

An Aspiring Petroleum Engineer Who Believes Tomorrow is a Better Day

Thal Sandy Tun

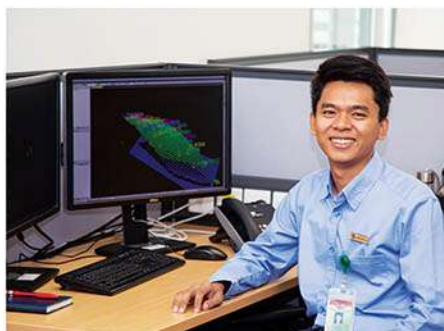
Deciding on a career path that ignites you with passion is truly a challenge. We would all love to land on a career that makes us happy, but is it possible for us to find out what that is? How will you know that you will be happy as a software engineer, as a medical doctor, or as a pilot without the knowledge of what your job actually involves?

Moe Thu thought he was lucky as he found out what he wanted to be while he was still studying for his matriculations exams. "The seeds of interest in engineering was gradually planted in my subconscious during the last years of my high school. I decided to take the science track in high school as I enjoyed studying science subjects such as physics, chemistry and biology. However, sometimes I encountered difficulties as no one could properly explain answers to me when I asked questions about problems and experiments that were not covered in the textbooks. I even remembered a moment when I was trying to calculate how much force and velocity were needed to shoot a ball from point A to point B on my own."

As a result, he decided to enrol in a technological university where he studied for a bachelor of technology in petroleum for four years. It was a time when the oil and gas sector was dramatically booming, if he recalled correctly.

Nevertheless, he happened to have opted not to work as an engineer and become a sports store manager after getting his degree in B.Tech in 2011. One day his best friends burst in on him and bombarded him with a series of questions that turned his life around.

"They asked me if I did not want to work as an engineer, why did I bother studying the subject for four years at university? They asked if I really believed my destiny was to manage a sports store."



Community Engagement Provides an Enduring Shared Benefit for All Involved

Wit Hmone Tin Latt

Companies need to remain relevant in order to survive in a challenging business environment and to be relevant requires regular interaction with important stakeholder groups. A robust stakeholder engagement model is vital for companies to be able to understand and respond to legitimate stakeholder concerns. But how best do you approach this important aspect since it may seem like a daunting task at first glance?

At MPRL E&P, we care about being a responsible operator in the communities where we operate and we want to have open and honest interactions with our neighbours. MPRL E&P hosted a Community Meeting on May 3, 2018 in Mann Field with the aim of identifying and prioritizing what the community needs and a total of 71 participants attended the meeting. At MPRL E&P, we always ensure that the communities participate in a variety of ways, and to different levels of influence, in identifying needs, generating solutions, planning new initiatives and in the delivery of community development programs. At the meeting, the Village Administrators, Village Development Committee (VDC) members, Community-based Volunteers from fourteen communities and MOGE CSR representatives came together to discuss issues, develop solutions and prioritize next steps. It also provided MPRL E&P's Senior Management with an opportunity to communicate its CSR efforts so far and work programs for FY 2018-2019 to the company's key stakeholders.

We strive to continue strengthening our relationships with our communities through our annual stakeholder engagement programs. We interact with our diverse stakeholders through a variety of mechanisms, including community meetings, web and social media content, corporate publications, and one-on-one, group discussions and satisfaction surveys. Communities are 'engaged' when they play a meaningful role in the deliberations, discussions, decision-making and/or implementation of projects or programs affecting them. Regular stakeholder engagement helps us understand a variety of perspectives and improves our company's performance, therefore treating our stakeholders with respect and empowering them with knowledge is a priority.

The successful completion of a project usually depends on how the stakeholders view it. Community engagement works best where it is an ongoing cumulative process enabling relationships and trust to build and strengthen over time. We believe communities are most successful when true partnerships exist. ■

"Community engagement works best where it is an ongoing cumulative process enabling relationships and trust to build and strengthen over time."

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Your Opinion : What are the three best things about working at MPRL E&P ?



Kyaw Naing Oo
Assistant Geoscientist, Geoscience Department

I have been working as a geologist in the Geosciences department for over four years for MPRL E&P, supporting by trying my best to iron out some technical problems with the Mann Field and other exploration projects for the technical team in order to achieve our company's strategic goals. I would like to mention a little bit more about what I am satisfied with and why I am alertly working here and always finding solutions to technical difficulties.

The first one is CHALLENGES; different types of work have different challenges. Being an oil and gas exploration and production company, there are many challenges in technical as well as non-technical ways. Mann Field is now facing strong challenges and trying our best to meet the production target while exploring the deeper Shwezeta prospect for future field development. I am very proud of performing at my job in spite of hard to overcome difficulties.

The next one is COOPERATION; I like working together to carry out both technical and non-technical functions systematically setting individual and cooperative goals by the performance management process (PMP) to succeed our company's goals. Cooperation is important in human relations and is perhaps most marked in any team game, in which every team member should be prepared to give help to others and receive help in return from others. In a football game, all the players depend on one another. The forwards can score goals, but only if their wings and halves feed them passes. Likewise, MPRL E&P operates with a multi-disciplinary team with collaborative approaches such as geosciences, reservoir engineering, drilling, production departments and field operations to be successful for field development.

Another thing is BUILDING CAPACITY; I have a chance to build my capacity through self-study of published and unpublished literature and the internet, and learning from seniors and consultants who have over 30 years of experience in the oil and gas industry. Naturally, as you would in any job, you develop in personality and technically from your experiences through your day-to-day role. As for me, I have gotten general knowledge and experience which is more useful than I think. Therefore guess working here is suitable for technicians and non-technicians who want to achieve excellence in their respective fields.

As a result, I am very interested in solving technical problems and doing research work although it can be a heavy workload because I like challenging, cooperating and building capacity and they make me expand on my lateral thinking skills, inter-personal skills, and problem solving skills. In conclusion, I will keep on working my best for our company and taking part to achieve our company's goals. ■

My Name is Su Myint Myat and I am currently working as an Assistant Auditor at the Internal Audit Department of MPRL E&P Pte. Ltd. and I have six years of working experience within GOCs. I first joined M&AS as a Junior Accountant from February 2012 to August 2012 and then transferred to M&A Construction Project (Procurement Department) with the same position from September 2012 to February 2013. From March 2013 to March 2014, I then worked as a Junior Accountant in the Finance Department at M&A Construction.

Then, from April 2014 to February 2015, I made an internal transfer to the Internal Audit Department as an Assistant Auditor of MPRL E&P Pte Ltd. (Head Office). And then transferred to MPRL E&P Pte Ltd. (Yangon Branch) from February 2015 until present as an Assistant Auditor.

If I were asked to say what the best thing in a job is for me, as an employee, I would say a nice salary comes first. A decent salary is one of the best things that a job can offer to every employee. Apart from having a good salary, there are a few of things which are needed to take into account as follows: the company where I work, the supportive working atmosphere, and helpful and cooperative co-workers. All three of them can make our careers better and nicer.

As for me, I would say MPRL E&P offers the best things including the attractive salary to its employee. I also have colleagues who help me with my work as much as possible if I need the help. The three best things about working at MPRL E&P are the provided transportation, lunch and uniform, having internal trainings and lastly having two-way communication within the organization. Providing transportation makes the employees feel at ease as I don't need to worry about the issue of safety using cabs or public transport. I also feel satisfied with the provided lunch as there is no time wasted preparing a lunch box before office hours and I can also save money by not having to buy outfits since the company provides uniforms to staff.

Having internal trainings arranged by different departments also allows me to get the chance to find out what is happening with other departments and what they are currently working on, which enables me to be more familiar with the current activities of the company.

Last but not least, what I like most about working at MPRL E&P is the Town Hall Meeting that is held at both the Mann Field and Yangon Office, which in my opinion offers the greatest benefit of having two-way communication between Senior Management and employees. By having transparent two-way communication with Senior Management, each and every employee has the chance of presenting their concerns and problems to Senior Management in a direct and friendly manner. Lastly, it also allows us to find out new information that we may not be aware of. ■



Su Myint Myat
Assistant Auditor, Internal Audit Department

MPRL E&P Sent Attendees to HR Summit Asia 2018 & Expo in Singapore

Thal Sandy Tun

Two junior HR officers, Ei Ei Khin and Yin Nyein Oo attended the HR Summit Asia 2018 and Expo organised by HRM Asia and held in Singapore from May 9 – 10, 2018 at Suntec Convention and Exhibition Centre. It is the biggest and most popular annual HR and management event in Asia, with conference sessions, networking opportunities, suppliers and service providers from around the region with talks delivered by local and international speakers. In addition, the hottest HR technology, trends, innovation and all the offerings in the market can also be effortlessly discovered.

The two junior HR officers visited the Expo to learn more about advanced HR technology, trends, innovation, the latest products, offerings and service providers in the market. Furthermore, they also experienced live software demos and product launches. Then, they attended two HR conference streams, Start-up Day and HR Millennials. In the conference sessions, they participated in small group work, and discussed and shared current HR issues with peers.



The duo reflected that the HR Summit Conference & Expo offered them the opportunity to increase their professional knowledge and development and provided them with tools and skills which cannot be taught in-house or online. To remain competitive in this business world, Ei Ei Khin and Yin Nyein Oo discovered that they should constantly keep learning the current trends, strategies and innovations of respective fields to stay up-to-date, which would lead them to be even more productive.

The event also forced them to break out of their comfort zone which is necessary to shake up old ways of thinking. Other participants also showed a

new perspective of problem solving and advised Ei Ei Khin and Yin Nyein Oo on how to enhance their own skills and capabilities. They received a lot of knowledge on today's modern trends of talent acquisition and different ways on how to develop an effective talent management system which creates positive employee engagement in the long run.

Lastly, the best key point that Ei Ei Khin and Yin Nyein Oo received from the HR Summit is that "HR should be human, be brave, and be agents of change."



Building a Leadership Pipeline

Wit Hmone Tin Latt

Leadership development programs are crucial for the long-term success of any organization. The right way to produce leaders for an organization is not to train them, but to develop them through coaching and mentoring. Programs that include mentoring and coaching can boost employee morale and transform a company from a regular workplace to a great place to work. Leadership development programs also reinforce a company's vision, mission and values by setting an example. Investing in leadership development sends a message to employees that the company cares about them and inspires them to meet and exceed performance expectations.



MPRL E&P worked with Team Thinking Asia and organized a two-day Leadership Development Programme for the Head of Department Team on May 24 - 25, 2018. The program was designed for staff to realize their potential for personal leadership through their strengths and self-image; increasing self-motivation by altering attitudes, behaviors, and habits; learning the art of active listening; communicating in groups – from planning to presenting; and understanding styles of behavior and various ways of communication. Being a good leader is not always about directing the point of play, because equally as important as the ability to effectively communicate ideas, is the ability to listen and process the ideas, suggestions and feedback of others.



MPRL E&P Organized Knowledge Sharing Sessions for Mann Field Communities

Thae Aei Khinn Zaw



As an essential part of delivering Corporate Social Responsibility, a series of knowledge sharing sessions concerning Electrical Safety Awareness, Fire Drills, Agriculture and Farming were held in Mann Field Communities in the months of April and May during the Fiscal Year 2018-2019. MPRL E&P co-organized these trainings to raise electrical safety awareness among the Mann Field Communities, together with the Ministry of Electricity and Energy, Myanma Oil and Gas Enterprise, and the Ministry of Home Affairs and Fire Services Department. Moreover, in collaboration with the Department of Agriculture (Minbu), agricultural information and knowledge sharing sessions were also organized in the Mann Field Farming Communities, with the aim of improving agricultural productivity and rural livelihoods.



During the knowledge sharing sessions, U Ye Naing, MOGE General Manager and U Myo Win, Field Operations Manager gave opening speeches, followed by the presentation of U G Yaw Bawn, Community Investment Team Leader from MPRL E&P, explaining about the objectives of the knowledge sharing sessions.



The Electrical Safety Awareness sessions and Fire Drills were held in 14 villages in the last week of April 2018 and there were altogether 598 participants from Mann Field Communities. During the Electrical Safety Awareness and Fire Drills, the respective personnel from the Fire Services Department presented on the good practices of how to prevent the outbreak of fire, especially during the hot season of the year and what to do during the fire outbreak. Fire drills were demonstrated by the Fire Services Department together with the communities to handle real life emergency situations.



The agricultural and farming knowledge sharing sessions were organized in Man Kyoe, Chin Taung, Lay Eain Tan and Kywe Cha villages and there were 191 farmers present. During the agricultural and farming knowledge sharing sessions, knowledge on the agricultural region-suited seeds and the systematic use of chemical fertilizers and pesticides were disseminated. Before the end of the sessions, there were questions and answers to exchange farming knowledge with the Farming communities and to let the communities present and ask questions based on their current farming conditions.

