The Japan Field Study Trip

2018

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THE NIPPON FOUNDATION

THE SASAKAWA PEACE FOUNDATION

The Japan Field Study Trip 2018

Date	Visiting Places
May 14	Courtesy Visit on Mr. Yohei Sasakawa of The Nippon Foundation Courtesy Visit on Maritime Bureau, MLIT
May 15	Kashiwa Co., Ltd. Japan Aerospace Exploration Agancy (JAXA) - Tsukuba Space Center
May 16	Ariake Water Reclamation Center Tokyo University of Marine Science and Technology
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Courtesy Visit on Mr. Yohei Sasakawa of The Nippon Foundation

Aniruddha Chaki (India)

The Japan field study trip of the Sasakawa Fellowship students officially commenced with the courtesy visit to The Nippon Foundation Building to meet our benefactor Dr. Yohei Sasakawa himself who made our studies at WMU possible.

All the Sasakawa fellowship students of 2018 arrived at the impressive The Nippon Foundation building at 1300 hours for the much anticipated meeting with Dr. Sasakawa himself. It was a humbling moment for us when we first set our sights on the Dr. Sasakawa as he walked into the room. The aura and his presence was very inspiring for all the students.

Prof. Arkyut Olcher, faculty of WMU and The Nippon Foundation Chair gave the welcome speech in honour of Dr. Sasakawa. He gave a brief description of the work being done at the WMU and the importance of this work on the maritime sector and the realisation of the IMO's sustainable development goals. He stressed on the invaluable support of the Sasakawa Peace Foundation to the WMU towards the attainment of these goals.

This was followed by individual introductions by each of the Sasakawa fellowship students of the class of 2018 who gave a brief background of themselves and their future goals.

Finally, the most anticipated moment of the day came when Dr. Yohei Sasakawa rose to address us students. His calm demeanour and soft spoken nature were at once striking for a man of such high position and great accomplishments. He welcomed us to Japan. His vision and thought is to see that WMU develops from a Maritime university to an Ocean related university. For this purpose, the WMU-Sasakawa Global Ocean Institute has been established at the university by The Nippon Foundation. He hoped that in the future that the Ocean Research Institute becomes the future No. 1 university and the hub in ocean related matters which deals with all ocean related issues including fishing and deep sea research as well. He spoke of the quiet crisis that is approaching us and which is deepening day by day. He spoke of the sustainable development models that is being discussed in the various fora including the United Nations but lamented the fact that there is no convergence of ideas or understanding as to how long this will last. He expressed concern on the population explosion that the earth is witnessing and that is very soon going to reach ten billion and that if we work in the same manner the survival of human kind will be at stake. He stressed on the need to protect our oceans and to preserve our oceans so that humankind survives. He spoke on the missing link that current researches on the oceans have and hoped that the Ocean research institute will bridge the gap. He said that currently we know only 30% of our oceans and only 15% of our sea bed and only when we have complete understanding of these will we be able to solve our problems. He spoke about the goal of The Nippon Foundation to map the seabed by 2030. He spoke about the dangers of plastic waste to the fishes and plankton. He spoke of the need to have an organisation that can handle all these issues comprehensively and unilaterally

and that he is working towards the establishment of such an organisation. He spoke of the strong network of alumni and hoped that all Sasakawa fellows will positive contribute towards it to solve the issues that concern the maritime world.

After the inspiring speech by Dr. Sasakawa, Mr. Banshidhar Singh of India gave the vote of thanks on behalf of the students and expressed our gratitude towards the Sasakawa Peace Foundation and to Dr. Sasakawa personally whose benevolence made it possible for many of us to be able to do our MSc at the World Maritime University. He also expressed our earnest desire to be able to contribute towards the vision and goals of The Nippon Foundation and the Sasakawa Peace Foundation in the future as Sasakawa fellows.

This was followed by a group photograph session with Dr. Sasakawa. On the request of the students and inspite of his busy schedule Dr. Sasakawa was very kind to accept the request of the students for individual photographs with him which was so very inspirational for all of us and would inspire us towards greater goals.

Courtesy Visit on Mr. Yohei Sasakawa of The Nippon Foundation

Georgian Kansuah (Liberia)

The courtesy visit to the headquarters of The Nippon Foundation marks the official commencement of the Japan field studies trip. Every year, The Nippon Foundation organized a field studies trip for the world maritime university Sasakawa fellowship students. The visit affords the students the opportunity to travel to Japan and have a feed of the unique culture of Japan, and to further appreciate the hospitality of Japanese.

This year, 29 students from 23 countries visited Japan from the 13th-20th May 2018. The Japan field studies officially commenced on the afternoon of the 14th May 2018 at the headquarters of The Nippon Foundation. The students and the two WMU staff were all seated by 13:30 in the conference room, as they anxiously awaited the arrival of Dr. Sasakawa with smiles and excitements on their faces. A few minutes later Dr. Yohei Sasakawa arrives, and the students warmly welcome him in the room with a round of applauds.

Professor Olcer made the first statement as the representative of the World Maritime University. He extended warm greetings to Dr. Sasakawa and staff of The Nippon Foundation for their many supports for the students and the University. He acknowledged the efforts of The Nippon Foundation in creating an equitable, safe and secure environment throughout the world. He further conveys Dr. Doumbia-Henry, President of WMU special appreciation to Dr. Sasakawa for the inauguration of the Ocean Institute. He describes the setting up of the ocean institute as historical and a milestone for the global maritime industry.

The professor Olcer assured Dr. Sasakawa of the continued commitment of the faculties and staff of the WMU in achieving the goals of the Institute. Making a statement on behalf of the fellowship students, Mr. Singh thanks Dr. Sasakawa for his many supports in making their dreams a success and assured The Nippon Foundation of the commitment of the students in achieving excellent in their studies, and on return to their respective countries, they will remain committed to upholding the true values and goals of The Nippon Foundation in building a sustainable world through cooperation.

Responding, Dr. Sasakawa warmly welcome the fellowship students, Prof. Olcer, and Mr. Marriot Pete for traveling such a long distance to Japan, and further applauded the efforts of WMU for the hard work for such a worldwide recognition as a center of excellence. Commenting on his recent visit to the WMU for the Inauguration of the Ocean Institute. The occasion he describes as a historic achievement for The Nippon Foundation which marks the beginning of a new paradigm shift in the maritime industry. He said, WMU shouldn't only be a maritime institution but should be capable of handling global ocean-related issues and serving as the center for oceans research globally. He emphasized that the WMU-Sasakawa Global Ocean Institute will serve as a medium to enhance global oceans research for oceans

management and governance, and the need for more studies on the geology and its seabed. He reiterated The Nippon Foundation commitment to drawing out a map for the deep seabed by 2030.

Dr. Sasakawa also commented on the issues of pollution into the oceans, reminding the audience of the huge dependent of the world's population on the oceans for sustainability remains a major challenge. He stated that recent studies show the increase in plastics waste into the oceans is potentially leading to the depletion of living resources, attributed such condition to the lack of uniform oceans governance systems and ineffective oceans management mechanism. Going on, Dr. Sasakawa said he sees a "quiet crisis" concerning oceans governance. Adding that the growth in the global population of about 7 billion people today, and the huge reliance on the oceans, its minerals and marine resources for sustainability, requires "More need to be done for the proper governance and management of the oceans."

As a matter of importance, Dr. Sasakawa encourages the fellowship students to use the Japan trip to strengthen their relationships that will continue after graduation from the WMU and urge each of the students to remain focused, innovative and step fast in their careers. He noted that International cooperation is an essential component of building a sustainable world, and the existence of a vibrant network of graduates could play a major role in addressing contentious global issues. He further encourages the fellow students to remain in touch with The Nippon Foundation, and continue to send updates on their activities (Wedding, Childbirth, Promotion or appointment, etc.) even after graduation. The courtesy visit was a memorable one for the students seeing, and interacting with Dr. Sasakawa was a great moment for the students. It finally ended with an individual photograph with Dr. Sasakawa, as well as group photograph.

Courtesy Visit on Mr. Yohei Sasakawa of The Nippon Foundation

N'Hôboutoun Santa (Togo)

It is a custom that every year The Nippon Foundation in collaboration with WMU organizes the Sasakawa Fellows 'Field Trip for its students to Japan in order to further learn maritime and port related issues and exchange experience with the institutions of their host country .The field trip of the WMU 2018 class took place from 13-20th May 2018.The delegation was composed of 29 Fellows from 23 countries and 2 members of the WMU staff,Mr.A.Ölcer and Marriott Pete, respectively professor and assistant registrar of the University .

The first day of the trip, held on Monday, 14 May 2018 in the afternoon, was dedicated to the courtesy visit to Dr. Yohei Sasakawa at The Nippon Foundation Headquarters. It was a unique privilege and great honour for the Sasakawa Fellowship students to seize this rare opportunity to visit one of the most prestigious institutions around the world, The Nippon Foundation. The WMU delegation, guided by Mr.Eisuko Kudo, Mr.Shinichi Ichikawa and the tour guide Ms. Miyoko Wada, arrived at The Nippon Foundation Headquarters around 1h45 pm local time. The WMU delegation was warmly welcomed by a dynamic staff of the Foundation, and then led to the meeting hall where the students were waiting impatiently to meet their benefactor, Dr. Sasakawa, Chairman of The Nippon Foundation, who makes their academic dreams become reality by funding their study Programme at WMU. 15 minutes later, the arrival of Dr. Yohei Sasakawa was welcomed by loud applauds of the Sasakawa Fellow students.
The visiting ceremony started by the address of Professor. A.Ölcer, who spoke on behalf of the president of WMU, Dr. Cleopatra Henry-Doumbia, the WMU staff, his colleague and the Sasakawa Fellows students. In his addess, Professor Ölcer expressed the deep and sincere gratitude of the WMU and its students to Dr. Sasakawa for the generosity for granting the Fellowship to WMU students then expressed his vision for The Nippon Foundation.

After the address of Professor Ölcer, the Fellow students took the floor to introduce themselves, expressed their profound gratitude to The Nippon Foundation for its generosity and pledged to serve their countries after completion of the WMU Programme and contribute to the achievement of the goals of the Sasakawa Peace Foundation by keeping in touch with the friends of Sasakawa WMU Friends.
The self-introduction of the students was followed by the awaited moment, the speech of Dr. Sasakawa. He first humbly and kindly apologized for coming a litte bit late, thanked the Fellow students and appreciated their commitment, highlighted that WMU is a well-established training institution with global dimension. He reminded that The Nippon Foundation was established in 1962 as philanthropic Organisation, active in Japan and worldwide. He pointed out the pride for establishing via The Nippon Foundation this wonderful academic programme many years ago. According to Dr. Sasakawa, the Foundation receives every year a multitude of applications all over the world for the Fellowship. However, the Foundation selects the best students in view to producing excellent Sasakawa Fellows over many years around the world to help to solve or minimize the problems of the society.

Continuing his speech, Dr. Sasakawa, mentioned some current challenges that need a global approach to be addressed. He particularly expressed his concern for ocean issues, which capture less attention although the threats it faces. For instance, he pointed out the fact that IMO is more concerned with maritime industry and less concern is given to the ocean related issues. With the growth of the world population, which is around 7 billion people and goes increasingly, the depletion of the land resources, the world will turn to the oceans. However, no or few policies are dedicated to the ocean governance; little scientific research is made to discover the seabed and the ocean floor, the pollution of oceans especially by plastics, the overfishing, the climate change, which are ocean big challenges today and will go worsening. Therefore, the commitment of The Nippon Foundation by establishing the ocean governance institute at WMU this year is intended to bring a response to this issue stated Dr. Sasakawa. He then urged the Sasakawa Fellow students, who upon completion of their programme at WMU and once back in their home countries, to have much regard to the ocean related issues as priorities in all the processes of policymaking.

Dr. Sasakawa further grasped this opportunity, by citing his father who told him that the world is a big family and all the humankind is the siblings, to give lessons of life to the Fellow students. He exhorted them to bear this lessons in mind and be closer one another, because gathering people together creates synergies for the humanity. Moreover, he emphasized the relevance of creating and keeping communication with one another at WMU and after graduation and back in their respective countries.
After the speech of Dr. Sasakawa, Mr. Singh spoke on behalf of the fellow students of the class 2018. In his address; he expressed the frank and sincere gratitude of the class 2018 to The Nippon Foundation for its generosity by granting the Award to allow the students to study at WMU. He said that the WMU Sasakawa Fellowship provides a unique opportunity to create a close relationship, promote a global development.

