribute their piece titled "Can Earthquakes Be Forecast?" on the cover page. His writing never fails to expand my understanding, and I'm sure many readers feel

the same. We look forward to reading more of his thoughtful and informative pieces in future editions.

In addition, our CSR Team highlights the community response initiatives carried out during the earthquake, while the HSE Team shares post-earthquake safety awareness, including response strategies, preparedness measures, and key lessons learned. Together, these contributions provide a well-rounded view of earthquake-related efforts—from scientific analysis to on-the-ground action. I truly feel this issue serves as a one-stop resource for all things related to earthquakes.

Beyond technical features, we have also highlighted meaningful initiatives carried out during the summer. These include the CSR Team's Basic Computer Training Course for youth in Mann Field Communities, Summer Art Classes designed to nurture creativity in children from underserved areas, and the launch of the ThuKhaMain Summer School, which piloted an offline learning app for Grade 4 students to promote active learning during the school break. Internship programs at MPRL E&P continue to thrive. Each year, we welcome a group of local Petroleum Engineering and Geoscience students to gain real-world experience in a corporate environment. To date, over 100 students have benefited from this initiative—an achievement we are truly proud of. You can read about this year's interns and their personal journeys on page 18.

As I conclude this note, I would like to leave you with a gentle reminder: Inspire with purpose. Be the change you wish to see in the world, and encourage others to do the same. Make an impact—whether through actions, words, or presence. Be that someone who uplifts others. And with that, I invite you to read the beautiful story behind the evolution of Gallery Ohmar, featured on page 14, a tribute to art, legacy, and love.

May you continue to be a difference maker.■

Hnin Wynt Zaw

Dearest Ko Phone Kyaw & Ma Awn Seng,

Congratulations on your beautiful baby girl!

After the joy of welcoming two sons, your family has now been beautifully blessed with a daughter. May her arrival bring even more love, balance, and happiness into your home. Wishing you all the best as you begin this new and precious chapter together.

From,
The Management & Staff of
MPRL E&P Group of Companies



Hsuhitar Wadi Moe Myint & her Pho Pho

Your Opinion: What accomplishment at work are you most proud of?

Daw Cho May Han

Junior Accountant
Finance Department

Among the accomplishments I value most in my professional career is the meaningful contribution I have made to enhancing the accuracy and efficiency of key financial processes—particularly in month-end reporting, revenue invoicing, and Accounts Payable (AP) and Accounts Receivable (AR) operations. Through diligence, attention to detail, and strong teamwork, I have consistently supported tasks that directly impact the organization's financial integrity and operational performance.

One of my core responsibilities involves assisting with the preparation and coordination of month-end financial reporting. This requires the timely handling of large volumes of data, which I manage using SAP for entering, extracting, and validating transactions, as well as assisting in ledger reconciliation. I also rely heavily on advanced Microsoft Excel functions—such as VLOOKUP, INDEX/MATCH, SUMIFS, and conditional formatting—to analyze variances and maintain accuracy across financial schedules. By approaching this process with precision, I help ensure that monthly reporting is completed smoothly and on time.

A particularly significant aspect of my role is preparing supporting documentation for the monthly invoice issued to Myanmar Oil and Gas Enterprise (MOGE)—the sole revenue stream for the Mann oil and gas project.

This task includes compiling production volumes, verifying pricing terms, and ensuring all calculations align with the contractual agreement. Close coordination with internal departments is essential to ensure the data is complete and accurate before the invoice is submitted. This work is critical to maintaining consistent cash flow and recognizing revenue accurately and promptly.

In addition, I provide valuable support to both AP and AR functions. For Accounts Payable, I assist in verifying vendor invoices, matching them to purchase orders and delivery receipts, and preparing payment data in SAP. For Accounts Receivable, I help track incoming payments, update ledgers, and follow up on outstanding balances. These efforts contribute to timely disbursements and collections, ultimately supporting efficient cash flow management.

I have also added value through my work on bank reconciliations and ledger schedules, which are essential for internal reporting and audits. I carefully reconcile SAP transactions with bank statements, proactively investigate discrepancies, and maintain thorough documentation. These efforts have resulted in smoother audit processes, with minimal corrections required.

Beyond the technical aspects, I'm especially proud of the growth I've experienced in communication and cross-functional collaboration. Working closely with both finance and operations teams has improved transparency and alignment in our reporting efforts. This accomplishment stands out because it reflects not only technical expertise but also professional maturity. I have deepened my knowledge of financial systems like SAP and Excel, strengthened my grasp of core processes, and demonstrated my reliability under tight deadlines.

In conclusion, I take great pride in having contributed to the efficiency, accuracy, and transparency of financial operations within my organization. My involvement in key finance functions has not only expanded my accounting foundation but also reinforced the importance of accountability, attention to detail, and continuous improvement. These experiences have shaped my professional journey and motivated me to keep evolving as a dependable and effective team member. ■



U Zwe Thura

Junior Geoscientist
Geoscience Department

As a Junior Geoscientist at MPRL E&P, I have had the opportunity to contribute to both office-based tasks and occasional fieldwork at the Mann Oil Field. My primary focus has been monitoring production, supporting large-scale Waterflood operations, and assisting with day-to-day activities. These responsibilities have provided valuable exposure to real-world challenges and opportunities for growth.

Reflecting on my experience, two accomplishments stand out—both of

which have contributed to my professional development and our team's operational success.

One of the accomplishments I'm most proud of is developing confidence in using technical software. When I was a geology student, my hands-on experience with tools like LogEdit, LogPlot, Surfer, and QGIS was quite limited. After entering the oil and gas industry, working with these tools on real field data was initially intimidating—especially under time pressure. However, with guidance from experienced colleagues and persistent practice, I gradually became more comfortable. This not only enhanced my ability to analyze geological data but also strengthened my overall understanding of subsurface interpretations.

Another significant experience has been assisting with lithology descriptions during drilling operations. While working in the field as a Junior Wellsite Geologist, I supported the mud logging team with real-time lithological evaluations. This involved quickly analyzing drill cuttings and correlating them with well log data to help identify formation tops accurately. It was a demanding task, especially when interpreting ambiguous or mixed lithologies, but it sharpened my analytical thinking and helped build resilience in high-pressure environments.

These experiences have shown me that real learning and growth often happen when we take on new challenges and step outside our comfort zones. I have come to appreciate the importance of being flexible, open to feedback, and always striving to improve. I'm proud of the progress I have made so far and am excited to continue developing my skills while actively contributing to the team.

During my time at MPRL E&P, I have gained a deeper understanding of how crucial adaptability is—especially in a dynamic industry like oil and gas. Whether it is adjusting to unexpected changes in daily tasks, managing field responsibilities, or learning from more experienced colleagues, I have realized that flexibility and a willingness to learn are essential for professional development.

As I continue to grow, I look forward to taking on greater responsibilities, supporting my team in meaningful ways, and contributing to the long-term success of the company. My goal is to evolve not only as a geoscientist but also as a reliable and committed professional in the oil and gas sector. ■

“These experiences have shown me that real learning and growth often happen when we take on new challenges and step outside our comfort zones. I have come to appreciate the importance of being flexible, open to feedback, and always striving to improve. I'm proud of the progress I have made so far and am excited to continue developing my skills while actively contributing to the team.”

MPRL E&P's Flu Vaccine Program Marks Three Years of Success

Dr. Kyaw Ye Htut

For the third consecutive year, MPRL E&P has continued its commitment to employee well-being through the successful rollout of its annual Flu Vaccine Program—an initiative that protects staff from seasonal influenza and helps reduce workplace absenteeism and healthcare costs.

Since its launch, the program has provided quadrivalent flu vaccines to employees at the workplace, providing broad protection against multiple strains of the influenza virus. The first two years featured the Vaxigrip Tetra vaccine, while the most recent round utilized SkyCell. Both vaccines target two Influenza A strains (H1N1 and H3N2) and two Influenza B strains, typically from both the Victoria and Yamagata lineages.

“We have seen a significant drop in flu-related cases at the workplace,” said U Nay Myo Aung, HSE Manager, who leads the program. “This not only safeguards the health of our teams but also helps maintain operational continuity and boosts overall staff morale.”



A Proactive Step Toward Workplace Wellness

The program’s impact goes beyond just flu prevention. By reducing the spread of illness, MPRL E&P has seen:

- Lower absenteeism, ensuring smoother operations
- Reduced medical expenses for both the company and employees



- Improved team morale and productivity
- Positive ripple effects on families and communities

Vaccines like Vaxigrip Tetra are designed to protect against the following strains:

- A/Victoria/4897/2022 (H1N1)pdm09-like
- A/Thailand/8/2022 (H3N2)-like
- B/Austria/1359417/2021-like (B/Michigan/01/2021)
- B/Phuket/3073/2013-like

While specific strain data for SkyCell varies depending on the year, it also offers quadrivalent protection.

Now in its third year, MPRL E&P’s Flu Vaccine Program has become a vital component of the company’s



occupational health strategy. The results speak for themselves: healthier employees, fewer work disruptions, and a more resilient workforce.

As MPRL E&P continues to grow, sustaining this annual vaccination initiative will be essential, not only for workplace wellness but for its a broader contribution to public health. ■

Myanmar Sailing Team Gears Up for 2025 SEA Games with Solid Performance at Thailand Championships

Moe Thu Zar Soe

As part of its preparations for the 33rd Southeast Asian (SEA) Games, set to be hosted by Thailand in December 2025, the Myanmar Yachting Federation (MYF) is ramping up athlete development and international training initiatives.

Since 2023, MYF has participated in eight regional and international competitions. The most recent event, the Thailand National Championships 2025, was held April 14 to 19 in Sattahip. This competition served a significant milestone for assessing athlete performance and enhancing competitive readiness for the upcoming SEA Games.



The Myanmar delegation consisted of 21 members: one team manager, one ODAM representative, three coaches, and 16 athletes. The sailors competed in three classes—Optimist (10 athletes), ILCA 4 (3 athletes), and ILCA 7 (3 athletes).

In the days leading up to the competition, the team participated in an intensive training camp from April 10 to 13 in Sattahip. Collaborating with local and international coaches, the joint training sessions significantly enhanced technical skills and race confidence. As a

result, all 16 athletes met qualifying standards with noticeable performance improvements.

Myanmar sailors delivered standout performances at the championships. In the ILCA 4 class, which featured 37 boats from seven countries, Khun Htun Oo placed fourth overall and third in the male category. In the ILCA 7 class, Htet Lin Zaw achieved a career-first podium finish by securing third place among 12 boats from five countries—a breakthrough performance highlighting Myanmar’s growing competitiveness in regional sailing.

Looking ahead, MYF will continue preparing its athletes in the Under-16 Optimist, Under-18 ILCA 4, and ILCA 7 classes. The federation remains committed to converting international experience and recent progress into podium finishes at the SEA Games. Drawing from insights gained at the Thailand National Championships, MYF is focused on refining its training approach and strengthening Myanmar’s regional sailing presence. ■

From Response to Resilience: Building a Safer, More Prepared Environment

Nay Myo Aung

Post-earthquake awareness is considerably important, especially in older or substandard high-rise buildings, where complex systems and higher occupancy levels can create safety challenges after a tremor. Older structures that may not meet current seismic standards are particularly vulnerable. Knowing what to do in the aftermath helps prevent panic, reduces the risk of injury, and ensures a coordinated response. It also reinforces key actions such as waiting for the "All Clear", reporting hazards, and following official instructions before reentering a building.

Floor Emergency Wardens play a vital role during emergencies by providing guidance and support to occupants on their designated floors. They ensure safe evacuation, check restrooms and isolated areas, and assist individuals with mobility challenges. Wardens also help maintain calm and order, offering reassurance in high-stress situations. Their leadership is essential to ensuring a smooth, coordinated response while minimizing confusion during an evacuation.

The Chief Emergency Warden (CEW) plays a central role in managing the overall evacuation process, coordinating closely with Floor Emergency Wardens and the building management team. The CEW makes critical decisions—such as confirming or adjusting Muster Point locations based on real-time conditions—and ensures clear communication, effective coordination, and that all actions align with established emergency procedures.

Together, Floor Emergency Wardens and the CEW form a cohesive emergency response team, working in unison to ensure the safety and well-being of all building occupants during and after an earthquake.

Over the past seven years, we have actively planned and conducted regular earthquake drills to ensure a high level of preparedness. Each exercise includes a comprehensive post-drill review with the Building Management Office (BMO), Security, HSE, Floor Emergency Wardens, and Emergency Wardens (Tenant Representatives) to capture observations and lessons learned. These insights are systematically incorporated into our processes, procedures, and response strategies.

The recent earthquake, however, presented unexpected challenges and offered valuable insights. These will further enhance our preparedness and resilience moving forward.

Reflecting on the Earthquake Evacuation: Lessons Learned and the Path Forward

On 28 March 2025, a significant earthquake struck, triggering the immediate activation of our emergency

response protocols. I am pleased to report that, thanks to the seamless coordination between the BMO, the HSE Team, Floor Wardens, and our tenants, the evacuation was carried out swiftly and professionally. All staff safely exited the building within six minutes—an outstanding achievement that reflects our robust culture of preparedness and unwavering commitment to safety.

A Professionally Managed Response

The Building Management Team exhibited outstanding professionalism in handling the situation. Following the earthquake, comprehensive inspections were carried out in strict accordance with our evacuation procedures. These included detailed visual assessments of the building's structural integrity, active and timely communication with tenants, and lift evaluations carried out by third-party inspection teams. All measures confirmed the safety of the premises, allowing for a confident and timely return to operations.

Collaboration and Continuous Improvement

The HSE and BMO Teams worked closely together to gather firsthand feedback from all tenants, documenting successful practices and identifying areas for improvement. This collaborative effort not only strengthened interdepartmental communication but also provided valuable insights into the effectiveness of our existing Emergency Preparedness and Response (EPR) protocols.



Key Learnings and Information Shared with GoC Staff

To ensure that lessons from the recent incident are effectively integrated into future preparation efforts, the HSE Team organized a post-event knowledge-sharing session for all GoC employees. The following key points were shared during the session:

Evacuation Procedures: Staff were reminded to always follow the instructions of Emergency Wardens, use the nearest emergency stairs (never elevators), close office doors, use handrails, and evacuate calmly to the designated Muster Point along Pyay Road.

Headcount must be promptly verified with the Emergency Wardens upon arrival at the Muster Point to ensure accountability and safety.

Drop, Cover, and Hold: This remains the most effective immediate response during seismic activity. The technique was reviewed during training sessions to reinforce its importance in minimizing injuries during earthquakes.

Earthquake Response Protocols: Clear steps for responding to a strong earthquake were outlined, with an emphasis on staying calm and adhering to pre-established procedures.

Highlight on Level 7: During the earthquake, a Thingyan Festival rehearsal was underway on one of the upper floors. Despite the absence of Emergency Wardens, all participants responded responsibly, by following emergency procedures learned during prior training. They executed a calm and orderly evacuation to the temporary Muster Point with commendable efficiency.

Safety Prioritization: Emergency Wardens must first ensure their own safety. Each employee also carries the responsibility to safeguard their own well-being.

Elevator Safety: Under no circumstances should elevators be used during an earthquake or fire. Use stairs only for evacuation.



Muster Point Protocols: The primary Muster Point is located along Inya Lake. However, the CEW may designate an alternate Muster Point depending on real-time conditions and safety assessments.

Accountability: Accurate headcounts at the Muster Point are essential to confirm everyone's safety. All staff must promptly check in upon arrival to ensure no one is left behind.

Leadership Engagement: Heads of Departments (HoDs) and/or Assistant HoDs (AHOds) are expected to work closely with Emergency Wardens to ensure a smooth and orderly evacuation.

Role of First-Aiders: When safe to do so, First-Aiders should bring their medical kits during evacuation to assist with immediate medical needs that may arise.

Post-Evacuation Conduct: Staff must remain at the Muster Point until the "All Clear" is given. Any delays or issues should be documented and addressed constructively to improve future responses.

Personal Belongings: No personal item is worth risking your life. Retrieving items during evacuation is strongly discouraged to ensure a quick and safe exit.



MPRL E&P Honors Earthquake Relief Team for Exemplary Service

Hsu Myat Yee



At the Monthly Management Meeting held on 5 May 2025, MPRL E&P's CEO and Senior Executive Management presented Certificates of Appreciation to members of the Earthquake Relief Team in recognition of their outstanding service and humanitarian contribution.

The Earthquake Relief Team was swiftly mobilized on 29 March 2025, just one day after a powerful earthquake struck central Myanmar. Following the guidance of the CEO and Senior Executive Management, and led by the Head of Corporate Sustainability, the team traveled immediately to Nay Pyi Taw to deliver emergency response and medical assistance, prioritizing the needs of others over their own safety.

The volunteer team consisted of 18 staff members from across the MPRL E&P Group of Companies: nine from MPRL E&P Pte Ltd., four from Myint & Associates Co., Ltd., and five from Myint & Associates Construction Co., Ltd. Their coordinated on-the-ground efforts spanned approximately two weeks, during which they provided critical relief to impacted communities.



The company extends its heartfelt gratitude to these courageous volunteers for their selflessness, dedication, unwavering commitment in the face of adversity. Special recognition also goes to the behind-the-scenes support teams, whose logistical and operational efforts ensured a smooth and effective frontline response.

Together, their efforts embody the true spirit and core values of the MPRL E&P Group of Companies. ■



MPRL A-6 Joins Coral Conservation Awareness Seminar in Ngwe Saung, Highlights Reef Restoration Efforts

Pyae Pyae Phyo

MPRL A-6 Limited's PIP CSR Team actively participated in the Coral Conservation Awareness Seminar held on 25 March 2025 at the Ocean Blue Ngwe Saung Beach Hotel. The seminar was jointly organized by the Myanmar Underwater Federation and the Myanmar Dive Center to highlight the significance of coral reef conservation.



The event was officially opened by U Thein Zaw, Township Administrator of Ngwe Saung. Dr. Than Win, President of the Myanmar Underwater Federation, delivered a keynote presentation titled "Coral Conservation in Myanmar." He was followed by U Soe Wynna, Chief Marketing Officer of Concoria Public Co., Ltd., who presented on the "Virtual Coral Museum."

