

Happy Thingyan and Myanmar New Year
to all Staff Members of MPRL E&P Group of Companies and the People of Myanmar

What is the Role of Geological Surveys?

Dr. Eloi Dolivo
Exploration & JV Manager

Your crockery and cutlery, your smartphone, the water from your tap, the jewels of your loved one, the bricks and cement of your house, the gas in the bus outside in the street, to name but a few of the many items you encounter in your daily life, share one thing in common; once upon a day, the materials from which they are made were located below the surface of the Earth. Materials that lie below the surface of the Earth are termed 'mineral resources' whether they occur in solid, liquid or gaseous form. Such resources normally belong to the nation.

Any sound private business includes a department that compiles an inventory of its resources; similarly most nations on the planet compile inventories of their mineral resources. The compilation of this inventory is the job of national geological survey departments (in short, in this paper, the "geological surveys"), which take various names depending on the country. But all fulfil the same role, tasks and duties:

Science 9 ➤



MPRL E&P Submitted COP, Becoming a UNGC Active Member

Thal Sandy Tun

MPRL E&P has successfully submitted its first 'Communication on Progress' (COP) report on 16 February 2017. Submitting the COP, which provides valuable information to all stakeholders, is at the heart of the company's commitment to the 'UN Global Compact' (UNG) that

establishes universally accepted principles in the areas of human rights, labour, environment and anti-corruption. The company became a signatory to the initiative in February 2016.

By adopting the principles embod-

ied in all four core areas, MPRL E&P ensures that its management systems are fully compliant with the aims of the Global Compact. It also increases trust and promotes commitment within the company, as well as between the company and its partners and other stake-

holders at large, to network and share best practices.

The COP reports the data, collected on a quarterly basis, that demonstrates how MPRL E&P has embedded the UNGC's core principles into its central management

News 3 ➤

More Stories

Employees Provided with 'ABC Awareness Training'

News 3 ➤

Technical Team Members Attended AAPG Myanmar Oil and Gas Conference

News 4 ➤

Cement Water Container Making Training Provided to Four Communities in Mann Field

News 5 ➤

Mitigating Environment Challenges in Mann Field

Feature 6 ➤

Town Hall Meeting Took Place in Mann Field for the First Time

Feature 12 ➤

Your Opinion : What Are Your Favorite Pastime Activities?

Daw Hla Yin Nyein

Receptionist

Admin Department



I have many favourite activities which help me spend my time at my own pace during holidays and out-of-office hour: I enjoy travelling with friends and family, cooking, watching blockbusters, and reading interesting books. During the weekends, when I stay at home, I do some cooking for my family members. Sometimes I take classes, such as "Human Resources" and "English," which can help me with my job.

Recently, I have travelled; I went to Ngwe Saung and Kyaik Htee Yoe. Now summer is coming and a lot of people will start to travel because there are many festivals going on around the country. For me, travel is something I frequently do in order to relax and to experience and appreciate new things and people. Although stress has become part of our modern life, we are lucky that there are ways to reduce it by spending our time doing things we enjoy with those whom we love.

This year I am hoping to learn swimming too!

Daw Meme Pyone

Receptionist

Admin Department



My favourite pastime activities are drinking coffee, swimming and travelling. I am always doing one or other of these activities during my free time so as to relax and spend quality time with my best friends, especially during weekends. I go out to drink coffee in the evening because I am a full-time employee. When I go to a good café for a cup of nice coffee, I think about my past or my future. Sometimes I swim with my friends to relax my mind and to be physically healthy. Swimming is a good all-around activity that involves moving all your body parts in the water but is also relaxing. I also travel whenever I have enough time. I travel to gain new experiences, develop new ideas, and create unforgettable memories upon which I will be able to look back when I get old. Travel also allows me to relax and to gain general knowledge. If I have a chance, I also go running and go dancing.

Yes, I have many favourite activities that I enjoy doing alone or with my friends but most of the time I like to travel and drink coffee.

Insight!

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Did you know that community capacity building involves activities, resources and support that strengthen the skills, abilities and confidence of people and community groups to take effective action and leading roles in the development of their communities? ”

Introduction to New Employees (January 2017 ~ March 2017)

No.	Name	Department	Designation	Commencement Date
1.	Yin Nyein Oo	Human Resource	Junior HR Officer	2 Jan 2017
2.	Hsu Shwe Cin	Finance	Junior Accountant	2 Jan 2017
3.	Ei Ei Khin	Human Resource	Junior HR Officer	23 Jan 2017
4.	Soe Thinzar Aung	Executive Office	Executive Office Assistant	30 Jan 2017
5.	Soe Than Naing	Health, Safety and Environment	Assistant HSE Manager	13 Feb 2017

Quote Of The Day

Cultivate a deep understanding of yourself – not only what your strengths and weaknesses are but also how you learn, how you work with others, what your values are, and where you can make the greatest contribution. Because only when you operate from strengths can you achieve true excellence.

Peter Drucker, Austrian-American Management Consultant, Educator and Author

Employees Provided with 'ABC Awareness Training'

Thal Sandy Tun

Corruption is a global issue and it affects everyone. Despite compliance programmes, codes of conduct, and policies, many companies around the world continue to struggle in the face of corruption. In Myanmar, corruption has been seen as a problem that interrupts investment and trade as well as restricting economic development and a number of initiatives have been taken by the government recently, such as the 'Guidelines on Accepting Gifts by Government Officials', released last year, to control and reduce corrupt acts within government bodies.

One effective way to prevent corruption affecting a business is to raise its employees' awareness of existing anti-bribery and anti-corruption

laws and policies as well as to provide information and guidance for prevention of bribery and corruption and the promotion of ethical standards.

Hence, MPRL E&P's Compliance Department initiated a series of anti-bribery and corruption awareness training sessions for employees, both in the Yangon Office and in Mann Field, as well as for other personnel including agents, contractors, and consultants who work on behalf of MPRL E&P. The two-hour training sessions were provided on 23 December 2016 in the Yangon Office (45 training man-hours), and on 27 and 28 December 2016 in Mann Field for managers, supervisors, officers and employees



(148 training man-hours). Two training sessions, which lasted two hours each, were also given to contractors, vendors and suppliers on 14 February 2017 (146 training man-hours).

The topics discussed during the training sessions included but were not limited to "the Myanmar Anti-Corruption Law and Guidelines," "the Tenth Principle of the United Nations Global Compact," the "UK Bribery Act 2010," and MPRL E&P's "Anti-Bribery and Corruption Policy," which outlines employee roles and responsibilities as well as penalties incurred for offences.

Furthermore, awareness training will be provided periodically in

the future, for both employees and other stakeholders, according to needs and in response to changes in circumstances.

As part of its anti-bribery and anti-corruption efforts, MPRL E&P has been participating as a member in the 'Myanmar Extractive Industries Transparency Initiative' (MEITI) which adopts internationally accepted good governance procedures for resource-rich countries by requiring verification and publication of company payments to, and government revenues from, the oil, gas and mining industries. The company has also begun participating in the 'United Nations Global Compact' since 16 February 2016 as an Oil & Gas Producer. ■



From Front Page

framework and thereby communicates its commitment to adopting UNGC's responsible business practices. It contains a statement by the Chief Executive Officer expressing continued support for the UNGC, examples of practical implementation, and measurement of outcomes for each area of concern.

The UNGC, which is the world's largest corporate sustainability initiative, was launched in 2000 with a call to businesses to align their strategies and operations using its ten principles on human rights, labour, environment and anti-corruption. The UNGC is not a regulatory instrument but is a forum for governments, companies, labour organisations and civil society organisations to sit together, network and open dialogues. It guides businesses of all sizes and in all locations by providing a universal language for corporate responsibility and a framework within which they can adopt sustainable and responsible business policies and practices, and then assess and communicate their implementation.

In Myanmar, former UN Secretary-General, Ban Ki-moon, successfully introduced the UNGC in May 2012 and the initiative was endorsed by prominent Myanmar business leaders who declared their commitment to uphold its core principles.

More than 250 Myanmar companies have become members of the UNGC and among them are four companies, including MPRL E&P, from the oil and gas sector.

UNGC Principles

Human Rights

Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights.

Principle 2: Businesses should ensure that they are not complicit in human rights abuses.

Labour

Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.

Principle 4: Businesses should uphold the elimination of forced or compulsory labour.

Principle 5: Businesses should uphold the effective abolition of child labour.

Principle 6: Businesses should uphold the elimination of discrimination in respect of employment and corruption.



“

Our long term vision and strategy focuses on our operational performance, investing in the right opportunities, our people and sustainable approaches towards how we manage our business by taking a clear sense of social and environmental responsibility.

”

Statement of Commitment by the Chief Executive, Communication on Progress February 2016 - February 2017

Environment

Principle 7: Businesses should support a precautionary approach.

Principle 8: Businesses should undertake initiatives to promote greater environmental responsibility.

Principle 9: Businesses should encourage the development and diffusion of environmentally friendly technologies.

Anti-corruption

Principle 10: Businesses should work against all forms of corruption, including extortion and bribery. ■

Technical Team Members Attended AAPG Myanmar Oil and Gas Conference



Jointly organized by the American Association of Petroleum Geologists (AAPG), the European Association of Geoscientists and Engineers (EAGE) and the Myanmar Geosciences Society (MGS), the third AAPG Myanmar Oil and Gas Conference was held in Yangon from 22 to 24 February. The Conference, titled "Exciting Evolution: Myanmar's Petroleum Systems, Plays and Field Developments," aimed to serve as a quality geoscience event providing up-to-date knowledge of oil and gas exploration and production activities in the country as well as academic research relating to insights into the geological evolution of onshore and offshore Myanmar.

Technical Manager, U Ko Ko, and Geoscience Manager, U Kyaw Soe Win, along with other team members representing MPRL E&P attended the Conference. U Ko Ko, who chaired the oral sessions and took part in the panel discussion as an onshore operator, and U Kyaw Soe Win, who provided a presentation about oil characteristics of Well 665 in the Mann Field, talked about their experiences at the Conference to Insight!