After the address of Mr. Singh, students were given the opportunity to have individual photo of souvenir with Dr. Sasakawa, although his agenda was very charged.

The courtesy visit on Dr. Sasakawa, of about hour was rich in terms of memorable events for the Sasakawa Fellowship students. This courtesy visit to the Headquarters of The Nippon Foundation closed at 3 pm local time, with a note of general satisfaction; thereafter the WMU went to visit the Maritime Bureau of the Ministry of Land, Infrastructure and Transports putting an end to this first day of the field trip.

Ministry of Land, Infrastructure, Transport and Tourism (MLIT)

Naohiro Saito (Japan)

We made a courtesy visit to The Nippon Foundation and meet Dr. Sasakawa Yohei, who is a chairman of this financial group that support us. First, we introduced ourselves and stated our resolutions. Secondly, Dr. Sasakawa Yohei told us about the importance of WMU Sasakawa fellowship's network and future perspective related to ocean challenging issues.

Essence of a discourse
Dr. Sasakawa Yohei told us the necessity of Sasakawa network and the importance of ocean. First, as for Sasakawa network, we need to maintain the Sasakawa network because the network is globally expanded and it would be helpful for us after graduation. He emphasized on the importance of network in order to solve facing problems in the maritime society. Secondly, he addressed the possibility of ocean that has unexplored ever before. Most of the ocean all over the world has not explored and exploited yet. For instance, only 15% of geography of sea bed has disclosed. Therefore, we should engage in a holistic approach to ocean governance. For the purpose of the research, The Nippon Foundation has established "WMU-Sasakawa Global Ocean Institute". He expected that development of ocean governance will contribute to sustainable development of our maritime society.

Site visit (MLIT)
Overall contents
We visited Ministry of Land, Infrastructure, Transport and Tourism (MLIT). First of all, MLIT has introduced its own organization that consists of many bureaus including maritime. Mission of MLIT covers huge areas, which is not only transport but also infrastructure, land and tourism. Secondly, MLIT has explained the environmental issues discussed in IMO that have been related to Japanese government. Subjects that are regards as key issues in IMO such as marine pollution, air pollution, harmful organization and ship recycling are covered in parallel with Japan's position and contribution. Furthermore, IMO's approach of GHG reduction such as EEDI, data collection and initial strategy were introduced.

Strength and Challenge for strategy toward marine environment protection
The government had a great contribution to rule-makings for marine environment protection in IMO. For instance, with regard to the regulation on CO2, NOx and SOx reduction, and new convention on ship recycling, the number of documents that have been submitted to IMO since past 5 years is 334, which the number is higher than other country's submission. This is because Japan maritime cluster, which consists of industry, academia and government, has been well established and promoted cooperation to enhance the level of standards based on technological background. As long as high level's standards based on advanced technologies are accepted in IMO, Japanese industry will be able to develop further than other countries' maritime industry by taking advantage of advanced technologies.

On the other hand, there are challenges which should be deal with in order to develop constantly. For example, shortfall in human resources is probably a serious problem to keep high standards of performance in the international society. Recently, the competent people have not selected a job of government officer so that the number of workers who perform well is slightly decreasing. Moreover, this situation occurs not only in government but also in the maritime industry. Nowadays, those who have excellent technology are getting older and young people are lack of lack sufficient technical capacity.

Future Work

I think that MLIT has to improve the quality of current work to maximize their strength and minimize weak points. For example, MLIT should review the measures to ensure human resources to maintain or enhance the performance in IMO. In recent years, the number of applicants for MLIT has been decreasing. On top of that, the number of those who want to work abroad or be in charge of international work has been smaller and smaller. MLIT is now facing with this problem so that they should pull in the right people who are competent. Moreover, MLIT should also consider the maritime industry that face with same issue. They review their policy to support industry in a way that allows it to move gradually in that direction to take measures that untangle concern about lack of human resources.

Summary

We learned the importance of ocean, global environmental issues that we currently face with. A new research institute would be fruitful for us to understand ocean very well. Moreover, we learned that Sasakawa global network will be important to deal with some issues and would contribute to maritime society.

Ministry of Land, Infrastructure, Transport and Tourism (MLIT)

Gustavo Adolfo Mejía J. (Panama)

During the first day of our Field Study Trip in Japan, May 14, 2018, a courtesy visit to the Maritime Bureau, Ministry of Land, Infrastructure, Transport and Tourism (MLIT) was offered with a complete presentation which covered the orientation about the maritime administration of Japan. The Senior Deputy Director General in person, Mr. Otsubo, received the 29 group of students sponsored by The Nippon Foundation and open the lectures of the visit with a Welcome Speech where express the solidarity with the World Maritime University and the education of the class 2018.

The content of the different presentations included an overview of the Mission of MLIT and functions that they achieve every year, and orientation of the organization of MLIT.

A detail explanation of the role of all the sixteen different bureaus was giving by Mr. Tadashi Uchihira, and just to understand a little bit more this structure includes the civil aviation bureau, railway bureau, policy bureau, housing bureau, ports and harbors bureau, water and disaster management bureau, land economy and construction and engineering industry bureau and other bureaus that are complete out of the interest of common maritime administration that only consider ships and ports as the main function to execute under the law. Each of this Bureaus are under the MLIT and has their own separate roles and responsibilities.

The orientations of Mr. Uchihira end with a list of recommendations and of activities that should be done during free time of the visit of the country. For students of different cultures that composed the class of 2018, the unique opportunity to visit to the traditional public bath, eat and drink sake in a japanese bar and participate of one karaoke are some of the privilege that all the persons have the chance during a master's degree.

Following the lectures of the day by Mr. Iwaki, Special Assistant to the Director of Environment Policy, Ocean Development and Environmental Policy Division, introduce himself a present the topic of the International Approach Towards Marine Environment Protection. To this division of the Maritime Bureau is important the compliance with international maritime instruments aiming the marine environment protection and natural marine resources.

The Role of Japan in the International Maritime Organization is also part of the presentation and following this statement, the compromised and active participation that they demonstrate when they have the position number one in the table of top 10 countries which submitted the largest number of documents to IMO with the number of 334. This reward is not easily to achieve, and it founds it support on the knowledge and experiences based on Japanese maritime cluster; Projects on leading technologies; and collaborative relationships with other key member states of IMO.

The Basic position of Japan in IMO issues is to keeps on contributing to rule-making in IMO, in order to:

- Maintain maritime safety and prevention of pollution by ships; and
- Ensure sustainable development of the maritime industry and international trade.

Mr. Iwaki stated that Japan faced with many challenges and highlighted those that he considered paramount at the time. They included the complexity of regulations; follow up on strategies for the coming decade; review risk approach, technological innovations and their impact in:

- Human resources (negotiation skills, technology people)
- Media strategy (marketing)

The presentation of Mr. Iwaki ends by mentioned the key issues on maritime environmental protection. The key issues which include topics related to the MARPOL Convention and the increasing regulations at IMO concerning the GHG emissions reduction, SOx emissions, NOx emissions, 0.5% Sulphur Limit, and the Ballast Water Conventions.

At the end of the visit to MLIT, the opportunity to the students of the Class 2018 to learn how could be the future if they continue working for their Maritime Administration and compare the current situation in their respective countries. Moreover, the International Maritime Organization requires persons involve in the maritime sector that understand the important role of an active implementation of rules and convention. Some of the students has the great chance contact that will help the development of dissertation and also meet older students of the World Maritime University that are now representatives at IMO and others important staff which is very important at the moment of try to become maritime leaders when we finish the Master. All the best wishes to the people of the Sasakawa Peace Foundation and MLIT for gave us the chance to learn from the experience and not only from the books.

May 15, 2018

Visiting

Kashiwa Co., Ltd.

Japan Aerospace Exploration Agancy (JAXA) - Tsukuba Space Center




Kashiwa Co., Ltd.





Japan Aerospace Exploration Agancy (JAXA) - Tsukuba Space Center

Kashiwa Co., Ltd.

Md Harun Or Rashid (Bangladesh)

On 15 May 2018 morning, we visited the famous company of Japan named Kashiwa Co. Ltd which was established in March 29, 1947 and started its business with selling fire extinguishers. The mission of this company is to produce reliable products and excellent service to the customers through valued team work. Today, their core business has grown to manufacture fire and fighting systems together with fire and environment protection systems. Despite the drastic change in the marine transportation environment, we have been dedicating to the society to ensure safety in the sea. Kashiwa endeavours to the utmost technology and creativity for providing safety to the ships in this changing world. By producing reliable products and excellent services, it will continue to serve their customers.

The present capital of the company is 220,000,000 yen and they issued 4,400,000 shares. As of May 2017, the total employees are 94. The name of the President is Yoshiro Yamashita. The business line of the company are: Design, manufacture and sale of various fire and fighting systems, Design, manufacture and sale of marine inert gas systems, inert gas generators and nitrogen gas generator systems, Sale of marine instruments and fittings, Sale of various marine machinery and equipment, Sale of self-regulating heaters, Real estate transaction and house leasing, All matters associated with the above, After-sales services for all products. The major shareholders of the company are: The Tokio Marine & Nichido Fire Insurance Co., Ltd, The Toa Reinsurance Co., Ltd., K.S Co., Ltd., Mitsui O.S.K. Lines, Ltd., The Bank of Tokyo-Mitsubishi UFJ, Ltd.., The Yamashita Family. Some major clients of the company are: Asakawa Shipbuilding Co., Ltd., Fukuoka Shipbuilding Co., Ltd., Imabari Shipbuilding Co., Ltd., Japan Marine United Corporation, Daewoo Shipbuilding & Marine Engineering Co., Ltd., Hanjin Heavy Industries & Constructions Co., Ltd., Hyundai Heavy Industries Co., Ltd., Bohai Shipyard Heavy Industry Co., Ltd., Dalian COSCO KHI Ship Engineering Co., Ltd., Dalian Shipbuilding Industry Co., Ltd., Daiichi Chuo Kisen Kaisha, Idemitsu Tanker Co., Ltd., Iino Kaiun Kaisha, Ltd., Japan Coast Guard Association, Tokyo Metropolitan Fire Board and Fire Department of Local Government , The Défense Agency, Andriaki Shipping Co.,Ltd., BW Shipping, China Petroleum Corporation, Bintulu Port Authority, Busan Fire Station , Dalian Port Authority.

The major products of this company are: Deck Foam System, High Expansion Foam System, High Expansion Foam System for PCC, High Performance Fire Fighting System, Local Application Fire Fighting System, Inner gas system, Ballast Water Management System, Exhaust Gas Cleaning System, Total Heat Trace Engineering, Coating Material, Offshore solution. The company has a lot of service network all over the world. Particularly, Korea, China, Hong Kong, Vietnam, Singapore, United Arab Emirates, United Kingdom, Germany, Belgium, Norway, Netherland, Turkey, Greece, USA, Brazil. Kashiwa's Works accommodates one of the world's largest test facilities, comprising an extensive water-discharge test field that is used solely for performance testing of various water/foam monitors, foam generators and mixing equipment, and a 5000m3 fire test facility equipped with the newest

equipment. Kashiwa continuously endeavours to utilize these facilities to ensure their products are both state of the art and highly reliable.
In 1992, Kashiwa took the lead in the world developing High Expansion Foam System generating foam in fire locations to extinguish oil fires and started providing a safe high performance system, the high expansion system using inside air, for vessel's engine rooms or pump rooms, in place of the Holon gas or CO2 gas systems. The system has obtained high appraisal for its safety and performance from many ship owners, classifications, governments and dockyards. As of December 2012, the system has already been installed in over 3000 vessels. Kashiwa will keep providing high quality and reliable products based on these results and experiences.

Our visit to Kashiwa Co. Ltd. was really an unforgettable experience. We learnt a lot from this company visit. The staffs of the company was so cordial and their cordial behave help us to learn practically about the company. We are really wonder for such type of technological development in Japan. Specially, I feel one of the reason why Japan is economically so strong and their economy is rising. Finally, special thanks to the Sasakawa Peace Foundation and Kashiwa Co. ltd. for arranging this amazing visit.

Kashiwa Co., Ltd.