At the invitation of Dr. Than Win, Daw Wit Hmone Tin Latt, Head of Corporate Sustainability of the MPRL A-6 Limited, shared the company's coral reef conservation pilot project. Her presentation, titled "Coral Revive: Restoring Reefs, Preserving Biodiversity," detailed the company's ongoing efforts to protect and rehabilitate coral ecosystems.

The seminar served as a platform to raise awareness of reef ecosystems' critical role and promote sustainable practices to ensure their long-term preservation. ■



HR's 2025 Training Series Kicks Off with Waterflooding Insights at MPRL E&P

Moe Thu Zar Soe

As part of its ongoing commitment to workforce development, MPRL E&P's Human Resources Department conducted a company-wide Training Needs Survey from 11 to 18 November 2024. The survey collected input from 111 employees, identifying priority learning areas such as technical skills, cross-functional knowledge, health, safety and environmental (HSE) programs, leadership development, soft skills and core competencies. It also gathered preferences regarding training format, duration and scheduling.

"The results now shape the 2025 training strategy. Technical training needs have been shared with respective Heads of Departments for targeted implementation, while HSE topics have been allocated to the HSE Department for inclusion in programs across the Group of Companies," said Daw Ei Ei Htun, HR Officer.

To foster collaboration and a culture of continuous learning, HR has introduced Monthly Cross-Functional Knowledge Sharing Sessions. These sessions create

opportunities for employees to share best practices and gain insight into operations across departments.

The very first session, held on 30 April and led by the Planning and Production Engineering (PPE) Team, drew participation from 132 employees. The focus was on innovation in raw water treatment for waterflood projects, highlighting how produced water—previously considered waste—is now a valuable strategic resource.

Since achieving zero discharge on 24 August 2017, MPRL E&P has reused treated water to maintain reservoir pressure, reduce scaling and enhance oil recovery. The treatment process includes coagulation, sedimentation, salinity adjustment and filtration. This results in low-salinity injection water that improves reservoir sweep efficiency by shifting rock wettability from oil-wet to water-wet.

U Myat Ko Zan, an Engineer from the PPE Department, who led the session said, "Achieving zero discharge was not just a technical milestone—it

reshaped our approach to sustainability. Our integrated water treatment and low-salinity waterflooding system not only improves recovery but also supports responsible, future-ready operations. With real-time monitoring and ongoing process optimization, we are adapting to changing reservoir conditions to further maximize recovery. Thanks to everyone involved; your contributions are driving innovation, sustainability, and operational excellence throughout the organization."

The 2025 training series reflect a thoughtful, data-driven approach to employee development, aligning individual learning needs with organizational goals. By combining targeted technical training with collaborative learning initiatives, MPRL E&P is building a culture of shared knowledge, cross-functional synergy and continuous improvement.

As the year progresses, these efforts are expected to enhance employee capabilities and reinforce the company's commitment to empowering its workforce and driving sustainable success. ■



Thal Sandy Tun

25
YEARS

Partnering for Progress: MPRL E&P's CoP 2025 and the UNGC at 25 Years

MPRL E&P has submitted its 8th Communication on Progress (CoP) to the United Nations Global Compact (UNGC) during the CoP 2025 Universal Submission Period, which runs from 1 April to 31 July 2025. This submission includes the mandatory questionnaire, a statement of continued commitment from the CEO, and a standalone report—reaffirming our dedication to sustainable and responsible business practices.

The UNGC, launched on 26 July 2000 by then-UN Secretary-General Kofi Annan, marks its 25th anniversary this year. Over the past quarter-century, the UNGC has brought together businesses worldwide to advance human rights, labor standards, environmental stewardship, and anti-corruption—transforming corporate responsibility and promoting ethical global practices. We are proud to be part of this global movement, having submitted our first CoP on 16 February 2017.

The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, outlines 17 Sustainable Development Goals (SDGs) aimed at addressing global challenges, fostering inclusive prosperity, and protecting the environment. However, the UN's 2024 Sustainable Development Goals Report indicates that only 17% of these targets are currently on track. Nearly half are making limited or moderate progress, while over a third are stagnating or regressing.

This concerning trend stems from compounding global crises, including the COVID-19 pandemic, intensifying conflicts, geopolitical uncertainty, and the worsening impacts of climate change. These challenges continue to affect global efforts in poverty reduction, education, and environmental sustainability. Achieving the SDGs now requires more urgent and coordinated action across governments, businesses, and civil society.



Since becoming a UNGC signatory on 16 February 2016, MPRL E&P has consistently aligned its corporate sustainability practices with the UNGC's Ten Principles. The CoP 2025 reflects our ongoing efforts and achievements during the Myanmar Financial Years 2023–2024 and 2024–2025. Through this report, we reaffirm our commitment to ethical business conduct and sustainable development.

We invite all stakeholders to review the CoP 2025 and share their valuable feedback as we continue our sustainability journey—together with the UNGC community—into its next 25 years and beyond. ■

From Page 5



Contractor Responsibilities: Contractors must strictly follow all instructions from emergency personnel to ensure their safety and that of others.

HSE Department's Role: The Department will remain committed to providing targeted HSE trainings aligned with the "Emergency Procedures Tenant Guidebook." These include coordination meetings, refresher sessions, and reinforcement of best practices to maintain a high level of preparedness.

Moving Forward

This recent event has been a powerful reminder of both the strengths we have built through years of planning and collaboration, and the areas that still require focused attention and improvement. While the earthquake tested our systems, it also reaffirmed the effectiveness of our collective efforts.

As the HSE Manager, I take immense pride in how our teams—across BMO, Security, HSE, Floor Wardens, and our tenants—responded under pressure with professionalism, coordination, and dedication. Yet, I also recognize that true preparedness is not a fixed milestone, it is an evolving process.

This experience has underscored the need to continuously refine our emergency protocols, communication channels, and response capabilities. Preparedness is not a one-time task or checkbox item—it is a mindset and a culture that must be actively cultivated every day through consistent training, awareness, engagement, and accountability.

Let us view the lessons from this event not as isolated takeaways, but as meaningful opportunities to strengthen our systems, empower our teams, and reinforce our shared commitment to safety and resilience.

By staying vigilant, learning from real-world experiences, and working together, we can build a safer, more prepared environment for all. ■

“Preparedness is not a one-time task or checkbox item—it is a mindset and a culture that must be actively cultivated every day through consistent training, awareness, engagement, and accountability.”

As I sat at my desk planning topics for the next issue of Insight! Newsletter, my thoughts drifted to geology—perhaps sparked by the recent earthquake in Myanmar. Just then, U Kyaw Soe Win, Geoscience Manager (GGM), happened to walk by. Without a second thought, I seized the opportunity and scheduled a quick sit-down with him.

Thank you for taking the time to chat with me, U Kyaw Soe Win. With the recent earthquake in March, there's been a lot of talk about seismic activity. But I wanted to dig a little deeper—into geology, and your professional journey. With your experience at MPRL E&P, I know there's a lot you can share that would be valuable for all of us. Let's start with your background.

Well, thank you for letting me share my story with you. After I finished matriculation, I enrolled in the Petroleum Engineering Diploma program at Yangon Technological University. It was a two-year program I completed while waiting to start my Bachelor's. I later earned my geology degree from Dagon University in 2003.

I actually started working at MPRL E&P as a Student Engineer while doing my diploma. Once I got my degree, I was offered a full-time position. So really, I have been in the oil and gas industry since the very beginning of my academic and professional journey.

That diploma was my first real step into the industry. It gave me the opportunity to start working early on and sparked my interest in pursuing geology more deeply—to align my education with where I wanted to go.

That's a strong foundation, engineering and geology. You've got both technical depth and a broad view of geoscience. Can you walk me through some turning points in your career that brought you to your current role?

As part of my assignment on the Mann Field PCC Project, I oversee field development operations—mainly new activities like well deepening, new well drilling, and additional perforation (well completion). Mann Field is a key production asset for MPRL E&P. To maintain daily field production output, our Technical Team runs various initiatives in line with our annual work plan. As part of that team, I help identify new hydrocarbon opportunities to sustain production, under the guidance of our senior leadership.

In addition to development work, I have also been involved in early exploration studies for Block A-6. Being part of both development and exploration has really expanded my understanding of the petroleum industry and pushed my career forward.

Was there anyone early on who helped guide your path?

Absolutely. The senior geoscientists at MPRL E&P had a huge impact on me. Many of them were former Myanma Oil & Gas Enterprise (MOGE) geologists with years of field experience. They weren't just technically sharp—they were generous with their time and knowledge. That mentorship helped shape how I approached both geology and career development.

It's clear those early mentors left a mark, especially in a time before AI or even online resources were widely available.

Exactly. Back then, Myanmar didn't have universities or training centers specifically focused on petroleum geology. So, we really relied on hands-on mentorship,



short overseas training courses, and guidance from expat geologists at the sites. That practical experience—field geology, operational work, development studies—built the technical foundation I still rely on today.

Speaking of AI—these days, everyone's turning to it for learning and productivity. What is your take on how it is changing the field?

The last decade has been transformative for geoscience. Digital tech and data analytics have reshaped how we work—especially with the support of strong oil prices fueling R&D investment. Today, AI and machine learning are built into many of the tools we use for subsurface evaluation.

In the past, we relied heavily on manual interpretation and basic 2D visualization. Today, machine learning and AI are being integrated into various geoscience applications. AI now helps with seismic fault detection, lithofacies classification, reservoir property prediction—you name it. Since geoscience is an extremely broad and evolving field with continuous advancements in technology and methods, I believe that continuous learning is essential for every geologist. And to stay effective as geoscientists, we have to stay current. I personally use AI to quickly explore geological concepts or speed up general research. It helps me work faster and learn more efficiently. I also try out new tools—whether it's geomodelling software or just a better note-taking app—to keep things streamlined and accurate.

If you could give your younger self one piece of career advice, what would it be?

Keep learning. Always. That's what I would tell myself.

There are more resources now than ever before like AI tools, journals, forums, and networks. What matters is being curious and asking the right questions. That's how you grow. And when you hit a complex problem, break it down. Solve the simpler parts first. It's like solving a puzzle—start with the corners to build the bigger picture. This mindset not only makes problem solving more efficient but also builds confidence and momentum.

Seems like mentoring junior geologists must be very rewarding for you.

It really is! Helping young geologists grow into confident professionals brings long-term value—not just to them, but to the whole organization. Seeing someone build their skills and become technically independent is incredibly fulfilling. You know, collaborating with junior team members and participating in technical discussions not only supports their growth but also sharpens my own skills. Sharing knowledge, solving problems together, and staying curious help

me stay current and continue growing, even after more than a decade in the industry.

But I also find personal reward in the technical side—especially when I can help shape decisions through thorough subsurface evaluations. A solid geological interpretation can reduce risks, shape company strategy, and directly impact project success. That level of impact is what keeps me passionate about this role. Knowing that our team's work directly supports successful project development is incredibly satisfying.

It's always great to be supporting the younger generation in fields like when it's not always considered a "popular" career choice like medicine or engineering. Let's shift a bit—Myanmar's geology is quite unique. How does that influence your exploration strategy?

Myanmar sits at the tectonic collision zone between the Indian and Eurasian plates, which makes the geology complex—but also full of opportunity. We've got several petroleum provinces—from the Central Myanmar Basin to the offshore areas of Moattama and Western Ayeyarwady, each requiring tailored exploration strategies and a broad geoscientific understanding.

In mature onshore fields like Mann Field, we are moving from greenfield exploration to brownfield redevelopment. That includes enhanced recovery techniques, like waterflooding, to maintain production decline output rather than chasing new discoveries.

Looking ahead, what future exploration opportunities excite you most in Myanmar?

Even though many of Myanmar's oil and gas provinces (particularly the Central Myanmar Basin and shallow offshore areas) have been extensively explored, there are still promising frontier regions awaiting further investigation. One of the most exciting opportunities lies in the deepwater offshore areas, which remain largely underexplored. These areas present significant potential with unexplored plays that could lead to new discoveries.

Onshore, while traditional plays are maturing, we can still explore technically challenging areas. Based on MPRL E&P's operational experiences, the future lies in using advanced imaging, seismic, drilling, and production techniques to work around geological barriers—like high-pressure zones or poor-quality reservoirs. Exploring these complex and less accessible hydrocarbon systems requires innovation and persistence, but it's precisely these challenges that make the future of exploration in Myanmar both exciting and rewarding for dedicated oil finders.■



From Field to Foundation:

The Steady Hand Behind Mann Field’s Operations

Hnin Wynt Zaw

With nearly three decades of dedicated service, U Min Zaw Tun has grown from a Finance Assistant in Yangon to the trusted Field Business Support Supervisor at Mann Field. His journey is a story of perseverance, adaptability, and quiet leadership — a reminder that true impact often happens behind the scenes, where commitment meets care.

Nestled in the quiet Auk Kyaung Village within the boundaries of Mann Field, a dedicated professional’s journey has been quietly unfolding for nearly three decades. Starting in 1997 with Myint & Associates Co., Ltd. as a Finance Assistant, U Min Zaw Tun began a path that would eventually make him an integral pillar of MPRL E&P’s operations at Mann Field.

After four formative years in finance at the head office in Mayangone Township, U Min Zaw Tun transitioned into field operations, joining MPRL E&P in 2001 as a Field Technician. His desire to be closer to the heart of the company’s fieldwork drove him to make the shift. Craving a deeper connection to the on-ground realities of oil and gas operations, he sought to contribute in ways that aligned with his passion for people and process.

His adaptability and enthusiasm for growth soon led to a promotion in 2002 to Administrative Assistant. By 2010, his steadfast commitment and reliability earned him the title of Senior Field Administrative Assistant. “I enjoy working with people, solving problems, and helping everything run smoothly,” he shared. “Moving into field admin support gave me the chance to do all of that—and to grow my skills in a new way.”

Alongside his career progression, U Min Zaw Tun pursued higher education, earning a Bachelor’s Degree in Geography from the University of Yangon in 2003. This achievement was made possible with the support of the company’s leadership, particularly CEO U Moe Myint. His academic background would later prove surprisingly relevant in understanding the spatial and logistical intricacies of field operations. “Studying Geography gave me a strong foundation that supports my daily work, especially when dealing with field logistics, land use, and communication with different teams,” he said. “I’m proud that I was able to earn my degree, and I’m thankful to our CEO U Moe Myint for the support that made it possible.”

His journey from technician to administrative leader is marked by purpose and resilience. In 2017, he became a Field Business Support Officer, and in April 2025, he was promoted to Field Business Support

Supervisor. These roles reflect an evolution from hands-on technical work to broader responsibilities in coordination, planning, and communication, ensuring smooth operations and regulatory compliance.

“I enjoy working with people, solving problems, and helping everything run smoothly. Moving into field admin support gave me the chance to do all of that—and to grow my skills in a new way.”

Although the shift from technical to administrative work presented challenges, U Min Zaw Tun embraced them wholeheartedly. Each day brings something new, but his priorities remain the same: supporting the team, maintaining operational efficiency, and fostering a positive work environment. Whether managing paperwork, onboarding new staff, or coordinating with government offices, he approaches every task with unwavering focus and care.

At the core of his motivation is his family—especially his two sons—and a strong sense of purpose. “I want to be a good role model for them,” he said. “Their smiles and support remind me why I work hard every day. Even when challenges come, I see them as chances to learn and grow. That keeps me going and excited about my job.”

Working in a team environment suits him well, as he believes collaboration leads to greater achievements. He leads by example, fostering a supportive atmosphere where everyone feels respected and valued. While he can focus well when working alone, especially on tasks that require attention to detail, he thrives in a team setting that promotes shared success.

His responsibilities extend to HR functions such as onboarding new staff (CEC), overseeing staff welfare, and serving as a worker representative on the Workplace Coordinating Committee. When handling staff concerns or complaints, he listens carefully, communicates clearly, and ensures follow-through. His calm demeanor and commitment to fairness have earned him the trust of colleagues and stakeholders alike.

Recognizing the challenges of working in a remote field setting, he prioritizes morale through open communication, consistent support, and attention to staff welfare. He maintains strong relationships

with HR, Admin, and other departments to ensure continuous support and effective feedback loops.

Balancing multiple responsibilities has become second nature to him. U Min Zaw Tun uses prioritization tools such as to-do lists and maintains constant communication with supervisors to manage his busy schedule. Urgent tasks and safety-related matters always take precedence. For him, a typical day involves reviewing priorities, coordinating with departments, supporting daily wage laborers, and participating in CSR activities.

His well-rounded experience also includes a stint supervising in Gas and Oil Collecting Station (GOCS), where he oversaw production while adhering to SOPs, OHS, and environmental policies. This blend of administrative and technical knowledge uniquely positions him to support field operations in a comprehensive way.

Looking ahead, U Min Zaw Tun aspires to take on a more senior leadership role, with hopes of mentoring others just as he was once supported. His long-term vision includes contributing to the development of field staff and enhancing overall workplace well-being.

And to those considering a similar career path, he offers this advice: be organized, stay humble, and always listen. “Business Support is about more than procedures—it’s about people. Building trust, solving problems, and staying committed can turn this job into a fulfilling journey,” he said.

Outside of work, he enjoys the simple pleasures of family life, walking through the village, gardening, and playing soccer. At home, his sons know him not only as a hardworking professional but also as the funniest person in the house. For him, it is the balance of personal and professional life that keeps him grounded and motivated.

U Min Zaw Tun’s story is one of quiet strength, lifelong learning, and deep commitment—to his work, his team, and his community. As he continues to grow, so too does the positive impact he makes at Mann Field and beyond. ■

“Business Support is about more than procedures—it’s about people. Building trust, solving problems, and staying committed can turn this job into a fulfilling journey.”



In this edition, we shine a light on Daw Su Yadanar whose passion for law, commitment to compliance, and continuous learning make a real impact. Let's discover the journey, insights, and surprising hobbies that shape her professional and personal life.

Please share your family and educational background, including some of your professional journey after graduation.