U Ko Ko Technical Manager

The Third AAPG-EAGE-MGS Conference took place, between 22 and 24 February, in Yangon, with a theme titled "Exciting Evolution: Myanmar's Petroleum Systems, Plays and Field Developments." While the two previous conferences, held in 2014 and 2015, lasted for only two days, this one was so popular that the organizers extended it to three days. AAPG, the most renowned professional organization for petroleum geoscientists, EAGE and MGS co-organized the conference. By contrast with similar events in Yangon, this conference was a scientific one and did not have corporate objectives and targets.

Myanmar, as one of the last frontiers and least explored petroleum areas of the world, continues to be the most vibrant place in the Asia-Pacific region, and even beyond, in terms of exploration activity since 2015. The audience testified to it, with no less than 216 geoscientists attending the conference, the maximum attendance that could be accommodated by any venue in Yangon at a reasonable price.

I co-chaired one of the two onshore sessions on 23 February 2017, while U Kyaw Soe Win successfully presented at the other one. My co-chair for the session was Dr. Dietmar Schumacher, a well-known geochemist and co-founder of E&P Services of USA, specializing in the soil geochemistry of deposits found above petroleum accumulations. Being a session chair is always exciting and challenging because one has to gently but assertively keep to the schedule while ensuring good science is delivered by presenters without technical glitches.

Out of seven presentations during this session, four were given by Myanmar nationals. The quality of the presentations by nationals has generally con-

siderably improved since AAPG held its first conference in Myanmar in 2014.

In addition, I was the Onshore Operator panelist for the panel session entitled "Focus areas for the future – Research, Technology, Operations and Commercial" on the same day. The other panelists were from Woodside (as Offshore Explorer), Total (as Offshore Producer), Schlumberger (as Services Company), MOGE (as government representative) and Yangon University (to represent the academic world). Even though this panel discussion was held at the end of a very long day at 5:30 pm on 23 February (the day had started at 7:45 am), most participants still attended and the room was nearly packed. This was a much more difficult exercise than chairing a session. Although the questions were known in advance and MPRL E&P prepared for it, unplanned questions came from the floor, as well as from the panelists, thus one had to answer quick-wittedly and to the point. All four Myanmar panelists were observed to have prepared well.

In conclusion, MPRL E&P, as a local operator, demonstrated the technical strength of its geoscientists in the conference and participated in all activities from presenting to chairing a session and to being a panelist. Such conferences are unique learning opportunities for MPRL E&P's geoscientists and I would like to express my wholehearted thanks to MPRL E&P's senior management for approving our participation.

U Kyaw Soe Win Geoscience Manager

The AAPG conference included two parallel sessions during the second day, 23 February 2017: onshore and offshore. I made a presentation to the onshore session about a very special oil found in the Mann Field and about the possible significance of this oil at the regional scale. The presentation was entitled: "What Does the Quaint Oil of Mann-665 Tell on Regional Geology?"

After introducing MPRL E&P and its assets, I zoomed-in on the Mann Field and presented information about our technical as well as our social and environmental performance. The presentation then continued by showing correlations of the physical and chemical properties of the crude oil of Mann 665 in comparison with those from other wells of the Mann Field. The presentation reviewed various assumptions about the source-rock and the maturation and migration of the oil to the Mann Field and about the potential bio-degradation of the oil. The presentation concluded by demonstrating how the properties of the crude oil from Mann 665 persuaded MPRL E&P to drill Mann Deep East-1, which discovered, in early 2012, a new wet gas play beneath the Mann Field. However, it was so over-pressured that the well could not be tested.

The presentation was a good opportunity to demonstrate MPRL E&P's extensive experience, skills and capacities as a state-of-the-art operator to international companies carrying out exploration onshore Myanmar.



The audience included some 60 participants (about a quarter of the total attendance), who showed their appreciation by asking questions and making comments beyond the allotted time. Some international experts, such as the geologists of the Denmark and Greenland Geological Survey, having studied a few oils from fields to the North of Mann on behalf of MOGE, proposed data sharing and an exchange of knowledge in order to conduct further studies.

At a personal level, exposure to this international conferences boosted my confidence, extended my professional network and expanded my technical knowledge by providing new ideas. MPRL E&P, the only private Myanmar oil company present at the conference, showed itself to be a professional operator, doing good geoscience right. All MPRL E&P geoscience team members managed to participate for at least two days of the conference, gaining the opportunity to see how good geoscience is carried out and presented. ■



Cement Water Container Making Training Provided to Four Communities in Mann Field

Thal Sandy Tun

MPRL E&P's CSR and Communications team conducted Cement Water Container Making Training as a community investment project for four communities in Mann Field, namely Chin Taung, Kywe Cha, Kyar Kan and Lat Pan Taw. The project was initiated to address the communities' needs to store more water for both household use and for fire prevention in the summer months. Prior to this project, the typical household water storage capacity was between 20 and 50 gallons. The project aimed to increase the water storage capacity for participating households by 25%.

Cement water jars are a low-cost water storage facility that are easy to make but they are rarely seen in Myanmar. The materials required such as cement, sand and canvas or tarpaulin are available in the communities and with some practical training anyone can make the jars at home. The cost of materials for a 40 to 50 gallon cement jar is about MMK 5,000 which is lower than the cost of other locally made cement containers. By introducing this locally appropriate technology, the community members can not only have more plentiful access to water but they also gain vocational skills.



In January 2017, an external trainer provided training to 26 community members from four villages on the making of cement water storage containers. At the end of the project, members of the Village Development Committees, who were involved throughout the life of the project and were part of the capacity-building process, village administrators, volunteers and trainees participated in a review workshop to discuss the challenges that they faced, lessons learned and future plans.

The review concluded that the new designs attracted customers because the pots could be sold at a price lower than for other alternatives available in the market. Trainees from Chin Taung Village aimed to provide more pot-making training within their own community and to contribute the income from the pot-making enterprise to a village fund. Trainees from Lat Pan Taw Village intended to collect contributions from each household so that they could make more pots that would be placed at junctions in the community for use in firefighting and fire prevention.

In future, a survey will be conducted to assess the beneficiaries' satisfaction with this training, which has been activity supported by MPRL E&P. The survey will gauge their perception about the timeliness and effectiveness of the project; track how income is generated; assess employment opportunities; and identify any gaps, needs or delays observed during the project.

Since April 2016, MPRL E&P has spent a total of US\$ 29,439 on community initiatives in Mann Field. A large proportion of the funds have been spent on community infrastructure. This includes but is not limited to improving access to water and building the capacity of Village Development Committees to improve project management. ■

Mitigating Environmental Challenges in Mann Field

HSE Team

As a contractor to redevelop the Mann Field, MPRL E&P is producing some 1,350 barrels of oil, 1,500 barrels of water and 2 million cubic feet of gas daily. Currently, three wells are flowing without any assistance, 242 wells are produced by pumping and 106 wells are intermittently opened for swabbing when pressure has built up enough to warrant economic flow.

MPRL E&P, with the full support of the country's national oil company Myanma Oil and Gas Enterprise (MOGE), takes great care to minimize the environmental consequences of its production operations. MPRL E&P is continuously undertaking initiatives to promote greater environmental awareness and responsibility and to encourage the implementation of environmentally friendly technologies.

MPRL E&P's Environmental Policy sets out the guidelines under which its Environmental Management System operates. Objectives, applicability, responsibilities, monitoring and reporting requirements are all clearly defined to the standards of ISO 14001:2004 and are fully compliant with the principles of the United Nations Global Compact (UNGC) as follows:

1. Protect the environment in the communities where we work and live;
2. Strive to prevent pollution, and seek improvement with respect to emissions, wastewater discharge, energy consumption, resource consumption and reduction of impact to the environment;
3. Monitor the effects of our activities on the environment and take action to address such effects where necessary;
4. Openly communicate our environmental performance, with our work force, government, and the host community through a variety of engagement methods that include, but are not limited to, coordination meetings, disclosure workshops and performance reviews;
5. Comply with both national legislation and industry best practices such as the UNGC on the environment and in particular, the 7th, 8th, and 9th principle;
6. Foster a culture that empowers and rewards everyone to act in accordance with this policy.

MPRL E&P is actively mitigating all three environmental challenges of the Mann Field, namely: air pollution, water pollution and soil pollution.

Mitigating Air Pollution

Air pollution comes from exhaust fumes from pulling units, cranes, forklifts, trucks, etc. during the operations in Mann Field. As a result, we train our crews to perform preventive maintenance schedules for these machines and closely monitor daily fuel consumption.

Mann Field gas is mostly comprised of methane (CH₄), which is a major greenhouse gas. Gas venting, an inevitable consequence of production operations, is estimated to amount to some 2% of total gas production. All wells producing significant amounts gas are connected with flow lines to the Mann LPG plant. The unconnected wells are located too far from gas installations to be economically connected at the very low rates at which they flow. According to the Environmental Impact Assessment conducted on behalf of MPRL E&P in 2015, gas emissions in Mann Field are substantially less than the guidelines value.



Mitigating Water Pollution

MPRL E&P produces about 1,500 bbl of water per day along with the oil. This water contains about 4 to 10 g/l of salt, and is therefore not suitable for consumption or irrigation. MPRL E&P has undertaken an aggressive program, commencing in October 2014, to dispose of this water by return-

ing it to the reservoir rocks via unused wells. At the moment, we are successfully disposing more than 90% of the produced water into these previously shut-in wells. As a side effect, because water is being returned to where it initially came from - the reservoir rocks - we are observing a pressure increase in certain wells. As oil is produced, reservoir pressure decreases; replenishing the reservoir with the formation water slows down this pressure decline. Disposing of water back into the reservoir is therefore not only good environmental practice but also sound practice to increase oil production as a result of slower pressure decline. The HSE team monitors, samples and records the data on a weekly basis, while the production team monitors the evolution of reservoir pressure near the water disposal wells.



The remaining 10% of the water that is not yet disposed of in wells, is being stored in evaporation ponds until more candidate wells can be found to absorb this water. Worth noting is, that for the last three years, there has been no discharge outside of the production installations, and therefore outside communities are no longer affected by our water disposal.

“Disposing water back into the reservoir is therefore not only good practice to spare the environment, but also sound practice to manage the oil production because pressure declines slower and more oil can be produced.”