Paulo Sérgio Rocha Sousa (Cape Verde)

On 15 May 2018, on an excellent sunshine day, we, students of world maritime university had the pleasure of visit Kashiwa Marine Safety Equipment. Since the foundation in 1947, Kashiwa is a specialized company in manufacturing and supplying marine hazard prevention systems and has been played an important role in prevention and minimize the damage from a fire on board ship in Japan and the rest of the world. Nowadays, around 90% of tankers built in Japan and also many ships of all types worldwide has adopting Kashiwa's safety equipment, in another word, Kashiwa Co., Ltd is the leader of supply of marine firefighter systems. Those systems are not only focused on marine fire preventions and fire-fighting equipment but also on environmental protection.

According to the presentation, today, Kashiwa Co., Ltd has an extensive service network that covers Japan and the rest of the world with centers in Asia, North America, Australia, Middle East and Europe. The Tsukuba works Services Kashiwa intellection power plan is on 28.000 m3 side, and it covers several laboratories and experiential facilities. Furthermore, all the three fire test rooms are fully equipped by exhaust gas collection and effluent treatment system, so all the experiment can be performed on the ecologic environment. The Water discharge test field is one of the larger exclusive in Japan with 220-meter circulation channel, and it is equipped with five water pump with different sizes and the total volume of water tank 1000 m3.

On the side of the products, they have, for example, fire extinguish system and Inert gas system. The Fire extinguishers system has been adopted by global customers all the years. A good example is the High Expansion Foam System that uses a revolutionary high expansion form and can be installed in any ships and pump rooms on tanker ships. Another example is the Deck Foam System that is the fix deck foam fire extinguish system that must be installed on the cargo deck on tankers. In 1960, the SOLAS convention made the fix deck foam fire extinguish system mandatory for tankers that carry inflammable liquids, for example, crude oil etc., to extinguishing a possible fire on the cargo area. The last but not least, is the Local Application Fire Fighting System is a water mist fire extinguish system developed for initial fire extinguishment in the machinery space of ship which SOLAS convention made mandatory to the main engine, diesel generator, boiler front, Incinerator and fuel oil Purifier in all ships constructed from July 2002.

Additionally, the Inert gas system produces inert gas generated by cooling and cleaning the combustion gas from its own oil burner to prevent explosions in cargo tanks. Cargo tank of tankers which carry flammable and hazardous cargo such as crude oil is filled with inert gas in order to prevent fire ignition and explosion. Kashiwa's inert gas system has three features:

- Scrubber tower with high-performance filler
- Advanced corrosion-resistant design

- and Professional after-sale services

After the comprehensive presentation and movie, we went to visit the facilities of the External firefighting system and the High Expansion Foam System. It was a very interesting do know in practices how those systems do work. The External firefighting system which is made for fire-boat, thug boat etc. it is used to extinguish fire in another ship, and it has a maximum range of 150 meters and 10 tons of water per minute. We noticed that the High Expansion Foam System works efficiently and quickly to extinguish fires in the machine house.

To conclude, I would like to say that Kashiwa Co., Ltd is an innovative company that have been following the international regulations in regards to maritime safety and environmental protection, such as SOLAS convention which is helping to minimise the damage caused by fire onboard of the ship. Additionally, in my personal opinion, as a Master student of Maritime Safety and Environment Administration, it was wonderful visit which shows in the practices ways what kind of safety system that can be installed on ship in order to prevent and protect the ship the cargo and as well the crew from fire. On behalf of my fellow colleagues, I would like to say thank you to Kashiwa Co., Ltd for sharing very useful information with the Sasakawa fellow 2018.

Kashiwa Co., Ltd.

Manh Xuan Nguyen (Vietnam)

On 15th May, 2018, the WMU Sasakawa Fellowship Students class of 2018 had the opportunity of visiting the Kashiwa Company Ltd at Tsukuba works in Ibaraki, Japan. Kashiwa Co., Ltd, which may know as the marine equipment manufacturing company, was established in 1947 by Saburo and Haro Yamashita. The company has the strength in producing fire fighting systems and is one of the leading companies in the field. At the meeting, representatives of the company had a presentation about the company's development history as well as an introduction of some of their strengths. Particularly impressive in the presentation was the fire fighting system in which included:

High expansion foam system:
HEFS is used for engine rooms on all kinds of vessels, pump rooms on tanker vessels (excluding pump rooms on chemical tankers). HEFS is used to treat oil fires, which use inside air to operate. The system has obtained a high appraisal for its safety and performance from many ship owners, classifications, government, and dockyards. By the end of 2012, more than 3,000 systems were installed onboard vessels.

High expansion foam system for Pure car carrier
Fixed high expansion foam fire extinguishing system for car holds on pure car carriers. HEFS for PCC is known as an alternative for CO2 fire extinguishing system which introduced in 2001. The system uses some intake/exhaust ducts already available therefore installation of new pipes for discharging foam is not required. As of December 2012, there has already been installed in over 150 PCCs.
Deck foam system
According to SOLAS, it is required to install fixed foam fire extinguishing system for upper deck area of cargo tanks on various types of tankers. Kashiwa has been providing comprehensive techniques and product for this kind of system for several decades. The system met the requirement of IMO as well as bringing trust to customers in terms of long duration and high reliability for operational performance. Kashiwa has a high reputation for the system worldwide which more than 8000 systems have been installed on tankers.

High - performance fire fighting system
High-performance fire fighting equipment for installation as fire fighting systems on ships and harbor facilities such as fireboats, tugs, escort boats and supply boats.
- Various remote control monitors
(Automatic swing device; automatic foam/water manipulation device with a laser range finder)
- Sliding foam/water tower
- Folding foam/water twin tower
- Oil spill treatment system
- The monitoring system for PC-based fire fighting and other equipment

- Other special fire prevention equipment

HPFFS is a highly efficient system installed on specialized vessels or fire extinguishers to cope with fires from other ships. These systems are generally being changed to higher performance systems using the latest scientific technologies in order to make challenging fire fighting much safer and more satisfied. Up to now, over 2,000 HPFF systems have been installed.

Local application fire

Based on the MSC Circ.913 of IMO, the new fixed water-based local fire fighting system is required for extinguishing the early stage of a fire in machinery space (main propulsion, Diesel engines for the main electric generator, boilers, incinerators, purifiers and Inert Gas Generators) for ships constructed on and after 1 July 2002. This new rule was established in recognition of the importance of extinguishing while the size of fires is still small. These systems were developed to satisfy the requirement of the water-based fire fighting. The high performance “micro particle spray mist” are used which may know as “HYPER-MIST” and “HYPER-LP” systems. These systems are not only safe for crews but also cause no damage to the continuous operation of equipment located in the protected area. As of December 2012, “Kashiwa HYPER-MIST” and “HYPER-LP” systems were already being installed in over 4000 ships.

The field study was continuous with a visit of the high expansion foam system and high-performance fire fighting equipment. Students were observed operating the handling of the systems at the company's plant. These systems impressed with the short preparation time and high performance.

Conclusion

The risk of fire on the ship is always a threat to the lives of the crew as well as property and cargo on board. Recognizing this threat, the IMO has developed many regulations to prevent fire on ships. The research and development of fire fighting systems of Kashiwa Co., Ltd. bring a lot of benefits to the safety of the shipping industry in which shipowner can be assured of quality, safety at a reasonable price. The visit to Kashiwa Co., Ltd. was exciting and comprehensive. The students were not only see the professionalism, professional ethics but also the wisdom of Japan was expressed in this company. There is no doubt that the knowledge gained by participants will be benefited in their future career.

Japan Aerospace Exploration Agancy (JAXA) - Tsukuba Space Center

Eleni Kelmali (Greece)

On Tuesday the 15th of May the WMU Sasakawa Fellowship, Class 2018 visited the premises of the Japan Aerospace Exploration Agency (JAXA)- Tsukuba Space Center, which functions as a research and development agency from April 2015, supporting the national efforts to the exploration of the outer space, for the benefit of the Japanese society. In a national level, the knowledge gained by the Agency reflects its capacities and is a pillar of financial, social and scientific development. It is also valuable for improving the understanding of the society on the aerospace.

The mentality of the Agency determines its scope and field of action, which are extended to research, innovative programmes and various missions to space for experimental and scientific reasons. The scope of activities of the JAXA is not limited to serving Japan but is orientated to achieving objectives of a global interest, and sharing valuable information with the scientific community worldwide.

The Agency has cooperated with various space authorities and educational Institutions for the purposes of accomplishing its tasks, such as the National Aeronautics and Space Administration (NASA). The JAXA has recently increased its joint projects, supporting the development of such alliances for the common benefit of the parties. The Agency has also a strong representation in international organisations, such as the International Space Exploration Forum. Moreover, it cooperates with the private sector, contributing to the development and economic prosperity of the aerospace industry. This collaboration is achieved through joint projects with private stakeholders, who take advantage of the opportunity to use the facilities of the Agency, improving their equipment and standards.

The Activities of the JAXA are performed by different departments which work together on developing research programmes and launching expeditions. As it was referred during the guided tour in the premises, the Agency provides tremendous testing technology, such as the Acoustic Test Facility Vibration Technology and advanced scientific tools. Some examples are the launching of experiments in a special, space chamber, the data antennas, which collect information for safety and other reasons and the JAXA satellites, by which various phenomena, e.g. the impacts of climate change are recorded. An indicative example is the observation of a typhoon by the satellites, in September 2015. Apart from the observation of environmental phenomena, the use of satellites serves a wide range of purposes, such as the planetary exploration and the improvement of the communication network.

The tour included demonstration of photographs and informative material on many projects and aerospace equipment administered by JAXA, such as the H-IIT Transfer Vehicle ‘KOUNOTORI’, an unmanned transfer spacecraft developed in Japan, that delivers supplies, and the Japanese experimental module ‘KIBO’, which contributes, along with ‘KOUNOTORI’ to the operation of the International Space Station, as part of an ambitious international programme.

In the exhibition area, the tough physical, mental and medical procedures which the astronauts have to go through were represented. An impressive part of the exhibition was the isolation chamber which was used for the examination of the physical and mental capacities of the participants to the aerospace missions. Important astronauts and their exhibitions were presented and explained and astronaut uniforms, clothes and equipment and samples from the outer space were displayed. The class had also the chance to observe the function of a real control room, through which scientists were checking and receiving data from a space mission.

The real conditions under which the astronauts deal with their duties were analysed and the students acquired a better perspective of the challenges, difficulties and dangers which the astronauts go through. As we were explained, working on the mandate of the JAXA, is a challenging process, which depends and is supported by scientists of excellent skills, working with advanced technology and trained to respond to difficulties and solve complex problems aiming to reach innovative purposes. The Agency has established a strong position and is one of the pioneers in the field of aerospace activities.

The Class was impressed by the capacities and achievements of the Agency and was grateful for the positive impact of such activities to the whole humanity. The visit was one of the most impressive during the staying to Japan, since the access to the premises of the JAXA is a privilege not easy to be achieved.

Japan Aerospace Exploration Agancy (JAXA) - Tsukuba Space Center

Banshidhar Singh (India)

Visit to JAXA was one of the most enriching and thrilling experience which provided us insight into the Japan's aerospace exploration capabilities and achievements. JAXA in its present form was established on 01 October 2003 by merger of three independent organizations, namely Institute of Aeronautical and Space Science (ISAS), National Aerospace Laboratory of Japan (NAL) and National Space Development Agency of Japan (NASDA). JAXA was formed with the motive to function as core performance agency to support the government's overall aerospace development and utilization. Accordingly, the important functions of JAXA are to research, develop and launch satellites, asteroid exploration, and possible manned exploration of the moon. JAXA has research centers spread over Japan and also overseas with its headquarter at Tokyo. We visited the Tsukuba Space Center (TKSC) in Tsukuba.

Tsukuba Space Center is the center for space network. It undertakes research & development of satellites and rockets, as well as tracking and controlling of satellites. It develops experimental module (Kibo) and is training center for astronauts. It also houses Japanese Flight Control team located at Space Station Integration & Promotion Center (SSPIC) for International Space Station.

JAXA became a National Research and Development Agency in the year 2015, and took a decisive step in the direction of achieving optimal R & D achievements as mandated by Japanese government. JAXA has numerous ongoing and under development missions encompassing satellites & space craft, human space activities, space transportation systems, space science research, aeronautical technology research, and basic technology research. JAXA works on the management philosophy of realizing a safe and affluent society using space and the sky by utilizing leading technological developments and they and they endeavor to deliever achievements along with broader wisdom to society.