Throughout the fiscal year 2018-2019, MPRL E&P intends to support the Mann Field Communities with supportive training and knowledge sharing sessions as a part of a CSR program. ■



OUR COMMUNITY Mei Bayt Kone Village

Zin Mar Myint

Mei Bayt Kone is a busy village located in the south of Mann Creek in Mann Field. It has 299 households and its dwellers work a variety of professions including agriculture, civil services, small-scale trading and seasonal work.

Mei Bayt Kyone's land where crops are grown is also located within the area of Mann Field and as a result, Mei Bayt Kone is one of the communities where MPRL E&P implements its CSR projects.

MPRL E&P's CSR projects for this friendly community include provision of infrastructure such as furniture, fences and a steel pot for the local school, building a water storage tank and a pipeline to increase access to water for the households in the village. Between 2016 and 2017, the total amount of expenditures for these projects was 4,794,806.

MPRL E&P's CSR team, MOGE's CSR team, Village Administrators, Village Development Committees and community members all worked together to initiate and implement the CSR activities.

The primary benefit the community has experienced due to MPRL E&P's CSR projects was that they were finally able to access clean water easily and readily, which was their most fundamental need. The project helped save the village residents precious time and labour and students were able to study comfortably and safely which in turn helped them concentrate more on their lessons. Lastly, everyone could drink clean water which is good for overall health and wellbeing.

In addition, thanks to the recent introduction of vocational training on food and consumer products, the community members who attended the training sessions are starting their own business and increasing their income.



Ma Theingi One
Community Volunteer
Mei Bayt Kone Village

I became a community volunteer in July 2016 as I am interested in volunteering and community development. My main responsibilities involve assisting in implementation of CSR projects and the management of the Operational Grievance Mechanism. I am happy that I am playing a role for the development of my village. I am also satisfied with the results of my contributions - now our students can study well and the community has less worries over access to clean water due to the CSR projects.

As a community volunteer I have understood how important developing my community is. Only when my village is developed in terms of education, infrastructure and economy, for example, will future generations be able to continue developing themselves and the communities at large. ■

Community Volunteers Benefitted from Mentorship Programs

Thal Sandy Tun

Mentorship is an essential component of professional development in business settings. Starting from July 2017, community volunteers in Mann Field have taken part in a mentorship program which, with a focus on the future, aims to strengthen broader skills for their personal and career development.



Daw Lai Lai Khaing
CSR Field Support Staff

Daw Lai Lai Khaing, CSR Field Support Staff, said, "Our mentorship program which takes in four or five community volunteers at a time have three key elements: improving the general performance of our community volunteers in CSR projects, counselling and sharing knowledge for enhancing their morale, problem-solving skills and discovering their hidden talents. We hope that they will be more confident to participate in problem solving, and to develop strong communication skills in dealing with the communities, in regards to strengthening the engagement mechanisms and delivery of CSR projects in the future."

**"Mentoring is a two-way street.
You get out what you put in."**

Steve Washington



U Aung Tay Zar
Community Volunteer

Ko Aung Tay Zar, a Community Volunteer from Lat Pan Taw Village said, "I have learned that in carrying out public projects, communication skills are really important. Effective communication skills will enable us to complete our projects in a timely manner, to solve problems efficiently and to implement projects that are sustainable successfully. I used to be a blunt speaker – I just said what I thought without thinking carefully first. As a result, problems arose when I dealt with village authorities. Now thanks to the communication skills I have developed through this mentorship program, I have improved my relationship with village authorities and this helps with implementation of projects. I used to show very few initiative too – I did things only when there was an instruction. Now this has changed too. I am very thankful to have participated in this mentorship program which really helped me improve my overall performance."



Daw Kyi Kyi Myaing
Community Volunteer

Ma Kyi Kyi Myaing is another community volunteer from Kyar Kan Village who has participated in the mentorship program and thinks the program is very helpful.

"It opens my mind, with new knowledge and understanding on what I am capable of. I have improved in terms of communication, relationship and decision-making. I have more confidence in contributing to village development and managing my own business. I now have better relationships with community authorities and extended my circle of friends and acquaintances. This in turn helped me start my own tailoring business. I used to have to work at a tailoring shop in Minbu but no longer. Therefore, because of the mentorship program, I was able to accomplish a lot for both my volunteering job and private life."

Volunteer Appreciation Trip to Bagan

Thal Sandy Tun



Photo Source : Internet

The volunteer appreciation trip to Bagan was organised at the end of the fiscal year for the first time in order to reward community volunteers for their hard work, dedication and spirit. "We wanted to organise a trip that will help them relax and have fun after a whole year of work", said Zin Mar Myint, CSR Field Coordinator.

Eleven community volunteers joined MPRL E&P's CSR Field Team and MOGE's CSR Representatives for a two-day trip to Bagan at the end of March 2018. The group visited many famous ancient temples such as Mya Pagoda and Ananda Pagoda, and beautiful places such as Tu Yin Taung and Hnat Pyit Taung in and around the city during their two-day stay.



The benefits of community volunteers in MPRL E&P's CSR programs in Mann Field are enormous. The community volunteers bring a wide range of skills and knowledge, and increase diversity in the organisation. They also help the company achieve CSR projects and goals through greater coordination and collaboration. ■



Sharing Opportunities for Industrial Training while Studying

Wit Hmone Tin Latt



The Petroleum Engineering program of the Yangon Technological University (YTU) includes an Industrial Training component – which is a valuable introduction for students to the real world of engineering. Industrial Training (IT) is integral to developing practical skills for becoming a successful petroleum engineer. The purpose is to prepare them for employment, giving them the opportunity to gain direct workplace experience and to apply the theory they learned in class to the real world. This is a great opportunity for students to get a real understanding of the type of career they will have and also helps to make themselves more attractive to prospective employers.

MPRL E&P hosted an internship program for 23 fourth year Petroleum Engineering students from the Yangon Technological University. The interns (6 girls and 17 boys) took part in the two-week internship program running from April 18, 2018 in Mann Field and were split into two groups: 12 students in the first group and 11 in the second respectively. As part of their mandatory industrial training, the students traveled to Mann Field and participated in three aspects of the program: Field Study, Assignments and Report and Presentation.



The internship program provides students the opportunity to work directly with inspiring and experienced professionals. The insights and skills gained by the end of the two-week program would be invaluable for future careers and we aim to ensure that all our students will be able to meet their Industrial Training requirements. ■



Promoting a Healthy Lifestyle for Employees

HSE Team

What is a healthy lifestyle?

A healthy lifestyle is one that focuses on incorporating the eight aspects of wellbeing into one's life (emotional, environmental, financial, intellectual, occupational, physical, social and spiritual).

Health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.

Not only is the absence of disease a sign of having a healthy lifestyle, but also the ability to function at an optimal level of productivity.

Why is a healthy lifestyle so important?

Not only is health important to a person at the individual level, but it also contributes to the advancement of society if more people are performing closer to their fullest potential.

Sleeping

Usually, 7-9 hours is considered to be a good amount of sleep.

Sleep is a time for the body to heal, recharge its "batteries", regenerate new cells, rest the mind and allow the immune system to function at its highest capacity. For this reason, sleep actually prevents one from getting (or helps heal one if already) sick.

In addition, staying well-rested allows one to think more clearly, improves one's mood and reduces the risk of depression.

Sleep may also help to prevent or reduce the risk of chronic diseases such as diabetes and heart disease. This is because lack of sleep tends to increase inflammation and the amount of hormones that are dangerous at high levels in the body, such as adrenaline and cortisol.

To get better sleep, consider the following options;

- Go to bed and wake up at routine times.
- Don't take long naps during the day (this can throw off your circadian rhythms).
- Listen to soothing music
- Create a sleep-conducive atmosphere by having a comfy bed and a dark, quiet room.
- Do not eat less than two hours before going to bed and avoid caffeine.
- This might be the hardest one, but try not to worry about things before going to bed. Tell yourself that your concerns may be sorted out in your dreams and that sleep will help to alleviate your stress.

Healthy Eating

There is disturbing evidence of people from the United States and other regions around the world consuming more refined sugars and empty calories right now than at any other time in history. These foods in excess may increase the risk for developing chronic diseases;

- Soda and other sweetened soft drinks
- Pastries, cookies, cakes and pies
- Sugary breakfast cereals
- Fried foods
- Fast foods
- Chips and candy
- Processed food

In addition, increasing amounts of evidence show that eating oily meals and fatty foods in excess may raise the amount of saturated fat in the body, heightening the risk for developing chronic diseases later in life.

Eat fresh, local, organic food. Genetically modified food may also have potentially harmful effects on the body. To get started, here are some healthy food that will help one feel full longer and provide plenty of nutrients for the body;

- Lots of fruits and vegetables with antioxidants, especially cooked mushrooms
- Whole and cracked grains, beans and legumes
- Healthy fat (extra virgin olive oil, nuts, avocado)
- Fish and seafood
- Whole soy food (organic food not genetically modified)
- Other sources of protein (such as lean meat, eggs, and other food that contain healthy omega-3 fatty acid)
- Tea, herbs and spices

Remember the issue is when anything is eaten in excess. Make sure your plate is full of COLOUR at every meal. Variety is the spice of life.

Smaller food portions have also been linked to a healthier lifestyle. For protein (such as chicken) a healthy serving should be about the size of deck of cards and around half of what you're eating should be vegetables.

Develop healthy habits like washing your hands before eating or touching your face and drinking water throughout the day to rehydrate your system.

Exercise

Getting exercise on a daily basis is a good idea because it releases endorphins, the "happy neurotransmitters" which helps to reduce anxiety and stress.

It is typically advisable to get exercise for a minimum of half an hour each day. However exercising for 45 minutes, an hour or more is even better.

Some of the benefits of exercise include

- Mood improvement
- Body toning
- Reduced risk of developing chronic diseases

At MPRL E&P, we have a health and hygiene procedure which manages the crew and staff from preventing potential occupational diseases, while educating health awareness trainings as well as conducting a healthy living campaign with the goal of healthier lives.

We all have our own goals of healthier lives and more fit bodies, and while it can be different for each person, a healthy workforce can mean a more productive and less costly team for MPRL E&P. These goals may seem to be something that is left up to the individual, but as senior management, there are things that they can do to help motivate and support staff toward achieving their personal health goals.

Encourage healthy behaviour. While many staff may think of their employer as the source of their income, we also have a lot of influence on the lives of our employees. By communicating with employees, demonstrating healthy behaviour, and supporting others' goals, we can encourage healthy behaviour among all our staff. It may be just a small word of encouragement from senior leadership that helps jumpstart a healthier lifestyle for an employee.

1. Allow for more physical activity at work. MPRL E&P is setting up a monitoring program for Aerobic marks with scores to measure the daily exercise activities for all our staff. The camp doctor is monitoring the process of each staff's aerobic points and reports to management the progress outcome.

2. Share health and wellness information at the workplace. Major lifestyle changes don't happen all at once, and having some tips on how to make small changes lead to bigger results which can be beneficial in helping our workforce stay motivated towards achieving their personal health goals. MPRL E&P is conducting a Healthy Living Awareness Training to all staff in Mann Field and group of company staff as well.

3. Host a team event that requires physical activity. MPRL E&P is preparing to set up the equipment for a GYM room in the Mann Field camp. Senior Management encouraged these activities and provided additional equipment. Also we have a team building retreat event once a year, and everyone can participate and increase their physical activity while developing positive relationships with each other.

4. Create a reward/incentive program. Sometimes some sort of monetization or extrinsic reward is exactly what some staff might need. So, we have set up aerobic points and BMI values for each staff and will provide rewards which don't have to be grand or lavish, just as long as they are after every checkpoint within their plan. It could be a 30,000 kyat gift award to the staff who logged the most steps that quarter or an extra vacation day to the employee who lost the most weight. It can even be incentives that have no monetary value, such as the most valuable person (MVP) of the month – which is just an extra push to help employees go the extra mile.

Focusing on a healthy lifestyle not only improves your quality of life, but it may add years as well. Living a healthy lifestyle may mean something different from one person to the next. For some, health is defined by living a disease-free life. For others, health is being able to play with grandchildren or perhaps adhering to a weekly exercise schedule. Though the definition of being healthy may differ between people, living a healthy lifestyle is a fundamental component to achieving optimal mental and physical well-being. ■

“The absence of disease is a sign of having a healthy lifestyle, but also the ability to function at an optimal level of productivity ”



Safety is a Top Priority in Our Daily Operations: Veteran Field Boss

Communications team

U Myo Win, Field Operations Manager, talks about managing everyday operations in Mann Field, the importance of safety, and his advice for younger generations.

Please introduce yourself and your background.