There are five of us in my family—my father, mother, older sister, younger sister and me. I graduated with a Bachelor of Laws (LL.B.) in 2012 and went on to earn my Master of Laws (LL.M.) with a specialization in International Laws in 2014, both from the University of East Yangon.

I have been working in the legal and compliance field for over 10 years now. During that time, I have built a solid understanding of legal systems and picked up a lot of practical skills dealing with different regulations and corporate challenges.

I started my legal career at Hlaing Law Firm, where I got hands-on experience with litigation cases as a Junior Lawyer. After that, I worked in a number of corporate legal roles, first at DMMT Group as a Legal and Compliance Officer, then at Telecom International Myanmar as a Senior Officer, followed by leadership roles at KDDI Summit Global Myanmar Co., Ltd., and Blue Ocean Operating Management Co., Ltd.

Each step of the way has helped me grow professionally and personally, especially in supporting corporate governance and making sure companies stay compliant and operate with integrity.

What inspires you to pursue a career in law and compliance?

I believe that legal and compliance is a key part of driving ethical growth and sustainable success. With today's fast-changing and complex regulatory landscape, businesses are under more scrutiny than ever. I am motivated by the chance to help companies navigate these challenges in a way that is both responsible and strategic.

What I find particularly fulfilling is the proactive side of compliance. It is not just about making sure rules are followed, it is about aligning operations with both legal standards and a company's core values. I enjoy contributing to strong governance by helping shape policies, manage risk before it becomes a problem, and encourage a culture of transparency.

For me, working in this field is more than a job, it is about empowering organizations to operate with integrity and confidence, knowing they are doing the right thing every step of the way.

You hold multiple academic and professional qualifications, including a Master of Laws and diplomas in business law and strategic management. Can you briefly explain your reason for pursuing these courses?

Pursuing additional qualifications has been a strategic way to strengthen both my legal expertise and practical business insight, especially important in the highly regulated oil and gas sector.

In 2018, I earned a Diploma in Business Law from the Myanmar Institute of Business, which helped me understand how legal frameworks apply to real-world business operations. To build on that, I obtained a diploma in Business Management & Administration from the Institute of Commercial Management (ICM) in 2019, giving me a better grasp of internal processes and organizational structure key for effective compliance work.

Compliance in Action:

Daw Su Yadanar Shares Her Story

Hnin Wynt Zaw



To further support strategic leadership in compliance, I completed a Level 7 Diploma in Strategic Management and Leadership from OTHM (UK) in 2022. Most recently, I became a Certified Risk and Compliance Management Professional (CRCMP) in 2024, deepening my ability to assess and manage risk with confidence.

Together, these programs have equipped me to take a well-rounded, proactive approach to compliance, aligning legal responsibilities with business goals, and supporting ethical, sustainable operations in a complex industry like the oil and gas.

Compliance is a dynamic field, especially in a highly regulated industry. What do you find most rewarding about your role?

What I find most rewarding about my role in compliance is the opportunity to contribute meaningfully to both risk mitigation and ethical business conduct. In a highly regulated industry like oil and gas, where operational, legal, and environmental stakes are significant, I take pride in ensuring that the organization not only meets its legal obligations but also upholds integrity and accountability in all aspect of its operations.

Moreover, compliance is never static, it evolves alongside changing laws, technologies, and business practices. This dynamic nature keeps me intellectually engaged and fosters continuous learning. Working at the intersection of law, strategy, and operations allows me to grow professionally while contributing meaningfully to the organization's long-term success.

Can you share a challenge you've encountered in your work and how you overcame it?

One notable challenge I faced was implementing a new compliance policy across various departments in a corporate setting where each partner had different procedures, risk tolerances, and corporate cultures. The goal was to align everyone under a unified compliance framework that met both local regulations and international standards, without disrupting daily operations.

To overcome this, I focused on bridging communication gaps, understanding each department's concerns, and aligning the policy with broader business needs. Through consistent dialogue and stakeholder engagement, we gained internal buy-in and rolled out the changes with minimal disruption.

This experience taught me the value of adaptability, clear communication, and collaboration, especially

when leading compliance efforts in a complex and highly regulated industry like oil and gas.

What is the best part of your day at work?

The best part of my workday is solving problems and collaborating with different teams to tackle compliance challenges. Whether it's reviewing new policies, offering regulatory guidance, or helping a department work through an issue, I find it rewarding to contribute solutions that both protect the organization and promote ethical decision-making.

I also really enjoy leading training or awareness sessions. These moments, whether analytical or people-focused, give my work purpose and allow me to grow while making a positive impact.

What skills or habits have been most essential for your success as a Junior Compliance Officer?

A few key skills have really helped me thrive in this role. First, attention to detail is crucial when reviewing documents or monitoring regulatory changes. Strong analytical thinking allows me to assess risks and make informed decisions.

Equally important are effective communication skills, being able to clearly explain compliance requirements to various teams makes a big difference. I also value proactiveness and curiosity, which push me to stay updated on evolving regulations and look beyond surface-level issues.

Lastly, integrity and confidentiality are non-negotiable in compliance, and solid organizational skills help me stay on top of tasks and deadlines in a fast-paced environment.

Lastly, what's something your colleagues might be surprised to learn about you outside of work?

Something my colleagues might be surprised to learn about me is that I have a deep passion for learning, especially outside of formal education. It's a part of my life that helps me unwind from the structured, fast-paced environment of compliance and connect with something more hands-on and personal.

This habit not only brings me joy and balance, but it also teaches valuable skills like patience, attention to detail, and creative problem-solving all of which I find surprisingly useful in my professional life. It's a great reminder that personal passions can enrich our perspectives and positively influence how we show up at work every day. ■

From Cover Page

The most active of these faults is the Sagaing Fault, located between the Myanmar Platelets and the Sunda Plate. It stretches more than 1,400 kilometers, from the Kachin Mountains in the north to the Gulf of Mottama in the south. Most of the significant earthquakes in Myanmar’s history have been caused by activity along this fault.

Below is a table of the Sagaing Fault activity in the 20th and 21st centuries.

No.	Earthquake Location	Moment Magnitude (Mw)	Time	Casualties
1	Swa	7.0	8 August 1929	-
2	Bago	7.3	5 May 1930	500 in Bago, 50 in Yangon
3	Phyu	7.5	4 December 1930	30
4	Myitkyina	7.6	27 January 1931	-
5	Pyinmana	“Violent”	10 August 1931	-
6	Tagaung	7.5	12 September 1946	2
7	Sagaing	7.0	16 July 1956	40-50
8	Tagaung	7.1	5 January 1991	-
9	Thabeikkyin	6.8	11 November 2012	26 dead, 12 missing
10	Sagaing	7.7	28 March 2025	More than 3,800

Table 1. Most notable earthquakes along the Sagaing Fault in the 20th and 21st centuries. Note the variations in intervals between events, ranging from as short as two months to as long as 35 years.

No periodicity: One of the striking observations in Table 1 is the complete lack of periodicity. Earthquakes along the Sagaing Fault remain unpredictable. Five strong events occurred between 1929 and 1931, followed by a 60-year period with only two notable events. Significant earthquakes along the Sagaing Fault can occur anytime , ranging from as short as two months apart to as long as 35 years.

Can Earthquakes Be Forecast in a Practical Way?

Is it possible to forecast earthquakes with enough certainty to build a practical early earthquake warning system that authorities could act upon? The emphasis on "practical" means providing sufficient time for people and communities to prepare for a seismic event, similar to the systems currently in place for cyclones.

No Right to Fail: Answering this question directly affects a critical and potentially life-saving decision: whether to issue a warning to millions of people ahead of an incoming earthquake. Such a system would allow civil protection authorities to mobilize, prepare shelters, and deliver timely support and care where needed. Table 2 describes the complexity of this decision-making challenge. In a nutshell, any

system of earthquake forecast that provides authorities with the evidence to raise the alarm —while still largely utopian— would have no right to fail.

The Only Success: As an example, and while China has long been one of the few countries at the forefront of earthquakes forecast for a long time, the city of Haicheng, in Liaoning province in eastern China, was timely and successfully evacuated following a 10-hour warning ahead of a 7.3 magnitude earthquake

on the eve of 4 February 1975. Although 90% of the city’s one million inhabitants experienced structural damage, the death toll was limited to just over 2,000. The forecast was based on integrating several telltale signs: mainly extensive foreshocks in the 36 hours leading up to the quake, simultaneous changes in the levels, color, and chemistry of well water, and unusual animal behavior reported across the region. These early warning indicators provided enough evidence to justify the evacuation.

Reasons for Success: To date, the 1975 Haicheng earthquake remains the only major earthquake ever forecast in a practical and timely manner. This successful precursor monitoring was based on observations spanning from long-term (months) to short-term (hours) supported by both professionals and trained amateur volunteers. Their collective efforts gradually refined the location and timely forecasts. Reports also mention that "empirical analysis, intuitive judgment, and good luck" played a crucial role in the successful forecast.

Followed by Humbling Failure: Despite this achievement, the same continuous monitoring system completely failed to forecast a 7.8- magnitude earthquake

just 18 months later. The tremor devastated the city of Tangshan in Hebei province, only 400 kilometers west of Haicheng, on 28 July 1976. With no foreshocks or observable signs, the quake struck without warning and clamined the lives of nearly 250,000 inhabitants, making it one of the worst natural disasters of the 20th century.

Triggered by the movement of a hitherto unknown fault, the earthquake had not been preceded by any foreshocks or other telltale signs whatsoever. Earthquake forecasters were swiftly reminded of the challenges involved in forecasting such dramatic seismic events.

The Answer is No: Unfortunately, as of today, the unambiguous answer to this question is: **No, it is not possible to forecast**, in the short term and in any useful and practical manner, the time, location, magnitude or the intensity of such a potentially disastrous event. Unlike the imminent occurrence of cyclones, whose progress can be directly observed from satellite images, the complex phenomena that lead to an earthquake cannot be seen at first glance. Yet quite a few earthquakes, though not all, are preceded by earthquake precursors.

What Are Earthquakes Precursors?

Earthquake precursors are telltale signs of forthcoming, possibly imminent, earthquakes. These precursors may be observed as either directly or indirectly related to stresses building in a fault about to rupture.

Direct signs: These are indications of environmental changes directly related to deformation near the fault under stress, namely foreshocks, subtle ground deformation, and changes in subterranean water levels.

- **Seismic foreshocks:** A series of small quakes, the foreshocks, may occur before a major earthquake. But not always. Most sources estimate that only 20% to 40% of large earthquakes are preceded by foreshocks. In other words, more often than not, a major earthquake strikes without any detectable seismic warning. These short-term foreshocks can occur anywhere from several months to just minutes before the main shock. They indicate that stress is building up in fault zones. Among all earthquake precursors, monitoring foreshock activity is considered promising, as it occurs precisely in areas under high stress.

The challenge lies in the uncertainty of timing, from months to minutes, and in distinguishing isolated minor events from real warnings of the "big one" (see Figure 2).

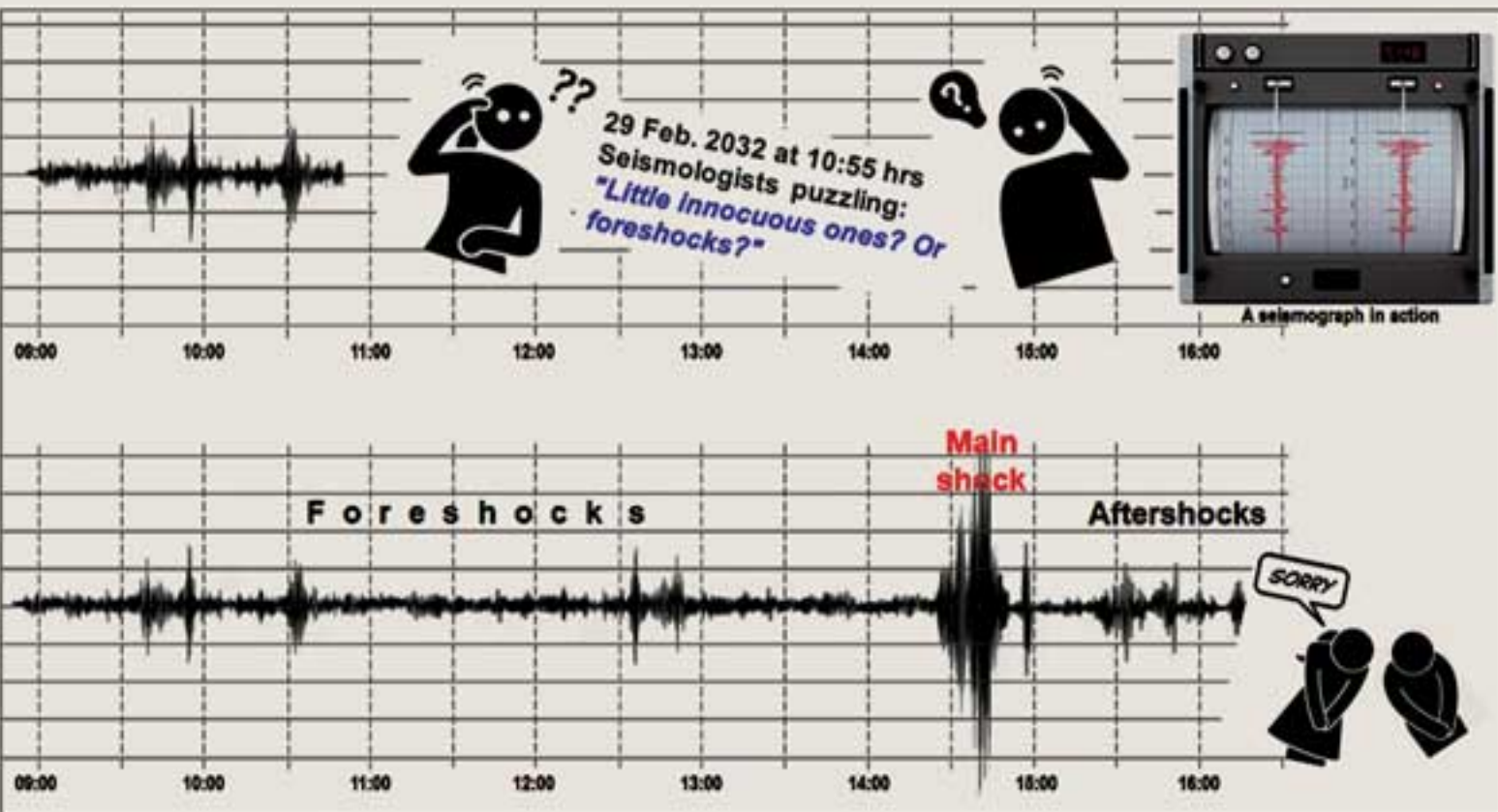


Figure 2: The trouble with identifying foreshocks; this seismic event is a reconstructed, fictitious seismogram—similar to the type of data recorded by a seismograph, like the one shown at the top right of the figure

But progress is being made. Seismic sensors are improving, allowing scientists to record a wider spectrum of seismic waves, including those at very low frequencies. Additionally, artificial intelligence is being applied by a







	Quake Occurs	No Quake
Half-day Earthquake Alarm System in place	Timely evacuation of people and preparation of essential service <ul style="list-style-type: none">Limited fatalities and casualtiesGreat material losses mitigated by<ul style="list-style-type: none">Earthquake-proof constructionReady with sheltering and caring for casualties  	False Alarm <ul style="list-style-type: none">Panic, social and economic disruptionLoss of confidence in the warning system by the public 
No Half-day Earthquake Alarm System	Numerous fatalities and casualties <ul style="list-style-type: none">Great & Lasting social and economic disturbance of communities<ul style="list-style-type: none">Somewhat mitigated by civil society readiness and earthquake-proof construction  	Life as usual <ul style="list-style-type: none">No costs of warning system 

Table 2: Challenges of deciding when to evacuate if a practical earthquake alarm system exists

few institutions around the world, which are teaming up to analyze hundreds of old seismic records. Their goal is to detect typical frequency patterns that might differentiate frequent, harmless tremors from potential precursors of devastating earthquakes. This arduous work may eventually help provide clearer, more reliable warnings of major events.

- **Ground deformation:** Changes in stress near faults may—or may not, depending on the nature of the soil—cause the ground to subtly buckle. Figure 3 shows how successive flyovers of radar satellites are used to monitor changes in ground elevation, such as uplift or subsidence, as a result of an earthquake, in this case, in Japan. It appears that the greater the buckling, the more powerful resulting quake may be. Admittedly, this image reflects a “before-and-after” comparison of the event.

A challenge, again, is that such changes in topography may appear months, or sometimes just minutes, before a tremor. Distinguishing between mild, transient ground movements and actual warning signals of a major quake remains difficult. However, experiments involving many Global Positioning System (GPS) sensors, combined with satellite-borne high-resolution radar instruments, are offering hope. These technologies aim to detect, both in time and space, the progression of ground buckling near active faults and potentially provide early warning of an imminent significant earthquake.