As part of its global activities, JAXA undertakes international cooperation, public relations, collaboration, and educational activities. As part of international cooperation programme, JAXA has signed cooperation and implementation arrangement with India, United States, Canada, Europe, Russia, and Asia Pacific Regional Space Agency Forum (APRSAF). JAXA also actively participates and supports various activities as member of global and regional organizations such as United Nations committee on the Peaceful Use of Outer Space (COPUOS) and the Committee on Earth Observation Satellites (CEOS). JAXA also has various educational outreach programme such as support for formal education, support for informal education, space school for families, and international activities. Through its formal education support, the space education center aims to expand and enhance the use of attractive space educational materials by schools and teachers to assist the students in learning various subjects according to the curriculum guidelines. As part of its international educational outreach activity it supports the education activities of Asia Pacific Regional Space Agency Forum, collaborates

with members of International Space Education Board and provides scholarship to select few Japanese students to pursue fellowship programme at International Space University.

In addition to providing brief on the organization, functioning, and achievements of JAXA, visit also involved self-tour of space museum. Very well organized museum which provided glimpses of the Japanese space exploration history, its development over the years, its achievements and informative display of various type of satellite and launch vehicle technologies currently in use. JAXA is not only doing exemplary service in terms of space exploration, but also its larger goal of educating the society about use of space for the betterment of mankind. Recognizing space as the unique source of interest, imagination and inspiration, it continues to demonstrate the effective use of space subjects, materials and resources at schools, in local communities and at home to stimulate children's interest.

It is one of the functions of JAXA to develop and test new space technologies in the field of communication. Satellite based communication technologies holds vast importance and relevance for maritime field as ships are getting more and more automated by every passing day. Understanding of satellite based communication holds the key for future of shipping industry. JAXA also has earth observation programme involving rainfall observation and monitoring of carbon dioxide, which again holds relevance to maritime industry.

JAXA is one of the world's important aerospace exploration agency and has and continues to contribute immensely to the overall development and growth of Japan, true to its management philosophy. Visit to JAXA was a success in totality of its objective.

Japan Aerospace Exploration Agancy (JAXA) - Tsukuba Space Center

Hammed Damilare Ibrahim (Nigeria)

The visit to the Japan Aerospace Exploration Agency (JAXA) held on Tuesday, 15 May 2018 at the Tsukuba Space Center. It was a very important and significant visit relevant for the understanding of the role of science and technology in our society. On arrival, there was briefings by Mr. Eisuke Kudo on the significance of a visit to such facility by people in the maritime field. He noted two major factors: firstly, in order to appreciate the important contributions of science as the basis for the technological advancement of Japan; and secondly, to understand the future potentials of satellites for shipping, and the regulatory frameworks implications for that at the International Maritime Organization (IMO).

We arrived earlier but waited for few minutes within the premises until exactly 01:00 pm when we checked in at the Visitor's Station of JAXA. According to a staff of JAXA, the visit and tour of the facilities at the Center would take approximately 1 hour and 10 minutes. We were further directed to enter a TV Room to watch a documentary about the JAXA and important milestones of the Center.

The JAXA Seven Doors

In the TV Room, we were formally welcomed to the JAXA by one of the staff who introduced herself as our guide through the visit to the various facilities at the Center. She briefed us about some basic facts and history of the organization. She noted that the name JAXA was changed from the National Space Development Agency of Japan (NASDA), thus incorporating their functions and mandates. She further noted that JAXA was established in 1972 and is located on a 530,000 Square metre research site. It currently has about 2000 people working as research and administrative staff.

During the video clip session in the TV Room, we were informed about the activities of JAXA which are being promoted at the Tsukuba Space Center and other centers in fulfilling the core mandate of Japan Space development research. We were introduced to the concept of *"the JAXA Seven Doors"* in order to have a full glimpse of the activities of the Space Center.

Door 1: Through the first door, we were introduced to the International Space Station (ISS), jointly monitored and controlled by a group of 15 countries. The work strand of the Center relates to the Operations and Development of Satellites; Manned Space activities and training; and the Development of Space transportation systems and Launch vehicles. We were introduced to "the KIBO", the Japanese experiment module of the ISS and "the KOUNOTORI", the Japanese-Designed Space Launch.

Door 2: Through the second door, we were further introduced to the H-IIB Launch vehicles as the transfer vehicles to the ISS. The H-IIB Transfer Vehicles (HTV) "KOUNOTORI" was the first domestically manufactured launch vehicle in Japan. It operates in two major types: the H-IIA and the

H-IIB. Meanwhile, a new development launch vehicle, the Epsilon which weighs 91 tonnes and has a length of 24 metres provides additional capacity to the Japanese space exploration potentials.

Door 3: Through this door, we were introduced to the Advanced Land Observation Satellite 2(ALOS 2) "DAICHI" used for making detailed geo-spatial exploration from space. It was said that it cannot be obstructed by bad weather conditions, and could further be used to monitor Global Climate conditions; the Global Satellite Mapping Precipitation (GSMaP); and the Global Precipitation Measurement (GPM) which are all aimed at sustainable Global water cycle. The tracking, monitoring and the control of all these activities are from the Tsukuba Space Center.

Door 4: Through this door, we explored the communication technologies of the space centre used in conducting experiments and the practical aspects of Satellite Communication Systems. We were also briefed about research potentials of using satellites to aid in the removal of space debris. As communication is fundamental and crucial space exploration research, the Center aims to develop more resilient and efficient communication systems.

Door 5: This door opens interesting highlights of the efforts of the Tsukuba Space Center in providing adequate test facilities to simulate space environment and test efficiency of equipment. Amongst the highlighted facilities are: the Acoustic Test Facility, the Large Vibration Test Facility, the Centrifugal Acceleration Test Facility and the Radioactive Test Facility using Shielded wall.

Door 6: Through this door, major highlights of the coordination efforts of the JAXA in ensuring system integration and efficiency was explored. It further highlighted progress on the development of technology for the removal of space debris and robotics with a view to even solving problems of the future!

Door 7: This door is particularly interesting as it only highlighted the need to physically explore/inspect the facilities at the Tsukuba Space Center in order to fully grasp and appreciate the depth of the works of JAXA.

Tsukuba Space Center Facilities Inspection

The KIBO Control Room

The first facility inspected was "the KIBO" Control Room, a highly secured facility under close watch and operation 24 hours every day. It is a very important and strategic part of JAXA as it is responsible for the Japanese arm of the control and monitor of the ISS. It was completed in 2009 complementing the controlling function of NASA Control Center, Houston, Texas, United States. The JAXA "KIBO" Control Room functions majorly as Flight Controllers for the Communication and the Air-conditioning Systems. The Control Room has about 16 experts working as Flight Controllers headed by JAXA Flight Director. Currently, an astronaut from JAXA, Dr. Norishige Kanai is in space on an exploration mission

further to his other research areas on Alzheimer's disease and the effects of zero gravity on the human body.

The Extravehicular Mobility and Other Units

Here, we were briefed about the special cloth-like unit astronaut wear to move around in space. It was said to weigh about 120kg with most of the weight in the backpack. It has a protective Shield on the head protecting the astronaut from rays and heat from the Sun. Water is passed through a special straw in the unit directly to the mouth of the astronauts. However, with little opportunity to remove the clothing while flying in space, astronauts have to wear "diapers like a baby" in case of feeling the need for toilet.

Likewise, we inspected the special equipment used in monitoring the effects of radiation and the gravity test unit where some of the students volunteered to experiment the effect of lying at -6° on the human body.

In a special room at JAXA, we inspected the food and the casual clothing of astronauts in space. The food was said to be the same with what they eat here, but stronger in seasoning because human sensitivities to taste declines the longer the time in space. As for the clothing, they are made of special materials which do not emit odour and do not get dirty for a very long time as astronaut do not have opportunity to use laundry.

The Isolation Chamber

We inspected this chamber in our guided tour at the JAXA, we were briefed that it is like an enclosed chamber where the stress level of the potential astronauts are tested. They live in the Chamber for 3-6 months and all activities conducted are under close watch. There are no external communication of any kind. It is an intense training exercise and the selection process is quite competitive as just 3 people are selected out of every 960 candidates. The essence of the training is to underscore the importance of cooperation amongst the astronaut as the basis for successful missions.

The Hypobaric Chamber

At this facility, we were briefed that it is like a simulation unit that examines the impacts of mishaps in the ISS. For instance, like having a breach or a hole in the ISS. It simulates scenarios, examines consequences and survival drills on techniques astronauts may use to mitigate the impacts of such events.

These conclude the official guided tour according to the JAXA guide. However, there was one last facility inspected unofficially in the trip to the Tsukuba Space Center.

The Space Dome

The Space dome is a museum-like facility at the Center, it features general information about the esoteric world of Space sciences, and displays models of rockets and other equipment used in space. We could see how the inside of an ISS Space Ship looks like. Also, we had a good view of “the KOUNOTORIs” H-II Launch Vehicles and the Epsilon with important facts about the rockets. It was a very interesting tour as the museum also offers a perfect site for taking photos and lots of wonderful things to see. In general, we had a very good time at the Tsukuba Space Center.

Finally, there was a group commemorative photo just outside the Space Dome with a very picturesque background of the Space world. The general remarks were deep sense of admiration for the advancement of the Japanese Space Science and Technology research. The international cooperation in the research and development of the technology is equally laudable. It is hoped that such milestones would be replicated and advanced in the deep sea and oceans research in order to further unlock the potentials of the sea just has we have pierced through the sky.

May 16, 2018

Visiting

Ariake Water Reclamation Center
Tokyo University of Marine Science and Technology





Ariake Water Reclamation Center





Tokyo University of Marine Science and Technology

Ariake Water Reclamation Center

Etakong Tabeyang (Cameroon)

On Wednesday 16 May 2018, from 9:30 a.m. to 11: 30 a.m., Sasakawa fellows of the class of 2018 visited the Ariake Water Reclamation Centre in Koto-ku, Tokyo. The purpose of the visit was to understand the role of sewage in water circulation in Japan, and gain insights on the water treatment technique. This was done through a guided tour by two staff of the Plant.

A. Presentation of AWRC

Ariake Water Reclamation Centre, which was constructed in 1995 within the Clean Centre of the Tokyo Bay water front region, became operational in 1996. Out of the thirteen water reclamation centres in Japan, AWRC is the twelfth and smallest, while the Morigasaki Plant is the biggest.

Its treatment area encompasses part of the Sunamachi area, with a surface area 47,000 square metres (4.7 ha). Concerning the existing capacities of the Plant, its treatment capacity is 30,000m^3 per day; existing reclaimed water treatment capacity of 15,000m^3 per day; and treatment process (Anaerobic-Anoxic-Oxic process plus Biofilter), just to name a few. It is worth mention that the Japanese Bureau of Harbour and Bay have leased the land to the Centre, and the facility has two main rooms (the central control room –for monitoring of the system and the water quality laboratory, to check the condition of water and observe the microorganisms in the reactive verso). In addition, the waste treatment facility of the Centre has two Grit chambers; three primary and three secondary sedimentation tanks; two biological reaction tank, and six biological film filtration basin.

B. Tour of the Plant

After a brief presentation of the Plant and its functions, we split into two groups to undertake a tour of the facility. The tour consisted of visits to the facilities within the building of the Plant and then visit of the treatment facilities located beneath (up to 20 metres deep) the Plant, with detailed explanation on the sewage treatment phases by a staff of the Centre, assisted by an interpreter.

In the course of the tour, we were briefed on the following salient information about the Plant:

- The Centre has two major functions: treatment of sewage and sludge generated resulting from treatment of sewage, with sewage treatment done with a system of tanks.
- The Plant uses advanced wastewater treatment methods, such as, an anaerobic –anoxic –aerobic process and biological film filtering process.
- A part of the treated water is discharged into the Ariake West Canal, while another part is supplied as reclaimed water to the households in the central area, for flushing of toilets and car / train washing.
- The quality of the water discharged from the Plant meets the standards by the "Ordinance on Environment", which aims at securing the Health and Safety of Citizens of Tokyo as well as those of aquatic habitats like fish.

The tour, which lasted one hour, ended at 11:30 a.m. with a group photograph.

Ariake Water Reclamation Center

Kanchisa Deerod (Thailand)

On 16 May 2018, I had a great opportunity to visit Ariake Water Reclamation Center which is one of the 13 reclamation center in Tokyo. I have learnt about sewerage management from community, housing and factories consumption in Japan. By using modern wastewater treatment to make sure that water is clean enough in the level that can be consumed again safely or before discharging into natural source of water especially the sea.

General Information about Sewerage in Tokyo.