I am U Myo Win, a Field Operations Manager of Mann Field Enhanced Oil Recovery Project which MPRL E&P has been undertaking since 1996. I graduated with a B.E. in Petroleum from Yangon Technological University. After leaving university, I started my own business and then worked for a mechanical engineering company. However, my teachers and friends from my major urged me to work in a field related to what I had studied. As a result, I decided to enter the oil and gas industry and joined MPRL E&P, a Myanmar national led oil and gas company, in April 11, 2007.

Managing day to day operations of an oil field is a formidable job with many challenges and difficulties to overcome. What would you like to say about it? What are your priorities in ensuring that field operations are running smoothly?

There were a lot of difficulties and challenges I faced managing daily field operations. To begin with, there were so many oil and gas industrial equipment and applications that I was not familiar with. Nevertheless, observation, self-study and mentoring by senior colleagues helped me unravel their complexity.

That's why I like the company's rigorous training processes for new engineers. First of all, we have to study oil and gas measurement systems and then well servicing operations, down hole tools, structure of pumping units including positioning and installation, well analyzer software for checking pump conditions and the fluid level of each well, drilling operations, production data processing and data entry in well view software. On the other hand, the nature of our field operations is a teamwork system to meet the production targets and as a result, all the field team members help each other and sort out issues together.

A key aspect of our field operations running smoothly is safety and all field personnel have to abide by a profound safety concept: "No Safe Stop Work". In this regard, pre-job safety meetings, toolbox talks, Job Safety Analysis/Job Hazard Analysis (JSA/JHA), Log Out/Tag Out (LOTO), permit to work, Protective Maintenance (PM) schedule and full Personal Protective Equipment (PPE) are all strictly applicable to any field activities. We have to ensure that all field staff obey these existing safety procedures and a positive safety culture is maintained.

We hold safety meetings on a daily, weekly and monthly basis. We discuss misconduct of safety procedures, how to prevent near-miss cases, safety concerns and precaution, and creating new JSA/JHA according to operational requirements during these meetings. All supervisors and crews are provided with safety videos and safety training presentations weekly to increase their awareness.

I am always thinking of taking the safer side in any situation of my personal life thanks to such practices and training on safety knowledge by my company.



What kind of environmental and social initiatives are you promoting in Mann Field?

We have a pronounced "Environmental Policy" and in accordance with it we conduct many activities in an effort to reduce the environmental impact of our operations. We have implemented a waste segregation system and a Waste Management Compound, oil spill procedures, emergency response procedures, a produced water management plan, slug management plan and constructing infrastructures to prevent environmental impact.

Our environmental awareness activities are not limited to the field area but we have also integrated the surrounding communities into such activities, for example, Trash Hero Minbu Campaign and Tree Plantation Program. Personally, I learn how to preserve our environment and how to save our earth through the environmental knowledge from my company.

In terms of social initiatives, I am very happy to say that we are successfully managing a good many CSR initiatives in Mann Field where the surrounding communities have many benefits including access to clean water, education, infrastructure and vocational skills training, which have helped improve their socio-economic opportunities. A key component of our CSR initiatives in Mann Field is the Operational Grievance Mechanism (OGM) which provides access for communities to lodge their concerns and issues directly to us without turning to a third party. In running this mechanism, I am responsible for reviewing the reports on a weekly basis and coordinating with relevant entities to reach a satisfactory resolution in a certain timeframe for the complaint. We have addressed 91 cases as of June 2018 and achieved a one hundred percent satisfaction rate with the process.

Is there any intersection between your job and your personal life?

I have over 10 years of tenure in the company. I have been thoroughly steeped in HSE (Health, Safety & Environment) knowledge, which is applicable not only to my work but also to my personal life for improving my living standard. As I am responsible for managing field operations and field personnel, I always make sure that all field personnel follow the company's standard HSE procedures and maintain a positive safety culture. In this regard I am able to use one single knowledge for enhancing both my workplace and my own wellbeing now and in the future.

How do you spend your time at home?

My field life is a routine of four weeks on two weeks off system. When I have off days, I happily spend my precious time with my family. I have two lovely daughters for whom I want to ensure they have a happy childhood, and in my own free time I browse the Internet or do some reading related to my career development.

The Outstanding Performance Awardees for Quarter Three and Four of Fiscal Year 2017-2018

Moe Thu Zar Soe

By acknowledging the hard work and accomplishments of individuals and teams within an organization, employees feel their work is valued and are inspired to continue their contributions to the organization.

MPRL E&P has implemented an Outstanding Performer Awarding Program on a Quarterly basis for the fiscal year 2017-2018 with the aim of enhancing employees' interest in work and to motivate them to perform better. It also encourages skill development by creating a healthy sense of competition between staff to achieve targeted goals, leading to a more progressive organization.

All in all, the program is an effective tool that has a positive impact on employee retention and continued performance, while motivating all staff to deliver high or exceptional performance-based outcomes. As a result, MPRL E&P's Human Resources Department successfully implemented a well-defined reward and recognition program for two quarters of FY 2017-2018. In this regard, the following awardees are selected for the 3rd and 4th quarters of FY 2017-2018, upon nominations by the Heads of Departments, in connection with the Company's Performance Management Process and Formal Mentorship Program:

U Sithu Zeya
Asst. HSE Manager, HSE Department

"I am so surprised and glad to be recognized in this way. I received this award because of the support and contributions of my team members and I am very thankful."



U Moe Thu
Asst. Reservoir Engineer
Reservoir Engineering Department

"I am so glad to be recognized this way. This award is only possible with the support of my seniors and colleagues and it encourages me to work even harder in the future."



U Myo Min Ko
Engineer
Downhole Workshop, Field Operation

"My respectful thanks to CEO, Sr. Management and Field Management team for encouraging us with this recognition program. I am also pleased to appreciate the collaborations of my colleagues and hope we will all continue to help each other in the future."



U Han Lin Zaw
Logistics Coordinator, Material & Logistics Department

"Even though I didn't know that my performance would be recognized, I tried to make the (importing and custom clearance) process as smooth as possible. As I received the outstanding award, I would like to give my sincerest thanks to Sr. Management, seniors and all my colleagues for all their collaborative support."



U Sann Win
Senior Technician, Measurement Field Operation

"During my 15 year tenure at MPRL E&P, I am awarded this prize for the very first time, so I am very pleased to proudly receive this prize and it makes me more encouraged with my daily performance. The company's Outstanding Performance Awarding Program not only motivates all employees but also presents the good practice of the Company. It should be maintained to be sustainable and urged to develop in other sectors as well. In Mann Field, we have to work with team spirit and team work heads to be such a kind of performance. I am very grateful to all my colleagues and seniors for all their kind support."



Daw Hsu Yi Aung
Accountant
Finance Department

"This is great news and I am so happy to be announced as one of the awardees for the fourth quarter. I'd like to encourage all my colleagues to be the next awardees soon."



Appreciation and recognition practices among team members in every organization on a daily basis are a must. Simply saying "Thanks for your contributions" or applauding our outstanding colleagues would give us the cohesiveness to gain synergy within the organization.

From Page 9



What are the highlights of the company that you are proud of?

The company's top priority is safety. The nature of oil and gas operations is highly risky as our field operations involve not only doing light work, but also usage of heavy equipment and machinery. I am proud that I am concerned with the role of ensuring a safe work place where everyone adheres to all safety procedures before they begin their jobs. This awareness and knowledge about safety helps all of us to stay safe whether at work or at home.

In our effort to nurture capable engineers and geologists for our oil and gas industry, the company runs a training program. When necessary, we hire technical consultants from whom we learn a lot and there are also employees who have been sent abroad for further studies. Accordingly, MPRL E&P has now become an oil and gas independent fully staffed with Myanmar engineers and geologists only. This is something we should be proud for our company.

Certainly, I am convinced that there is always a chance for an employee to further develop their careers. I am pleased with and wholly support the company's strategy for ensuring a highly efficient talent pool is retained.

What does it take to be successful in the day-to-day field operations?

All field operations are based on team work which requires everyone to be a strong and effective team player. Everyone needs to be involved in our collective efforts to meet production targets or safety goals. We only manage to overcome all the problems we face, be it a flowline leakage, or well servicing or drilling program, through a well-built team work system.

What advice or knowledge would you like to share with young professionals?

My company runs an internship program every year which is a valuable opportunity for both us and the students because the field teams are able to transfer their technical and industrial knowledge to students who can then combine this knowledge with their theoretical learning at university. My advice is that students should make the best use of their time during their internship period by making keen observations and asking questions to learn as much as they can. At the same time, young professionals in the company should also strive to be their best at their profession and contribute to the industry to their greatest capacity. ■



From Cover Page

They insisted that he change his mind and they would provide any support he needed for the way forward. They kept their word and he quit his job.

"Thinking back, I couldn't express how thankful I am for all their support and encouragement," said Moe Thu, smiling retrospectively.

In 2014, Moe Thu turned into an OJT engineer in MPRL E&P after taking some petroleum knowledge sharing classes from a senior classmate. It was a challenging and busy time for him and he even spent his New Year's Eve night on the crew change bus as he was travelling to Mann Field for an assignment. However, what was more important to him at that time was that he accumulated as much technical knowledge of the job as possible to successfully pass his OJT period. Exactly two years later on January 21, 2016, he was placed in the Reservoir Engineering team as an Assistant Reservoir Engineer until present.

As he made it through the journey of apprenticeship, this could not have happened without his own willpower to make things work, his passion for the petroleum field, and a supportive environment at the workplace that promotes teamwork.

"I am in my element when I am required to apply my utmost logical reasoning skills and technical knowledge to solve problems. Breaking down complex things into chewable chunks always works for me. I love my life as a petroleum engineer where problem-solving is an overarching activity in my work and we do it as a team. At a personal level, this tremendously helps me boost my self-confidence and happiness."

However, Moe Thu, who believes tomorrow must be better than today, finds it hard to rest on his laurels; for him, every day is a battle to increase productivity and improve performance. On a professional level, he sees continuous learning as expanding his skills and knowledge in response to the changes and developments of the time and industry.

"I am studying English to elevate my capacity and to use it more competently in technical meetings and conferences. I am also revisiting basic concepts and theories of engineering that will strengthen my professional knowledge."

He made a number of progress in his field over the past few years merely through determination and hard work. He attended an SPE Young Professionals workshop in Kuala Lumpur in 2015 through which he grew his network and collected overseas experience. In 2016, he managed to pass the entrance exams and earn his B.E degree with flying colours thanks to the support from the company in terms of special leave and financial backing. He was chosen as one of the first three awardees in a quarterly outstanding performance award program initiated in fiscal year 2017-18 for his excellent performance using software for block A-6's well test modelling process, for providing valuable contributions to his team, as well as for his strong interpersonal skills. In March 2018, he participated in a technical meeting on offshore block A-6 in Perth, Australia which was a great opportunity for him to meet the partners for a fruitful discussion.

He reflected on what it took for him to achieve such success in his career and what career success means to him.

"The main factor is the ability to manage a healthy balance between life and work. This includes skills such as time management and stress management. I see career success as being able to do a job with dignity and safety. Technical and social skills are picked up through daily interactions. I also make enough income to support my family and to donate."



Being able to attain achievement at work entails doing what one loves. Moe Thu believes if people do the job they love, they will never feel time is wasted. In addition, one will always try to improve themselves, regardless of external pressure. As a result, he asserts one should choose a career based on what they are interested in.

If he were not a reservoir engineer, Moe Thu said he might have probably become a business man. He said, "When I was young, I was a keen Monopoly player. I played it with friends, sisters and brothers. You know the game needs me to make money, and to build houses and hotels to make even more money. If I were not an engineer, I would be a business man or investor."

There are values and behaviours of people within an organisation that contributes to its unique culture. The way people share information and reach collective decisions affects an organisation's productivity and performance. For Moe Thu he is glad to say that he works with great people, side by side.

"In Mann Field, there are colleagues such as the Production Measurement team, Wells Servicing team, and the Warehouse team from whom I have gained valuable knowledge. In the Yangon Office, I am surrounded by a pool of seniors who mentor me vigorously and provide positive feedback. This pushes me to work harder and set my heart on becoming a professional engineer. In our workplace, teamwork does not appear out of thin air. It takes the involvement of every individual to fulfil their set of responsibilities, regular communication and positivity. Only in this way, are we moving forward together."

Barack Obama, former president of the United States, said focusing your life solely on making a buck shows a certain poverty of ambition. It asks too little of yourself because it's only when you hitch your wagon to something larger than yourself that you realise your true potential.

It is only when we strive for something that is bigger than ourselves that we attain profound meaning and fulfilment in our lives by contributing to something or someone that is bigger than ourselves. It is human nature to want to matter and to make a difference to the world. There is nothing to be shy about or hide from; it is essentially a human characteristic and what defines us as humans.