Mitigating Soil Pollution

Oil spills pose a big challenge in terms of management of soil pollution during operations. A spill response team is trained to face this challenge and performs regular drill exercises. Measures to prevent soil pollution include construction and maintenance of concrete containment pads, double cellars to contain oil in some wells needing frequent interventions, regular cleaning and renovation of well-site cellars.



Occasional deepening of wells to reach by-passed oil require drilling operations, which use drilling mud. The essential component is clay, a common surface mineral, that is mixed with chemicals to stabilize viscosity and density. These chemicals are selected to minimise harm to the environment and they are recycled as much as possible. Drilling cuttings and unrecyclable drilling mud are disposed of in areas out of reach of communities and their environment. Various alternative techniques, such as microbial digestion, incineration, etc., are under study or undergoing experimentation.

Conclusion

Having pioneered techniques and high standards of operational efficiency for the 20 years since it joined MOGE to improve the recovery of the oil in the Mann Field, MPRL E&P has gained a reputation of being a socially responsible operator by promoting and implementing international standards to mitigate the damage to the environment caused by petroleum production. ■

2016 - 2017 Fiscal Year Performance Highlights

Technical Team

Achievements

After two years of financial losses due to low oil prices, the 2016-2017 fiscal year has been one of the most successful years for the Mann Field production enhancement project team.

Not only did the team exceed its production target, but it also reached a milestone on the HSE front, by achieving one million man-hours without a lost time accident on 14 February 2017.

In terms of the environment, the Mann Field Team is now successfully re-injecting more than 91% of the 1,400 bbl/d of produced formation water back into the producing reservoirs. This operation is a great double blessing because it both solves the biggest environment challenge of the field as well as significantly arresting the decline of its oil production by recharging some of the most depleted reservoirs. Since September 2014, no produced formation water has been disposed of outside of the installations of the Mann Field; the remaining water is disposed of in dedicated evaporation ponds within the field.

In terms of our production target, as of end February 2017, the Mann Field production enhancement team exceeded its production target for 2016-2017 Fiscal Year in volumes as well as in value. The current cumulative production is 1% more than the target, the best performance for more than four years. All four deepening wells of this fiscal year proved to be successful. One well produced more than double its production target while the other three wells will pay out within one year.

In terms of the capacity building of our technical team during this fiscal year, 11 knowledge sharing training sessions were conducted by seven senior team members for a total of 531.5 training man-hours.

The technical team not only achieved milestones in the Mann Field but also successfully completed the Initial Joint Study Periods for Blocks IOR-4

and IOR-6 by issuing two highly professional study reports, including all aspects of the possible redevelopment of these two fields. Unfortunately, the chilly oil price climate did not mitigate the substantial risks that would need to be taken to achieve the redevelopments. Because of the uncertainty regarding the significant long term investments that would be required, the two blocks are being surrendered.

Challenges

While the Mann Field production enhancement team met their HSE and production targets, the year was not without challenges; the team incurred a lost time accident when an MOGE crew member fell off the top of a pumping unit while servicing it.

Looking ahead

Maintaining the highest level of safety and environmental care remains our top priority; one of our biggest challenges will be to incur no lost time accidents/incidents in the next fiscal year. In the 2017-2018 fiscal year, the sub-surface team also plans to:

- Maintain the water disposal wells in good condition while looking for new disposal candidates so as to reach an industry milestone onshore Myanmar by disposing of 100% of produced formation water underground.
- Minimise the production decline by the successful deepening of selected wells and treating others with Greenzyme – a chemical product that utilises microbial bio-engineering to digest the paraffin blocking our pumps - which has been successfully utilised by MPRL E&P since 2010. ■

Human Resource

Performance Management Process

During the four fiscal years commencing 2013-14, the PMP System has been upgraded to become a more efficient and effective process aligned with the different natures of Office and Field Operations. These days, the PMP System is easy and convenient to use for everyone with the main objectives as follows:

- To provide an effective performance feedback mechanism between supervisors and employees;
- To provide a mechanism to align expectations on performance and productivity between supervisors and employees;
- To provide a regular evaluation tool that will track actual performance results;
- To provide a tool that, at the end of the financial year, will result in the correct employee ranking in line with the performance of employees.

In summary, the latest PMP system successfully achieve with its aim to be used not only as a performance management tool for both quantitative and qualitative assessments of employees among different business units but also for 360-degree feedback, creating career development plans and managing employees' promotion. Therefore, the latest PMP system will be used in the next FY for all employees including the management team.

Learning and Development - Women in Leadership

According to the Learning and Development requirements for the career plans of individual employees, two retreat courses in Women in Leadership (WiL) were conducted in the 2016-2017 fiscal year. On the courses, our young female future leaders developed their interpersonal skills, and learned how to grow by using self-knowledge and social awareness as a foundation for building strength of character and developing leadership capabilities.

The aim was for them to become more centered, balanced and effective managers and leaders of the organization. Three managers from different business units of the GoC were selected by senior management to attend the first program.

Promotion Succession Plan

MPRL E&P's Promotion Policy recognizes and rewards significant accomplishments, develops productive professionals and promotes career advancement for the benefits of both individual employees and MPRL E&P.

Promotions come with additional responsibilities and accountability and are remunerated in line with the established MPRL E&P salary structure.

For FY 2016-2017, 23 employees were promoted after a careful review by the Career Development Committee and approval by Senior Management. They achieved their targets and demonstrated that they were capable of taking the responsibility associated with their next role. ■

Operational Grievance Mechanism (OGM) Awareness Raising Campaign in Mann Field

Thal Sandy Tun



During the last quarter of fiscal year 2016-2017, the CSR & Communication Team launched a three-phase campaign [see graphic below] to raise awareness about its Operational Grievance Mechanism selected target community groups in Mann Field with the aim of promoting their interest, awareness and confidence in the process. The campaign was based on the results of the knowledge, attitude and practice (KAP) survey that had been conducted in 2015 to establish a baseline level of community knowledge, attitudes and practices.

Using simple random sampling, 420 households in the community were selected from the 14 target communities in Mann Field. According to the survey results;

1. 40% had not heard of the OGM,
2. Only 50% knew about the basic functioning of the OGM, and could name at least two primary pieces of information that could be included in the complaint form and at least one method of submitting it.
3. Grievances are generally regarded as
 - (a) Crop damage,
 - (b) Oil or produced water spillage,
 - (c) Soil damage, and
 - (d) Electrical hazard.
4. 10% had low confidence that a complaint would receive a response, or would be effectively resolved.
5. Communities think that posters, pamphlets and notice boards are the best sources of knowledge, while community volunteers come second and village administrators last.

plaints is a barrier for some community stakeholders and as a result it should be emphasized that complaints may be made verbally.

Goal of the OGM Campaign

Improved engagement between MOGE, MPRL E&P and the 14 communities in Mann Field

Objectives of the OGM Campaign

- To increase in awareness about OGM in targeted communities by 30%.
- To increase by 30% in the number of respondents who can utilize the mechanism efficiently.
- To increase by 10% in the level of trust in the OGM which will help build a better relationship between the three stakeholders. ■



Phase I : January 2017

- MOGE Mann Field
- MPRL E&P Field Operation Team

15 Sessions | 407 Participants

Phase II : February 2017

- Women and Men Groups
- Chin Taung | Kywe Cha | Kyar Kan| Pauk Kone Villages

16 Sessions | 270 Participants

Phase III : March 2017

- Youth
- Chin Taung | Kywe Cha | Kyar Kan| Pauk Kone Villages

5 Sessions | 178 Participants

The KAP survey suggested that widespread ignorance about the OGM system stems from a general lack of interest in community affairs, limited involvement in community affairs due to work-related absence from home during the day and limited knowledge sharing among community members. It recommended that information, education and communication campaigns were needed and should be delivered at times appropriate to reaching a wider audience, who might otherwise be away from home during the day. Another suggestion was that having to submit written com-



From Front Page

they research, map, monitor and publicize their nation's mineral resources.

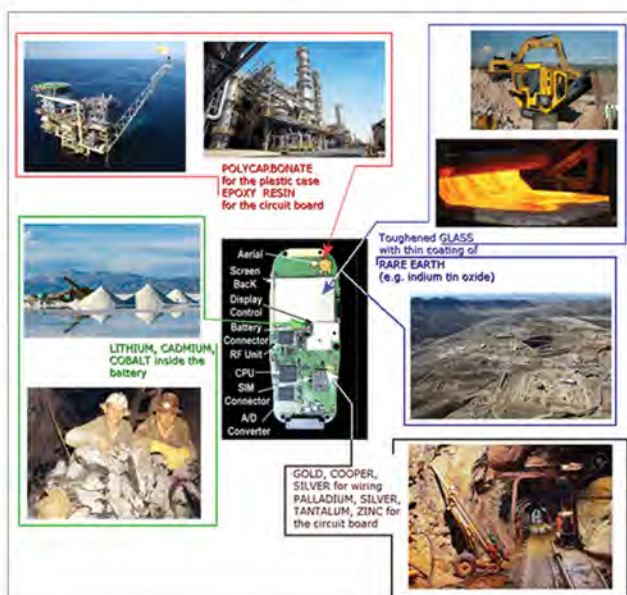
There are more than 80 of these geological surveys listed around the world by the website <http://geology.com/groups.htm>, not counting in USA, the US Geological Survey (USGS) and another of these departments for each state of the country (51 geological surveys for a single country, probably a record). Some of these geological surveys created over 180 years ago, have played fundamental roles in shaping the science of geology; among them are: the British Geological Survey, which was created in 1835; its colonial Indian offshoot, founded in 1851; and the US Geological Survey, which dates from 1879, now employing nearly 8,700 people with the last two Directors, appointed in 2010 and 2014 respectively, being female.

The archetypal mineral resources assessed by a typical geological survey include: water, minerals and hydrocarbons. A geological survey also monitors any hazards that may originate below or near the surface of the earth, such as earthquakes and landslides, often labelled as "geo-hazards".