Sewerage business are generally the responsibility of the local Authority. Tokyo Metropolitan government as an exception Implement average business for the 23 wards. The ward area is divided into 10 treatment District which are serviced by 13 Water Reclamation centers. Moreover, 4.58 million cubic meters of savage is treated daily.

Sewerage components

The sewerage is principally made up of three facilities

1. Sewers which collect and carry Sewage.
2. pumping stations where sewage is pumped up to that deceivers do not get too deep
3. Water Reclamation Center where sewage is treated to be clean water.

Ariake Water Reclamation Center

Ariake Water Reclamation center was built within the Clean Center of Tokyo Bay waterfront Region. This plant began it partial operation in September 1995 and started its full operation in July 1996. It is a separate sewage system water treatment facility. It is built in Tokyo maritime sub-city center's Clean Center. Its treatment area is part of the Sunamachi Treatment District (Tokyo maritime sub-city center and surrounding areas, and part of the landfill inside the central breakwater).

The Center adopts advanced wastewater treatment using A2O method (anaerobic-anoxic-oxic process) and biological filtration process, and discharges the treated water into Tokyo Bay (Ariake-nishi Canal). A part of the treated water is further cleaned using ozone before being used inside the Center for cleaning facilities, cooling machines, and also supplies a part of the advanced-treated water as the reclaimed water to Tokyo maritime sub-city center area. The reclaimed water is effectively used for flushing toilets in buildings and for washing the vehicles of "Yurikamome", new transport system running through Tokyo waterfront area.

Features of Ariake Water Reclamation Center

- ✓ **Advanced Wastewater Treatment Facility（A2O method）**

Because of nitrogen and phosphorus hard to get removed by means of the wastewater treatment so far used, the red tides still appear in Tokyo Bay due to eutrophication. Hence, we are adopting an advanced

wastewater treatment called A_{2O} method（anaerobic-anoxic-oxic process) in order to remove larger amount of nitrogen and phosphorus.

1. Anaerobic tank

Wastewater and activated sludge are mixed here without air supply. Due to the lack of oxygen, the microorganisms in the activated sludge discharge the phosphorus that they have stored within themselves into the water.

2. Anoxic tank

The water from the aerobic tank containing nitrogen combined with oxygen is fed back to the water from the anaerobic tank. The microorganisms then take in the oxygen combined with the nitrogen and start breathing, while the nitrogen deprived of the oxygen gets released in the form of gas.

3. Aerobic tank

By blowing sufficient oxygen, the organic substance gets decomposed by microorganisms while nitrogen is combined with oxygen. Further, the microorganisms absorb more phosphorus than is released from the anaerobic tank.

- ✓ **Biological Filtration Method**

The biological filtration facility has almost the same structure as the sand filtration facility, so that the suspended solid (ss) get removed through physical filtration. Further, air is passed through the bottom of the filter to create a film of aerobic microorganisms (biofilm）on the surface of the filters. This allows the biodegradable dissolved organics remaining in the raw water（treated wastewater using A_2O method）to get adsorbed, dissolved and removed. In this way, cleaner treated water can be obtained.

Tokyo Sewerage Museum “rainbow”

Moreover, we have the opportunity to visit Tokyo Sewerage Museum “rainbow” which is a public facility of Bureau of Sewerage Tokyo Metropolitan Government, which is located in 5th floor of Ariake Tokyo Waterfront city. In this place we will be able to learn more about Japan’s sewerage project with having access to sewerage pipes, pumping station and reclamation center which is full of excitements interesting and useful for educational purposes.

The rainbow sewerage pavilion in Tokyo is an experienced facility that focuses on "people engaged in sewerage" and appeals the role and importance of sewage. With the setting of "Rainbow Town" in the hall, we have experienced the work of the sewer in the sewer pipe and pump station, the central monitoring room, the water quality inspection room that we cannot enter easily in the daily life.

One thing I want to highlight is a special program for elementary and junior high school groups for learning about the importance of water and sewer through experiments, images and worksheets which will be informed in an easy-to-understand manner. Furthermore, each school can freely combine various tour course according to purpose and time that suits the content that they want to learn. From my opinion, this indicates that Japan does not focus only on the high level of technologies but also trying to focus on the human element in the next generation by education and creating responsibility for sustainability of water resources.

Ariake Water Reclamation Center

Minh Quang Nguyen (Vietnam)

On Wed 16th May, the World Maritime University students sponsored by Sasakawa had a site visit to Ariake Water Reclamation Center. The group was warmly welcome with a brief introduction about the history of the Center and then followed by a tour guided by very helpful staffs around the facility to have an idea about how the facility works.
Some facts about Ariake Water Reclamation Center:

Built in 1995 within the Clean Center of the Tokyo Bay Waterfront.
Location: 3-5 Ariake 2-Chrome, Kotoku, Tokyo
Site Area: 4.7 ha
Planed service area: 681 ha
Current treatment capacity: 30.000 cubic meter/ day
Planed reclaim water supply capacity: 30.000 cubic meter/ day
Treatment process: Anaerobic- anoxic- aerobic and Bio-filter
Arriving sewers: 3 (North, South and Daiba)
Pressurized sewer system in common utility
Conduit with gravity sewers as far as pumping station
Discharge end: Tokyo Bay (Ariake west canal).
Grit chamber: 02
Primary sedimentation tank: 3
Bio reaction tank: 2
Secondary sedimentation tank: 3
Bio film filtration basin: 6

What is water reclamation center?

Water reclamation center is a facility for treatment of daily used water before discharging into river or reuse (mostly for cleaning purpose). Together with sewers and pumping stations, water reclamation centers made up the Sewerage Systems which is vital for ensuring a safe and pleasant living environment and in maintaining a healthy water circulation system. Presently, there are total 13 water reclamation centers in Tokyo with 84 pumping stations and the sewer system of total length around 16 km.

How does the Sewerage System work?

Sewers

Sewage from household and industrial activities (after undergoing pretreatment process) are collected through sewers and then carried to water reclamation center. Currently the total length of the sewer pipe is approximately 16000 km in 23 Wards area in Tokyo. Sewers are constructed of concrete, polyvinyl chloride and tile pipes and their diameter range from 25cm to 8.5 m.

Pumping stations

Gentle slope sewers are used to facilitate the mechanism for carrying sewage is gravitational flow. Therefore, the sewers gradually getting deeper in the ground. When it gets too deep to build sewer, pumping stations are put in place to pump up water to recreate the gravitational flow. By this way, sewage is transported to the water reclamation center.

Water reclamation center

When the sewage arrives at the water reclamation center firstly it comes through the grit chamber where large particle is removed and sediments are cause to settle. The liquid is then flowing slowly through primary sedimentation tank around 2-3 hours and easily submersible contamination sinks. After this phase, in the reaction tank, mud containing microorganisms (activate sludge) is added, air is also pumped in, and the sewage is agitated for 6 to 8 hours. The microorganisms break down the contaminants in the sewage and fine particulate attached to the microorganisms causing them an easily submersible mass. An advanced treatment method called A2O (anaerobic- anoxic- aerobic) is used to get rid of nitrogen and phosphorus before the sewage is transferred to Secondary sediment tank. Mud masses formed in the reaction tank are precipitated for 3- 4 hours resulting in a separation into treated water and sludge. While the sludge is moved to Sludge treatment facilities and burn later the treated water has to undergo a sand filter to remove fine floc that the second sediment tank is not able to completely remove. In Ariake center, surprisingly, we witnessed lovely guppy can survive and thrive in this water. The water is finally discharged in to the river after chlorinated to remove pathogens.

How the sewerage system is maintained?

As the sewers were built for years, they are becoming deteriorating. Therefore, the need for periodically inspect and repair is essential. Camera and other equipment are being used to carried out surveys of sewerage pipe conditions. When damaged sections are found, they are repaired from the inside by rehabilitation methods. The deterioration in concrete surface and corrosion of reinforcement steel is lowering the strength of the sewers. The sewers are then strengthened by lining them with rigid vinyl chloride material. This enable low cost renewal since streets do not have to ripped up. Moreover, the daily activities of residents will not be disturbed.

For the pumping stations and water reclamation center, many countermeasures against aging have been carried out such as: enhance storm-water drainage capacity, earthquake resistance and systematically promote reconstructing to efficiently sophisticate energy utilization and reduce GHG emission.

Periodical inspections and surveys also carried out regularly to reconstruct if necessary to extend the life of the facilities as long as possible.

Conclusion

The site visit was really informative and useful. It helped us to have an idea about how the sewage is treated in Japan. But most of all, it is my view that the ultimate aim of this visit was how Japanese value the role of clean water and the need to preserve, protect water for reuse and for environmental protection. From which, we can bring these ideas home to help protecting the source of clean water in particular and environment in general.

Tokyo University of Marine Science and Technology

Htet Khaing Kyi Lin (Myanmar)

On the fourth day afternoon of our Japan field study trip, 16th of May 2018, we visited to Tokyo University of Marine Science and Technology (TUMSAT). We reached to Etchujima Campus, Tokyo at around 13:00 hours. Professor Yoshiaki Kunieda from Department of Maritime System Engineering presented a brief outline of TUMSAT.

TUMSAT is the only marine university in Japan which is carrying out as an educational and research center to develop Japan as a maritime nation and contribute to international society. The attractive motto of TUMSAT is "Beyond the oceans, catch the future". From this basic viewpoint, it implements comprehensive education and research focusing on training advanced professionals including researchers and foster people with the knowledge and skills such as:

- Ability to deepen scientific recognition of oceans, and propose and implement preferable measures to leverage the natural environment.
- Ability to act with logical thinking, good judgement and responsibility for society.
- Practical leadership to understand, recognize and handle various comprehensive challenges in modern society.
- Challenge-pursuing and problem-solving ability with well-rounded personality, wide range of cultural experiences and profound expertise.
- Broad viewpoint, and ability and knowledge of global culture that can be the base of international exchange.

TUMSAT has an impressive philosophy which is to implement basic and applied education and research related to marine studies and science technologies to facilitate sustainable development of human society. The vision of the university is to be an outstanding world-class university that fosters industrial, governmental and academic leaders playing important global roles in the marine field. TUMSAT is widely centering on research fields of environment, resources and energy, composite fields, and the fields related to these three fields.

On 1st October 2003, TUMSAT was established by merging Tokyo University of Mercantile Marine and Tokyo University of Fisheries. In 2015, it celebrated the 140th anniversary for School of Marine Technology and this year 2018, it celebrated the 130th anniversary for School of Marine Life Science. TUMSAT has two campuses which are 144,337m^2 Etchujima campus and 143,770m^2 Shinagawa campus. According to May 2018 record, TUMSAT has 251 academic staffs, and 235 administrative and technical staffs. And approximately, it educated 2000 undergraduate students and 700 graduate students.

For the purposes of comprehensive understanding of the whole ocean – from the sea floor to the atmosphere and developing human resources with high expertise that can contribute internationally,

TUMSAT established the School of Marine Resources and Environment in April 2017 which can carry out Undergraduate course of Ocean Science and Undergraduate course of Marine Resources and Energy. Under the School of Marine Life Science, there are three undergraduate courses such as Marine Bioscience, Food Science and Technology, and Marine Policy and Culture. On the other hand, under the School of Marine Technology, the three undergraduate courses are Maritime Systems Engineering, Marine Electronics and Mechanical Engineering, and Logistics and Information Engineering.

TUMSAT is also conducting Graduate School which can deliver Master level courses and Doctoral level courses. There are seven different Master courses which are as followed:

- Marine Life Science
- Food Science and Technology
- Marine Resources and Environment
- Marine Policy and Management
- Marine System Engineering
- Maritime Technology and Logistics
- Safety Management in Food Supply Chain.

Apart from that, the two Doctoral courses in TUMSAT are Applied Marine Bioscience and Applied Marine Environmental Studies.

TUMSAT has been cooperated with 96 institutions and 31 countries/regions according to its academic exchange agreements. Currently, TUMSAT has been educated 244 international students which include the amount of current international students. TUMSAT also has two freshwater field science centers and three coastal field science centers to do freshwater and coastal related experiments. TUMSAT is also delivering one-year advanced training course for maritime science and technology, and the six months advanced onboard training course for mercantile marine. TUMSAT has six research and training vessels such as: Umitaka Maru, Shinyo Maru, Seiyo Maru and Hiyodori under the faculty of marine science; and Shioji Maru and Yayoi under the faculty of marine technology.