Moe Thu considers part of his happiness with his job to finding a larger purpose in life. Moe Thu proudly said, "Currently I am trying to fulfil my capabilities and skills to be a more effective player at work. One day, I hope to be in a position which enables me to disperse my accumulated knowledge of the industry, lessons learnt and career advice to young generations to help them become a better professional than me. Furthermore, it is important to understand the role of petroleum engineers for the country because our country's economic development and living standards rest on our ability to bring oil and gas online either from the earth or the sea floor in a timely, sustainable and cost-effective manner. That's what we are doing now."

In passing, he noted there is a need to provide formal career support programs by universities for their students before they graduate, as he himself faced difficulty preparing a curriculum vitae, a cover letter, as well as with the English language and computer skills when applying for a job. He also voiced his expectation and hopes that universities will adopt better teaching methods through their cooperation with international educational bodies and there will be a better relationship between universities and companies to widen access to job opportunities for new graduates.

When asked if there is a work motto he abides by, Moe Thu grinned and replied, "I walk slowly but never backwards," quoting Abraham Lincoln. ■

Two Steps Backward to Move Forward: The Energy Sector Moves in the Right Direction

Thal Sandy Tun analyzes recent shifts seen in Myanmar's energy sector.

Home to one of the world's oldest oil and gas industries, oil exploration in Myanmar began in the early Bagan era. During the reign of King Anawrahta in the Bagan Era, evidence shows that the Buddha's Three Teachings were coated with oil to prevent damage. With the nationalization of the oil industry in 1963, the newly formed state oil company, called the Myanmar Oil and Gas Enterprise (MOGE) undertook all operations of the industry. In 1988, in an effort to revive the struggling industry, the government opened it to foreign oil companies.

Myanmar's proven natural gas reserves are about 1,820 billions of cubic feet (BCF) and its crude oil reserves are estimated to top 139 million barrels. With Myanmar now open to international exploration, major international oil companies are making substantial investments in the country, using updated technology to discover new deposits. Being a sector with a great deal of potential to contribute to the socio-economic development of the country in this era of change, it's worth reviewing that it is only in recent years that Myanmar's oil and gas industry has made strides in regard to its duty to provide a reliable energy supply. The last year, in particular, has seen developments in some areas and setbacks in others.

Reshuffle of the MOEE Portfolio

The NLD government, which came to power in March 2016, has been said to be slow in developing clear economic policies, and its energy policies are no exception. Beginning from its inauguration, the Ministry of Energy and Electricity (MOEE) was headed by U Pe Zin Tun, the permanent secretary of the Ministry of Energy under the former government. He resigned less than two years later with little done in terms of solving the country's energy crisis, although this is mainly the responsibility of the ministry. As of July 2017, Minister for the Ministry of Construction, U Win Khaing, officially took over the Ministry of Energy and Electricity.

Indeed, the energy sector is one that has not been living up to expectations, though there are still a few key activities to note. A period of low oil prices coincided with the development of Myanmar's offshore fields, where exploration has proved to be very risky and pricey—a single deep-water well can cost upwards of US\$50 million. In fact, some blocks, exactly 11, were relinquished by foreign investors on the grounds that they wanted to invest in other businesses following the warning from MOGE to drop or drill in late 2017. These include India's Reliance Industries, which dropped blocks M-17 and M-18, and Australia's Tap Oil, which made an exit from block M-7. In addition, Shell has dropped some deep-water assets and extended the study periods for others. Therefore, despite the potential existence of energy reserves, Myanmar has been unable to meet its growing demand for power over the course of time.

Offshore Supply Bases (OSB)

An important development in the year 2017 has been the Myanmar Investment Commission's approval of offshore supply bases. A big hurdle for international oil and gas companies operating in the country comes from the lack of an offshore supply base. There is only one supply base owned by MOGE in Yangon, and the nearest platforms are in Singapore and Thailand. Oil and gas companies in Myanmar use supply bases in those two countries, which are at least 4-5 days away by boat. The day rate of a drill ship is over USD 350,000 per day and vessels need about ten days for roundtrip travel to and from Singapore. Therefore, the cost is enormous for oil and gas companies to operate off the coast of Myanmar—which means that Myanmar is deprived of an important economic activity while other countries benefit from operations in its waters.

The right to build and operate the supply bases that would make the country's oil and gas industry more profitable has long been recognized as a lucrative opportunity. A domestic offshore supply base would make supplies for drilling activities cheaper, available within a shorter time, and quicker, in terms of assuring an easier customs clearance—thereby successfully addressing the needs of its own offshore operators. While previously it was projected that Myanmar would need two or three offshore supply bases, last year, the Myanmar Investment Commission provided a series of permits for up to six offshore supply base projects, some of which are likely to be in operation as early as 2020.

Plans to Import LNG for Domestic Electricity Production

Following the start of 2018, we have begun to see an exciting phase unfold in the country's energy landscape, after the reshuffling of the head of the MOEE and the resultant period of silence on the country's energy plans. Recently, Myanmar's government has announced that LNG imports will be used to address energy gaps before new domestic gas comes online.

According to an MOEE official, domestic gas will continue to be an export item used to secure foreign exchange, while liquefied natural gas will help meet the growing electricity needs in the country, reversing what was earlier reiterated by the ministry: that local needs must be prioritised in new field developments.

In the short term and medium term, Myanmar has to rely on its gas power plants to meet the growing electricity demand, though securing gas for electricity generation has been a formidable challenge that could possibly be solved by the recent establishment of LNG import schemes. On the other hand, a long-term energy plan should focus on a well-balanced mix of sustainable energy by optimizing the use of a variety of existing energy sources, based on a concrete projection of how much energy will be needed to ensure economic development and national electrification.



A Geological Forum to Pave the Way Forward

In mid-March 2018, a geological forum was held by the MOGE—the state-owned oil and gas company, operator, service provider and regulator of the state oil and gas sector in Myanmar, under the Ministry of Energy and Electricity.

The forum, focusing on the upstream sector, gathered together MOGE officials, international oil and gas companies operating in Myanmar, academics, and energy professionals, with an aim to encourage knowledge-sharing on new concepts and technologies that might help resolve the challenges posed by the complex geological composition of Myanmar's petroleum systems. Only when this challenge is managed will the discovery of more oil and gas proceed, onshore and offshore in Myanmar. One hopes that the forum will assist the ministry to show the way forward.

Another Bidding Round with Better Rules

Currently, Myanmar has 51 offshore blocks for natural gas production; 38 were tendered during former president U Thein Sein's term, according to the MOEE. Therefore, 13 blocks are available for tendering. In early April, there was news that another bidding round will come around this year. This is expected to take place after a review of the current terms and conditions of the oil and gas contracts is made. Key areas that industry experts have identified as in need of improvement include the fiscal terms of the current Production Sharing Contracts (PSCs)—which were created before the 2014 drop in oil prices—and the accountability of the MOEE, in regard to the management of the oil and gas industry.





AEC FORUM 2018



MPRL E&P's Senior Management Took to Stage at AEC Business Forum 2018

Thai Sandy Tun

The AEC Business Forum 2018 was organised by Bangkok Bank on 19 June in Bangkok, Thailand. The theme of the forum was "Rising City, Rising Business", focusing on the ASEAN region being driven by technology and new business opportunities which arise from urbanization and infrastructural investments across the region.

In the morning session of the forum, MPRL E&P's Chairman and CEO U Moe Myint participated in the panel discussion on "ASEAN: Change and Business Model Transformation" during which invited CEOs of ASEAN businesses shared their visions and experiences. He discussed that energy security and competitive pricing of electricity is necessary enabler of a future that will dominantly be driven by technology. He further shared his views that natural gas, which is one of the most efficient and cleanest means of generating electricity, is the future key energy resource that is being adopted into the energy mix of nations world-wide. He further shared that the growth in the global LNG market and the affordability of LNG today would make the resource more accessible to both developed and developing nations. He further indicated that 60% of the electricity generated in Thailand in last year came from natural gas and that of this 60%, 17% is imported from Myanmar. U Moe Myint concluded that Thailand and Myanmar shared many similarities as well as common interest that can enable both countries to pursue and benefit from shared geopolitical and energy security initiatives. He concluded his presentation by discussing the benefits to ASEAN trade volume growth through the establishment of the East-West Corridor as well as Myanmar new "Look East" policy.

In the afternoon session, Country Manager U Sithu Moe Myint delivered a presentation on "Energy to Enable Progress". His focus was on three things; (1) What are key reasons Myanmar's economic growth and development is lagging earlier expectations; (2) What is being done to unlock the energy resources necessary to drive progress in the nation; and (3) What are some exciting opportunities that will develop as access to clean, reliable, and affordable energy becomes more readily available in Myanmar. He indicated a key challenge for Myanmar was to address the widening gap between lagging energy supply and growing domestic energy demand. He further indicated the three key initiatives that were being undertaken in Myanmar to unlock necessary energy resources which involved upgrading of aging transmission infrastructure, establishment of LNG terminals for diversification, and efforts to further find and development domestic hydrocarbon resources in the form of natural gas. He stressed key reasons why Myanmar and Thailand will continue to leverage a shared resource model particularly when it comes to natural gas going into the future and why this was both a sustainable option as well as one that would enable both nations to diversify their energy supply portfolios. As Myanmar unlocked energy resources to enable progress, he then shared potential business opportunities that would become available and encouraged potential investors to pursue sustainable business practices and to have a long term view to business in Myanmar.

The AEC Business Forum aims to serve as a platform to provide information about ASEAN's changing business and economic landscape, helping businesses to prepare themselves for trade and investment activities in the region. This is the third year that Bangkok Bank has held the AEC Business Forum which attracts both business and academic organizations in the region. ■



A Second Town Hall Completed in Mann Field

Thal Sandy Tun



On the early morning of May 3, 2018, a town hall meeting was hosted in the Mann Field Office. Around 100 staff from MPRL E&P, M&AS and M&AOSB attended the meeting and 12 staff from Mann Field volunteered to ask questions to Senior Management on behalf of the staff. This is the second time a town hall meeting has taken place in Mann Field.

In his opening remarks, Chief Executive Officer, U Moe Myint, mentioned the state of the Group of Companies which include 13 companies currently carrying out exploration and services for oil and gas operations. In the next five years, the business will move into development and production of gas and along with the growth of the company, the livelihood of all the staff will also be developed. Therefore, he said the effort of all members affects both the business and the nation as a whole and everyone should try their best in this regard. He also encouraged the meeting to continue in a warm and transparent manner like a family, before closing his address.

Then the Q&A session followed and some of them are highlighted here.

The very first question concerned the current state of the oil and gas industry as well as its future. Country Manager, U Sithu Moe Myint, explained in two parts. He said during the last six to eight months, the global oil price has increased due to three factors, supply and demand rebalancing, growth and development of the global economy, and OPEC's supply CAP. Then he continued to describe a global trend towards a cleaner and sustainable energy supply, which consists of LNG and natural gas. Transitions from coal have been witnessed across Asia Pacific countries, for example China, which has replaced most of its coal fire plants with natural gas power plants in the past year after years of suffering from pollutions. This has a huge impact on the global market of LNG and natural gas in terms of prices moving upwards. Country Manager concluded that the current range of oil prices will stabilise while the prices for LNG and natural gas are projected to rise in the future.



In response to a question about the company's plan for the next three to five years and bidding for new blocks, Technical Manager U Ko Ko said that there might be at least one additional infill well this year based on studies and there might also be some deepening wells. However, the team was also planning for the medium term for the period before 2024 as past experiences in Mann Field indicated infill wells do not prove to have a significant impact on production and exploration as needed. U Ko Ko continued that there are other potential fields and the company's strategy is to study MOGE's producing fields and to carry out production optimization and exploration simultaneously. He concluded that the Mann Deep project is currently evaluated with an economic model and promised future plans would be revealed at the end of the year.

Another question is related to the progress and plan in offshore block A-6. CEO updated that block A-6 has 14 gas channels and so far only three channels have been tested. A new well is planned for drilling in June to test two channels. If it is successful, it will reach the economic threshold and the development stage can begin. This development could cost around 6.2 billion and to become economical, PSC terms need to be renegotiated. There have been a series of discussions with government officials since last December and these issues could be settled in the next two months.

There are two effects this project could have on the country, CEO continued. The first one is economic impact. Myanmar is having an energy shortage problem and thus leaders are planning to import LNG. However, there will be transportation and other costs associated with LNG projects so if the country's own natural resource is utilized instead the cost could be reduced. According to the current contracts, from 2028 onwards, the government will own the natural gas pipe lines. When the gas from A-6 is transported through these gas pipe lines, the government will get a tariff. In addition, the country will get foreign revenue as some of the gas will be exported to Thailand.