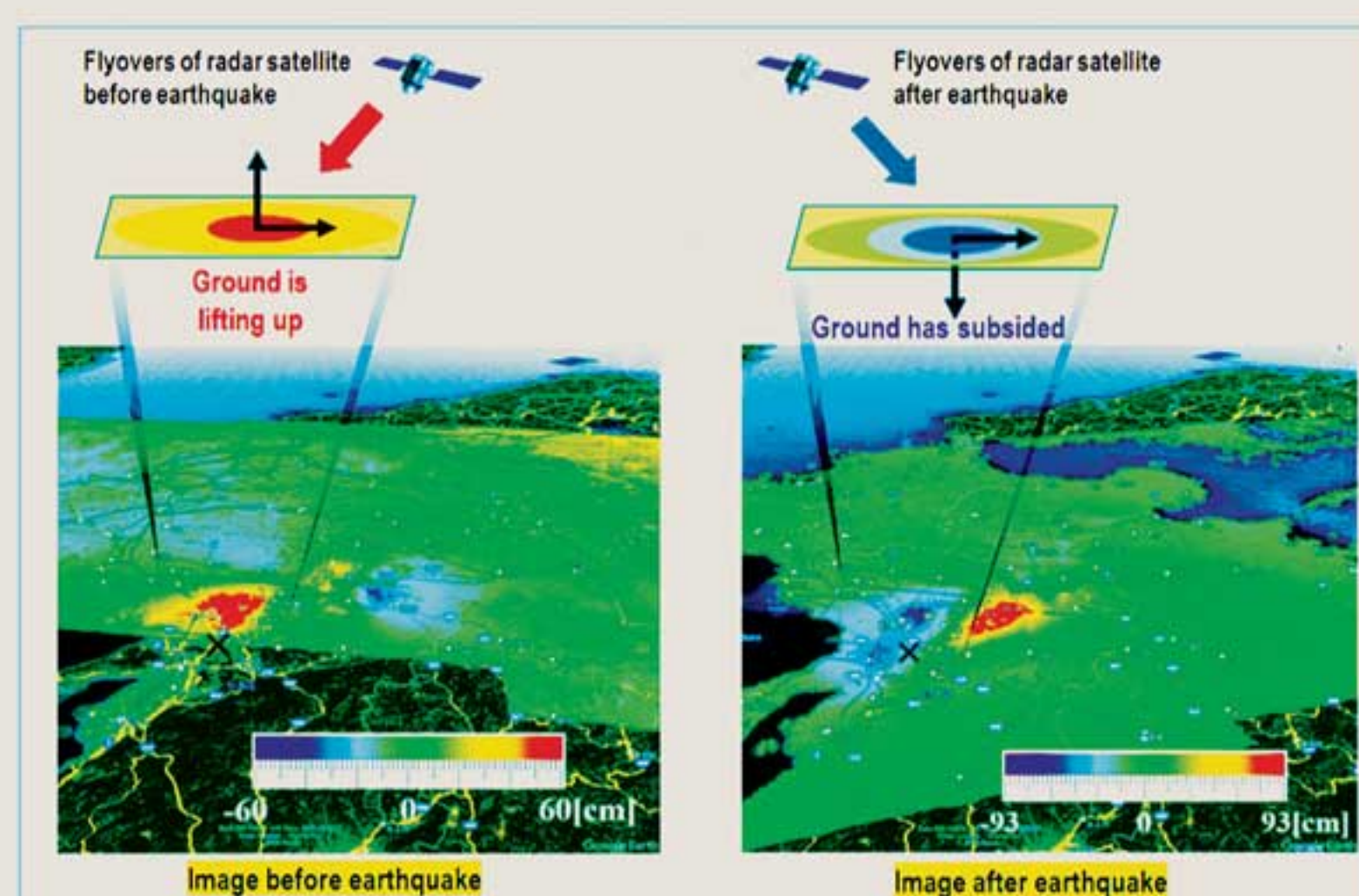


Figure 3: How successive satellite flyovers compare the ground movements before and after earthquake;
Ref.: Monitoring of ground deformation before and after an earthquake using interferometric SAR

Water Level Changes

Unusual changes in groundwater levels, either increases or decreases, have often, but not always (again), been observed prior to earthquakes. These fluctuations may result from strain in underground rocks, which alters the flow of underground aquifers. Monitoring groundwater levels is a long-standing method for indicating the possibility, but not the certainty, of an impending earthquake. However, such changes can also be caused by natural factors like rainfall or drought. Here too, the largest recorded anomalies tend to correlate with the intensity of the resulting earthquake. These changes in water levels are often, but not always, accompanied by a change in color, typically turning the water muddy, as well as changes in the chemical composition of the salts dissolved in the water.

Indirect signals are more difficult to monitor systematically, and the physical reasons behind their occurrence are still poorly understood. Radon emissions and strange animal behavior are the most frequently cited of these signals.

- **Radon Emission:** Radon is a radioactive gas present in minute, harmless amounts, especially in landscapes dominated by volcanic and crystalline rocks. It is less common, though still detectable, in environments with sedimentary rocks such as sandstone or limestone. Radon is easy and inexpensive to detect, even in trace amounts, using radiation counters.

For reasons not yet fully understood, likely related to an increase in microscopic cracks in rocks under stress along fault lines, radon levels often rise near the vicinity of the rupture zone of an impending earthquake. The timing of this rise can vary from a month to just minutes before the event. Notably, radon tend to be more frequent near the epicenter and often appear earlier for larger earthquakes. However, a stronger radon emission does not necessarily indicate that the upcoming earthquake will be a large one.

- **Animal Behavior:** There are numerous anecdotes from ancient times describing abnormal animal behavior preceding earthquakes. These accounts often involve animals living underground such as rats, snakes or ants, that may be disturbed by subtle subterranean signs. Most scientists studying animal behavior before earthquakes are based in China and Japan, where researchers have documented many cases of strange behavior occurring from weeks to minutes before an event.

However, other natural disturbances can also affect animal behavior. These include heavy rainfall and flooding, large shifts in barometric pressure (such as those preceding thunderstorms), full moons and/or the presence of predators. These overlapping factors make it difficult to sort out earthquake-related forecasts from other natural causes.

Other Variations

Some studies report anomalies in Earth's electromagnetic and/or gravity fields before and during earthquakes. These include rare sightings of "earthquake lights" glows in the night sky that resemble like Northern Lights or iridescent clouds. The mechanisms behind these phenomena remain speculative.

Detection is limited to scattered observations of electromagnetic waves high above the atmosphere, in a zone known as the ionosphere, and gravity measurements, which may not always be directly associated with seismic activity.

Reliability Matters

For any earthquake forecast system to be effective, it must integrate a wide range of reliable precursors. To be considered reliable, these precursors should meet the following criteria:

- Be linked to well-understood changes in stress along active faults in real time.
- Be observed simultaneously at multiple locations. A wide and dense sensor network is needed to monitor consistent changes along sensitive faults in real time.
- Show a pattern of weakening the farther they are from the anticipated epicentre.

So far, none of the known earthquake precursors occur consistently enough to support making critical evacuation decisions with confidence. These precursors are often elusive, not universally accepted, and remain a subject of debate within the field of geophysics.

Still, many countries at risk of major earthquakes have launched scientific programs aimed at improving short-term forecast. Progress continues toward developing methods that could help authorities prepare and warn communities more effectively.

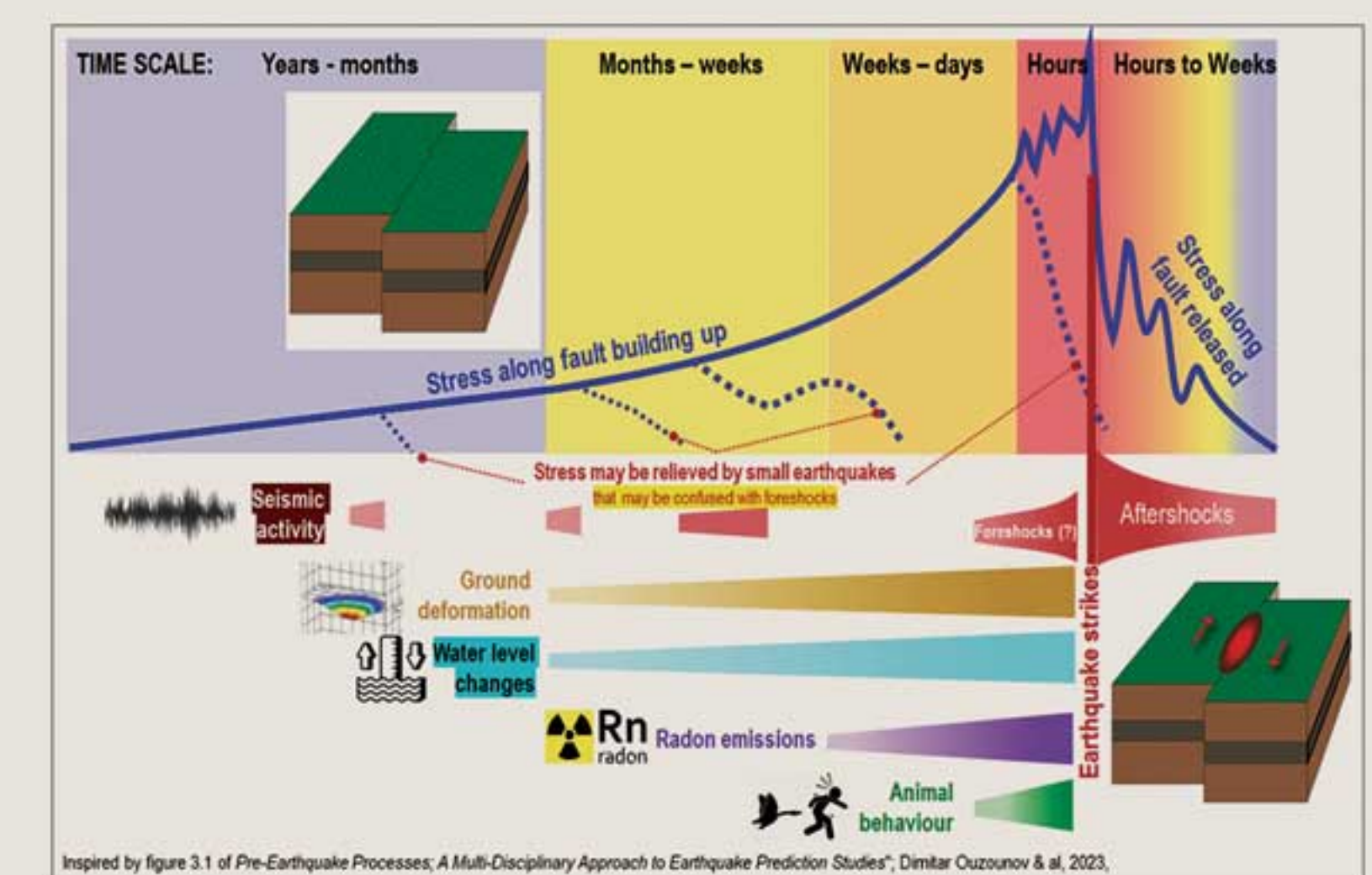


Figure 4: Phenomena often reported in relation to stress building along fault

Looking forward

The search for more effective earthquake forecast methods goes on. Global cooperation among scientists is crucial, as shared knowledge and data can lead to breakthroughs that no single team could achieve alone.

Figure 4 summarizes all above precursors in relation to the time before a seismic event. It illustrates how interdisciplinary integration of multiple data sources—geological, geophysical, biological atmospheric—may eventually lead to a more predictive tool for seismic activity. Such advancements could strengthen earthquake warning systems, helping society reduce fatalities and better prepare for these natural disasters.

Conclusion

Where, when, and how strong might the next Sagaing Fault earthquake be? Will it strike between Phyu and Bago (potentially affecting Yangon), or North of Singu? Will it happen in two months or 35 years? Not very practical, is it? Hopefully, reading this paper has shed light on the complexity of that question. While forecasting earthquakes in a practical and reliable way is still beyond our reach, preparedness is always within our control, both as communities and as responsible individuals.

Building and strengthening structures: Many high-risk countries enforce stringent earthquake-resistant construction codes, including for buildings or transportation infrastructure.

Education: Communities in earthquake-prone areas must be informed and ready, before, during, and after an event. Regular emergency drills can help maintain awareness and readiness.

We invite readers to consult the safety guidelines included in this issue of Insight!—comprehensive advice that may save lives in the aftermath of such a traumatic event. Want to know more? Frustrated by (no) Wikipedia? Eager to share knowledge? The following may please you. ■

On earthquake precursors:

- "The Possibility of Earthquake Forecasting, Learning from Nature"; Sergey Pulnits, Dimitar Ouzounov, IOP Publishing Ltd; 2018; 167 pages
- "Earthquake Precursors in the Atmosphere and Ionosphere, New Concepts"; Sergey Pulnits, Dimitar Ouzounov, Alexander Karelina, Kyrill Boyarchuk; Springer Verlag; 2023; 309 pages
- "Pre-Earthquake Processes; A Multi-Disciplinary Approach to Earthquake Prediction Studies"; Dimitar Ouzounov, Sergey Pulnits, Katsumi Hattori, Patrick Taylor; Amer. Geoph. Union and Wiley eds; 2023; 814 pages



A Legacy Preserved in Art

Hnin Wynt Zaw



For years, the space on Damayone Street in Hlaing was just another location—unassuming and unnoticed. But for Ko Phone Kyaw Moe Myint, it held a different kind of potential: the potential to become something deeply personal, a haven for both creators and admirers of art.

On March 22, 2025, Ko Phone Kyaw Moe Myint's long-held dream became a vibrant reality with the grand opening of "Gallery Ohmar," his intimate new gallery space. Stepping inside felt like stepping into his late mother's artistic journey itself, almost as if finding the artist once again through "Finding Ohmar," the gallery's inaugural exhibition. The scent of freshly painted walls with the subtle aroma of a mystic ocean, a sensory invitation into the world she had lovingly built—modern, professionally curated, and deeply nostalgic, suspended in a vacuum of memory.

The path to this moment was not straightforward or easy. What began as an idea to honor his mother's work in a catalogue gradually transformed into something more substantial. In 2022, while reflecting on the artwork stored in her home and garage, many pieces rich in personal and cultural value, he realized they deserved to be preserved, shared, and celebrated.

After years of planning and consultations, Gallery Ohmar opened as the first state-of-the-art gallery in Myanmar, fully equipped to host exhibitions meeting international standards. It opened with the debut of "Finding Ohmar," an exhibition showcasing some of her prominent works along with those from pioneers of modern Myanmar painting including U Ba Nyan—the first Burmese artist to study in England—alongside legends like Win Pe, Paw Oo Thet, and Kin Maung Yin. The exhibition weaves art with historical narrative, allowing visitors to experience both the brushstrokes of Old and New Masters of Myanmar Art.

A record number of 15,000 visitors walked through the doors of the exhibit, engaging with the art was a profoundly emotional peak—especially for the



founder, U Phone Kyaw Moe Myint, the younger son of the late Ohmar Moe Myint, beloved wife of CEO U Moe Myint.

The opening carried deep personal meaning for him and his family. His mother was the heart and soul of their lives—a woman filled with love, compassion, and unwavering strength. She gave selflessly to her family and community, especially those underserved. The success of "Finding Ohmar" was not just a humble accomplishment but a touching homage—a son's love letter to his mother and a powerful contribution to Myanmar's art landscape.

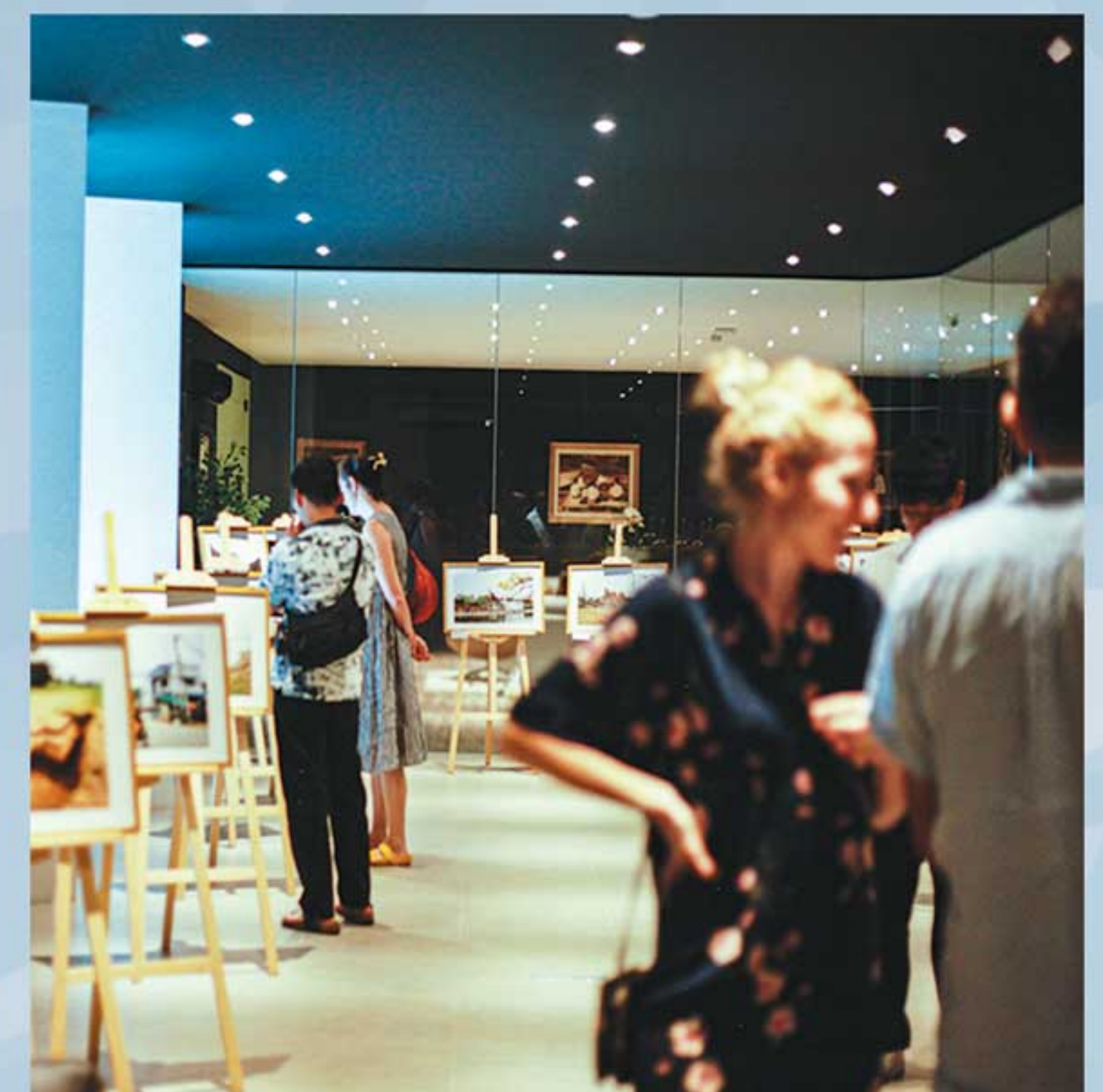
"My mother was the heart of our family, a gentle caretaker who provided us with unwavering love and strength. Her absence leaves a void that is still felt deeply," he shared. "Through Gallery Ohmar, I hope to solidify her legacy as a strong, kind, and caring woman, and in my opinion, one of the most prominent female artists Myanmar never knew. With the success of 'Finding Ohmar,' the country can now see what a great artist she truly was. This gallery is a tribute to her memory and a way to honor her contributions to the art world."