After above all information, Professor Yoshiaki Kunieda concluded his lecture then we toured around the Etchujima campus guided by Associate Professor Jun Kayano and Associate Professor Hitoi Tamaru and explored the research facilities of TUMSAT.

Firstly, we explored the Meiji Maru which was a luxurious supply vessel for lighthouses built in England under the order of the Japanese Government during the early Meiji Period. Upon his Imperial Tour to the Tohoku and Hokkaido regions, Emperor Meiji boarded Meiji Maru in Aomori of the Tohoku area, sailed to Hakodate in Hokkaido and eventually entered the Port of Yokohama in Kanagawa in the summer of 1876. The Japanese holiday, “Marine Memorial Day”, was established in 1941 to commemorate this imperial arrival and the cabin in which the emperor stayed is still preserved in his honor. The ownership of Meiji Maru was transferred to the TUMSAT in 1901 and she was converted into a three-masted full-rigged ship and permanently moored at the present location in Etchujima campus. Meiji Maru remained a classroom of discipline and training for 50 years until 1945 and

oversaw, as the mother ship of the school, over 5000 young and promising mariners graduate to a brilliant future at sea. Meiji Maru is the only iron ship remaining today as modern vessels are all made of steel. Meiji Maru was recognized for representing a unique legacy of Japanese ship building history and became the first ship to be designated as an Important Cultural Property by the Agency of Cultural Affairs, Government of Japan in May, 1978.

Secondly, we visited to the Internal Combustion Engine Laboratory and we learned about 3UEC33LSII-Eco type Two-stroke Marine Diesel Engine. It is a cross-head type, exhaust turbo charged, uni-flow scavenging and electronically controlled UEC engine. The engine room is attached with engine control room and it is also connected with underground tank for cooling water ($200m^3$) and underground tanks for fuel oil (2000L x 2). We learned the components of the marine diesel engine such as water brake dynamometer, engine side control panel, lubricating oil cooler, freshwater cooler, lubricating oil pump & strainer, cylinder controller and high pressure pump for hydraulic oil. The UEC type engine is controlling electronically in fuel injection, exhaust valve drive and cylinder lubrication system. For undergraduate students, it can perform some diesel engine experiments such as heat balance and analysis of P-V diagram of the engine. This two-stroke marine diesel engine can also conduct some research subjects such as measurement of NOx & PM emission, reduction of PM emission by DPF & Sox emission by a scrubber, and improvement of fuel consumption by low viscosity lubricating oil.
Finally, we visited to Advanced Navigation System classroom which is designed to collect, manage and analyze a diversity of information related to ship operations in an efficient and integrated way. It can conduct extensive study in maritime field and development to new navigation technology by fostering of high level marine engineer and researchers. The advanced navigation system has the following six main features:

- The information from ships and shore stations (radar, AIS, etc.), meteorological/oceanographic information and hull characteristics information are managed as GIS database in the high-capacity storage.
- The ship-shore transmission links are provided in a wide range of maritime broadband system via satellites, wireless LANs and Internet.
- Various types of data can be retrieved, compiled, downloaded and uploaded for use in analytical processing and forecast calculations.
- Application screens can be displayed on large and medium type monitors and are provided with the functions of overlaying images and data as the ocean GIS.
- The support information on board and in ship operation companies can be simulated by providing the information to the simulator station and the appropriate information can be verified.
- It is noteworthy to the system to be configured to allow the research into the information made available from mobile terminals.

After the tour, we walked back to the meeting room and then Professor Aykut I. Olcer (Head of Maritime Energy Management, WMU) and Mr. Peter Marriott (Assistant Registrar, WMU) expressed their gratitude on behalf of World Maritime University 2018 batch students and exchanged the memorable gifts. They donated some WMU published books to the library of TUMSAT and we went back to Mitshi Garden Hotel Shiodome Italia-gai around 15:00 hours.

Tokyo University of Marine Science and Technology

Mohamed Amjath Mohamed Fahumy (Sri Lanka)

Wednesday, May 16th 2018 after lunch we went to Tokyo University of Marine Science and Technology (TUMSAT) as per our agenda. TUMSAT is a Japanese national university founded in 1875 as a result of an integration between two universities, namely Tokyo University of Mercantile Marine and Tokyo University of Fisheries.

TUMSAT provides array of degree programs in the field of maritime science, nautical engineering, marine biological sciences and natural sciences. Furthermore TUMSAT has its masters as well as doctorate programs in the above mentioned fields. TUMSAT has the pride of identifying itself as the one and only marine university in Japan with the vision of providing capacity building in the field of maritime and marine specialization fields to the nation and worldwide.

Underlying philosophy of TUMSAT is defined as "To implement basic and applied education and research related to maritime studies and science technologies to facilitate sustainable development of human society". Although TUMSAT is considered as one of the smaller universities with around 2500 students its serving horizon extend to an million and billions lives through its research, innovation and capacity building processes.

Highlight of our visit was, our group got the chance to go onboard the "Meiji Maru" ship. During the guide tour of Meiji Maru, the professor from TUMSAT explained the history and current status of Meiji Maru. According to the explanation Meiji Maru was built in England under the order of that time Japanese government which was the earliest era of Meiji period. The ship was a state of art design inclusive of luxurious rooms and salons on board. The ship was considered as a royal ship and additionally served the lighthouse during its active time. The interior of the Meiji Maru remained as an evidence of a luxurious amenity to the Meiji emperor and it has seen as an iconic structure in the Japanese history. Meiji Maru ship still serves as a study ground for the university students as well as for the visiting university students and academics.

After seeing the wonder of Meiji Maru we got the chance to visit the laboratory room for engine training which currently serves as a training ground for the university students. Engine room consists of major and technologically sophisticated engines for the students to get the firsthand experience on operation and maintenance works. As similar to the Meiji Maru ship, the engine room laboratory is also primarily focusing on assisting the university students on research and capacity building in the field of maritime.

As the final part of the tour we got the chance to visit the navigation center. The primary focus of advanced navigation center is safe, secure and efficient movement of vessels. Apart from vessel traffic management services, the navigation system is an integrated mechanism of collecting data, managing the data and analyzing data in various forms. Also the navigation system consists of supervision display

system, service display score card and a simulation station. The navigation system is designed to observe the vessels traffic and movement on a real time basis to ensure the safe, secure and efficient vessels movement. The navigation center at the university fulfils the requirement of providing unparalleled education and training for the engineers and students to assist the practicality of their profession. The simulation system provides the students to get the idea of best practices and the practicality of real time situations by providing the chance to face real incidents.

Moreover the navigation center is responsible for analyzing the real time information on vessels and report to the shore stations such as radar, AIS. In addition to that TUMSAT navigation system provides and facilitates transmission links of wide range of maritime broadband systems via satellites, wireless LAN and internet. TUMSAT navigation systems capable of receiving and retrieving information fields such as oceanographic, meteorological, vessel hull characteristics via GIS databases.

Finally as a lecture who works in a university of similar fields, made me feel how much we lagging behind in the global scenario. Visiting TUMSAT provided me the chance of observing the best in the class practices and learn from the best in the field. This trip to TUMSAT was a great catalyst for myself to continue as an academic in the field of maritime to serve my nation and globe for the betterment of humankind.

Tokyo University of Marine Science and Technology

Theeratch Amphanthongpaphakul (Thailand)

As a part of Japan Field Study Trip 2018, under the leading of Prof. Aykut I. Ölcer, WMU's professor and Mr. Peter Marriott, WMU's assistant registrar, I had chance to visit main campus of the Tokyo University of Marine Science and Technology (TUMSAT) on Wednesday, 16th, 2018, Minato Tokyo, Japan.

The TUMSAT is a Japanese national university which was founded in 1875 as the merger of two universities, namely, Tokyo University of Mercantile Marine and Tokyo University of Fisheries. It provides the bachelor, master and doctoral degree covering the research and innovation in maritime science and engineering, natural and biological sciences. TUMSAT claimed itself as only one marine university in Japan. Although it is small, it is very active in development of human resources as a pride which they became the educational and research center to understand, protect and leverage the sea to develop Japan as a maritime nation and contribute to international society.

As mentioned, TUMSAT has implemented comprehensive education and research focusing on training advanced professions including researcher and foster people with the knowledge and skills. Below are the philosophy and the vision of the university;

Philosophy: "*To implement basic and applied education and research related to maritime studies and science technologies to facilitate sustainable development of human society.*"

Vision: "*An outstanding world-class university that fosters industrial, governmental and academic playing important global roles in the marine field.*"

Apart from basic information of university, the members of WMU and I had chance to visit the luxurious supply vessel for lighthouses which is built in England under the order of the Japanese government during the early Meiji period. This is known as "Meiji Maru". The ship was a luxurious state-of-the-art ship with special rooms and salons. The students were guided to walk in a way for sightseeing within the ship. There are many facilitating rooms for person on board. Meiji Maru is served not only a lighthouse tender but also a royal ship. That's why there is a very luxurious room as a bed room nearby the stair connected to the deck for Emperor. The information provided during the visit shown that the ship is playing a key role in modern Japanese history.

After that, TUMSAT's professor led us to visit the laboratory room for engine training. There is a huge ship engine within the building where the students are studying. The engine is controlled by the modern technology, computers. The professor said that the particular engine is being used for students to learn how to solve the problem and maintenance. Once the problem is occurred in the engine, there will be

an alarm showing in controlled computer. Then, the students may recognize immediately. The purpose of this laboratory is to provide the practical example in order to solve it once they are in real situation.

Then, we were allowed to visit the room where advanced navigation system and computers are installed. The advanced Navigation system is a system designed to collect, manage and analyze a diversity of information related to ship operators in an efficient and integrated way. The system is comprising of supervision display system, service and simulation station. Its main purpose is to provide education and training for professional engineers of ship operating the technology and to develop and improve the quality of study on maritime field.

The advanced navigation system is a common use among researchers for ensuring that the effort of research and development is enhanced in quality and developed to the development of new ship navigation technologies. The system could be connected and linked with several network systems. Below are some features provided from TUMSAT;

- Information from ships and shore station (Radar, AIS, etc), meteorological /oceanographic information and hull characteristics information are managed as GIS database in the high-capacity storage.
- The ship-shore transmission links are provided in a wide range of maritime broadband system via satellites, wireless LANs and Internet.
- Various types of data can be retrieved, compiled, downloaded and uploaded for use in analytical processing and forecast calculations.
- Applications screens can be displayed on large and medium type monitors and are provided with the functions of overlaying images and data as the ocean GIS.
- The support information on board and in ship operation companies can be simulated by providing the information to the simulator station and the appropriate information can be verified.
- It is noteworthy to the system to be configured to allow the research into the information made available from mobile terminals.

Furthermore, there is a Japan Rescue Coordination Center which is providing the coordination for search and rescue cases by utilizing the same facilities with such system. I discussed with responsible person and we have already changed our contact for further coordination.

To sum up, it was very good chance for visiting the excellent maritime university in Japan. Not only exploring the country, but also meeting with the Japanese experts in maritime field. The university are very professional with beautiful buildings in Japanese style. Moreover, the experience from this university found me interested in further education in Japan. Thank you to Sasakawa Fellowship that provides very good opportunity in visiting this place.

May 17, 2018

Visiting

Port of Tokyo

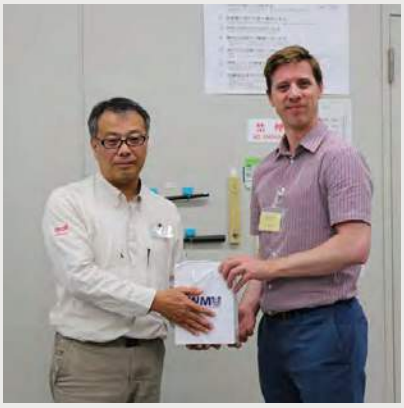
Yanmar Co., Ltd. - Amagasaki Factory






Port of Tokyo



Yanmar Co., Ltd. - Amagasaki Factory

Port of Tokyo

Adel Ali Desher (Iraq)

Introduction

During our visit to Japan, we learned about many scientific, industrial and cultural activities in the country, which is one of the most developed countries in the world. As an important industrial country that imports large quantities of raw materials and has strong business relations with most countries, it needs advanced transportation systems suitable to accommodate this huge volume of trade. Japan has one of the most important transport infrastructure in the world, in the form of highways, railways, airports and merchant commercial seaports. On March 17, 2018, we visited the Tokyo Trade Port, the port originally established to accommodate the movement of commercial goods between Japanese cities, the port has a long history and has an impact on the city's heritage. The port opened for international trade in March 1941, 77 years before our visit, and today it plays a vital role in Japan's economic growth.