The second impact will be political. As this ultra-deep water project is the first in the ASEAN countries, it will draw international attention and bring positive political impact to the nation. Finally, CEO shared one of his strategic plans to support this A-6 project by building a 55 million dollar offshore supply base in Nga Yoke Kaung Region. This OSB is expected to start operations in 2020.

Other questions included progress made about the waste management system in Mann Field, expectation and potential for M&A Telecoms in the country's IT sector, upgrading facilities in Mann Field, plans to provide incremental salary increases and bonuses, expansion of service year awards, plans to offer pension plans or home loan programs, plans to raise medical benefits and to organise an annual staff party. In addition to CEO, Country Manager and Technical Manager, General Manager U Myo Tin, Chief Compliance Officer Daw Nu Nu Lwin, and Executive Director U Tint Swe also responded to queries.





WHO'S WHO?

at MPRL E&P

Finance Department

Today, people might most commonly think of finance as money management. The reality is that finance can provide a broad range of different services to meet corporate, legal, statutory, tax and compliance requirements, to provide transactional, administrative, professional and technical services to the business, and to deliver financial and management reporting and value-added decision support to higher authorities of the business.

Finance Department is one of the Business Support Functions and was founded since 1996 together with MPRL E&P.

The roles and responsibilities of Finance Department includes but are not limited to:

1. Keeping financial records
2. Management of business cash-flow (cash management)
3. Sourcing of long term financing (capital management)
4. Management of business investment
5. Strategic Planning and Budgeting
6. Cost analysis and Cost controls
7. Management of Taxes
8. Financial reporting for statutory
9. Management reporting to assist management in making strategic decisions
10. Risk Assessment and Risk Management



Daw Mya Wit Yee
Finance Manager
Finance Department

Daw Mya Wit Yee is a member of the Association of Chartered Certified Accountants (ACCA, UK) (Affiliate). She graduated with a degree in Economics from the University of Distance Education, Yangon in 2004. In 2000, she obtained a Diploma in Principles of Management from the London Chamber of Commerce & Industry (LCCI). She then worked in finance and accounting roles in Singapore for almost eight years and joined MPRL E&P in 2014 as a Senior Accountant. Daw Mya Wit Yee currently works as a Finance Manager, and leads the Finance Department.

At MPRL E&P, Daw Mya Wit Yee establishes the departmental goals to achieve corporate goals and monitors the delivery of the departmental goals. She also manages the budget to maximize Return on Investment (RoI) and identifies potential areas for cost savings. She is also accountable for producing audited financial statements by external auditors locally & internationally, for Joint Venture Audits and MOGE Governmental Audits.

Daw Mya Wit Yee also has to manage the submission of all tax returns in compliance with laws and regulations within a set timeframe and maintains all accounting as per the obligations spelled out in the PCC contract, PSC contract, FOAs and JOAs. She maps out fund requirement scenarios and develops a funding roadmap with a range of strategies and has also developed and maintained financial policies and procedures for the company. She identifies gaps in the knowledge of team members and puts in place training systems and processes to address these gaps to ensure that the entire team can operate as an effective unit, providing the highest level of support.

There are eleven team members with three core functions (i) Budgeting and Management Reporting, (ii) Financial Reporting and Taxation, (iii) Account Payable and Receivable. The brief duties and responsibilities of Finance Department team members are as follows.

Daw Hnin Yee Soe, Assistant Finance Manager

She assists the Finance Manager to achieve finance departmental goals in the area of reviewing on budget preparation, controlling expenditure, monitoring revenue, financial statements, government and partner reporting, account



receivable and payables, audits and taxation. She actively supervises day to day finance activities to align with Standard Operation Procedures of Finance Department.

Daw Yin Yin Aye, Senior Accountant

She leads the functional role of preparing accurate financial statements in compliance with relevant standards, IAS, IFRS, MAS & MFRS, which are used to be audited by external auditors (Head Office's appointed auditor and local auditor) and filing the return of withholding tax, corporate income tax, personal income tax, commercial tax and special goods tax according to tax timeline.

Daw Phyo Thet Toe, Senior Accountant

She takes the supervisory role of another two functions; Budgeting & Management Reporting and Account Payable and Receivable. Since MPRL E&P has joint operations blocks, joint venture partner reporting is one of the tasks which has to be done accurately and timely. And then, under the Performance Compensation Contract (PCC) and Production Sharing Contract (PSC), several reports to be submitted to Myanmar Oil & Gas Enterprise (MOGE) and Myanmar Investment Commission (MIC).

Daw Hsu Yi Aung, Accountant

She assists in preparation and submission of budget for onshore and offshore blocks to corporate management and Myanmar Oil & Gas Enterprise (MOGE). She has to prepare the variance report between budget and actual expenses for all blocks inclusive of non-operation joint venture blocks on weekly, monthly, quarterly and yearly basis.

Daw Nang Hseng Noon, Accountant

She assists in preparation accurate financial statements, which need to be auditable from external auditors and filing taxes returns. She is responsible for inventory control such as verifying accurate standard costs, reconciling inventory accounts to the general ledger and preparing monthly journal entries as needed.

Daw Ei Ei Myo, Accountant

She ensures payment to be made in time and not even let happen late payment to vendors and suppliers to maintain creditability. She also keeps follow up for receivable from Myanmar Oil & Gas Enterprise (MOGE) and others to maintain cash flow to be in good shape. She assists in preparing reports to be submitted to Myanmar Oil & Gas Enterprise (MOGE) and Myanmar Investment Commission (MIC) for onshore and offshore blocks.

Daw Naw Hto Lwi Say, Assistant Accountant

She tracks the expenses against approved work program & budget for onshore and offshore blocks. She checks daily issue slip / daily return slip from Mann Field warehouse and records into OGSYS system. She is fully accountable on yearly physical inventory check together with MOGE audit team and external auditors.

Daw Thin Thin Phyo, Assistant Accountant

She prepares monthly withholding tax return for local and overseas vendors and ensures the payment are made according to tax timeline. She checks Myint & Associates invoices with service orders and work orders. She assists in inventory control to allocate correct account code.

Daw Hsu Shwe Sin, Junior Accountant

She handles cash and bank transactions daily. She assists in controlling account payables to make payment in time to local and overseas vendors / suppliers.

U Myo Khaing, Sr. Finance Assistant

He assists in departmental requirement related to submission of documents to Large Taxpayer Office (LTO), Company Circle Tax Office (CCTO), Township Internal Revenue Office, Township Labor Office, MOGE-YGN Office, Myanmar Investment Commission and all banks (MICB, MFTB, FPB, KBZ). ■

Leadership Development Training Brought Us Valuable Benefits

GoC Participants

For women and men to work in an equal partnership, change needs to start from within to kick-start the process of larger societal change, said Leadership Development Myanmar, an initiative that provides gender-based training for equality in both homes and work. A group of MPRL E&P's heads of department and potential successors attended the program and participants shared their experience, knowledge and skills gained through the training in this issue of Insight!



Daw Than Than Yin
Assistant Finance Manager
Finance Department, M&AS

I attended the Women in Leadership Training from February 16, 2018 to February 20, 2018. The training took place at Royal Kaytumadi Hotel in Taungoo and the trainer was Daw Khin Sandi Lwin who is a freelancer and has 35 years of experience as a trainer for the United Nations Children's Fund (UNICEF).

The Women in Leadership Training is specifically designed for women in the workplace and the objective is to raise women's leadership skills and knowledge. The company provides us with training to increase our leadership skills and knowledge to lead our teams effectively and efficiently.

In my opinion, leaders of the organization need a good attitude, honesty, maturity, kindness, sympathy, bravery, accountability, communication, sharing, equality, appreciation, teamwork, coaching, confidence, experience, and

knowledge. Leaders need to develop self-awareness by using these techniques: Inquiry, Introspection, Contemplation, Dialogue, Reflection and Interaction. More leaders are now required to balance between being soft & tough, so providing leadership training can produce stronger, more capable and more aware leaders for any organization.



Daw Sandar
Assistant Administrative Manager
Administration Department, M&AS

I attended the 5th Women's Leadership Training at Kaytumadi Hotel, Taungoo, in Bago Division from February 16, 2018 to February 20, 2018. The trainer is Daw Khin Sandi Lwin who is retired from the United Nations Children's Fund (UNICEF), and who served as a focal person for a management role in Facilitation &

Trainings. There were three of us who attended the training from MPRL E&P Group of Companies, and we were selected based on our potential in respective management roles.

Studies show organisations that invest in leadership development programs perform better than those who don't. The studies' results are agreeable, because one who has attended the Leadership Development Program will acquire valuable benefits such as self-review and self-assessment, awareness of advantages and disadvantages, requirements for amendments and through these benefits, one can use it to up-lift one's family and environment.

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THINKING ALOUD with

Daw Khine Nwe Oo Assistant HR Manager

How does the HR team ensure MPRL E&P is staffed with a highly qualified workforce that effectively supports the achievements of corporate goals?

In the business sector of the oil & gas field, related companies are facing a lower return on investment due to oil & gas prices fluctuating. Every company is trying to maintain and balance their financial statements for the last two or three years and during these tough times, MPRL E&P has strongly stood by its employees. This means that employees in turn, perform to their full potential for the productivity of the company and also shows that the targets and objectives of a business are achieved due to the collaborative and collective performance of all MPRL E&P staff members.

Under the scope of recruitment and selection, we designed a process with detailed screening procedures and tests including questions related to technical perspectives, behaviours and aptitude. We also offer an internship program for excellent and outstanding students from related technical principles such as Engineering, Geosciences and HR. After that, if the interns show good performance and proficiency in their related principles during the internship period, they can be considered as permanent staff members to explore more challenging duties.

The efforts of employees are related to the company's success and the direct contribution of each employee leads to increased productivity for the company. In order to get maximum achievement for the company, we provide a performance management process that:

- Increases employee engagement with "SMART" goals
- Provides open assessments up, down and across all levels
- Creates shared accountability between employees by cascading goals from one employee to another
- Analyses the results during every phase of goal completion
- Encourages their efforts with a reward program

Setting goals and measuring progress for the goals given to employees are a way to stay on a track, aim for target dates and reach milestones that will serve as ongoing motivation. Furthermore, we will observe ongoing and public tracking of their performance, regular evaluation of their processes and a collective result.

As HR, we are supporting MPRL E&P by taking responsibility for the performance management process. This evaluation method has already been run since 2015, through the quarterly evaluation of KPIs for employees. The year end result shows the status of how much staff have accomplished with their yearly goals in rank and score and outstanding and low performers can be easily differentiated with the ranking. HR will countercheck the compilation result of every performance review and find out how many staff members have achieved their goals within the standard performance rate and rank, and below of that bracketed range. The performance report for the measurements are submitted to Senior Management every quarter of the year and as a result, the staff members understand their individual goals and the products of their effort in achieving their respective goals.

What kind of policies, procedures and practices does the HR team put in place to ensure that there is diversity of skills and know-how, equal opportunities for career development, and a rigorous system of performance assessment for compensation?



MPRL E&P is committed to actively fostering, cultivating, and preserving diversity, including diversity of gender and background, in its day-to-day operations in order to stay at the forefront of the upstream oil and gas industry in Myanmar. According to the diversity and inclusion policy, MPRL E&P believes that a workforce diverse in ideas, thoughts, knowledge, technical know-how, skills, experience, and gender helps us to attract and retain employees from the widest possible pool of talent, to foster an organizational culture that promotes diversity and inclusion and to create a dynamic environment that leads to higher performance, greater employee engagement, and satisfaction.

At present, the HR team practices a Formal Mentorship Program, Performance Management Process (PMP) Policies and Procedures, and Outstanding Performer Awarding Program for staff development. We also developed a Formal Mentorship Program to provide a learning opportunity for employees to obtain required skills from experienced mentors within organization and serves as a tool for supervisors and employees to plan, develop and manage their career paths. Moreover, it helps maintain employee retention, increases employee satisfaction and assists in the career development process.

All above mentioned programs are linked to each other. Regarding the career development program, the committee members accept the submitted applicants to be listed as interims who have completed the PMP Evaluation form and Mentorship Form. There is no discrimination on the positions and roles of the employees, just focusing on the performance of each and every staff member. Everyone can be involved in the career development program if they achieve outstanding results in the PMP assessment.