The two-story, 10,815-square-foot building with a rooftop is designed with personal touches in every detail. Collaborating with Sean Studio Ltd., the gallery features modern elements like a magnetic track lighting system for flexible artwork arrangement, modern washrooms, CCTV, sound system, projectors and fast WIFI.

The gallery's architecture hides structural columns for an open feel. The ground floor is windowless to protect paintings from sunlight, while the second floor has a large glass studio and secure storage for

delicate art pieces. The rooftop offers a stunning view of Yangon's skyline for various functions.

Transforming the once-mundane lot into a cultural landmark was a collaborative effort led by M&A Construction, a sister company of MPRL E&P. The dedicated team worked closely with the architect and design team from Sean Studio Ltd., as well as project managers, engineers, and subcontractors—from initial concepts to final execution. The project, one of their proudest milestones, involved countless hours of consultation, pre-planning, and hands-on involvement.



Gallery Ohmar is more than just a beautiful space. It is a living, breathing tribute to its namesake, and a platform for future generations. Like the late Daw Ohmar Moe Myint, who was also a devoted philanthropist, the gallery aims to support emerging artists by offering them opportunities to exhibit alongside established names. It hosts events, workshops, educational programs, and public tours, making art accessible to everyone. Today, the gallery draws visitors from all walks of life—bloggers, students, influencers, artists, and art enthusiasts—gather daily to experience and celebrate art in their own way.

Gallery Ohmar stands proudly as a symbol of inspiration—inviting introspection and connection. It is a quiet landscape of dialogue between artists and viewers, a window into emotion, memory, and perception. A contemplative sanctuary, where love and compassion flow gently, like a mother's warm embrace—whispered through every brushstroke.

And to my late dear aunt, Auntie Ohmar, may the brushstrokes of your heart never fade, and forever painted into ours.

An Intimate Conversation with the Founder

In this candid Q&A, the Founder of Gallery Ohmar shares the journey behind building Yangon’s newest cultural space — a gallery born to honor his late mother, Ohmar Moe Myint. From early challenges to future dreams, he reflects on art, family, and the legacy she leaves behind.

What inspired you to create a gallery?

When I spoke with my cousin Sean, who’s the designer and architect of the gallery, we honestly had no idea what an art gallery really was or how it functioned. So, we decided to visit every gallery we could find in Bangkok and Yangon. What struck us the most was that there wasn’t a modern gallery in Yangon with the kind of facilities or atmosphere you’d need to properly host exhibitions or events. While there are a few decent spaces, none quite met international standards — and that’s where Gallery Ohmar comes in.

Gallery Ohmar is meant to be a cultural hub in Yangon — a place to spotlight Myanmar art on a global stage. Our vision is to create a welcoming space where art lovers, collectors, and the public can come together to appreciate and celebrate the richness of Myanmar’s artistic heritage.



Beyond showcasing art, we also want to give back to the community — through educational programs, workshops, and events that make art more accessible to everyone. We are committed to preserving and promoting Myanmar’s traditional arts, while also embracing contemporary, digital and innovative styles including AI.

In the end, Gallery Ohmar isn’t just a place to view art — it’s a cultural space meant to expand cultural boundaries, imagination, bring joy and fascinate all those who visit.

With your keen interest in media production, do you see yourself exhibiting more modern, contemporary, or even digital art in the future?

Definitely. I’m always excited to support emerging artists of all forms of media and not just limit it to



paintings but expand into performance, music, digital and even AI! Gallery Ohmar is a space for discovery.

Our mission is to provide a platform for both Myanmar and international artists to express themselves— through all forms of mediums. We’re here to support artists at every stage of their journey and help them share their stories with the world.



Were there any challenges along the way?

Where do I begin? Entering the art world was intimidating, especially since I didn’t have a background in it. The more I explored, the more I realized how deep and complex it all is. On top of that, this was my first major business venture — I started from zero and had to make a big investment, which naturally came with a lot of pressure.

But I committed myself to learning. I read a lot, visited galleries, studied art history, and connected with people who had been doing this far longer than I had. That support and knowledge helped me move forward, step by step.

“Finding Ohmar” was a success. What’s next?

“Finding Ohmar” was a huge moment for me and my family. It was personal in every way — from the decision to create a gallery in my mother’s honor, to curating her work, to organizing the very first exhibition.

This first show only highlights her passion and keen knowledge to collect art from various periods in Myanmar history. It barely touches some of her earlier work, as well as paintings she created throughout different stages of her life. But her real masterpieces? They are still to come. We plan to host future exhibitions that focus solely on those later works.



Now that you’re a father of three and building this gallery in her memory, do you plan to support young artists and children in the future?

Absolutely. My mother would have loved nothing more than to teach art to children and let them explore different materials and techniques. Sadly, most schools in Myanmar don’t really invest time or resources in art education, and there are very few active art schools in the country.

Eventually, I want Gallery Ohmar to be more than just an exhibition space — I want it to be a place where people can learn and explore creativity, especially children and young people. In our digital and AI-driven world, human creativity is going to be valued more than ever. Art can help build that skill for the next generation by allowing to humanly express themselves.

Is there a message you hope visitors take away from her collection or after visiting the gallery?

I hope visitors walk away with a deeper appreciation for Myanmar’s art, from its roots to where it’s headed. My mother’s collection was never about the most expensive pieces. She cared about works that meant something — ones that reflected cultural shifts or captured a spirit of change in Myanmar’s art scene.

Every piece she collected held a special meaning for her. And that’s what I think art is really about — whether you are collecting, creating, or just enjoying it. It’s about bringing peace and joy to your soul. It is about inspiring you to find yourself or even your next big dream.

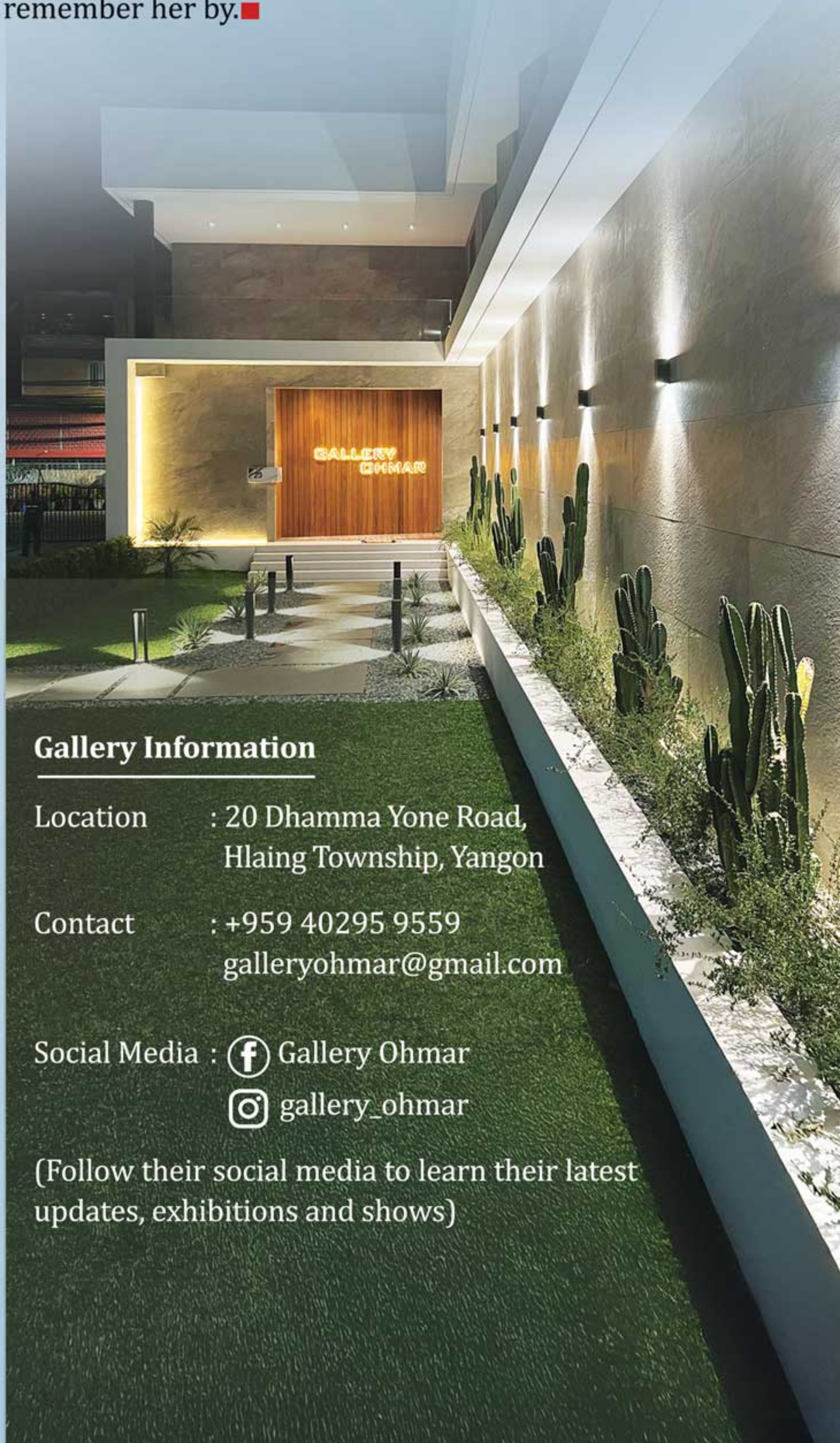
What do you miss most about her?

Everything. Her smile, her laughter, her presence. A mother’s love is truly irreplaceable — and you really don’t understand or appreciate it until it is gone.

How do you think she’d feel about being honored this way? What would she say if she were here?

Honestly? She’d probably scold me for spending so much money just to put her name on a building. [laughs]

But deep down, I hope she’d smile. I think she’d be proud. I wish she could have known how much people appreciated her art and what it stood for especially being a woman in a male dominated industry. Her paintings pushed boundaries; her imagination was captivating but I think she just didn’t have enough courage to share her creations to the world which she secretly wanted. My mother was inspired by Frida Kahlo who once said, “I paint flowers so they will not die”. Gallery Ohmar is the flower – her favorite subject – the legacy which we can all remember her by. ■



Gallery Information

Location : 20 Dhamma Yone Road, Hlaing Township, Yangon
Contact : +959 40295 9559
galleryohmar@gmail.com

Social Media : Gallery Ohmar
 gallery_ohmar

(Follow their social media to learn their latest updates, exhibitions and shows)

Is CCUS Truly Green?

Yu Nandar Myat

A Planet Wrapped in Layers

Imagine you are getting dressed for a cold winter morning. You put on a sweater. Then another. And another. Suddenly, it is too warm, but you can't take off the layers. That's what we are doing to our planet—except instead of sweaters, we are wrapping it in carbon dioxide (CO₂) trapping heat and making Earth hotter.

To be fair, Earth has been hotter in the past—millions of years ago, when dinosaurs roamed. But here's the difference: those changes happened slowly, over millennia, giving nature time to adapt. Today, we are pumping carbon dioxide into the air so fast that life—our life—can't keep up. And while the planet itself doesn't care, our way of living is at stake.

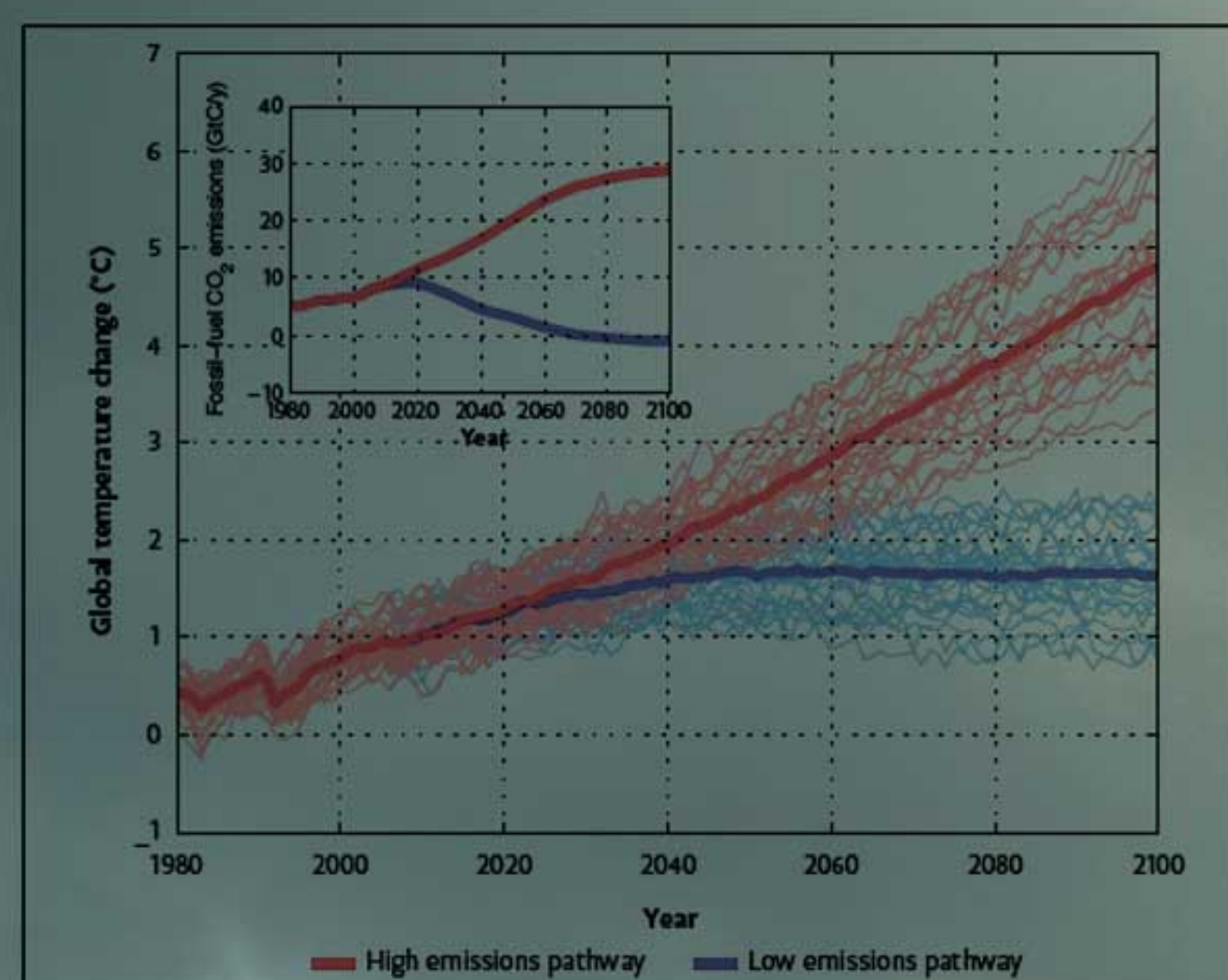


Figure 1: Future Projected Climate Change Depends on Net Emissions (Australian Academy of Science, 2025)

The Carbon Dilemma

We know we need to stop filling the atmosphere with carbon dioxide, but here is the tricky part—our world still runs on things that release it, like coal, oil, and gas. Even if we switch to cleaner energy, we cannot just stop using fossil fuels overnight. That's where CCUS—Carbon Capture, Utilization, and Storage—comes in.

The Science of Catching Carbon

Think of a vacuum cleaner that sucks up the dust before it spreads. That's what carbon capture does—but for carbon dioxide. Instead of letting power plants, factories, and refineries spew it into the air, carbon dioxide is trapped before it can escape.

But catching carbon dioxide is just step one. If we stop there, it's like vacuuming but never emptying the dustbin. So, what do we do with all the captured carbon dioxide?

Recycling Carbon: From Pollution to Possibilities

Once captured, carbon dioxide can be used in surprising ways. Some scientists turn it into fuel, plastics or even fizzy bubbles in soda. Others inject it into underground oil fields to extract more oil. (Yes, it's ironic—using carbon dioxide to produce more fossil fuel, but we will get back to that.)

And if we don't need the carbon dioxide right away? We store it deep underground. It is like burying garbage—except this garbage has the potential to heat up our planet. We lock it away in places where it won't cause harm.

The Cost of Cleaning Up

Now, let's talk money. Imagine earning a dollar but having to spend 50 cents just to clean your house. That's how expensive CCUS is right now, it costs between \$50 to \$100 per ton to capture and store one metric ton of carbon dioxide. But there's hope though, as technology improves and adoption grows, costs could drop by 30% by 2030.

But how much is one ton of carbon dioxide? For reference, that's about what you emit driving 4,000 kilometers roughly the distance from Yangon to Naypyitaw and back six times in an average car.