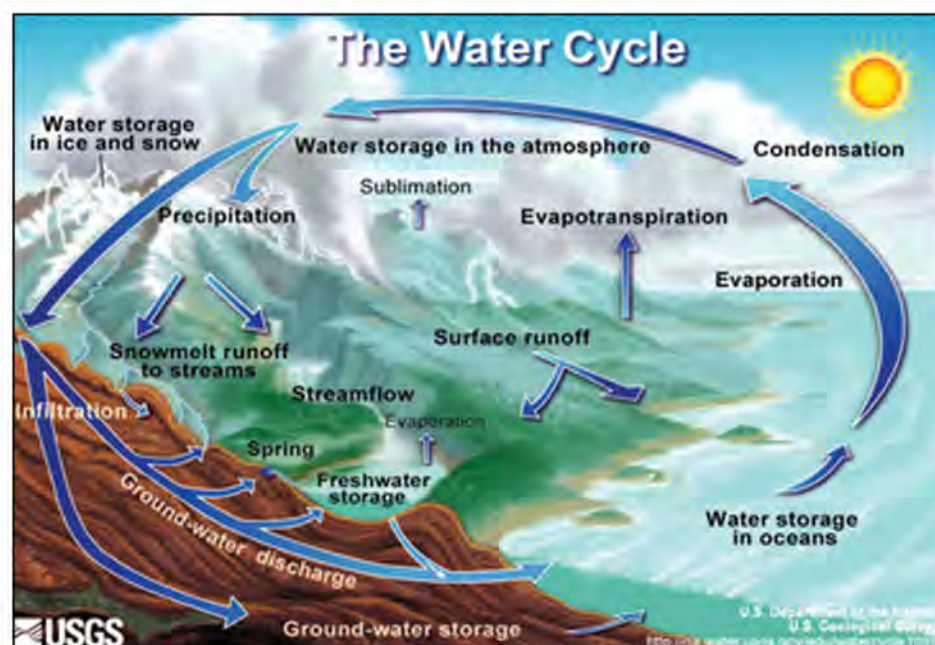
images below us in rocks.

The tool used to describe this vast array of landscapes is the geological map, ever updated, ever upgraded, with a constant flow of new findings from universities and national organizations. It is the mission of the geological surveys to produce it.

The geological surveys also educate the public and are a great breeding ground for developing the geological talents of the country.



Aluminium, antimony, cadmium, cobalt, copper, epoxy resin, gold, lead, lithium, nickel, palladium, plastics, silver, tantalum and zinc are the most common elements of your mobile phone



Monitoring water resources involves a good knowledge of the regional water cycle

the courses of ancient rivers. The water obtained for human consumption needs to be monitored and analysed for contamination and treated as necessary to ensure its suitability for drinking.

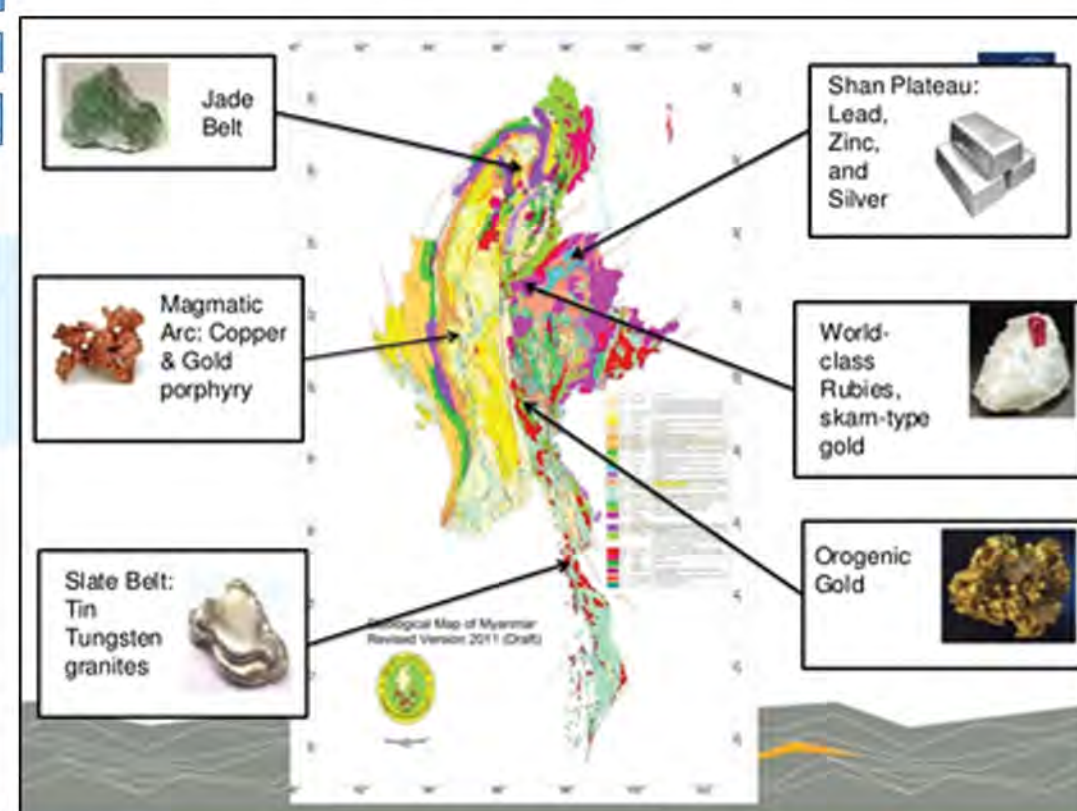
Water resources also include deep hot waters, which sometimes reach the surface as hot springs (such as the Khaung Daing hot springs [measuring some 60°C] in NW Inle Lake). Hot waters may play a key role in the future of power generation by providing geothermal energy, either via heat exchangers or by directly driving steam turbines. The Myanmar Engineering Society has allegedly identified at least 39 locations capable of such geothermal power production.

endowed countries in the world for minerals. The US Geological Survey's list of metals being exploited in the country include: antimony (used to make fire inhibitors, to make an alloy to reinforce lead [in car batteries for instance] and in the semi-conductor industry), copper, gold, lead, manganese, nickel (these two latter metals for alloys in special steels), silver, tin (used for soldering, plating steel to avoid corrosion and in alloys such as pewter), tungsten (to produce hard material such as tungsten carbide, alloys to reinforce steel, among other uses) and zinc (widely used to protect steel from corrosion, in batteries and in alloys with copper to produce brass).

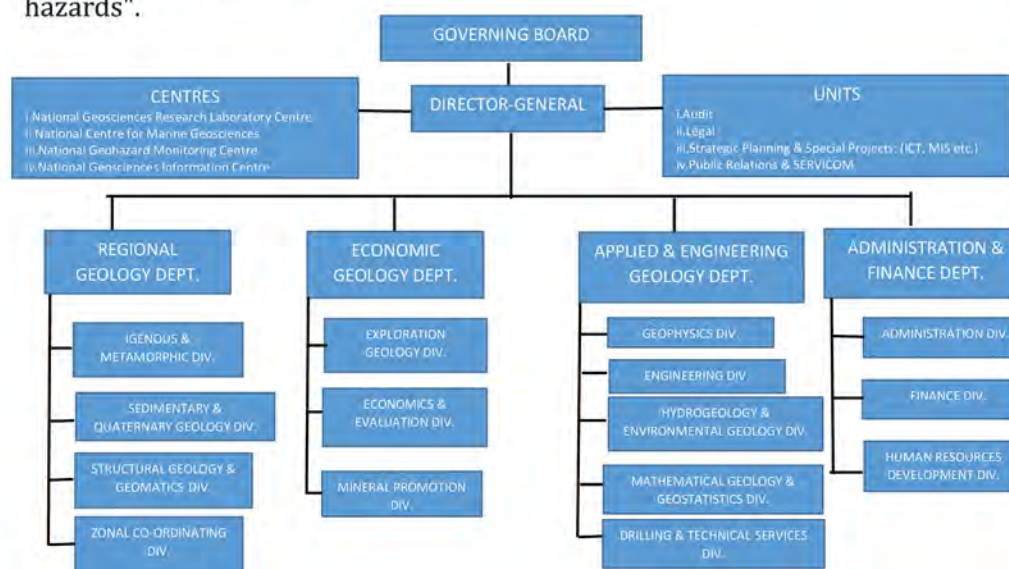
Other industrial materials found in Myanmar include barite (a common weighting agent for drilling mud), clay and limestone (the major components of cement), gypsum, salt, sand and quarried building stone of various qualities.

Minerals

Minerals include metallic ores, gemstones, building materials and table salt. Considering its size, Myanmar is one of the most richly



A very simplified minerals map of Myanmar



The organisation chart of the Nigerian Geological Survey Agency, a branch of the Ministry of Solid Minerals Development; note that petroleum, the main export earner of Nigeria, falls under the direction of the Ministry of Energy

Geology is the core branch of knowledge upon which geological surveys depend. But what is geology? There are about as many definitions as there are geologists, but many geologists would somewhat agree that the practice of geology essentially involves the reconstruction of ancient landscapes. There is a great variety of existing landscapes clearly visible around us and there is an even greater variety of ancient landscapes hidden as more or less blurred

Mineral Resources

Water

Much of the water running from your tap comes from surface storage in lakes (such as Inya and Kandawgyi lakes created in the early 1880's to quench Rangoon's thirst for water), or pumped from rivers. Water is also obtained from wells that are drilled into vast water-filled sand bodies that lined