Regarding the performance assessment, our PMP evaluation process is currently practiced by all levels of staff. It allows for the sharing of corporate goals to individual goals in order to get everyone's input in horizontally coordinating and vertically aligning people's efforts across the organization. There are regular reviews in the whole fiscal year and the accomplishments are tracked in each PMP evaluation period. In each assessment, we give HODs/Supervisors an opportunity to provide feedback to their supervisees. PMP committee reviews for higher and lower performers provide more precise outcomes before submitting to Senior Management. So, based on PMP results, the compensation and financial rewards can be followed ensuring employee satisfaction and retaining of qualified and experienced employees to achieve corporate goals and objectives efficiently and effectively. ■

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The training helped us solve the challenges of life in a peaceful way and assisted us in the development of inborn tendencies. To become a good leader, a trainee can apply the leadership skills and approaches learned from the program for self-directed growth to improve themselves and also to indirectly bring benefits to the entire organisation.



Daw The Su Mon
Assistant General Manager
Building Management Office, Vantage Tower

The gender-based leadership programme started in Myanmar in 2014 and is ran by a small group of women dedicated to promoting the advancement of a new generation of women as leaders in the private and public sectors. The training initiative has expanded to include men in 2018, as changing the patterns of leadership

needs men to welcome gender equality in the new global era of management requirements.

Daw Aye Hnin Swe, CEO of Mango Media Group and Daw Yin Myo Su, Founder of the Inle Heritage Foundation and Owner of the Inle Princess Resort are providing pro bono support to the work of Daw Khin Sandi Lwin, who has been conducting these trainings since 2004 when she was a country Representative of UNICEF (UN Children's Fund). Daw Khin Sandi Lwin developed the methodology based on the techniques of her teacher, Dr. Barbro Dahlbom-Hall, a Swedish trainer, since encountering it in 1998.

The intensive and interactive methodology requires trainings to be done for small groups in quiet settings as a retreat that is far from the busy world of work and family demands and the training focuses on personal growth and development to build a well-balanced and centered leadership character. The four day retreat is followed by one or two days of annual reunions that offer management and leadership development such as effective communication and negotiation.

The organizers offer companies and organizations to select managers with strong leadership potential to attend the retreats and to participate in the follow-up reunion skills sessions and the trainer actively maintains contact with her course alumni to provide coaching and personal development support. She has recently established a Facebook Page "@leadershipdevelopment-myanmar" to promote training workshops and sustain the individual efforts of the growing numbers of followers.



Daw Thandar
Assistant JV Business Manager
EJV Department, MPRL E&P

On February 16 – 20, 2018, by selection of Sr. Management, I attended the Women's Leadership Development Retreat & Training which took place at the very peaceful Royal Kaytumadi Hotel in Taunggu. The training was facilitated by Daw Khin Sandi Lwin who has worked at United Nations Children's Fund (UNICEF) in

a management role in facilitation and was the focal point for trainings for 35 years.

Among various types of leadership training around the world, such as developing leadership skills, leadership traits, etc, this training focused on the leadership behaviour which provides a guideline on how to build your character to become a leader. The training did not show ways to solve problems at work, but it did provide an explanation of the nature of women's minds which are influenced by their childhood life, parents, teachers, friends, and people around them. The key messages given in the training was how mindfulness practice is important for everyone in order to understand the roots of problems and to be resilient without being influenced by others.

It is hard to describe the story of training attendees because the most important rule of the training is confidentiality. After the attendees presented their stories as part of the training methodology, the facilitator made a comment that all the women attending the training had strong personalities given that everyone attending knew themselves very well and were capable to handle and balance their life.



U Kyaw Swar Win
Assistant Reservoir Manager
Reservoir Engineering Department, MPRL E&P

I attended the very first Men's Leadership Development Training and Retreat Program on March 10 – 14, 2018 held at the Inlay Princess Resort at Nyaung Shwe in Myanmar. The main facilitators/trainers of the program were Daw Khin Sandi Lwin and her husband Mr. Robert, who is a visitor trainer.

The course covered all the aspects of leadership development including understanding oneself, awareness of our social and work environments, leadership qualities and requirements, options on methods/approaches for personal growth and the importance of self-directed growth, and the approach uses day-to-day relationships and mutual support that mature women and men normally rely on, to handle life's challenges.

Daw Khin Sandy Lwin started facilitating gender-based leadership training approaches in 2014 in Myanmar for women only. But the more she conducted them for women, the more she realized that men also needed to have the exposure to gender-based approaches as it takes both sides of the gender divide to improve mutual development and support, which is why it is crucial to provide the very first Men's Leadership Program in Myanmar as well.

I believed that this course was very effective in helping us lead our own lives as well as develop our leadership potential and the instructor has sufficient knowledge on leadership, management, gender development and team building.

The key takeaways of the training and workshops based on gender-based approaches to self-knowledge, self-development, self-awareness, social awareness, leadership capabilities and professional development are very important to learn. ■

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As one example related to the first of these areas, according to the standards of the country's PSCs, the government, which is the resource owner, is fully protected from all risks involved in oil and gas exploration and production—risks to which private investors are exposed as they have to undertake all the investment and work programs associated with finding, developing, and producing natural gas; meanwhile, the lion's share of the produced oil and gas—at least 60% of the total production—goes into the government's pocket. Many other petroleum-producing countries around the world use such mechanisms, with different terms and conditions.

Presently, the ministry has reportedly been reviewing the terms and conditions of its contracts ahead of its plan for carrying out another bidding round this year. One hopes that more players would be involved in the process, leading the ministry to produce an outcome that provides a level playing field, as well as one that boosts investors' confidence in the industry.

What's in the pipeline?

In mid- and late-2018, we are likely to see activity from the toughest in the industry. PTT Exploration and Production (PTTEP) has reaffirmed its commitment to the oil and gas sector in Myanmar, although it admitted that there are challenges related to exploration in the frontier. It is expected that PTTEP will begin exploration work at M-9 and M-11 offshore fields in 2018. The company said that there are challenges associated with the identification of an economical and efficient method to bring the gas online, and that it can only be done through an effective combination of innovative technologies and people.

Another foreign entity, Malaysian state-owned oil company Petronas, said that it will commence drilling wells in M-12, M-13 and M-14 in Tanintharyi Region during the last quarter of 2018.

MPRL E&P, a local independent oil and gas company, has also introduced three options for its A-6 block, having made successive discoveries over the last few years. The company stated that if all sandy channels of the block are gas-bearing, economics may well justify an LNG project which includes tie-back options to either Total's Yadana gas field or Posco Daewoo's Shwe gas field, either for local power generation or for export to Thailand or China. The company is planning to drill a new appraisal well and, in parallel, will carry out studies for developing the gas from the block.

In conclusion, the oil crisis that began in 2014, saw oil prices slump to less than \$30 a barrel over the course of the years that followed. Today, thanks to aggressive cost-cutting exercises and oil prices making a return to \$60 a barrel, many national and international oil and gas companies in the upstream sector are getting ready to resume their exploration and production activities again. It is likely that Myanmar's oil and gas industry will improve the way it works by reflecting such changes in the wider industry, thus remaining competitive. In this regard, we have to identify lessons learned and apply best practices that carefully address our own challenges.

This article originally appeared in Tea Circle, a forum hosted at Oxford University for emerging research and perspectives on Burma/Myanmar. ■

How is Your Home Lit with Gas?

Dr. Eloi Dolivo

1. Introduction

Your home in Yangon is no longer powered by gas like homes were 150 years ago or so, but rather by electricity brought to you from a power plant, which is mostly gas-fired.

Electricity is very much like running water (fig. 1): water begins its journey to your home by running from lakes, rivers and other reservoirs in large-size pipelines, such as the pipeline coming from Hlawga reservoir lake which you can see crossing Yankin Township. It reaches your tap after processing to become clear and drinkable through an intricate network of ever smaller pipes.

Electricity similarly runs from the power plant through a network of transformers and ever smaller electric lines that reduces the voltage and power, until it runs into the mains of your home to light your lamps and power your homes.

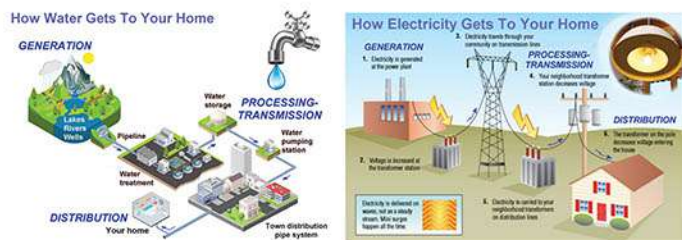


Fig. 1: Electricity, just like water, runs voltage along electric cables from the power plant to your home.

2. How is electricity generated?

About 95% of the world's electricity is produced by rotating a coil of copper wire inside a magnet.

There are other ways to produce electricity, and some other methods you may be familiar with are:

- batteries converting chemical energy into electricity or
- photo-voltaic cells converting the light of the sun into electricity.

The rotation of coiled copper wire inside magnets eventually produces electricity by converting mechanical energy into electrical energy. This conversion is done through an electric generator (fig. 2). Note that rotating the magnet inside the coiled copper wire will also induce electricity.

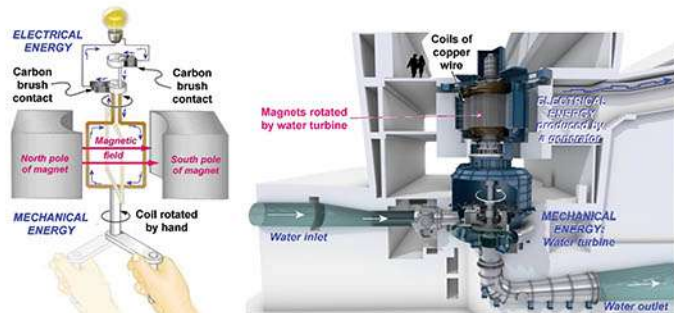


Fig. 2: How electricity is generated: to the left a coil of copper wire is spun by hand to produce electricity. To the right in a hydro-electric plant, it is the reverse: the magnet is rotating inside the coil of copper wire to generate electricity. Both systems work: the important point is the relative movement of the magnet and coil of copper wire. Fancy making one with the kids at home on a rainy day? This website shows a fairly simple way to do it: <https://www.youtube.com/watch?v=Vmo7UUma1ko>. You just replace the voltmeter by a small LED lamp; note that this generator is the type that spins the magnet inside the fixed coil, just like in the hydro-electric generator.

In a nutshell, producing electricity involves rotating either a magnet inside a coil of copper wire, or the reverse: a coil of copper wire inside a magnet. Because the electricity is distributed through the copper wire, at an industrial scale, the magnet spins inside the coil of copper wire.

At the industrial scale, when producing electricity for an entire region, what essentially changes from the process is the means to provide the mechanical energy to spin the magnet to produce the electricity. This mechanical energy is mostly transmitted by turbines.

3. What make turbines spin?

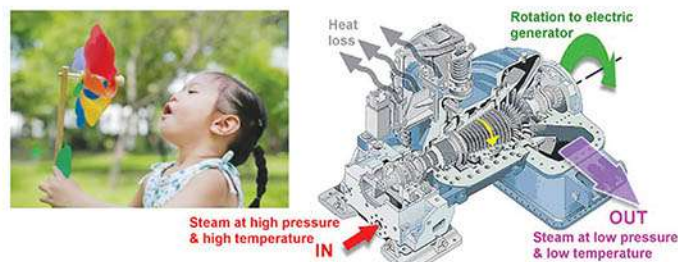


Fig. 3: Two kinds of turbines; to the left a very elementary wind turbine, to the right a steam turbine used to produce electricity; the high-pressure steam is injected through nozzles and its expansion produces the force to spin the turbine; the turbine is connected to the electricity generator by a shaft

These turbines are eventually spun by two types of sources of mechanical energy, or primary energy:

- natural elements: water and air that you find running and blowing in the environment and
- fossil fuels: whose burning as thermal energy is used to produce steam to run steam turbines to produce the mechanical energy.

The natural elements (fig. 4), a truly sustainable source of energy, directly transforms mechanical energy into electrical energy. This advantage is offset by a large footprint and/or are not always continuously available, depending on the climate:

- water turbines such as in fig. 2 are spun by hydro-electric power generation: water stored behind a dam located a few hundred meters above the plant falls at high-pressure through pipes to spin the turbines. Myanmar is richly endowed in water sources of electricity, but the prospect of artificial lakes drowning the best agricultural land in mountainous areas as well as villages and places of worship are a source of considerable social stress;
- air turbines are spun by a wind generator, often constructed in clusters or wind farms. Regular and sustained winds throughout the year are a prerequisite for wind farms to be economical. Areas of Myanmar enjoying such climatic conditions do not occur frequently and those which are convenient, such as mountain tops or exposed seashores, are generally far from where electricity is needed.