CARBON CAPTURE UTILIZATION

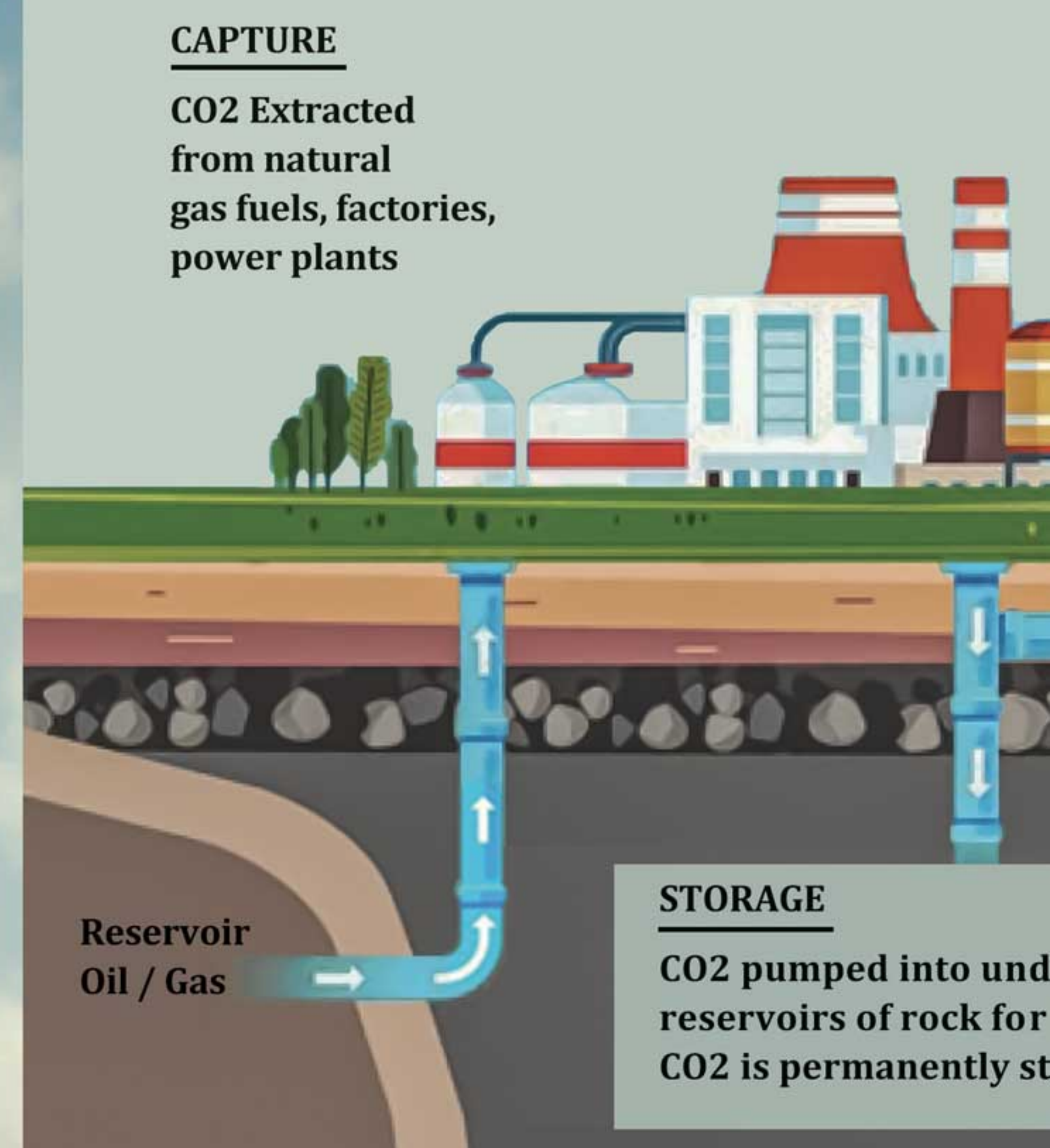


Figure 2: Carbon Capture, Utilization and Storage (CO₂ Value Europe)

So who pays for it? Will industries bear the cost, or will everyday people like you and me pay more for electricity, fuel or even our favorite soda?

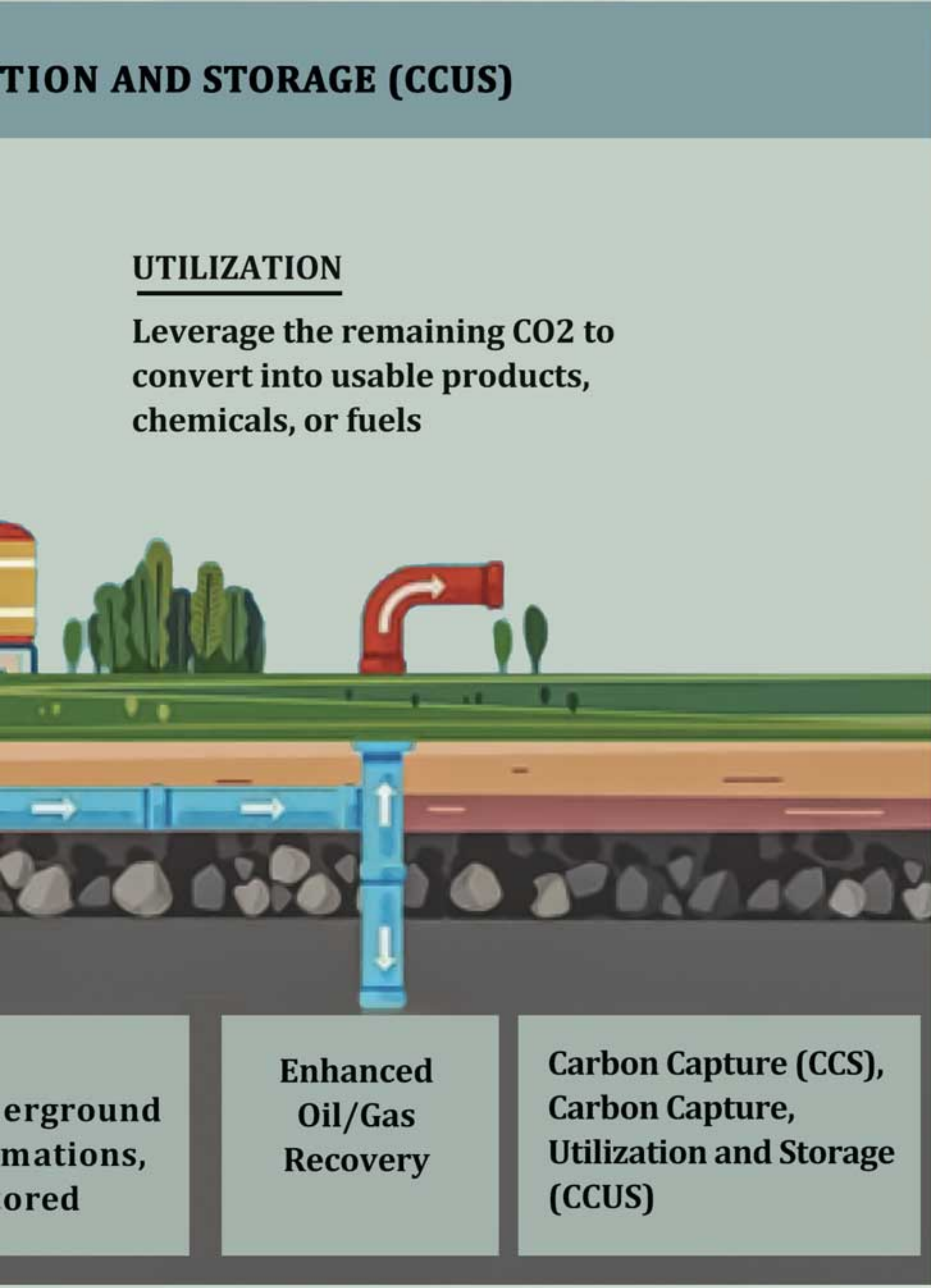
Some countries already impose a carbon tax, making polluters pay emissions. Others offer tax breaks to help fund carbon storage. The debate continues: should the polluters pay, or should society bear the cost of protecting the planet?

Here is a twist: is the polluter the one making the product or the one using it?

Jobs, Jobs, Jobs

Before you dismiss CCUS as just another costly climate experiment, consider this: it creates jobs. Building and operating CCUS facilities provides work for engineers, construction crews and scientists.

A project in Canada called Quest created more than 2,000 jobs during its construction. And for regions dependent on industries like steel and cement, CCUS could be a lifeline that helps them stay viable as the world transitions to cleaner energy.



The Public Perception Puzzle

Not everyone is convinced. Some worry about the safety of storing carbon storage underground—what if it leaks? Others see CCUS as a loophole for fossil fuel companies to keep polluting while appearing green.

Have you ever had a friend who "cleans" their room by shoving everything under the bed? Critics say that's what CCUS looks like—it hides the mess without solving the problem.

To build trust, companies and governments must be transparent. They need to explain how CCUS works, prove it's safe, and ensure it's used for genuine climate solutions—not greenwashing.

What's in It for the Oil and Gas Industry?

Let's be honest — why is the oil and gas industry investing so much in CCUS? Is it a genuine effort to fight climate change, or is it just a way to keep the industry alive in a world moving toward renewables? The answer, like most things in life, isn't black and white.

For oil and gas companies, CCUS is both a challenge and an opportunity. On one hand, it is an expensive investment. Building the infrastructure for carbon capture, setting up pipelines for carbon dioxide transport, and ensuring safe long-term storage — it all costs a fortune. But on the other hand, it offers a way to stay relevant in an evolving energy landscape. Governments are tightening emissions regulations, investors are demanding greener solutions, and public perception is shifting. If fossil fuel companies don't adapt, they risk being left behind.

CCUS provides a middle ground. It allows industries like oil and gas to continue operating while significantly reducing their carbon footprint. Some companies are using captured carbon dioxide for enhanced oil recovery, injecting it into old wells to squeeze out the last drops of oil. Critics argue that this defeats the purpose — capturing carbon just to produce more fossil fuels. But others see it as a necessary step in the transition. After all, the world still relies on oil and gas for energy, and suddenly cutting off supply isn't realistic.

So what's in it for the oil and gas industry? A future. A way to align with climate goals while staying in business. A chance to lead rather than be pushed aside in the energy transition. The big question is: Will the industry use CCUS as a genuine bridge to cleaner energy — or just a way to extend the status quo? That's what we need to watch.

Final Verdict: Is CCUS Truly Green?

Now, here is the million-dollar question: is CCUS truly green?

Some experts call it a game-changer—a bridge to cut emissions while we build cleaner energy systems. Without it, industries like cement and steel have no realistic way to go net-zero.

But others point out the flaws. CCUS is energy-intensive. The infrastructure required to capture, transport and store CO₂ burns more energy—sometimes fossil fuels. And building the facilities creates its own carbon footprint.

So, what's the bottom line?

- Think of CCUS like a seatbelt. It won't prevent the crash, but it can save lives while we design safer cars.
- We can't quit fossil fuels cold turkey—CCUS buys us time to develop cleaner alternatives like hydrogen, batteries and advanced solar.
- If used to justify more emissions, CCUS is just a bandage.

It's not a magic fix—but if used wisely, it might be the lifeline we need to protect life as we know it.

What Do You Think?

So, is CCUS the hero, the sidekick, or just a distraction?

The next chapter of this story is still being written. Maybe the next generation of scientists and engineers—maybe even you—will decide how it ends. ■

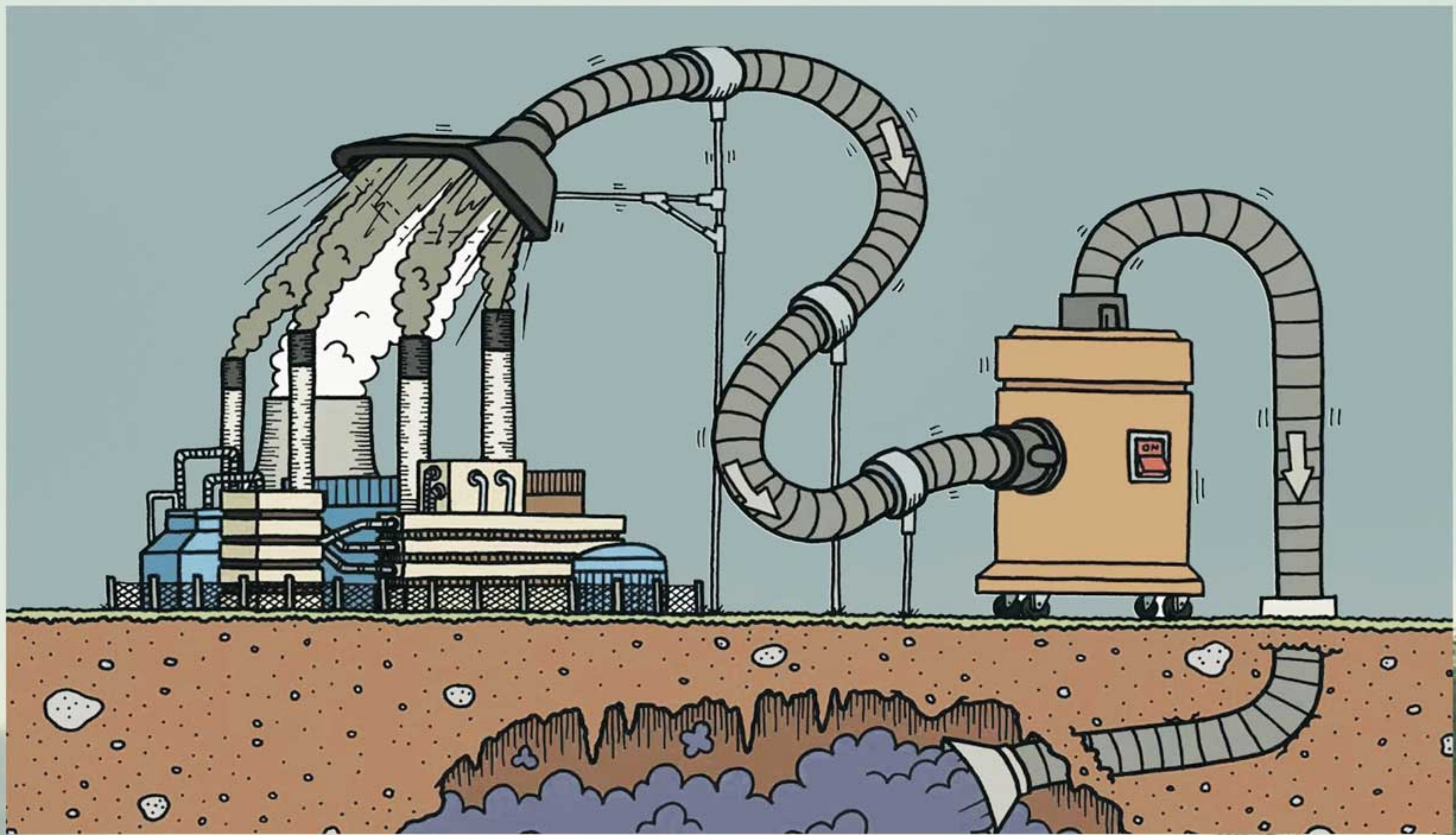


Figure 3: Carbon Capture — Miracle Machine or White Elephant? (Financial Times, 2025)



From Classroom to Core Samples: MPRL E&P's Pathway for Future Geoscientists

Moe Thu Zar Soe



For more than a decade, MPRL E&P has demonstrated a strong commitment to nurturing young talent by providing university students with real-world industry experience through its flagship Internship Program. The initiative bridges the gap between academic theory and practical application, with a focus on petroleum engineering and geoscience students. It is designed to deepen their knowledge, foster a passion for research and development, and equip them with the skills needed for successful careers in the oil and gas industry.

A Long-Standing Commitment to Education

Since 2009, MPRL E&P has provided internship opportunities to Master of Science (Geology) students from the University of Yangon. The program later expanded to include petroleum engineering students and has continued annually. Guided by experienced geoscientists, the internship offers valuable exposure to industry knowledge and best practices, contributing to the advancement of technical education in Myanmar. To date, more than 100 students have benefited from the program, with many going on to pursue successful careers at MPRL E&P and other leading oil and gas companies as geologists and engineers.

Aligned with National Initiatives

In January 2025, the Ministry of Energy established the Human Resource Development Committee of the Energy Sector to strengthen collaboration between academia and the energy industry. In support of this national initiative, and in partnership with Myanmar Oil & Gas Enterprise (MOGE), MPRL E&P committed to providing internship placements for geology students from the University of Yangon during the 2025-2026 Academic Year.

Building Skills for a Competitive Future

The internship program for petroleum geology students focuses on two key objectives:

- Developing internationally competitive geoscientists
- Supporting the sustainable growth of Myanmar's oil and gas sector

This academic year, nine geology students from the University of Yangon are participating in a two-month internship, delivered in two batches and modeled on MPRL E&P's established program.

"Interns are expected to be fully engaged in daily operations, gaining practical, hands-on experience across core area—from exploration workflows to seismic interpretation aimed at identifying potential drillable locations for hydrocarbon discovery—utilizing industry-standard software such as Petrel," said Dr. Aung Zayar Myint, Assistant Manager of the Geoscience Department.



Guided by experienced professionals, interns receive full-time exposure to practical petroleum operations, including:

- Exploration workflows
- Petrophysical evaluation
- Field development planning
- Seismic interpretation
- Geological mapping and software training

They are also trained in key industry software such as Petrel, Kingdom, LogEdit, Surfer, and QGIS — building both technical and analytical skills. The program concludes with a technical report and a presentation to MPRL E&P's Technical Team, showcasing the knowledge and competencies gained during the internship.

Beyond technical training, the program fosters research interest, innovation, and the practical application of academic theory. It equips students with the tools and mindset necessary to thrive in



the oil and gas sector — laying a solid foundation for long-term professional success.

As the first batch of interns for the 2025-2026 Academic Year completes the program, their reflections offer insight into how the internship shaped their skills, confidence, and aspirations.



Maung Aung Htet Paing
M.Sc. in Petroleum Geology
University of Yangon

First and foremost, I would like to express my sincere gratitude to Dr. Theingi Kyaw, Professor and Head of the Department of Geology at the University of Yangon,

for nominating me for this opportunity. My heartfelt thanks also go to the CEO of MPRL E&P Group of Companies for the warm welcome extended to me during the internship, and to the Ministry of Energy for their encouragement and support, which made this invaluable experience possible.

As part of the Master’s Program in Petroleum Geology at the University of Yangon, I had the privilege of completing a professional internship with MPRL E&P Group of Companies. This hands-on experience provided in-depth exposure to petroleum exploration, reservoir analysis, and geotechnical assessment. It not only enriched my academic foundation through practical application but also played a pivotal role in preparing me for the role of Assistant Geologist at Myanmar Oil & Gas Enterprise (MOGE).

During my internship, I was actively involved in applying geological theories and methods to real-world scenarios in hydrocarbon exploration and reservoir characterization. I contributed to the preparation of geological reports and presentations for exploration workflow reviews and assisted in developing structural and stratigraphic maps using industry-standard software such as Petrel, Kingdom, QGIS, and Surfer. Furthermore, I supported the interpretation of 2D and 3D seismic data for hydrocarbon prospecting and demonstrated a strong understanding of petroleum systems.