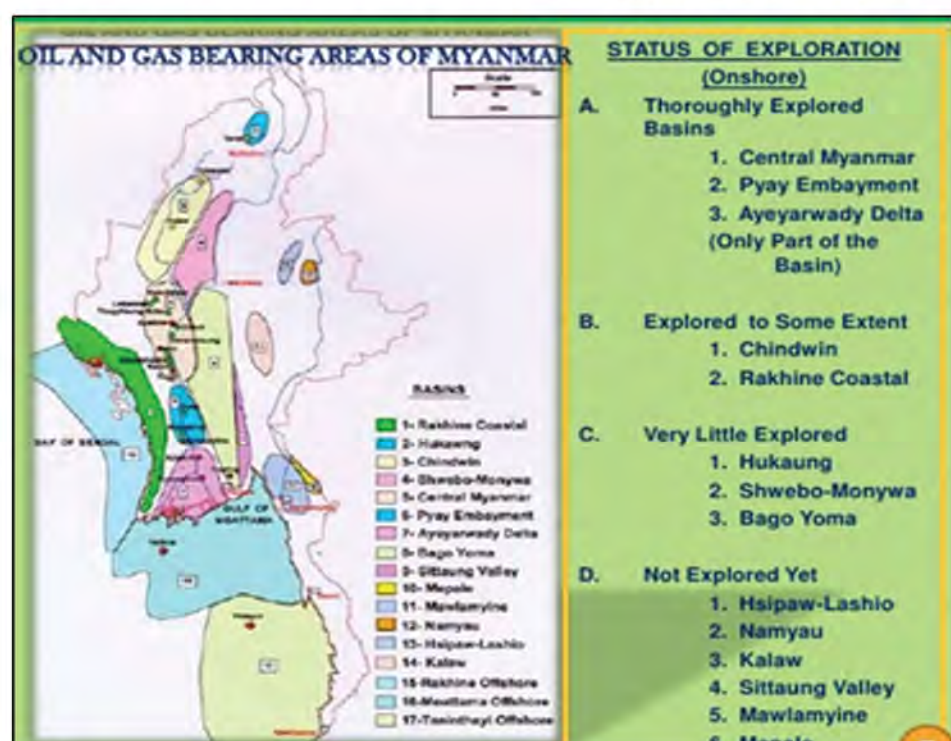
Hydrocarbons

Hydrocarbons are present in sedimentary basins in all states of matter, namely solid coal, liquid oil and gas, which is often – but not always – associated with oil. Hydrocarbons are quite simply fossilised solar energy; they derive from decayed vegetal material deposited inland such as drowned forests (to produce coal), or from algae and plankton dying in seas and subsequently decaying in an environment deprived of oxygen (to produce oil and gas), which are distilled by increasing temperature and pressure as they are buried under overlying strata.

landslides and create maps that show the areas at risk thereby enabling responsible authorities to trigger preventative measures to avoid or mitigate catastrophes caused by the moving earth.

The geological map - What is it? Who does it?

The main tool used to ensure that all mineral resources and geo-hazards are identified, in the correct location and in appropriate detail as they are discovered or exploited, is the geological map of the country. The geological map is a very mighty tool, which exists on a variety of scales depending on its purpose.



Eleven of fourteen sedimentary basins of Myanmar are virtually unexplored for petroleum

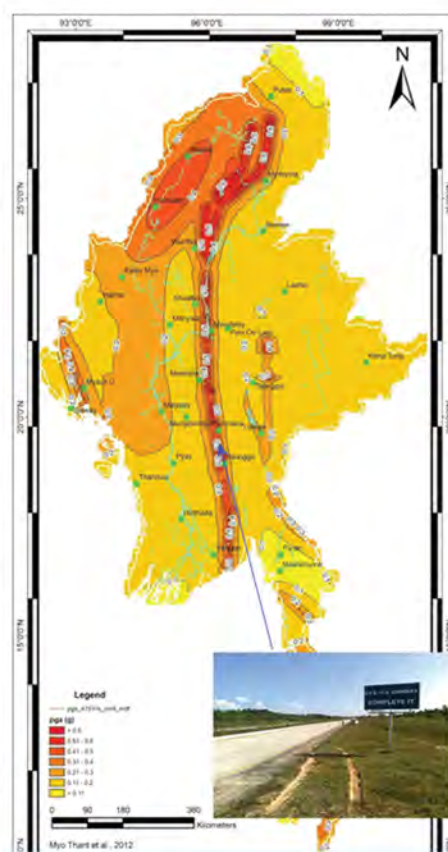
While you are familiar with gas and oil produced both onshore and offshore, coal, by contrast, is only mined or quarried onshore, and comes in a wide range of qualities and amounts.

Geo-hazards

The surface of our earth is not as immobile as you might imagine by gazing through your window. Very slowly by the scale of human perception, but very surely, continental plates move, rubbing against each other or drifting apart, inducing along their boundaries earthquakes and eruptions from volcanoes, such as along the Ring of Fire circling 40,000 km around the Pacific Ocean. The occurrence of such hazards can locally induce aftermaths, such as tsunamis caused by submarine earthquakes.

Other movements affecting the surface of the earth are unstable slopes in mountains, landslides due to the interaction of freak weather and sometimes human interference such as deforestation. The geological surveys therefore monitor any clues relating to the presence of faults, volcanoes or, at a smaller scale, potential

The geological map is the result of the works of hundreds of specialized geologists, many in the academic domain, and is constantly being upgraded.



The seismic hazard map of Myanmar (Myo Thant & al, 2012): note how most the Yangon-Mandalay motorway is built all along one of the most seismically active zones in the country, the Sagaing Fault

One of the Founders of the Burma Geological Survey & Research Department

Dr. P. Kyaw Myint

Dr. P. Kyaw Myint @ U Kyaw Myint, before passing away on 27 February 1987, had over 45 years of experience working actively in the fields of geology and petrology.



In 1941, U Kyaw Myint graduated with honors from the University of Yangon in Myanmar with a Bachelor of Science degree in geology. In 1946, he was sent as a state scholar to the University of Glasgow in Scotland for further studies and research in geology and petrology from where he graduated with a Ph.D. He was subsequently inducted as a fellow in the Royal College of Geologists (FRCG).



Dr. P. Kyaw Myint together with fellow state scholars at the University of Glasgow 1947

Upon his return to Myanmar, he co-founded the Burma Geological Survey & Research Department (BGR) and served dutifully until his retirement from civil service in 1964. He then moved with his family to Bangkok, Thailand and joined the United Nations Economic Commission for Asia and the Far East (ECAFE) and worked as a professional staff member and consultant in the Mineral Resources Division.



Dr. P. Kyaw Myint, Dy. Director 1961 (BGR)



(Front Row) Mr. Reggie Cuttriss, Dr. Kyee Paw, Dr. P. Kyaw Myint
(Back Row) U Aung Than, Dr. Kyaw Htin

After retirement from the United Nations, he returned to Yangon, Myanmar and continued working as an Independent Consultant.

He married Daw Yin Yin Hla and had two sons and a daughter. The eldest son is currently serving as Chairman & Chief Executive of MPRL E&P Group of Companies.



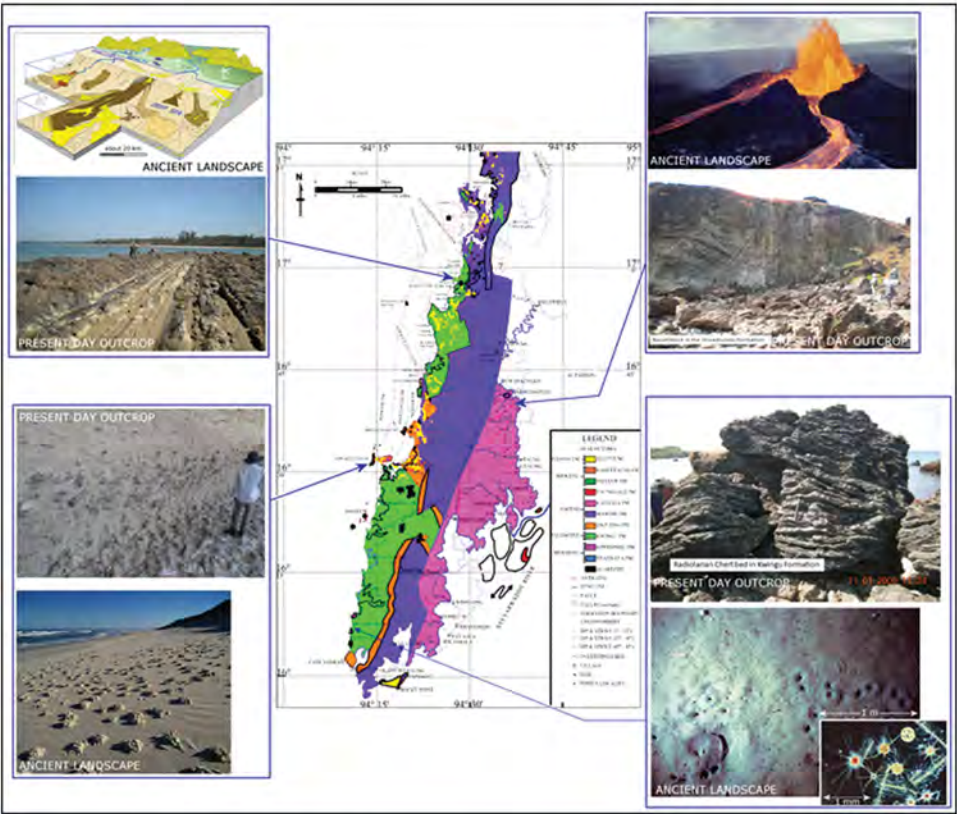
Dr. P. Kyaw Myint & Family

What is the story behind the Kandawgyi dinosaur?

Dr. P. Kyaw Myint was always keen about his trade as a geologist and keen to share his knowledge with his fellows and the general public. One of his testimonies is that the dinosaur standing in the grounds of the Kandawgyi Hotel was built, when this area was a public park and children’s playground, with the intent to attract the interest of children in geology & palaeontology at a very tender age. Unfortunately, the dinosaur is now located within the middle of the hotel compound. Thus, it would be most fitting for the dinosaur to be moved to the gardens at the Geology Department of the University of Yangon.

The geological survey plays the leading role in the maintenance of the national geological map. While also contributing to the mapping on its own, the geological survey collects reports, theses, articles in scientific papers containing various maps, and ensures quality control and consistency by going back to

precious stones, from the geophysicist interpreting physical measurements, to the geochemist reading geochemical signatures, and so many more specialists looking for and finding data as well as information in geological surveys, not forgetting a few jacks-of-all-trades with a shallow knowledge in many



A geological map of the coast of Bay of Bengal (Ayeyarwaddy Division) with some outcrops used for the map and their reconstructed landscapes

the field and by meeting with the contributors.

Many geological surveys maintain their own laboratories, often in conjunction with universities, where they study the composition of the rocks, and of the fluids they may contain.