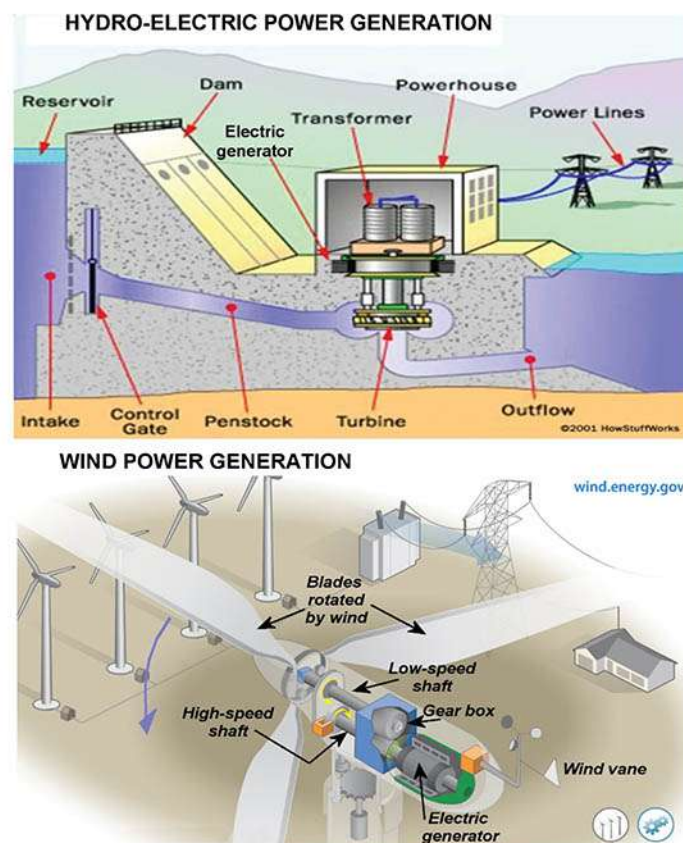


Fig. 4: Hydro-electric and wind power generation

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Fossil fuels - coal, oil and gas are used to heat water to produce steam. The expansion of the steam from high to low pressure is used to spin turbines, called **steam turbines**, which in turn spin the shaft of electric generators.

In this case, thermal energy is transformed into mechanical energy which in turn is transformed into electrical energy.

A drawback of fossil fuel sources is that they are sustainable in the long term (50 years worldwide for oil and gas based on proven reserves, 110 years for coal), and are also blamed for contributing to global warming.

However, fossil fuels do have the advantage of a smaller footprint on the ground, and therefore are much more socially acceptable. Nuclear energy produced by controlled fission of uranium is another way to heat water into steam, but is fraught with safety issues (such as the Fukushima disaster of March 2011), long lasting environmental problems and dangerous waste production.

What are the factors that decide what type of electricity generation is installed in your town or neighborhood to power your house? As in all material aspects of life, money decides first, and then the recommendations from energy planners. Among many questions, energy planners investigate:

- What is the cheapest and most suitable primary energy to produce electricity, considering the proximity to the markets of primary energy sources such as coal, oil, gas, water, or wind?
- What are the social and environmental impacts of the plants and installations to generate this electricity? What are the acceptable mitigations?

4. Gas is a special case, as it can be used twice

The case of gas is special, because just like steam, the gas itself can be used directly to spin gas turbines at high pressure. To generate this high pressure, air is compressed, mixed with gas and burnt to produce a powerful jet whose expansion makes the turbine spin, about the same as the turbines propelling jet planes (fig. 5). The rotation of the gas turbine in turn spins an electric generator

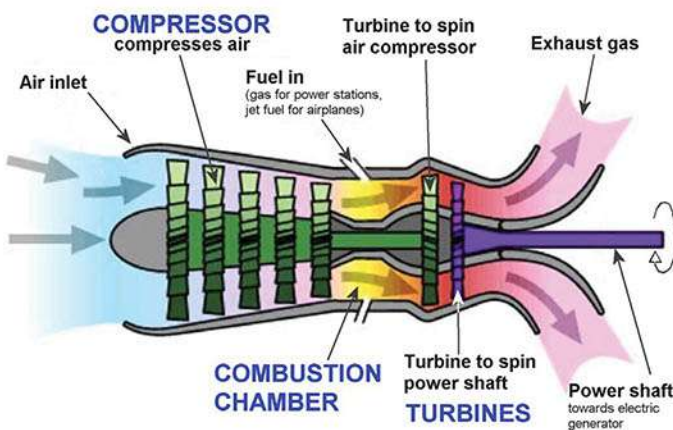


Fig. 5: A gas turbine: three main components: the air compressor, the combustion chamber and the turbines. The compressed air is mixed with thin droplets of fuel (in jet planes) or with gas (in power stations), the burning ("combustion") of this mixture produces hot gases whose expansion produces the force to spin the turbine. The major differences between a gas turbine and the airplane's jet engine is the type of fuel and the use of the exhaust gas to spin an electric generator or to propel the airplane

The exhaust gas expelled by the gas turbine is very hot, and this very heat can be recycled to heat water and generate steam which in turn will spin a steam turbine. This is the principle of **Combined Cycle Gas Power Generation** (fig. 6), whereby the heating power of gas is used twice: firstly to drive a gas turbine which will spin an electricity generator, and secondly to use the heat of the expended gas to boil water and produce steam to spin a steam turbine to run a second electricity generator. This combination produces the best method to efficiently use the power of gas: it has the highest "energy efficiency" among the fossil fuels and nuclear energy to produce electricity. Much of Yangon electricity comes from Combined Gas Cycle Power plants.

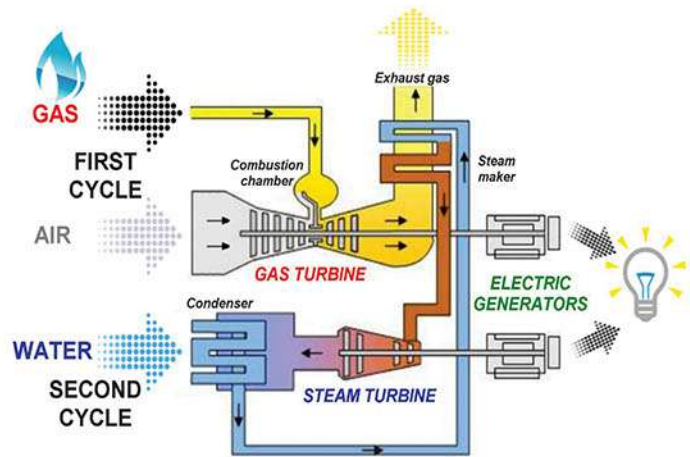


Fig. 6: Schematics of a Combined Cycle Gas Power generation plant; firstly the gas is burnt to run a gas turbine spinning an electric generator; and secondly the heat generated by the burning of the gas is used to heat water into steam to run a steam turbine to spin a second electric generator

5. Energy efficiency

The efficiency of producing electricity is the ratio between the energy input into the system, the primary energy, and the energy delivered by the electricity: it is known as **energy efficiency**. At each stage of passing from primary energy to another type of energy until electricity is generated, some energy is lost. Note that energy efficiency is gauged at the power generating plant and does not include the loss of electricity during the transport.

Using natural energies simply transforms one step mechanical energy into electricity. Hydroelectricity equipped with modern turbines easily achieve 90% of energy efficiency, due to some friction loss in turbines. Producing electricity from wind is somewhat less efficient at 60%, because of constraints of wind action on the blades, as well as loss by friction at the gear box. Efficiencies are great, but primary energies are either elusive and/or with unacceptable footprints.

By contrast, and while more socially acceptable, using fossil fuels transforms chemical energy into mechanical energy in two steps, which in turn transforms into electricity. In the first step, some energy is lost because of heat loss due to limited insulation in the conversion from thermal to mechanical energy and in the second step energy is lost by friction and more heat loss. Typical energy efficiency is around 33% for coal and oil-fired plants, and only one-third of the initial energy is converted into electricity.

Combined-cycle gas-fired plants however achieve almost twice this efficiency at nearly 60%, and even more when any residual heat is used for industrial processes, such as to produce beer.

A final word – for now

My apologies to all of you fellow engineers, physicists and pilots, as this is outrageously simplistic, but hopefully not too wrong. However, if anything in this snippet is a horrendous blunder, please do not hesitate to moan & groan in the next issue.

As a last word, let's remember that the cheapest way to increase energy efficiency and achieve energy independence at a national level is simply not to use it – such as by switching off lights and aircons when absent from a room. Such citizen behavior may save us from importing expensive LNG, while waiting for new cheap gas to soon be ready to light our homes. ■

“The efficiency of producing electricity is the ratio between the energy input into the system, the primary energy, and the energy delivered by the electricity.”



M&AOSB's CSR Department Opens New School Building in Nanttharpu

Yin Mon Aye

It was a rainy morning on May 29, 2018 when the ceremony for the opening of a new school building for the Basic Education Middle School of Nanttharpu was held from 9:00 to 11:00 AM at Nanttharpu village tract. The 90' x 30' one story R.C building was built by Myint & Associates Offshore Supply Base Limited (M&AOSB) and donations for school furniture were funded by the CSR department of M&AOSB as well as the local community.

The ceremony was attended by Regional Education Director U Kyaw Win together with representatives from the Regional Education Department, District Education Director (Acting) U Aye Lwin and representatives from the District Education Department, representatives from Ngapudaw's Township Education Department and Township General Administration Department, officials from Nga Yoke Kaung and Nanttharpu Village Administration Offices, school committee members, CSOs, Myint & Associates Offshore Supply Base Limited (M&AOSB) as well as the local community. The new school building and the related school facilities in Nanttharpu B.E.M.S and Nga Yoke Kaung B.E.H.S were also successfully handed over to the Ministry of Education.

Opening speeches were given by the Regional Education Director U Kyaw Win, Township General Administration Officer U Kyaw Swe Win, Township Education Officer U Soe Win, M&AOSB Group General Manager U Myo Tin and the Headmaster U Sa Htay Win from Nanttharpu B.E.M.S. Everyone congratulated and acknowledged the efforts of the respective parties for upgrading the school and creating better educational opportunities for many students in the Nga Yoke Kaung region, without which, the students would have to commute to further areas in the pursuit of higher education. In addition, the school is now one step closer to becoming a high school in the coming year and the school committee and local community enthusiastically look forward to the future. Despite the stormy weather, the ceremony was successfully organized and completed with coordination from the local community, with over 70 people from the village volunteering for the venue setup and to cook and serve food. Although the rain ruined the outdoor roofing and stage, the volunteers enthusiastically prepared indoor seating instead of giving up and there were over 200 attendees from the village who were delighted to see the results of their participation and who are now even more willing to volunteer

for activities in the future. The opening ceremony is a milestone for M&AOSB and is evidence that the CSR team has built a strong relationship with both the community volunteers and the local people.

Even though M&AOSB is in its investment phase and it will be some time before any returns on investment are reaped, the company has committed to a CSR program that will, in every way, bring benefits to the host community. The CSR activities, which include community facilitation workshops, stakeholders meetings, meetings with community leaders and members, and needs and impact assessment workshops have started since August 2017. "During the needs assessment workshops with the local community and committee members, it was discovered that educational development is the first priority as there is only one sub-middle school in Nanttharpu village, so the students have to travel by boat to Nga Yoke Kaung for higher education and many have stopped going to school. We also noticed that there is not enough school buildings and after several discussions with the school committee members and with the approval of the Ministry of Education and related government agencies, it was decided that we construct this school building," said U Thike Soe, Government Engagement Manager.

The CSR program for fiscal year 2017-2018 includes the construction of the new school building, the renovation of the entrance gate and the flagpole, floor renovations at the Early Childhood Care and Development Center (ECCD) in Nanttharpu, the construction of a water trestle and 10-unit toilets, replacement of doors and windows, partitions in the classrooms, and renovation of the fencing in Nga Yoke Kaung. Moreover, corporate sponsorships were also given during the Kathina (Kahtain) Festival, to the local soccer team made up of 21 amateur footballers from Nga Yoke Kaung and neighboring villages in the Ngapudaw Township Soccer Championship, as well as during the Karen New Year Festival.

In the coming fiscal year 2018-2019, CSR activities will focus on improving basic infrastructure, developing local small and medium enterprises (SMEs), promoting health and wellbeing and most importantly, developing effective long-term partnerships with the local communities. ■



Myint & Associates Co., Ltd.

The Leading Service Provider in the Oil & Gas Sector of Myanmar

Business Development Team (M&AS)



Myint & Associates Co., Ltd. (M&AS), established in 1989, is the first private Myanmar company as well as a leading major service provider in the oil & gas sector of Myanmar and the region, providing supply and logistical services. It has been a specialist service contractor in the oil & gas sector of Myanmar since its incorporation in 1989 for a broad range of services, specifically tailored for international oil companies and their main contractors operating in Myanmar.