This internship significantly strengthened my technical and professional capabilities and directly supported my career advancement as I applied for the position of Assistant Geologist at MOGE.



Maung Kaung Htut San
Final-Year B.Sc. (Hons), Geology
University of Yangon

I never imagined I would have the opportunity to intern at MPRL E&P Pte Ltd., and I am truly grateful for this invaluable experience. My sincere thanks go to Professor Theingyi Kyaw, Head of the Geology Department at the University of Yangon, for nominating me, and to the CEO of MPRL E&P for the warm



welcome and for offering valuable insights into the petroleum industry.

This internship opened my eyes to the distinct gap between academic learning and real-world applications in the energy sector. I am especially thankful for the thoughtful support provided throughout the program, including transportation and meals.

I am deeply appreciative of the managers, engineers, senior professionals, and technical staff who generously shared their knowledge. Their guidance helped me grasp the detailed planning behind drilling operations, as well as the critical role of accurate data interpretation—particularly within the Geoscience Department. There, I was introduced to mud logging and the responsibilities of well site geologists, which also helped me improve my communication and teamwork skills.

Although I did not have the chance to conduct field-work at Mann Field, I greatly benefited from insightful discussions with experienced geologists. Their kindness and willingness to mentor made this internship an enriching and memorable journey.



Maung Myat Min San
Final-Year B.Sc., Geology
University of Yangon

My name is Myat Min San, a final-year geology student at the University of Yangon. For my final-year project, I am working on “Petrophysical Evaluation of Hydrocarbon Reservoirs in the Myanaung Oil Field.”

I chose to join this internship program with a strong desire to gain practical, hands-on experience in the industry and to apply my academic knowledge in a real-world setting. During my time at MPRL E&P, I had the invaluable opportunity to work closely with experienced geologists who generously shared their expertise and insights.

I was actively involved in interpreting well logs and seismic data and had the chance to work with industry-standard software such as Schlumberger’s Petrel. This hands-on experience deepened my understanding of practical workflows and the technical challenges involved in oil and gas exploration and production.



As an aspiring geologist aiming for a career in the oil and gas industry, this internship has been a defining moment in my academic journey. It has equipped me with the skills, knowledge, and confidence to pursue my professional goals with greater clarity and purpose.



Maung Pyaesone
B.Sc in Geology
University of Yangon

I am pleased to share my one-month internship experience at MPRL E&P Pte. Ltd., where I had the privilege of working in the Geoscience Department. This opportunity allowed me to bridge academic knowledge with real-world experience in petroleum geology.

I am sincerely grateful to the Founder and CEO of MPRL E&P Group of Companies for welcoming me to the program. I also extend my heartfelt thanks to my professors, the Ministry of Energy, and everyone who supported my application—their encouragement made this experience possible.

During my internship, I gained hands-on experience in seismic data interpretation using Petrel software, well log analysis, and petrophysical evaluation. These tasks deepened my understanding of subsurface reservoir characterization and data integration.

Special thanks go to the Assistant Manager of the Geoscience Department for their generous mentorship and guidance, which greatly enhanced my technical skills and confidence. This internship has been a pivotal step in my academic and career journey, and I am truly grateful for the opportunity to learn in such a professional and supportive environment. ■



M&A Data Center Renews Trusted Partnership with Myanmar Customs' MACCS Project

Aung Myin



Myint & Associates Data Center (M&A Data Center), operated by Myint & Associates Telecommunications Ltd., is proud to announce the successful renewal of its long-standing partnership with the Myanmar Customs Department for the continued hosting of the Myanmar Automated Cargo Clearance System, or MACCS—a key pillar in the country's digital trade infrastructure.

Launched to modernize and digitize Myanmar's customs clearance process, MACCS Project supports efficient trade operations across international ports, airports, and border checkpoints. As the digital backbone of Myanmar's cargo processing, it plays a vital role in facilitating legal trade, enhancing transparency, and reducing clearance and processing time for imports and exports.

A Decade of Trusted Reliability

Since 2015, M&A Data Center has proudly supported MACCS as its dedicated colocation service provider. The partnership began with a five-year agreement (2015–2020), followed by a renewal through 2025. With this latest renewal, M&A Data Center will continue its role in supporting one of Myanmar's most mission-critical government systems.

Over the past decade, the data center has maintained a record of zero downtime for MACCS operations—a testament to its resilient infrastructure and the dedication of its operations team who ensure seamless continuity and rapid response to any challenges. From managing hardware upgrades to replacing critical equipment, the center has ensured uninterrupted service in collaboration with stakeholders.

Equipped with redundant power systems, advanced cooling, physical security, and robust network connectivity, the facility meets the highest international standards. Its Tier III certification and PCI DSS compliance further affirm its capability to host sensitive, high-availability platforms like MACCS.

Beyond infrastructure, the partnership with Myanmar Customs reflects a shared vision: to drive forward Myanmar's digital transformation. By ensuring the continuous operation of MACCS, M&A Data Center supports smoother trade flows, greater customs efficiency, and national economic progress.

Gratitude and Commitment

Supporting public sector digital systems is both an honor and a responsibility. We sincerely thank the Myanmar Customs Department for their continued trust in our services, and we are proud to continue this vital partnership into its third consecutive term.

With 65% utilization at our data center, M&A Data Center serves a diverse portfolio of private and government clients, demonstrating both our technical

resilience and our adaptable, client-first approach in a rapidly evolving digital economy.

We are more than a colocation provider—we are a strategic infrastructure partner, enabling clients to protect mission-critical systems, innovate confidently, and scale effectively. With over a decade of experience, businesses trust M&A Data Center for our technical excellence and our commitment to long-term success.

As Myanmar's leading locally-owned high-end data center, M&A Data Center remains fully committed to delivering world-class colocation services that empower both public and private sectors to thrive in an increasingly connected world. We invite government agencies in need of reliable colocation solutions to consider partnering with M&A Data Center as we continue supporting mission-critical platforms like MACCS. ■

“We are more than a colocation provider—we are a strategic infrastructure partner, enabling clients to protect mission-critical systems, innovate confidently, and scale effectively.”





Driven by Purpose: Foundation's 14-Year Commitment to Inclusive Education

Moe Thu Zar Soe

In line with Myanmar's commitment to achieving Sustainable Development Goal 4 (SDG 4)—ensuring inclusive, equitable, and quality education for all—the Ministry of Education has prioritized key reforms under the National Education Strategic Plan (2021–2030). These efforts include promoting universal secondary education and expanding access in rural and conflict-affected areas. As these initiatives progress, private sector contributions have become increasingly essential to sustaining long-term impact and addressing growing demands in the education sector.

The U Moe Myint & Family's Educational Foundation continues to play a vital role in this national effort. Spearheaded by the CEO of MPRL E&P, the Foundation has been dedicated to empowering students through financial aid since 2011, particularly those attending state-run institutions and coming from staff and community families. Scholarships are awarded based on academic merit and

financial need, with a special focus on supporting future professionals in critical fields such as medicine, engineering, information technology, and geology.

As Myanmar's basic education enrollment reached over 6 million students as of 1 June 2025, private sector initiatives like this play a crucial role in bridging funding gaps and advancing the broader mission of inclusive national development. For the

2025-2026 Academic Year, the Foundation allocated MMK 11,325,000 in financial assistance to 212 basic education students from families within the MPRL E&P Group of Companies, enabling them to receive support ahead of the school enrollment period from 22 May to 1 June 2025. As of May 2025, the Foundation's cumulative contributions have reached MMK 1,040,097,280—benefiting 3,681 basic education students, 149 high school graduates, and 40 general scholars across Myanmar.

These efforts reflect not only a long-standing commitment to educational advancement but also a deep alignment with national priorities—enhancing learning outcomes, expanding opportunities, and promoting equitable access to education for all. ■



Events

MPRL E&P Group-Wide Blood Drive Draws 58 Donors on 24 May 2025



Bridging Cultures

through Innovation: A Glimpse into the Japan gPBL Experience

Moe Thu Zar Soe

In a dynamic blend of cultural exchange and collaborative learning, four scholars from MPRL E&P Pte Ltd., currently pursuing their studies at the Asian Institute of Technology (AIT), recently embarked on a transformative international field trip to Japan. They were among 134 bright minds from across Asia who participated in the Global Project-Based Learning (gPBL) program, hosted by the Shibaura Institute of Technology (SIT) in Tokyo.

This unique initiative brought together undergraduate and graduate students from leading institutions, including Shibaura Institute of Technology (Japan), Asian Institute of Technology (Thailand), Kasetsart University (Thailand), King Mongkut's University of Technology Thonburi (Thailand), Suranaree University of Technology (Thailand), and National Taiwan University (Taiwan). Throughout the program, students engaged in real-world problem-solving, cross-cultural teamwork, and innovation-driven project work.

In this feature, we sat down with U Thiha Ko Ko and three third-batch scholars from MPRL E&P to hear firsthand about their experiences, key learnings, and how the journey has shaped their academic and professional outlooks.

Hello Ko Thiha! Tell us about your recent trip. Can you walk us through the 11-day journey from Thailand to Japan?

Definitely! Our academic journey to Japan, from 23 February to 5 March 2025, combined professional development with cultural exploration. After arriving in Tokyo via the efficient Skyliner train, we visited Kamakura's historic Great Buddha and the serene Hasedera Temple the next day.

The core gPBL program at SIT included geotechnical research presentations, special lectures on sustainable engineering solutions, and basic project management principles, alongside cultural experiences such as wearing traditional Yukata. Field visits to Mt. Fuji and Tokyo landmarks like Senso-ji Temple added balance to our academic schedule.



The program concluded with group presentations and a meaningful closing ceremony, where we received our participation certificates. We returned not only with technical insights but also a deeper appreciation for Japanese heritage, especially how the country seamlessly integrates cutting-edge technology with timeless traditions.

Sounds like an exciting trip! Could you tell us more about the focus of this year's gPBL program and how the groups were formed?

Thank you for giving us the chance to share our journey through the company's publication. This year's gPBL theme was "Engineering for Citizens," exploring the role of civil engineering through national, regional, environmental, and cultural lenses. In terms of group assignments, Ko Saw Thaw Thi Mu joined Group 4; Ko Phyto Pyae Sone Win and Ko Thant Zin were in Group 6; and I was part of Group 7. Each of us actively participated in group discussions and contributed to our final presentations, making it a valuable collaborative learning experience.

Thank you, Ko Thiha. Now, let's hear from one of the Group 4 participants. Ko Saw Thaw Thi Mu, could you share what your group focused on during the field trip?

Thank you, Ma Moe. Our Group 4 presentation centered on "Engineering for Citizens," with a particular focus on geohazards. We started by defining geohazards and identified the most common types in Myanmar, Thailand, Japan, Nepal, and Bangladesh. Our main focus was landslides. We examined the causes



in each country and explored various mitigation strategies.

Our research highlighted how engineering plays a vital role in protecting communities—saving lives and minimizing damage caused by natural disasters like landslides.

That's a valuable perspective! What were some of your key takeaways from the program, Ko Saw Thaw Thi Mu?

This program was incredibly rewarding. Academically, I gained a stronger understanding of how different countries address geohazard challenges using technological solutions. Personally, working with students from different nationalities helped me become more open-minded and inclusive, qualities I value deeply as I continue my academic and professional journey.

Thanks for sharing! Let's check in with Group 6. Ko Phyto Pyae Sone Win and Ko Thant Zin, what was your group's topic and main message?

Our Group 6 topic was "From Risk to Resilience: The Role of Civil Engineering in Disaster Management." We explored how civil engineering improves disaster resilience by addressing risks such as earthquakes, floods, and landslides. We discussed practical solutions like earthquake-resistant structures, flood control systems, and engineering methods for landslide prevention. Through case studies from Thailand, Japan, Myanmar, Bangladesh, and Sri Lanka, we emphasized that when countries share knowledge





and collaborate, everyone benefits from better disaster preparedness and community protection.

Ko Thant Zin, how did the gPBL program shape your academic and personal development?

Joining the gPBL program was a truly enriching experience. I developed stronger technical knowledge and improved my teamwork and cross-cultural communication skills. Working with international peers taught me how to delegate tasks, adapt to different work styles, and handle challenges like language barriers with patience and respect. My presentation skills also improved—I became more confident in expressing ideas and handling feedback. The experience broadened my global outlook and helped me build meaningful international connections.

And Ko Phyo Pyae Sone Win, how would you describe your gPBL experience in Japan?

It felt like stepping into a whole new world of opportunities. Traveling, meeting people from different backgrounds, and experiencing new cultures—it was all very exciting. Working with international peers pushed me to grow. It wasn't just about doing a group project; it was about learning and meaningful connections. What inspired me most was Japan's culture, especially their punctuality and deep sense of respect. It made me reflect on how valuing time and personal responsibility could make a positive difference in communities back home in Myanmar.

Ko Thiha, your group explored some exciting tech! Can you tell us about your AI project and why it matters?

Absolutely! Our goal was to create an AI-based system that monitors the structural health of buildings in real



time and sends alerts before major issues arise. It acts like an early warning system, identifying cracks or stress points before they become serious. This technology is a game-changer for construction industry, it enhances safety, reduces maintenance costs, and ensures smoother operations. I especially enjoyed learning the step-by-step process of building such a system.

Finally, how did this program overall impact you, Ko Thiha?

The program was truly transformative. Working with students from various academic backgrounds helped me view problems from new angles. Applying theory to real-world challenges sharpened my problem-solving and project management skills.



On top of that, experiencing Japanese culture—from Tokyo's fast-paced life to its rich traditions—was unforgettable. I am especially grateful to MPRL E&P for making this experience possible. Their support allowed us to engage in insightful discussions, build lasting global relationships, and immerse ourselves in Japan's cultural heritage. It's a journey I will always carry with me.

Thank you, Ko Thiha, and everyone for sharing your experiences and valuable insights from the trip.

The gPBL program at Shibaura Institute of Technology (SIT) offered far more than an academic experience—it served as a meaningful bridge across cultures, disciplines, and ambitions. Through hands-on collaboration, cultural engagement, and eye-opening exchanges, the MPRL E&P scholars expanded their technical capabilities while gaining a deeper understanding of global teamwork and mutual respect. Whether learning to navigate cross-cultural group dynamics, drawing inspiration from Japan's values of punctuality and discipline, or exploring real-world engineering solutions, each participant returned with renewed purpose and a broadened worldview. ■



Shaping Summertime Experiences: Expanding Learning and Creative Opportunities for Mann Field Youth

Moe Thu Zar Soe

Recognizing summer as a valuable opportunity to foster growth, learning, and creativity, MPRL E&P's CSR Program has transformed the traditional school break as a season of opportunity through its Community Capacity Building initiative. This article highlights four core classes featured in the Summer Program—showcasing the training courses offered, the voices of those involved, and the impact made possible through MPRL E&P's thoughtful strategies to improve learning accessibility for youth in Mann Field. Let's explore how these collective efforts are reshaping summertime experiences.

Empowering Youth with Digital Skills

As part of its ongoing Community Capacity Building efforts, MPRL E&P launched a Basic Computer Training course this summer to equip local youth with essential digital skills. In partnership with MCC Computer Training Center (Minbu), the program kicked off on 15 March 2025 and welcomed participants aged 16 and above from the surrounding Mann Field Communities.



U Thawtar Zaw, a trainer from MCC (Minbu), shared: "When CSR Team approached us about offering computer training for youths in Mann Field, we were glad to collaborate. I had long dreamed of bringing this kind of training to rural communities, but in the past, challenges, especially transporting equipment, made it difficult. Thanks to MPRL E&P's support, including logistics, that vision finally became a reality. We taught Microsoft Office 2019 and Adobe PageMaker—skills that are increasingly essential for office work and job readiness. While some younger students found the standardized curriculum a bit challenging, the program overall was a great success. I believe future sessions would be even more effective if we grouped students by skill level. I am truly grateful to MPRL E&P and the dedicated staff who helped bring this training to life."



Held every weekend at the Nann U Community Center through 18 May, the course offered hands-on training in fundamental computer applications—including Windows, Microsoft Office, and internet use. A total of 15 youths participated, gaining both confidence and competence in digital literacy, practical skills that pave the way for future educational and employment opportunities.

Fostering Creativity through Art

Recognizing that holistic development extends beyond academics, MPRL E&P also organized Summer Art Classes to foster creativity and self-expression among children. From 22 April to 23 May, two parallel programs were conducted:

- A Basic Art Class for children aged 6 to 12, held in Kyar Kan Village, welcomed 22 trainees.
- An Advanced Art Class for 17 children who had previously completed the basic program, conducted at the Mann Kyoe Community Center.

These weekday sessions created safe, inspiring spaces where children could connect with peers, express themselves through art, and build confidence in their abilities. The classes promoted fine motor

skills and creative thinking—fundamental qualities that support academic and emotional development.

ThuKhaMain Summer School for Students

To further support academic continuity during the summer, the CSR Program piloted the ThuKhaMain Summer School in Aye Mya Village from March to May 2025. This program was designed for Grade 4 students as a pilot project and utilized the ThuKhaMain offline learning app, which aligns with Myanmar's national basic education curriculum. The app provides engaging video lessons that are accessible without an internet connection.

"Since attending the ThuKhaMain Summer School, my children have become more focused in class and noticeably more active. As parents, we stay involved by managing drop-offs, pickups, and making sure they do their homework. We want them to excel academically, which is why we actively embrace the training opportunities provided through the CSR initiative. Both of my children are also enrolled in the online English course. If more suitable courses are offered in the future, I'll definitely continue to support their participation," said Daw Ei Ei Cho, parent of two trainees.





With the support of a Community Education Facilitator, the program created an interactive learning environment at Aye Mya Community Center, helping students retain academic growth and build digital literacy. “This program is designed to support Grade 4 students, particularly in English and Mathematics, using content from the ThuKhaMain education app,” said Naw May Pale Htoo, Junior CSR Officer. “Trained facilitators deliver lessons through projector, guide students through exercises, and assist with homework. With its user-friendly interface and offline access, the app makes learning more engaging and consistent, helping students stay motivated and improve steadily.”