The Characteristics of Tokyo's port

Tokyo port is takes on the responsibility of distribution throughout the Metropolitan area commodities essential in its industrial activities and enriching the lives of the citizens. The commercial port handled different types of products including; sundry goods, foodstuffs, paper products and building materials. The port covered an area Shinetsu and southern part of Tohoku in addition to Metropolitan and it has terminals for ferry, container and specialized cargo use. The port established early development to cover the increase need for the port services during the industrial revolution 1960 by built new terminals and added special equipment to handle the specialized cargo. For the purpose of provided a full service, a warehouse sited behind each terminal in the port as well as the roadway connected smoothly with the highways and other transportation models. The port provides complete logistic activities like intermodal transport and storage areas in addition to other important facilities, that make the port of Tokyo represents an important hub port in Japan.

The Port Statistics

The port hosts approximately 24,000 commercial vessels each year with a volume of cargo handled 8533 million tonnes. The imports handled represents three-fifths of the total, and the exports cargos considered the highest volume in this port. The main exports cargos including; advanced manufactured equipment, high-value cargos, machines and computers, while the food represents the main import goods in that port. The customs- cleared value of manufactured goods in the port more than a double comparing with Nagoya, Osaka or Yokohama port.

The Tokyo's Port Policies

The port of Tokyo plays an important role in supporting the people and industries of the Tokyo metropolitan area as both domestic and international trade port. However, with the changes in global industry and trade, the rapidly aging Japanese population, and increasingly sever environmental problems, the social and economic conditions surrounding the port are changing. There are new strong

demands appeared for improved logistics services, increase vitalization of exchange and communication between people, addressing of environmental issues and safety. To response for these condition, the port of Tokyo deliberative committee held in 2014, to revised the port plan. The committee established “Port of Tokyo 8th Revised Port Plan” that was drawn up with the latter half of 2018 as its target year. Striving to be an attractive urban harbour which organically combines harbour functions and logistics functions, Tokyo port have systemized policies from the points of view of not only logistics but also tourism, the environment, safety and security.

International Port Connecting the World

In order to handle the increasing amount of container cargo and future increasing of ship sizes, the berth 1 in Tokyo’s port had been modified to be a container terminal to receive the container cargos as well as oil container terminal. Furthermore, a new terminal (No. 15) was constructed in berth 2. The port seeks to provide a comprehensive logistic service by developed the handling equipment and increase the storage areas as well maintain the road connection. For the purpose of provide a full services for increase the tourist activities, the port create the suitable facilities to receive the large scale of ferries and passenger ships from around the world specially during the tourist periods and 2020 Olympic sports activities in Japan.

Port of Tokyo

Elias Chiaca Mwenyo (Namibia)

On the 17th of May 2018, we had the opportunity to visit the Port of Tokyo after which a port tour was arranged to have a better appreciation of what the port had to offer.

Since 1998, the Port of Tokyo has been the international trade port in Japan that has continuously handled majority of containers used in foreign trade. The Port of Tokyo is now one of the world's major ports and is connected through a network of regular container shipping routes, functioning as the core distribution hub supporting the development of industry and the lives of residents in the metropolitan area.

As a distribution hub in Japan, the Port of Tokyo plays an indispensable role as a lifeline and maritime gateway for the lives of the 40 million people and the industrial activity in the Tokyo metropolitan area. The Port of Tokyo's highly developed and integrated sea, air and land distribution terminals in the heart of the metropolitan area are connected to Japan's major cities via airports, railroads and major highways**.** Imports handled by the Port of Tokyo account for three-fifth of the total incoming and outgoing cargo. It has thus become a principal distribution centre for receiving the commodities essential to urban activities and the lives of citizens in the greater Tokyo metropolitan area.

Geographical Location
The port is located in the area between the estuaries of the Arakawa and Tamagawa Rivers.

Area
Port Area (Water) 5,179 hectares
Harbor Area (Land) 1, 028.1 hectares

Port Statistics

Incoming Vessels	23,997 vessels
Volume of Cargo Handled	85.33 Million tons
Foreign Trade Value	17,611.9 billion yen

One of the world's leading terminals, the Oi Container Terminal has a large deep-water wharf that is 2,354 meters long with seven side-by-side berths. It is the Port of Tokyo's core container terminal. In order to cope with container ships and cargo volume that continue to increase in recent years, a re/maintenance project was completed in 2003 that changed the facility into a high-standard terminal including an earthquake-resistant wharf with three berths. The terminal seven berths are equipped with twenty container cranes capable of handling the arrival of large, 10,000 –TEU class container ships. Also, with the introduction of the latest yard operation system and gate system, the terminal cargo handling is significantly more efficient.

For the purpose of enhancing intermodal transport and creating a seamless supply chain flow, the port of Tokyo is capacitated with warehouse and distribution centres which complement terminal function. These infrastructure is being set up in the reclamation areas behind each terminal and arterial routes. However, with the changes in global industry and trade, the rapidly aging Japanese population, and the increasingly severe environmental problems, the social and economic conditions surrounding the Port of Tokyo are changing dramatically. There are more strong demands for improved logistics services, increased vitalization of exchange and communication between people, addressing environmental issues, and safety. In response to this conditions, the Port of Tokyo 8th revised plan was drawn up with the latter half of 2018 as its target year. Striving to be an attractive urban harbour which organically combines harbour functions and logistics functions, the port has systematized policies from the point of view of not only logistics but also tourism, the environment, the Olympics/ Paralympics, safety and security.

In response to the recent expansion of the cruise market, the growth of passenger ships and the hosting of the 2020 Tokyo Olympic and Paralympic games, it is encouraging to note that a new passenger terminal fully equipped to serve as a gateway to the greater Tokyo will be constructed.

As an earthquake prawn island, disaster preparedness is extremely critical to respond to any eventualities in order to minimize loss of lives and livelihood of its citizens. Taking into account lessons from the Great Eastern Japan Earthquake, resent expertise will be used to revise earthquake damage projection, to strengthen the earthquake resistance of structures such as seawalls and floodgates.

Port of Tokyo

Wajira Vidhuranga Premathilaka (Sri Lanka)

During the tour in Japan students were able to visit lots of interesting places and Port of Tokyo is one of the important places that was visited on 17th May 2017. The visit consisted of two main sessions where the first session contained an introductory walk at the main administrative building while the second session contained a port visit on a special harbor craft. During the introductory session students were informed about the port – its progression from past to present, current market and business situation, future plans to meet industry demands and many other such related information. Next, the port ride was a very interesting and exciting experience for all of us where we could see different terminals, their operations, interesting sites, land marks and many other infrastructure and superstructure developments of the port; accompanied by lots of knowledge that gave an unforgettable experience to our lives.

The Port of Tokyo is considered as one of the largest seaports in Japan; while it is one of the largest seaports in the Pacific Ocean basin as well. The port consists of a Water Area of 5,179 hectares and a Land Area of 1,028 hectares at the moment and it has an annual cargo handling capacity around 100 million tons and 4,500,000 TEU's. Currently the port consists of 25 main terminals which are specialized in different types of cargo handling operations while there are many other plans for further terminal developments. As a commercial port, it supports almost all imports and exports cargo handling operations of its metropolitan area and involve in other port related activities supporting the country's industrial activities while enriching the lives of people.

As highlighted by the Port of Tokyo – 2017 handbook, the port handled 85.33 million tons of cargo which were brought by nearly 23,997 vessels generating 17,611.9 billion yens in 2015. Imports cargo handlings accounts for larger share of port's cargo handling operations where it represents three-fifth of total cargo volume. Considering the exports cargo, a major portion of it is represented by high value equipment including computers and other sophisticated technological items representing the country's excellence in technology.

Growth of international trade, advancements in technology, changing demands patterns of people, increasing concerns of environment/safety/ security and many such factors create new demands for the port. Considering all those factors "the Port of Tokyo 8th Revised Port Plan" has been drawn to make the port as an attractive urban port which combines harbor and logistical functions along with developments concern on tourism, environment, sports activities, safety and security. As per the port plan, some of its content can be highlighted as strengthening logistical and infrastructural facilities to enhance the port as international commercial port connecting the world, international tourist harbor visited by people from around the world, a harbor with environment leadership which leads the world, realization of "Sports City Tokyo" to entice the world and open up the future, and maintain the port as world class safe and secure port which can withstand disasters.

Yanmar Co., Ltd. - Amagasaki Factory

Michael Agyare Asiamah (Ghana)

INTRODUCTION

The WMU Sasakawa Fellowship class of 2018, accompanied by Prof Aykut Ölcer and Mr. Peter Marriott visited the Amagasaki Factory, Yanmar Company Limited's Large Diesel Engine Manufacturing Facility on Thursday 17 May 2018, around 1500 hours local time. The group together with other entourage from the Sasakawa Peace Foundation was met on arrival by the company officials and ushered into the conference hall for interaction, presentation about the company and plant as well as question and answer sections.

The aim of the visit was to afford the team first-hand knowledge about the products and services of Yanmar Co. Ltd. The team again used the opportunity to expand their knowledge on maritime energy efficiency, trade-offs when it comes to ship construction, quality control in ship building, influence of organisational culture on production efficiency and the like. From this visit, the team learnt how the company is taking the lead in working towards United Nations Sustainable Development Goals (UN SDGs) for the sustainable development of mankind.

COMPANY PROFILE

Yanmar Co. Ltd. is a corporate entity committed to energy efficiency on the land, at sea and in the cities. With over hundred (100) years of experience, the company is positioned to strive to provide sustainable solutions for the needs which are essential to human life. The company focuses on the challenges their customers face in food production and harnessing power, thereby enriching people's lives for future. The biggest asset for Yanmar Co. Ltd. is its innovative technology achieved through a strong pioneering spirit, integral to the company ever since it was established.

Yanmar has evolved over the years to manufacture products towards "sustainable prosperity for all" as well as "a sustainable natural environment" since its establishment in 1912. The company's life cycle values include the development, production, sales, services and strengthened collaboration with customers for customer focused products and services. Yanmar has continued to expand its product range, services, and expertise to deliver total solutions as an industrial equipment manufacturer. The company majors in products including Agricultural equipment, marine pleasure engines, marine commercial engines, cogeneration and air conditioning systems, construction equipment, industrial engines, power products and generators.

PLANT FACILITIES TOUR

A very insightful presentation was given to the team by Mr Akihiro Tomita, a senior manager for overseas sales division of the company. Afterward, the team was given a guided tour of the facilities within the factory. The tour started from the manufacturing area where the main components of an engine to be produced are machined with high precision and efficiency using processing machinery.

The next stop was the assembling area where we saw how the product is assembled. Here, the company uses cell production to complete the assembling process which optimises the product quality and productivity. The workers at this point pay attention to minute details so as to bring out expertly assembled engine at a time. Every engine as a matter of fact can be traced to the personnel who assembled it.

The next stop for the tour was the outfitting area, where we saw that engines are set with piping and gear box, generator or even an electro-hydraulic system for automated and remote operations according to the customer's specification. From outfitting area, we then visited the operation process area where the manufactured products undergo strict testing for power output and performance. Also, additional inspections are carried out here, to determine compliance with Ship Safety Act and Fisheries Agency of Japan standards as well as International Association of Classification Society (AICS) standards. The final station was the shipping area. At this area, the finished product is coated, treated to prevent rusting, inspected for shipping and then packaged for shipment to the designated location either in Japan or overseas.

MUSEUM TOUR

The team again had a guided tour at the Yanmar museum which is located in the premises. On display at the museum was the world's oldest diesel engine, manufactured by MAN Diesel and Turbo in 1899. This engine was donated by the city of Augsburg in Germany. The Japan Ministry of Economy, Trade and Industry (METI) in 2008 designated that diesel engine together with two others as important cultural items relating to the heritage of modern industrialisation in Japan. Also on display at the museum was infographics of the chronological order of the evolution of diesel engines.

CONCLUSION

The visit of WMU Sasakawa Fellowship class of 2018 to Yanmar Co. Ltd was very fruitful. It was very informative, giving the team members knowledge that will help them especially in the master's degree course and future endeavours. The staff of the company were very welcoming and answered all questions posed objectively.

It is recommended that future Sasakawa Fellowship students be afforded similar opportunity to visit such firms to learn at first-hand what goes into large power product manufacturing and related services.