M&A's main objective is:

"Continue to achieve as well as maintain our status as the leading service provider in the services sector of the oil & gas industry in Myanmar and the region"

And our mission is:

"A total commitment towards fulfilling our client's needs by providing a full spectrum of quality services in a safe, reliable, efficient and cost effective manner"

Moreover, M&A actively participated in 90% of Myanmar's offshore projects since 1989 and we are constantly working to achieve success for both operator companies and ourselves.



Our company provides a wide range of general services related to oil & gas exploration and production, including :

- Consulting & Agency Representation,
- Logistics & Procurement,
- Catering & Housekeeping,
- Design & Architecture,
- Engineering, Construction & Maintenance
- Storage & Warehousing
- Manpower Supply
- Equipment & Vehicle Rental
- Onshore & Offshore Crew Handling
- Transportation & Mobilization
- Airport Meeting & Transfer
- Travel & Accommodation



M&A is proud to be able to serve its valued clients with superior services and top quality technical solutions and has acquired a market share of 85% for logistics and 90% for catering & housekeeping services. In manpower service, we have provided manpower including site personnel of nearly 700 during the low season for both onshore and offshore projects, and above 1,200 personnel during the high season of projects. Particularly, our valued clients include Myanma Shell B.V, Unocal Myanmar, Petro Canada, Texaco, BHP, Total Myanmar E.P, Premier Oil, Daewoo, MPRL E&P, Schlumberger, Woodside, Unocal, Hyundai Heavy Industries, Transocean, Shell, J.Ray McDermott, ENI, Seadrill, and Asia Drilling Pte. Ltd., and Marine Drilling, among others from whom we receive letters of recommendation and appreciation. Also, M&A provides consultancy and sales representative services to the oil and gas companies, Dresser-Rand, PGS, TechnipFMC, Geolog, Nauticawt, Seadrill, Shawcor, Prosafe & etc. for the Myanmar Market.



Above all, Total Myanmar E&P's (TEPM) Yadanar Project is the milestone project of M&A's experience of services in three decades, where M&A prominently provided the construction of the Yadana Project Base Camp in 1994-95, successfully delivering projects on time for both the first and second phase of construction. TEPM responded and awarded M&A further related projects including camp maintenance services, road construction, logistics, manpower services, catering and housekeeping services and other general services consecutively for three years.

From the very onset of its foundation, the philosophy, culture and commitment of M&A is to provide the highest of services in an efficient and cost effective manner to all of our clients; large or small. We treasure the business of each and every one of our clients as our own and dedicate our efforts to ensure that our input and support is an integral part of the operational success of our clients.

We believe the quality and effectiveness of the professional services which M&A has been actively providing since its establishment, for both onshore & offshore petroleum operations, are unmatched. This is on account of the fact that we,

- focus on what we feel is important to our clients;
- strive to fully understand our client's expectations clearly and precisely;
- relentlessly pursue our goal which is to provide nothing less than "excellent service";
- endeavor for flawless execution to meet our client's expectations;
- work hard, learn from our shortfalls and celebrate our successes;
- continuously and creatively look for new ways to improve our services.



M&A is unique in a sense that it can be termed as customer obsessed, since we have a full sense of responsibility and are always fully conscious of our customers' needs. Through active & continuous engagement with our customers/clients we continuously strive to develop a distinctive strategy for satisfying and fulfilling our customers/client's needs. We are also convinced that the reputation of the company as an institution is a key and critical element in the service industry. We try our very best to firmly establish long term business relationships with all of our clients; relationships built through trust, confidence and a proven track record.

In conclusion, M&A always complies with all prevailing local laws, rules and regulations. Hence, M&A is proud to be a dutiful and regular tax payer to the Myanmar Government from the company's beginnings to the present. ■

M&AOSB sponsors the 3rd Micro, Small and Medium Enterprises (MSMEs) Trade Promotion and Regional Award in Patheingyi, Ayeyarwaddy Region from 12th May to 14th May 2018



A Memorable Trip to Dawei

Yin Nyein Oo



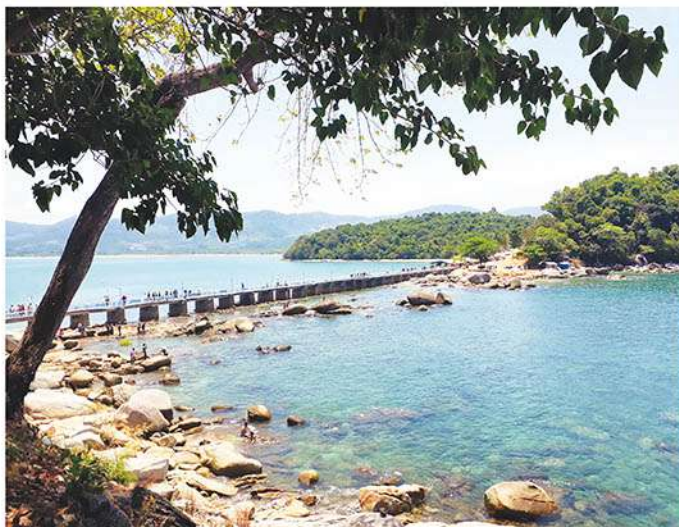
I visited Dawei for the wedding of my sister, which was held at a monastery in Ye city on the second day of Thingyan (A Kya Day) and stayed in Ye and Dawei for four days and three nights. I have never been to Dawei before, so this was my first trip there with my mother, my sister and her husband, my sister's mother-in-law and other relatives.

We left Yangon on the night of April 12, and arrived at Ye on the following day. We then left Ye City for Dawei at 5 AM in the morning on the third day (A Kyat Day) of Thingyan. Although the roads of Ye-Dawei are mountainous, the scenery is really spectacular. After a four-hour drive, we finally arrived in Dawei City. At the entrance of the village, we found the donation of snacks, "Sa Du De Thar" pavilion and all of us enjoyed the treat of "Sa Du De Thar". At the pavilion, we had Thingyan Rice, which goes really well with pounded fried dried fish with water, which in my opinion gives a really cool and different taste of delicious seasonal feelings. Around 9 AM, we planned to go for a pilgrimage to the well-known "Shin-Koe-Shin" pagoda, which is one of the most famous pagodas in Dawei City. Before paying homage to "Shin-Koe-Shin" pagoda, we chose to pay a homage to "Myaw Yit" pagoda first, which is an hour drive from Dawei.

unpaved, they are quite accessible and got a chance to see the rows of cashew trees after passing through the villages. When we almost arrived at Myaw Yit pagoda, we got a chance to taste the sights of Pin-lal-Ka-Vee plants and mangroves. The water in the sea is totally crystal clear. When I saw the breathtaking view of very pleasant Myaw Yit beach, all of my fatigue and tiredness disappeared.



After we paid homage to Myaw Yit pagoda, we left for Maung Ma Gan beach, which is located in Laung-lone city to have lunch as it was lunchtime. When we arrived at Maung Ma Gan beach, the beach was full of Thingyan cars that were full of people and excitement. We had difficulty finding a parking spot as the beach was so full of Thingyan cars and by the time we found a spot to park our car, we were so hungry, we went straight into a restaurant named Pan Tha Zin near our parking spot. The seafood was really tasty, but in my opinion, the prices were a bit expensive. After lunch, we didn't go down to the water as the weather was very hot. Instead, we took memorable beach photos and then we left for Shin Za Lun pagoda, which is one of the Shin Koe Shin listed pagodas. Since the pagodas of Shin Za Lun, Shin-Taunk-Htain, Shwe Oak Aaw, Shin Pin Khayu and Shin Dat Wal were along the way back, we especially paid homage to those pagodas. Since we did not have much time, we didn't get a chance to pay homage to the rest of the famous pagodas such as Shin Mote Tee, Shin Taung Pon, Shin Maw and Shin San Taw. After visiting pagodas, around 7 PM, we had snacks at the stalls in front of Shin Dat Wal pagoda and the Dawei Mote Hin Khar and papaya salad were especially delicious. After having snacks, we left from Dawei to Ye City.



At the start of the journey, we passed along Kyauk-Cin village. Since we started to pass through Kyauk-Cin village, we began to see the very beautiful Bay of Bengal, which is a really eye-catching sight. Then, we passed through Thin Baw Seit, Kayin Gyi, Pyi Gyi and Kan Pa Ni villages. The lifestyles of people living in the villages are lovely and they live in the cute mud houses. The livelihoods of the native people include fishing, making salt, and the cultivation of betel trees and rubbers. Though the roads throughout the villages are

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Most of the places I have been to are beaches, rivers and creeks, and since all of the places are new to me, I learned regional knowledge and eye-opening experiences from those visits. I got the opportunity to observe the making of dry fish and salt, and the tours of rubber and betel farms were so joyful and satisfying. The language and styles of different dialects of Mon, Kayin, and Dawei nationalities are also unique to me too. Shwe Maw Daw pagoda, which is located in Ye Myo Kyaung village, looks so nice and pleasant to pay homage to, and I could see the view of a stream going around the mountain, which makes the views even more perfect. At the entrance of the village, there is a sign that says Chaung Thar Yar, and the water is so clear and at the bottom of the stream there are cute tiny pebbles. There were also so many visitors who are having fun and enjoying themselves in the stream from all over Myanmar and I had a feeling of joy and utmost satisfaction from visiting Dawei as it is not easy to go there again to have a chance to sightsee such gorgeous places and pay homage to the famous pagodas.



On the way back from Ye to Yangon, we paid homage to Ko Yin Lay pagoda. The interior of the pagoda looks like a cave and everyone who comes to visit the pagoda can go inside including men and women. Women are supposed to wear Myanmar traditional dress when they go inside the pagoda and the Ko Yin Lay pagoda is the highest and biggest pagoda in Ye.



The locals in Ye are very simple and hospitable. There were abundant regional crops and vegetables, among which, one of them is called Lin Kaung Ywet, which is so tasty. Lin Kaung Ywet can be fried with eggs or it can be served as a dipping vegetable. I was also lucky to get a chance to taste the variety of salads made of jackal fruits and beans, sharks' skin and snails. Other memorable dishes that I had are Kayin traditional curry called Talabaw which is a soup of chicken with bay leaves and Kayin style fish paste, which is so awesome and a different experience for me. The dishes are so good with their spicy taste, which made me totally content because I love spicy food.

As my visit to Dawei is during Thingyan festival, I had a chance to witness their regional custom of celebrating Thingyan by playing music and building pavilions. Water splashing was everywhere and there were also festivals of painting skin with Thanakha, which was totally new for me. The water festival of the Mon Region is celebrated until Myanmar New Year, which is really very exciting and cool. The cleanliness of Yaye and Dawei, the unity and integrity of the locals and their warm welcome and hospitality are also fabulous, so I would like to pay a visit again to these places in the future if I were to have the chance again. ■



Feature

Volunteering : How Helping Others Helps Me

Myo Myat Myat Thein

Volunteering is a way of giving back to our community while developing important social skills and gaining valuable work experience all at the same time. Volunteering gives us an opportunity to change people's lives, including ourselves, and there are so many beneficial ways of getting involved in and giving back to our community. Volunteering makes me happy. Thus, most of my leisure time is spent doing volunteering activities.

I've been volunteering since I was young, starting with the Damaduta Youth Volunteer Group. Since then, I have participated as a volunteer in so many activities. Among them, most recently in 2018, I participated in the Myanmar University Students' Forum, International Youth Day Event, BarCamp Yangon 2018 Event, Fly High with Us Program which was organized by the Hong Kong - Myanmar Chamber of Commerce and a Trash Hero Event.

Currently, I am volunteering as a content group member (aka) U-Reporter of U-Report Myanmar



which is a SMS social monitoring tool for community participants that is free for everyone, wherever you are in the world, to speak out and learn more about youth development issues, supporting children and improving our communities.

U-Report Myanmar is a free program sponsored by UNICEF with the help of Network Providers in Myanmar. There are four working groups - the Poll Design Group, the Partnership Group, the Events and Logistics Group and the Media Group

and I've been participating in the Events and Logistics group. As U-Reporters, we speak out on the issues impacting our lives and those around us whether it is climate change, infrastructure, environmental awareness, employment, gender, health of children or access to education for all. We improve accountability, highlight injustice and protect the most vulnerable, particularly children, by making sure we contribute to polls, debates and reporting on the tough conditions faced in our communities.

Volunteering can help a person gain confidence, a sense of purpose, strength and can be physically, mentally and emotionally demanding. When you become a volunteer you are not only giving your time, but your mind, heart and soul. It is truly a life-changing experience that will make a difference in you and those around you. I truly believe it can teach you so many valuable life lessons and that everyone should try to have at least one volunteer experience in their lifetime as it can change your life. ■



3rd Monsoon Tree Planting Event of MPRL E&P Group of Companies



Singapore National Open Sailing Championship



Junior Sailing Clinic at Yangon Sailing Club (YSC)



Trash Hero Myanmar Activities for World Environment Day 2018