Widely adopted in private and international schools across Myanmar, the ThuKhaMain app is reshaping education by enabling teachers to deliver interactive, personalized lessons. Instead of textbook lectures, students engage with animated videos and tailored exercises, turning passive learning into active participation. This shift boosts student engagement and achievement while supporting teachers in delivering higher-quality instruction.



Celebrating Summer Success

The summer efforts culminated in a heartwarming closing ceremony held on 24 May in Auk Kyaung Village. The event brought together 118 attendees, including students, parents, trainers, Village Development Committee members, Village Administrators, Community Volunteers, and CSR Field Staff. It was a proud moment as trainees received their completion certificates, and paintings from the art classes were displayed—highlighting the creativity and progress of the young participants.



Saw Christopher, CSR Associate, gave an overview of the Summer Training Courses, “Throughout the training sessions, we observed that the children were able to follow the lessons well and retain what they had learned. The use of video clips had a particularly positive impact on their English pronunciation and made learning more engaging overall. Although the curriculum remained the same, the introduction of interactive teaching methods significantly enhanced the students' learning experience.

“*The use of video clips had a particularly positive impact on their English pronunciation and made learning more engaging overall.*”



While it took a little time for them to adjust, they gradually became more interested and eager to learn through the video-based approach. As for the Basic Computer Skills Course—the first of its kind in the area—we saw overwhelming interest from local youths. Although we initially started with 15 trainees, every one of them demonstrated strong commitment and completed the course with perfect attendance and enthusiasm.”

Among the 23 Grade 4 students who took part in the final assessment, the top three performers were recognized for their academic excellence. Ma Thaw Tar Shin Thant Lwin earned first prize with a score of 91 out of 100. Maung Khun Satt Paing followed closely, securing second prize with 90.5, and Ma Khun Su Cho received third prize with 90. These recognitions celebrated not only their academic achievement but also their dedication and hard work throughout the program.

“Since computer skills are essential for my current job, I joined the course to strengthen my capabilities. We learned the basics of computing, and the experienced instructors taught us in a structured, practical way. They not only explained the theory clearly but also shared real-world knowledge to deepen our understanding,”said Maung Aung Bo Bo, School Office Assistant at Sin Gaung High School and top scorer in the theory test.

Running alongside the academic training, all students maintained perfect attendance throughout the two-month Basic Computer Skills Training Course.



Upon completion, they were awarded certificates of completion from the MPRL E&P CSR Program and the MCC Training Center (Minbu), marking an important milestone in their learning journey and future readiness.

The Summer Program is more than just a seasonal initiative, it is a reflection of MPRL E&P’s commitment to sustainable community development. By investing in accessible education, creativity, and vocational skills, the company continues to build pathways for the children and youth of Mann Field to grow into confident, capable individuals. As these young minds return to school and daily life, they carry with them not only new skills but also a stronger sense of purpose, connection, and inspiration—fueled by a summer well spent.■

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One moment that struck me was when I met a woman about my age who hadn't eaten since the earthquake. Her hands trembled from shock and exhaustion; she couldn't even open the water bottle we gave her. We had to help her drink. The fear was palpable. Twice, we had to evacuate buildings during aftershocks."

U Htay Zaw, a Senior Driver with Myint & Associates Co., Ltd., witnessed humanity's quiet courage in the aftermath of the disaster.

"What we encountered was devastating. Many government staff had lost their homes, some had lost family members, and no emergency assistance had yet reached them. As we drove through every corner of the city, distributing bottled water, some people spoke of the ten spiritual merits of offering water. Others said it was the first time since the earthquake they had drunk fully. One family had no water to offer the monks during a mourning ceremony. When we delivered water, they were finally able to complete their act of merit. These moments will stay with me forever."

Daw Wit Hmone Tin Latt, Head of Corporate Sustainability at MPRL E&P, led the Earthquake Relief Team in the wake of the disaster, guiding efforts on the ground and demonstrating the true power of community involvement.

"We usually donate from afar, but this time, we stood shoulder-to-shoulder with survivors. We launched mobile clinics, distributed supplies, and offered reassurances—not just employees, but as active responders. The warm welcome and trust from senior government officials and the communities we served reinforced the value of being physically present, not just offering support from a distance."

"Our daily schedules were grueling, from sunrise to sunset. We didn't even realize how twelve days passed—each moment absorbed by the urgency of our work."

But even as the team pushed through, the psychological toll became evident. Once they returned to Yangon, many of the relief team members, including herself, struggled with post-traumatic stress disorder (PTSD).

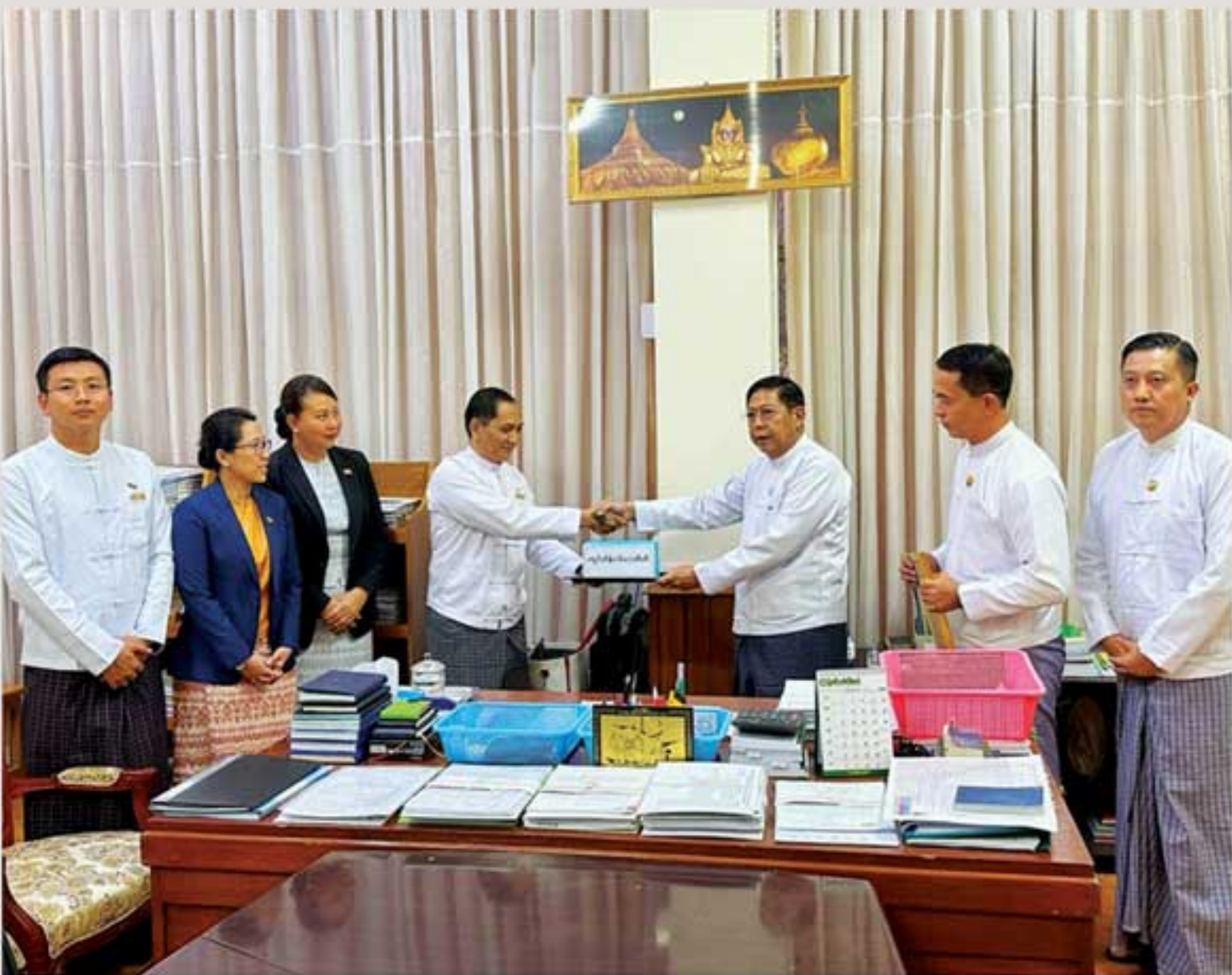
"It's important to recognize the toll on our mental health. We were physically exhausted but also deeply shaken. The memories of the devastation, the aftershocks, and the haunting cries stayed with us long after we left the disaster zone," Daw Wit Hmone Tin Latt continued.

"It's crucial to resume our normal lives, but it's equally important to remain aware of ourselves and our emotional well-being. Healing isn't just physical; it's about confronting and processing what we have witnessed."



MPRL E&P's Contributions to Disaster Relief and Recovery

In addition to deploying an 18-member relief team as first responders, focusing on the safety and welfare of the Ministry of Energy (MoE) staff and affected communities, MPRL E&P Group of Companies donated more than MMK 330 million (MMK 3,300 lakh) directly to the National Disaster Management Committee (NDMC) and respective ministries to support rescue and recovery efforts.



The Group took swift action to support the continued education of Ministry of Energy staff's children amid recent challenges. A fund of MMK 60 million was raised through voluntary contributions from both national and expatriate staff to provide cash assistance for the educational needs of more than 5,000 children—from Kindergarten to Grade 12—for the 2025–2026 Academic Year.

To support long-term recovery, MPRL E&P established a University Scholarship Fund, with a generous contribution of US\$ 25,000 from CEO U Moe Myint and his family. This fund will provide scholarships to children of MoE staff pursuing higher education in fields such as Petroleum Engineering and Geology. This initiative aligns with the MoE's Human Resource Development Program and underscores MPRL E&P's commitment to nurturing the next generation of professionals for Myanmar's oil and gas sector.



These efforts reflect MPRL E&P's broader commitment to both immediate relief and sustainable recovery.

From Ruins to Resolve: A Call for Compassion, Preparedness and Progress

The earthquake revealed both the fragility of our systems and the fierce resilience of our people. Amid the chaos, local rescue teams—under-resourced and overwhelmed—worked tirelessly in unimaginably difficult conditions. Their struggles, and the stories of survivors and the grieving, serve as poignant reminders: disaster spares no one, and its aftermath leaves scars both seen and unseen.

These deeply human stories—of a woman waiting days at the rubble of her home, or survivors signaling for help through debris—underscore how quickly sanctuaries like homes and offices can become death traps. They compel us not only to mourn what was lost, but also to commit ourselves to change. Behind every rescue that came too late was a gap in preparedness that we can no longer afford to ignore.

The international community's swift response—amplified by global media and digital outreach—brought vital aid, but also highlighted structural weaknesses in Myanmar's disaster response framework. We must do more than react. We must build systems that anticipate, that protect and empower communities long before disaster strikes.

Myanmar faces layered challenges: recurring natural disasters that strain already limited emergency resources; political unrest that fragments national focus and coordination; underdeveloped infrastructure that hinders relief delivery and long-term recovery; and governance issues that complicate accountability and sustained reform. Each of these factors was magnified in the wake of the earthquake, underscoring the urgent need for systemic resilience and inclusive planning.

Yet within these challenges lies the opportunity to transform. By embracing transparency, sustainability





and international cooperation, Myanmar can not only rebuild, but reimagine its future rooted in resilience, equity and ethical progress.



Resilience, Reflection, and the Search for True Peace

As the dust begins to settle, Myanmar stands not only among debris but at a deeper crossroads—between reconstruction and reckoning.

The earthquake shattered more than buildings. It shattered illusions—of permanence, of control, of safety. These events force us to look inward as much as outward—to question not only how we rebuild infrastructure, but how we rebuild the way we live, lead and care for one another.

The impermanence laid bare by this disaster reflects a reality we often try to ignore: that all things—homes, lives, even nations—are subject to change and loss. The Buddha teaches that true peace does not lie in material security or worldly comfort, for these are fleeting. Peace arises only when we turn inward, quiet the cravings of the mind, and begin to understand the nature of suffering.

Disasters like this earthquake are not punishments, but reminders—universal signals that transcend beliefs and borders, urging all of us, regardless of faith or worldview, to reflect on what truly matters and how we live in relation to one another and the world around us. They shake not only the ground beneath us, but the illusions we cling to. They invite us to wake



up—to see clearly, to care more deeply, and to live with intention.

Myanmar's path forward will require both action and introspection. Rebuilding infrastructure will be essential, but so is rebuilding our inner foundations—cultivating compassion, clarity and mindfulness. In the midst of Samsāra's constant upheaval, it is only through the practice of the Noble Eightfold Path that we find enduring peace—liberation from transmigration itself. A peace not shaken by earthquakes, nor lost to time.

From rubble, hope rises. And from suffering, wisdom. ■



Events

MPRL E&P Group Joins the National Mourning to Honor Earthquake Victims



Fault Lines of Hope: Stories of Survival and Resilience After the Rupture

Thal Sandy Tun

"It takes an earthquake to remind us that we walk on the crust of an unfinished planet."
— Chuck Palahniuk, American author

Like any ordinary Friday, it began quietly—until 28 March 2025 became the day we would never forget. I thought I was dizzy as I stood by the sink making an afternoon coffee—until the building swayed violently. Everyone dropped to the floor. I gripped the sink tightly as stronger tremors followed. On the ninth floor of Vantage Tower—designed to simultaneously withstand a magnitude 7.2 earthquake and wind speeds of up to 120 miles per hour—the quake still felt brutal. I feared for those outside, in weaker buildings.

We had been warned that a major earthquake was coming to Myanmar. As the building shook beneath us, that warning became a reality. And all I could think was: This is it.

After the shaking stopped, we evacuated with the help of our Emergency Wardens and Assistant Wardens, who guided us through the process. Our office remained closed for inspection; only minor cracks were found. But the real fractures were within—shaken bodies, disoriented minds. We returned to work on Monday, still grappling with a haunting sense of vulnerability.

As I tried to process what had happened, I soon realized our experience was just a fragment of the disaster. Outside, the world had changed.

A Nation in Turmoil

On 28 March 2025, Myanmar was struck with a magnitude of 7.7 earthquake—one of the most powerful in the country’s recorded history. The epicenter was located in central Myanmar, devastating state capitals and nearby towns. Aftershocks continued for days, even months. Roads and bridges collapsed, and rolling blackouts caused widespread power outages in major cities.

Nearly 400,000 matriculation exam booklets were lost in fires at Mandalay University, resulting in a re-sit for approximately 60,000 students. The hardest-hit areas—home to the Burmese Buddhist majority—also hold deep cultural and spiritual significance. On 31 March, the government declared six days of national mourning.

By May 2025, government reports indicated a death toll approaching 4,000. The destruction was immense—homes, hospitals, schools, monasteries, businesses, and shops were reduced to rubble. The world responded quickly. More than 2,095 emergency personnel from 26 countries arrived, bringing over 2,635 tonnes of relief supplies and 1,197 tonnes of rescue equipment. Donations poured into the National Disaster Management Committee (NDMC) Fund. A one-month memorial was held on 28 April, during which alms were offered to the Sangha in honor of those lost.

While I stayed informed through the news, my colleagues were on the ground—witnessing the devastation, assisting survivors, and supporting relief

efforts. They became the faces of resilience in the darkest hours of our nation’s history. Their selflessness and empathy—caring for their fellow countrymen and women—became a beacon of hope within our Group of Companies and the broader society.

Faces of the Frontline: Stories from the Ground

At MPRL E&P Group of Companies, 18 staff members mobilized as part of the Earthquake Relief Team, stepping away from their regular duties to become among the first responders in the crisis zone. One of the hardest-hit areas was the nation’s capital, and our team was on the ground within hours of the earthquake striking on 28 March 2025.



U Nay Myo Aung, the HSE Manager at MPRL E&P, was one of the key figures ensuring safe transport of critical supplies to Nay Pyi Taw.

“To ensure road safety for both passengers and supply vehicles, we worked with our transportation teams to assess damaged routes and identify alternate highways to avoid delays. When box trucks were restricted, we negotiated with authorities at the 0-mile toll gate, and secured special approval by explaining the emergency nature of our mission. I’m proud of how our team adapted to the situation, following management’s guidance while responding with professionalism and empathy.”

Dr. Kyaw Ye Htut from the Health, Safety & Environment (HSE) Department was also among the first responders to reach Nay Pyi Taw.

“Our mobile clinics treated everything from fractures and lacerations to untreated wounds,” he recalled.



“But we also encountered a quieter crisis—patients with chronic illnesses like diabetes and hypertension who had lost access to their medications. We had to get essential drugs to them quickly.”

“Beyond physical injuries, many people were battling stress and exhaustion. We provided not just medical care, but also reassurance—to ease those invisible wounds.”

U Thet Lwin Ohn from the Material & Logistics Team managed supply deliveries under extreme conditions.

“Timeliness was crucial—orders placed in the morning had to be delivered by evening. We rerouted supplies via the old Yangon–Mandalay road, ensuring life-saving supplies reached those in need. We also oversaw the safe transport and official handover of Modular Units to MOGE officials after successful installation and testing of essential amenities like air conditioners, toilets, wash basins, and water heaters.”

U Kyaw Thu Lin, Deputy Administrative Manager at Myint & Associates Construction Co., Ltd., joined the Earthquake Relief Team stationed in Nay Pyi Taw on 30 March 2025.

“We arrived with essential supplies—mobile toilets, fiber tanks, a generator, and diesel. The next day, we began setting up temporary camps for Ministry of Energy staff. Given the widespread damage, many local construction shops were closed, and we struggled to hire machinery or labor for land leveling. We eventually secured a tractor, which helped for three days. The rest of the team pitched in, manually transporting bricks, sand, and rocks.”

“One moment that stood out to me was when an elderly female survivor approached us with cool water and heartfelt thanks as we worked in the heat. It was a simple gesture, but it reminded me of why our mission mattered. I’m grateful for the opportunity to support those in need.”

Naw May Pale Htoo, Junior CSR Officer, was also on the ground as part of the Earthquake Relief Team.

“Setting up mobile clinics and distributing supplies quickly became routine,” she shared. “Everywhere we went, I overheard heart-wrenching stories of grief. As we drove around delivering water and medical assistance, the air was thick with the stench of collapsed buildings—an unrelenting reminder of the devastation.