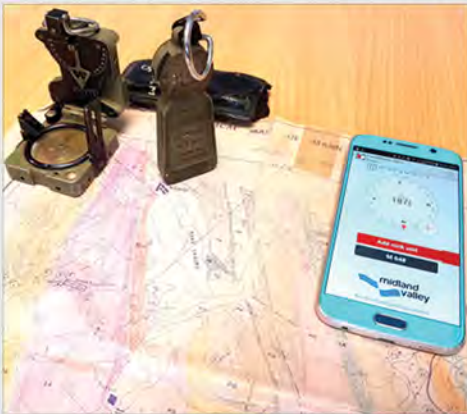
The wide range of data monitored by geological surveys affords synergies that may not be available to authorities at a regional level that operate within a narrower scope; a simple example may be a regional water authority wanting to construct a dam, where the geological survey may be able to warn of potential fault movements posing a risk to the safety of downstream local communities. The geological surveys therefore play a key role in environmental impact studies, drawing the attention of all stakeholders to natural dangers that may harm the owners’ assets and/or the local communities and their environment in the course of exploitation of resources.

Geologists are the core staff of geological surveys. As hinted in the introduction, because of the great variety of landscapes that geologists have to reconstruct, geologists come from a very wide range of specialities, from the palaeontologist hunting for ancient signs of life to the petrographist specializing in the composition of rocks, from the petroleum geologist looking for gas to the gemmologist looking for



branches but capable of drawing reviews and syntheses.

Then ... and now: the measuring tools of the field geologist laid on the background of a piece of a geological map around the Mann Field:



above are a compass to measure the orientation and dip of the geological layers and a level indicator to measure slope; note that the instruments are all in metal (no plastic parts), indicating they were made before the Second World War (courtesy of U Thein Win); to the right, a simple free application running on smartphone, providing the same information as well as the location by GPS



Town Hall Meeting Took Place In Mann Field For The First Time



Thal Sandy Tun

On 9th March 2017, a company-wide town hall meeting was conducted at the base camp in Mann Field where operations staff are stationed, providing them with an opportunity to directly engage with Senior Management. Following a series of staff engagement and coordination activities to raise awareness about the town hall meeting, which was to be held in the field for the first time, the event was successfully completed with the full participation of eight staff members representing the various field operations units, including Pulling Unit, Drilling Fluid Team, Warehouse Team and Production Measurement Team.

During the two-hour event, MPRL E&P's long-term and short-term corporate goals, Mann Field's Performance Compensation Contract, work programs in other assets such as Blocks A-6, RSF-5, PSC-K, A-4 and A-7, the business ventures of other member companies, and human resources related topics were keenly discussed.

Some of the key takeaways of the meeting were concerned with the corporate goals. U Sithu Moe Myint, Country Manager, explained that in the 2016-2017 fiscal year, a new system was developed in which only three high-level corporate goals were set. Based on these goals, each

If successful, it will become a standard best practice not only in the oil and gas industry but also in other industries.

The last corporate goal concerns people development; there are plans underway to empower the new generation and a training budget has correspondingly been set aside for this coming fiscal year in order to restart a training campaign.

Regarding long-term goals, which are usually set by senior management based on defined projects, a shaping workshop was conducted in the Yangon Office for developing a long-term plan. The purpose of the shaping workshop, which was conducted earlier this year, was to think about the multiple paths that could be adopted to operate our business. MPRL E&P currently holds six assets as both operator and non-operator. During the shaping workshop, the challenges and opportunities of each asset were discussed.

In response to a question concerning the Mann Field raised by U Aung Ko Min, Engineer from the Drilling Fluid Team, the Technical Manager, U Ko Ko, said that



department set their respective departmental goals. This system will be continued in the 2017-2018 fiscal year.

For the 2017-2018 fiscal year, the first corporate goal is the financial performance goal. Some say that the oil prices will again reach US\$ 100 per barrel, however, in the senior management's opinion, oil prices will be stable in the range US\$ 40 to 50 per barrel and, as a result, it is important to manage the sound financial performance of the business accordingly.

The second corporate goal is related to maintaining sustainable operations. The nature of the oil and gas business is a long-term one and every operation needs to consider its business not only from a technical point of view and but also from a corporate sustainability point of view. Last year, 90 percent of produced water was re-injected into disposal wells. This year the target is that all produced water (100 percent) will be re-injected.

he appreciated the team work and individual efforts of the operations staff to achieve the goals of the 2016-2017 fiscal year. For the coming fiscal year, MPRL E&P plans to deepen four wells. In addition to this, studies for deep exploration will be made. Based on the results of the studies, MPRL E&P plans to conduct a 3D seismic survey. For the next three to five years, new opportunities will come along and the employees need to be prepared to gain the required skills to grab them.

U San Win from the Production Measurement Team enquired if there has been any update about internal transfer policies since the last town hall meeting. The Chief Compliance Officer, Daw Nu Nu Lwin, answered that some of the employees asked about the counting of service years when transferring within the Group of Companies. She explained that there are 12 companies within the MPRL E&P GOCs and each company has its own business operations. Therefore, in order to develop an internal transfer



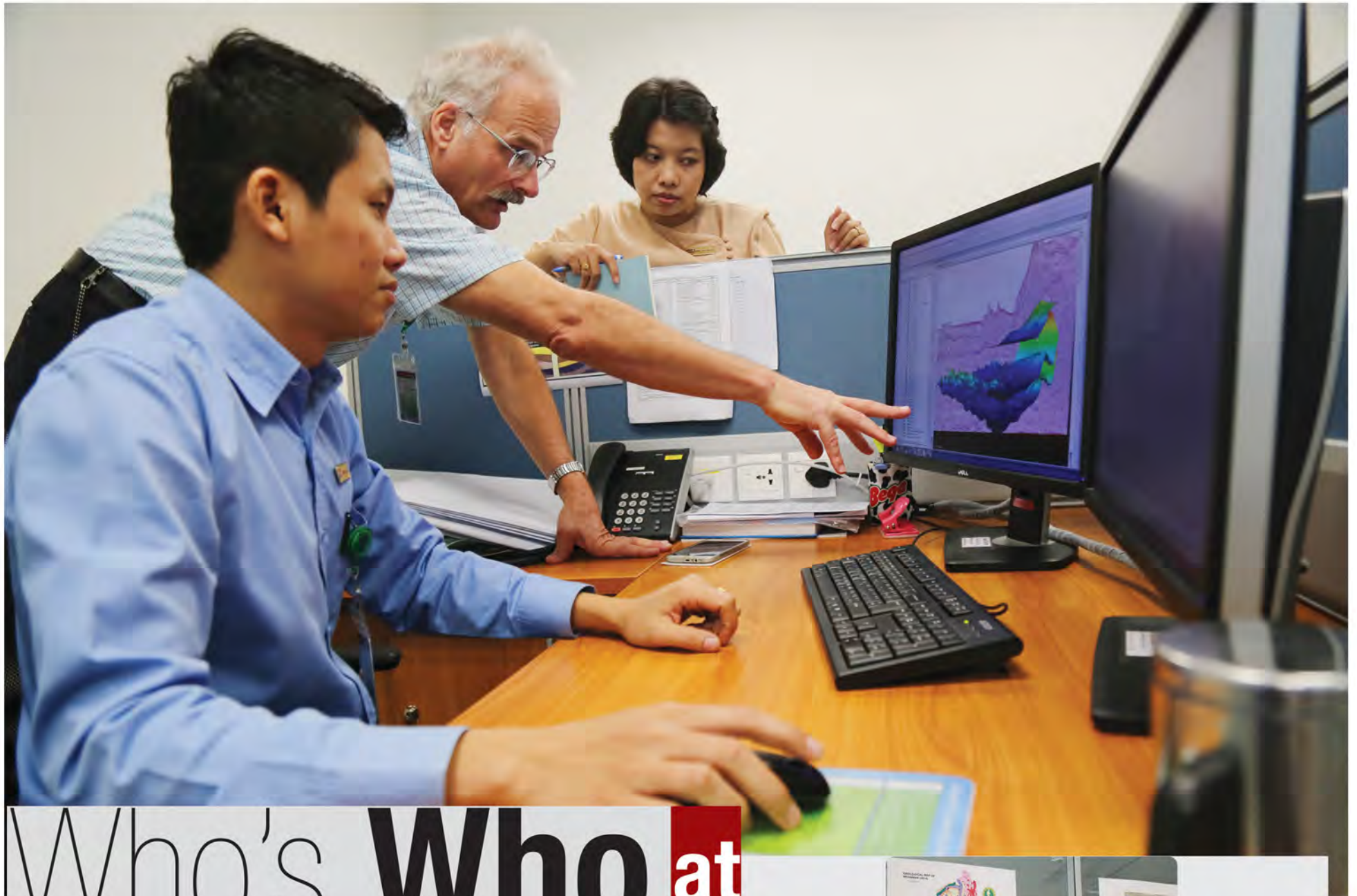


policy, HR managers and Admin managers from the GOCs conducted a series of meetings and a draft policy has been submitted to senior management for their review.

She said that there are two types of internal transfer: transfer initiated by the employee and transfer initiated by the employer. The former occurs when there is a vacant position within the GOCs and an employee is successful in applying for that position. He or she then has to resign from their current position. The latter occurs when senior management assigns an employee to a new position in another company within the group according to the requirements of the position and their capability. Employees will

Page 17 ➤





Who's Who at MPRL E&P?

The Exploration and Joint Ventures ("EJV") Team

What do we do?

The "and" already tells you that the team fulfils two roles in the company. The two roles that are somewhat related:

The Exploration branch participates in the growth of the company by assessing the petroleum potential of the assets of the company, particularly by trying to identify as yet undiscovered prospects. More of this game is explained in a dedicated paper in this issue.

The Joint Ventures section ensures that MPRL E&P and MPEP draw maximum business benefit from our association with other companies while exploring and developing its partnered assets. The assets currently include:

- **Offshore Block A-6** where MPRL E&P, as the operator, is partnered by the Australian company, Woodside, and by the French company, Total. Woodside are now driving the operations to explore and appraise the block for more gas, following MPRL E&P's pioneering exploration success in 2012, whereas Total are expecting large discoveries that will allow them to lead efforts to commercialise the gas.
- **Offshore Blocks A-4 and A-7** are both owned by Woodside (45%), the Anglo-Dutch company, Shell (45%), and Myanmar Petroleum Exploration and Production (10%). The blocks are respectively operated by Shell and Woodside. The two companies pay for the 10% share of MPEP until the first US\$ 100 million is expended in each block. The team is therefore quite watchful on how these majors spend money to gain a better insight for petroleum in these blocks.
- **Onshore Blocks PSC-K (Yamethin)**, a frontier block barely explored for petroleum, and **RSF-5 (Ondwe)**, a concession located some 25 miles across the Ayeyarwaddy River from our Mann Field, with some teasing potentially light oil-bearing features. Italian major, ENI (90%), operates the blocks and carries all the costs of MPEP (10%) until a discovery is made that would merit assessing its commercial value.



Dr. Eloi Dolivo, eight years with MPRL E&P, initially as the Geoscience Manager, then as the Technical Manager, and now as the manager of the EJV team, ensures synergies with other teams or projects are not lost. He also shares the depth and breadth of his excitement and wonders of all aspects of the exploration business with anybody concerned or interested.

He graduated with a PhD in geoscience from the University of Lausanne (Switzerland) in 1980, and enjoyed 36+ years of upstream oil industry activity living in ten countries in Africa, SE Asia and Europe, as an employee for six companies and for seven years as an independent geoscience consultant for some 16 clients. He has travelled for work to more than 50 other countries on five continents. He claims to be:

- a geologist knowing nothing about everything in the upstream oil industry,
- a petroleum finder, having played a key working role from prospect outline to wellsite in six oil or gas discoveries on 14 wildcats = 43% success rate; his recipe: integration of all data, meaning all you can find under a hammer, a hand lens, a mouse and a drill bit,
- a manager mentoring and leading multi-disciplinary multi-cultural technical teams from exploration to production; a lazy chap preferring to "manage people by questions," keen to explain this art, passion and results in non-technical terms to the widest range of audience in and out of industry circles.

His motto is: "May the fun go on!"

Daw Thandar is the Joint Ventures Business Coordinator and has to dip her fingers in many jam pots, such as the compliance of Block A-6 partners with laws and regulations governing investments in the country, with the Production Sharing Contract that regulates our relations with the government and with the Joint Operating Agreement ruling the relations between the partners. She is, for instance, now liaising with MOGE about the preparations for the drilling campaign in Block A-6 for two wells, not to mention obtaining the essential environmental approvals.

Daw Thandar enables MPRL E&P to be a reliable and efficient operator - every day of delay in the drilling phase costs the Joint Venture up to US\$ 1 million - but she must not lose sight of the long term. Meanwhile she also follows every non-technical move in the MPEP-partnered blocks to warn us for deadlines and legal issues.

Having graduated from the Dagon University with a bachelor's degree in English, Daw Thandar has been working with MPRL E&P for 11 years. Before joining the company, she worked as a trainer in information and communications technology for four years and with a travel and tour operator for another year. While working with MPRL E&P, she has got to know many nooks and crannies of the organization by zigzagging and climbing along her career path from a receptionist to a secretary, a staff officer and finally to become the in-house expert of administration and contracts some six years ago. These many moves allowed her to build a solid network in the company as well as in the national petroleum business community. She is currently study for a Master of Development Studies degree at Yangon University of Economics.

Her motto is: "Good attitude makes you lucky!"

U Zaw Win Aung is the Exploration Geologist, reining in the necessary Geo-science Team's resources for the timely and complete evaluation of the potential for undiscovered petroleum in all assets of the company. U Zaw Win Aung is also learning to juggle and weigh the geological merits, risks and uncertainties of our promising mapped structures with their economic, legal, drilling and environmental challenges.

U Zaw Win Aung joined the company in December 2012 after receiving his B.Sc. (Hons) degree in Geology from West Yangon University (2008) and an M.Sc. degree in Petroleum Geology from Yangon University (2012). He has now spent four years in the G&G team, initially as a geologist for six months in the Mann Field to learn about smelling the oil in the rocks, as well as about the challenges of getting solid rock data. He then moved to the Yangon office, where he gradually learned to guesstimate how much petroleum may be in Block A-6, IOR-4 (Pyay) and IOR-6 (Myanaung) by scrounging through heaps of paper and scrutinizing screens. He has been assigned for the last year to the EJVT team as the Exploration Geologist who will ultimately mix, for MPRL E&P and MPEP, the cocktail of nosing for petroleum with business acumen.

His motto is: "Make your dreams come true!"



**THINKING
ALOUD** with

Daw Lai Lai Khaing
CSR Field Support Staff



I am the daughter of an MOGE staff. I live in Aye Mya village in Mann Field and used to work in education. When MPRL E&P's CSR team called for community volunteers from each village for its CSR projects, I applied for the role. From seven applicants, I was the one selected. I conducted data collection to help establish a community profile including socio-economic status and population statistics. With this information we developed village maps as well as a needs assessment.

Following this, MPRL E&P advertised for a support staff to be part of its CSR field team; I was interested and went for an interview and I was the one chosen five interviewees. Working as a support staff, I always encourage the community volunteers to work for the community, starting from the basic things, and to coordinate with the CSR team for the welfare of their own community. ■

During October 2015, we began a project to improve access to water by involving the village administrators and community. We wanted to increase the access to water from a well that was previously donated. MPRL E&P agreed to provide the pipeline that would allow every three households to have access to a faucet. Now every household has improved access to water and they each have a faucet to receive water through the cooperation between MPRL E&P, village administrators and the community.



From Page 11

Education

Geological surveys being governmental institutions also exist to serve the general public, including in the field of education. A great amount of educational material can be obtained from many geological surveys; whether through their websites, or in national geological museums, or even national geological parks, where fossils and minerals are to be seen in a natural environment and the complexity and intricacies of mother Nature are displayed for the awe, wonder and reverence of the public's eyes.

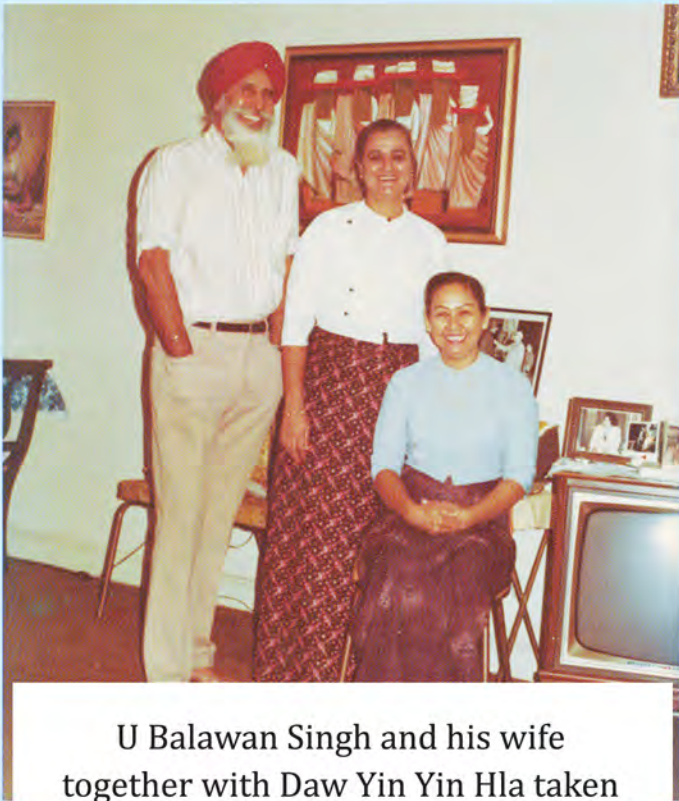
That's it for now folks! May the fun go on!



And what about Myanmar, you ask?

The various resources of the country are all being quite competently, while separately, monitored and regulated by various ministries, the earthquakes are monitored by a special commission of the Myanmar Geological Society, which is not a governmental body.

While these resources are individually fairly well covered, there is no single body, a National Geological Survey Department, that, under the same roof, maps and monitors these resources, and shares its science and knowledge with the public. As a result, a lot of synergies are lost; for instance, there is no a geological map on a detailed scale covering the whole country, even though the Myanmar Geological Society published an updated broad scale map in map in 2014. While this map fulfils an educational need, its broad scale makes it inadequate for planning and monitoring as it does not include the detailed distribution of mineral resources, the faults that may - or may not - be an earthquake risk, the water wells, whether deep or shallow, the outlines of petroleum fields, or the locations of coal, metals and gems exploitations. At present, the geological surveying of Myanmar is ensured by an animal with many eyes but with no coordination between the eyes and no integration of its information.



U Balawan Singh and his wife together with Daw Yin Yin Hla taken at New York City, mid' 70s

This has not always been the case:

Towards 1951, two distinguished professionals were tasked by the Secretary of Mines of the time, U Balawan Singh, who at times would address himself as Burma Walah to create the Burma Directorate of Geological Survey & Research (BGR). These were Dr. P. Kyaw Myint, who had attained his doctorate as a state scholar from Glasgow University in 1948, and Dr. Ba Thi, who also attained his PhD from UK in 1947. On his way back to Burma, Dr Ba Thi's vessel was torpedoed by a German U-Boat and he ended up in a German concentration camp for a few months before he eventually landed back in Rangoon. In due respect, Dr. P. Kyaw Myint agreed to Dr. Ba Thi becoming the Director of BGR while he opted to be the second-in-charge. Dr. P. Kyaw Myint



Dr. P. Kyaw Myint & his wife at Boston, mid' 70s

Key Staffs Members of BGR

Dr. Ba Thi
Former Director
(Deceased)

U Sein Myint
Former Director General
(Deceased)

U Zaw Phone
Sr. Geoscientist (Retd.,)
(90-years old now)

Dr. P. Kyaw Myint
Former Deputy Director
(Deceased)

U Kyi Soe
Former Deputy Director General
(Deceased)

Daw Ni Ni
Sr. Geoscientist (Retd.,)
The first lady Geoscientist in Myanmar
(Still living in Yangon)

left an amazing testimony of his dedication to educate the public in geology because he built and donated a full-scale statue of a Tyrannosaurus Rex, which is now on display in the Kandawgyi Hotel instead of adorning the garden of the Geological Department of the Yangon University which might be more appropriate.

It is understood that the Ministry of Natural Resources and Environmental Conservation (MONREC), which inherited the Ministry of Mines and its Geological Survey unit, might well be the ideal entity to revive and develop the Myanmar geological survey, such as by drastically expanding the existing Department of Geological Survey and Mineral Explorer. ■

From Page 13

be able to obtain detailed information after the final internal transfer policy is approved. She also added that there is no change for the leave policy planned for this coming fiscal year. Currently, the government and oil and gas companies are negotiating about leave policy. Depending on the results of the negotiation, necessary change to the current policy will be made.

The first town hall meeting was held on 9th September 2016 at the Yangon Office and management plans to conduct more such meetings in the coming fiscal year in line with company best practice. ■



2016 - 2017 Fiscal Year Performance Highlights

CSR & Communications

MPRL E&P is committed to being a responsible business concerned with reconciling and aligning demands, needs, interests, and values of its employees, suppliers, communities, non-governmental organizations (NGOs), the environment, and society at large.

We would like to share some of the key highlights of the company's CSR efforts to create social, environmental and economic value for its stakeholders as well as its commitment to operating ethically and responsibly. Here are flashbacks to some of the year's key highlights:

Capacity Building

This year, a number of workshops, attended by representatives from MOGE, village development committee members and community volunteers, have been provided to improve awareness and understanding of CSR principles and best practices.

Operational Grievance Mechanism (OGM)

MPRL E&P is one of the first companies to develop a successful grievance mechanism, which operates within the 14 communities in Mann Field. The mechanism is monitored on a monthly basis and results, updated on a quarterly basis, are available on the company website. Information shared includes challenges faced and progress made. We also launched an OGM awareness raising campaign for different community groups with the aim of promoting their interest, awareness and confidence in the mechanism.

Community Investments and Reporting

We conduct our business in a socially responsible and ethical manner; we respect national laws; we support universal human rights; we protect the environment and bring benefits to the communities in which we work.

Currently, our CSR strategy is focused on two key areas: Community investments and reporting. During the 2016 - 2017 fiscal year, our community investments focussed on education, health and improving access to water. These investments aim to foster economic stability and improve the quality of life in the communities where we work. A large proportion of the CSR funds have been spent on community infrastructures such as

school water filtration system projects and household water storage projects as well as disaster relief and management.

You can track our progress at <http://www.mprlexp.com>, where we provide additional and updated information about our efforts to make lives better for the people with whom we work with.

Key highlights

- Four short term community investment projects implemented.
- Village Development Committees established and strengthened.
- OGM Awareness Raising Campaign launched.
- Quarterly reflection workshops held with MOGE representatives, Township Administrator and village development committee members.
- Monthly coordination meetings established with MOGE to discuss environmental and social performance.
- Capacity of community volunteers strengthened through training and a series of workshops.
- 98% stakeholder satisfaction with the operational grievance mechanism.
- 2006 man hours recorded to assist with the flood relief in Minbu.
- Seven community video clips developed for communities and employees in Mann Field.
- UN Global Compact Membership and submission of Communication on Progress.
- MPRL E&P finished at fifth place, climbing three spots in the MCRB's 2016 Pwint Thit Sa Report.
- New website launched.

A Business Trip to Kuala Lumpur

Zaw Win Aung



“
The best way to
open your mind,
just travel and ex-
plore new things.”

I am really delighted to share some of my experience from my recent business trip to Kuala Lumpur to attend the technical committee meetings for offshore Blocks A-4 and A-7 held with our partners on 7 February 2017.

Let me first introduce you to these partners and their roles in each block. In Block A-4, Shell, headquartered in London and the Hague (Netherlands), is the operator and has equal shares (45%) with Woodside, while MPEP, as a local partner, holds the remaining 10%. Shell operates a regional hub in Kuala Lumpur, hence the reason for the location of the meeting. Meanwhile, the same partnership prevails in Block A-7, except that Woodside, based in Perth, Australia, is the operator.

The Exploration and Joint Venture Manager, Dr. Eloi Dolivo, and I attended these technical meetings as the representatives of MPEP together with discipline specialists from the other two parties. About 20 geologists, including two local Malaysian geoscientists, participated in these meetings.

The meetings were held at the Menara Shell office located near the central train station of Kuala Lumpur, which was easily accessible from our hotel, some three miles away, by using the monorail public transportation system, which is much cheaper and faster than a taxi.

Both operators had worked hand in hand by sharing the same contractors for their seismic and seabed surveys and by aligning their programs and schedules so as to be able to make key decisions prior to tight contractual deadlines about whether or not to continue exploration and to drill wells.

The intent of the meetings was to review and compare notes on the status of the 3D seismic data processing and interpretation and on the seabed surveys. Seismic processing involves very powerful computers enhancing the signal and suppressing the various sources of noise in the millions of data points acquired by seismic vessels. Seabed surveys are conducted to identify any gas or oil seeping from potential accumulations up to the seabed.

The meetings (a half-day for each block) commenced with a short safety induction. Each operator then presented their views on the prospectivity of their respective blocks. The meetings, during which critical confidential results were presented, were quite lively and informal, and would impact future exploration strategies and work programs.

The deep experience of MPEP in Rakhine coastal geology acquired during five field trips from Ngapali in the north to Mawdin in the south was well appreciated by both partners. MPEP shared some important concepts to help unlock oil and gas resources in the shallow waters of Block A-4 whereas our partners had expended most of their efforts to hunt down potential gas in deepwater, where simpler geology may make it easier to reveal large accumulations. However, Shell appreciated and carefully noted MPEP's observations and suggestions on shallow water prospectivity. For both blocks, MPEP also suggested integrating the results of sea bottom surveys and seismic data earlier rather than later to assist in looking for potential prospects in shallow waters.

For me, these technical meetings provided a great opportunity to understand partners' methods for exploration programs and how they effectively negotiate and align their ideas and perspectives with others. I was really glad to meet our partners face to face in an old style meeting, which remains much more efficient than video-conferences.



a particular traditional Malaysian dish called Chicken Rendang, one of the specialties of Malaysian cooking. It is absolutely delicious and worth trying when you are in KL; rich in flavours, cooked with coconut milk and spices, it is served with rice, tomato, cucumber and bean crackers (same as "Parpala" in Myanmar). If I have a chance to travel to KL again, I will definitely try other exquisite Malaysian foods.

My next unforgettable experience was the very efficient transportation system in KL. We never needed to spend much time waiting as it took no more than five minutes between each train, even outside peak hours. Consequently, we used only the public transportation system, mostly the monorail system, to get to our destinations. As it is an above-ground railway system, I got a chance to enjoy observing people on the streets and to look around the city with its high-rise buildings, cars and motorbikes. What amazed me in KL was that many pavements are equipped with special tiles in the middle to guide blind people and I saw quite a few blind people using the monorail without human assistance.

At the end of the meeting, Shell invited the partners for dinner at a French restaurant in Bangsar Village, a friendly and popular neighbourhood shopping centre. We had a great dinner with the partners but the food was not like home.



We returned to Yangon in the early morning of 8 February. We had the same problem as before at the Kuala Lumpur airport because Malaysia Airlines changed the gates at the last minute again. So we had to rush to another far-away gate like many of the naïve passengers trusting their boarding pass. Fortunately, we did not encounter nice ladies with LOL on their T-shirts to smear our faces.

Finally, I would like to wholeheartedly thank the Senior Management for allowing me to attend these technical meetings and also share my appreciation for my colleagues from both technical and business support who gave me the necessary help. During the business trip to KL, I gained insights into the partners' different perspectives and strategies in exploration programs, and also enjoyed rubbing along with local people, while experiencing their culture and foods. ■

A Short Escape from Urban Hustle

May Phyo Khaing



“A man travels the world over in search of what he needs and returns home to find it.”

George Moore



Daily life in a crowded city is very stressful. Everything is always happening in a rush and people are always in a hurry. To remedy the stress and tension of our daily schedules, we need to temporarily escape from the city and relax. Luckily, my country is blessed with a great deal of beautiful places to visit – pagodas, mountains, beaches, and so many other locations with exquisite scenery.

During the last month of last winter, my colleagues and I made a short day trip to Naw Bu Baw Prayer Mountain. Our trip took us from

Yangon to Taungoo City. Taungoo is a famous place in Myanmar history because of the Taungoo Dynasty that ruled the country for over 200 years between the 16th and 18th centuries. Taungoo was the capital of Myanmar from 1510 to 1539 and again from 1551 to 1552. People visiting Taungoo can still see the remains of some of its ancient buildings and feel the romance of the past. We stayed there for one night.

We left for Naw Bu Baw Prayer Mountain early in the morning. It is situated in Than Daung Gyi Township, Kayin State. Than Daung Gyi is located 44 kilometres (27 miles) east of Taungoo. The old colonial hill station of Than Daung Gyi in Kayin State prides itself on the kind of dramatic setting from which quirky legends arise.

Located on the edge of the town, Naw Bu Baw Prayer Mountain, the highest point in the Dawparkho Range, is a craggy 1462-metre peak that provides fantastic views of forest-covered mountains in all directions on sunny days.

The mountain was named Naw Bu Baw Prayer Mountain in remembrance of Princess Naw Bu Baw who came to these mountains from the sea to marry a local prince. Naw Bu Baw owned a magical comb that made her hair shine like the sun and gave her the power of invisibility. As a result, the local Kayin people accused her of being a witch. When her husband died in battle, the local Kayin people took her to the high peak, put her on trial and imprisoned her in a rock cavern, where she was devoured by hungry spirits. Some say it is just a legendary story or fairy tale.

Naw Bu Baw Prayer Mountain is topped with one of the biggest Christian crosses in the country. There is a guesthouse located just below the peak, which is run by the Zion Hill Baptist Church, and from there a stairway with 374 steps is connected to the cross, which was erected in 1995, at the top of the mountain.

There are small prayer rooms for solitude-seeking pilgrims along the stairway, as well as an odd boat-shaped chapel at the peak. A small blue sign indicates the precariously positioned rock on which Naw Bu Baw's witchcraft trial occurred.

With a gentle breeze blowing, the feeling of being on the top of the mountain was very peaceful and relaxing as I gazed upon the long range of mountains and rocks, near and far, and enjoyed the views and a new-found tranquility.

Saint Augustine said that *“The world is a book, and those who do not travel have read only a page.”* To read more pages of the world, shouldn't we plan to travel more to beautiful places? ■



Sail & Surf Camp (1st - 16th March 2017) at Ngwe Saung Yacht Club



People
at Work



By:

Htet Naing Win
Design Team (MPRL E&P)