Yanmar Co., Ltd. - Amagasaki Factory

Eduardo Israel Zamora (Peru)

On thursday the 17th May 2018, the World Maritime University-Sasakawa scholars, class of 2018 had the honour of visit the Yanmar Company. Yanmar is a very important marine engine builder that is in the market more than one hundred years ago, from 1912. The headquarters visited of the company is located in the beauty and very modern city of Tokyo.

Just knowing the mission statement of the company any person can imagine the engagement with their work, "...providing sustainable solutions that are needed which are essential to human life". The Sasakawa scholars we could notice this engagement not only in the in the formal and very professional presentation of the Company but also in the field visit in the production installations.

As general aspects, we can say that Yanmar Company currently has a capital of 6.3 billion yen, 17974 employees and a turnover of 749.4 billion yen. Also, that turnover is diversified in different business categories: 34% in power solution business, 32% in agricultural machinery, 18% in industrial original equipment manufacture, 16% in marine commercial, 12% in the energy systems, 11% in construction machinery, 8% in components and 3% in marine pleasure. Obviously, the visit focused on Yanmar Marine.

One important part of the business strategy of Yanmar is to focus in the importance of the Research and Development (R&D). With three R&D Centers strategically located in Asia and Europe (Maibara-Japan, Kota-Kinabalu-Malaysia and Firenze-Italy) the company bets for the excellence in innovation. The main areas of work of these centers are centred in energy diversification, the more effective use of energy and advanced robotics utilizing Human Machine Interface (HMI) and manipulation.

Likewise, Yanmar know about the importance of the knowledge transmission in this information society era. For that, they have five Technical Training Schools around the world that focused in helping customers use their products safely and efficiently. These schools are located in Amagasaki and Tsukaguchi in Japan, Dalian in China, Clark in The Philippines and Mumbai in India.

Regarding aspects of quality management, Yanmar has the most important certifications in the world including ISO 9001 and ISO 14001. With reference to classifications societies, the company count with ABS, BV, CCS, CR, DNV-GL, IRS, KR, LR, NK, RINA and RS.

As World Maritime University students we we put enough attention to the new regulations of the International Maritime Organization (IMO) and their application in Yanmar. We could notice how the company have been implementing, in their daily work, the specific norms regarding to the emission of

nitrogen oxides and sulfur oxides. Also, to prevent Global Warming, the company is working to reduce carbon emissions. That shows the importance of their R&D Centers.

Regarding the Corporate Social Responsibility policy of the company, they have many specifics measures. One of them is the Eco-friendly factory. According to this policy, Yanmar plants trees in their factories to improve the environment. Also, they changed the direction of exhaust pipes and installed silencers to reduce noise. Moreover, they are taking actions to reduce CO2 emissions and to raise high the quality of wastewater control systems. In recognition of these activities, the company received an environmental award from the city major of Amagasaki. On the other hand, in reference to their relationship and engagement with the community, the company also has taken many measures. These measures includes the planting of trees in the city, share their sports facilities to local schools and also share some facilities to be used by the local community as a temporary emergency evacuation shelter in case of tsunamis.

We, the World Maritime University-Sasakawa scholars, class of 2018 are very pleased and satisfied not only for the traditional Japanese hospitality of the company but also with the invaluable knowledge received. I am sure such information will be very useful for the students of all the specializations of the Master Program not only for the current academic studies but also for our future when return to our home countries.

Personally, I think that the most important thing that we could notice but Yanmar did not say to us is the direct relationship between the daily work of the company and the Sustainable Development Goals (SDG). During the presentation and also during the visit to the productive area of the company we could see that there were in front of us the evidence of their work in favor of many of such SDG, including quality education, gender equality, clear water and energy, decent work, innovation in industry, sustainability communities, climate action, life below water and partnerships for the goals. Thanks for that! Maybe Yanmar could be more proud of that and show it in a direct way.

Yanmar Co., Ltd. - Amagasaki Factory

Pamela Dela Cruz Dolina (Philippines)

In the afternoon of 17th May of 2018, the World Maritime University Sasakawa Fellowship Class of 2018, visited the Amagasaki Factory of Yanmar, one of the leading suppliers of today's innovative engines and technology-driven marine propulsion systems in the commercial industry. The tour at Yanmar's factory was arranged by the Sasakawa Peace Foundation as part of the students week-long Field Study in Japan aim to appreciate the country's rich and colorful cultures and traditions as well as learn how Japan's different sectors, business and government, collaborate and cooperate to produce quality products and services towards attaining economic and social stability. Significantly, this visit to YANMAR, as one of the world's leading manufacturers of engines, provides the students the opportunity to learn the company's operation and social contribution which could be related to the current masters study of the said twenty-nine students coming from different specializations on areas of Maritime Education and Training; Maritime Energy Management; Maritime Law and Policy; Maritime Safety and Environmental Administration; Ocean Sustainability Governance and Management; Port Management; and Shipping Management and Logistics.

Mr. Masaru Hirose, Executive Officer / General Manager of Large Power Products Management Division of Yanmar, represented the company during the meeting and provided briefing to students with regard to Yanmar's corporate profile. The company, which has been running the business for 106 years, has about 18,000 employees in total distributed across various branch offices / divisions in Japan and overseas. Accordingly, in terms of its business category, YANMAR is comprised of power solution business (consists of marine commercial and industrial engine), agricultural machinery, energy system, construction machinery, component and marine pleasure. While YANMAR produces a diverse range of marine propulsion and auxiliary engines, the company pointed out that they keep their commitment to deliver cutting-edge products and services that are customer-focused.

In addition to Japan, the company has a global networks extending across Europe, Asia and America. Committed to energy efficiency on the land, at sea and in the cities, YANMAR has four Research and Development Institutes situated in Firenze, Italy; Kota Kinabalu, Malaysia, and Maibara, Japan conducting research initiatives about various aspects of energy and its applications such as renewable energy networks, industrial design and electromotive and hybrid systems. Focusing on the future, the research facilities explore advanced technologies needed for the next generation taking into account low fuel consumption, expansion of the lineup and environmental technology. Aiming to create innovative new products for the global market, the research efforts have been done in cooperation with various research institutions and companies as well as with local universities.

With next-generation, leading-edge technologies at its core, YANMAR established Technical Training Schools in Amagasaki and Tsukaguchi in Japan; Dalian, China; Clark, Philippines; Mumbai, India. They also opened simple type schools on Manaus, Brazil and Yangon, Myanmar. As discussed, the

said training schools imparted expertise in operation and maintenance of 4-stroke diesel engine technology to marine and power fraternities worldwide. It accordingly trains engineers, managers, surveyors and operators to develop service experts for YANMAR engines. They perform commissioning, maintenance and troubleshooting on YANMAR engines located across many countries.

Furthermore, it highlighted YANMAR's commitment to "sustainable prosperity for all" and "a sustainable natural environment" thus aiming to advance leading-edge technologies that deliver waste-free energy efficiency and labor-savings solutions. The company expressed that "food and energy are nothing less than the future of society itself", hence along such line, YANMAR has been challenged with an important duty ahead of them given their business of food production and harnessing power. Thus, the concept of "A Sustainable Future" has been carried out by the company throughout its entire line of business as YANMAR's own brand statement.

To closely learn about the company's production system, the students have the opportunity to go around Amagasaki Factory to understand each step of work processes of diesel and gas engine. The students were oriented of safety measures to observe while inside the factory to avoid any untoward incidents. During the tour, it was stressed out that in achieving efficiency in the production systems, the company was driven by YANMAR's Kaizen and 5S3T. Kaizen, as explained, is a philosophy of the unrelenting pursuit for improvements, while 5S is a method of work organized in 5 stages to improve order and cleanliness - sorting, setting-in-order, shining, standardizing and sustaining the discipline. The 3T method is a three stage methods for efficient and precise production that reduces loss – target location, target item and target quantity. The students personally witnessed the standard production stages and management system inside the factory ranging from a) machining of engine's main components (cylinder block, cylinder liner, crankshaft, camshaft and connecting rod); b) assembling of engine parts by their team; c) outfitting with piping and gear box or generator or with an electro-hydraulic system; d) testing of engines through stringent inspections to ensure compliance with safety standards imposed by concerned authorities; e) shipping to a location either within Japan or overseas.

Apart from factory tour, the students were also able to visit YANMAR's Museum which highlights the display of the world's first diesel engine built by MAN Corporation in 1899 based from the engine invented by Dr Rudolf Diesel. It was presented to YANMAR in 1957 for the company's success in manufacturing the diesel engine and efforts to promote the widespread use of diesel technology.

The day spent in YANMAR is worth the effort. Its achievements to over a century are truly impressive and its current efforts to enrich human lives by way of its world leading technologies are indeed remarkable. Notably, engaging with its people and learning the company's production system increased students understanding of the value of innovative works of YANMAR to both local and global industries as well as its interconnectivity to peoples' lives and a sustainable future.

May 18, 2018

Visiting

Osaka Gas Co., Ltd. - Senboku Plant
IHI Infrastructure Systems Co., Ltd.



Osaka Gas Co., Ltd. - Senboku Plant





IHI Infrastructure Systems Co., Ltd.

Osaka Gas Co., Ltd. - Senboku Plant

Fawzy Fathalla Dekinesh (Egypt)

1) Introduction

OSAKA GAS : is a Japanese gas company based in Osaka, Japan. It supplies gas to the Kansai region, especially the Keihanshin area.

Osaka gas supplies city gas, a clean and environmental friendly energy source to it is customer in Six prefecture of Kansai region. city gas is used widely in homes, businesses and industries.

March 2017 statistics:

Total number of Osaka gas customers: 7.31 million, total extension of Osaka gas pipelines: 61700 KM

Osaka gas company is receiving LNG throw Senboku port, Senboku port is consists of two terminals

(Terminal 1) total land area is 281,000 m2 providing multi facilities:

- LNG annual handling capacity: 1.23 million tons
- Senboku natural gas power plant (277.500 kW x 2 unit)
- LNG cold utilization facilities: 2400 kW natural gas expansion power generation
- Air liquefaction plant to produce (Liquefied $O_{2,\ liquefied}$ N_2 and liquefied argon)
- Co2 liquefaction and dry ice plant
- Cryogenic crushing system
- High purity methane plant
- Butane cooling
- Supply of LNG cold to neighboring companies.

(Terminal 2) total land area is 733,000 m2 providing multi facilities:

- LNG annual handling capacity: 4.1 million tons
- Senboku natural gas power plant (277,00 Kw x 2 unit)
- LNG cold utilization facilities: 1,450 kW and 6,000 Kw Cryogenic power generation
- Air liquefaction plant to produce (Liquefied $O_{2,\ liquefied}$ N_2 and liquefied argon)
- Boil off gas re-liquefaction system using cold energy system.

2) Facts About LNG

LNG is transported from exporting counters to japan by LNG carriers.

NG is transported in liquid form using Colling process to temperature (-162^{o}C) at normal atmospheric pressure approximately 1 bar to reduce it is volume by 600 times to carry more capacity per sea voyage.

3) LNG supply sources to Osaka gas

Osaka gas ensure a stable supply with long –term contracts with producing countries (Australia, Papua New Guinea, Oman, Malaysia, Indonesia, Russia, Brunei, Qatar)

When the ship arrives to the Senboku port and after secured and loading arms connected from terminal to the ship, terminal have Five loading arms, three loading arms for LNG discharge ,one loading arm for vapor(gas) return to the ship tanks and one for heavy fuel oil (bunker supply) , total cargo on board

need to be calculated and conformed between ship and terminal and after cold down of pipelines which take about 90minute the ship start discharge with maximum discharge rate 11000m3/hour total discharge time 15-20 hours . LNG discharged to shore storage tanks (Full containment LNG tank with maximum capacity 230,000KL, Double-walled metal tank maximum capacity 75,000 KL.)

4) Gas processing system

LNG is pumping out from shore storage tank by LNG pump to:

1. Open rack type LNG vaporizer /TRI- EX type LNG vaporizer then to Senboku Natural gas power plant (electricity) and/or to calorific value adjustment system(LPG) then to odorization then City gas distribution pipe line.
2. LNG lorry shipment as a liquid.
3. LNG cold utilization facilities to produce (air liquefaction, liquefied carbon dioxide, etc…).

5) Senboku Natural Gas Power Plant

Natural gas power plant in Senboku LNG terminals has been in commercial operation since 2009 for production of 1.1 million Kw. For four unit distributed as follow:

Terminal 1 Unit 1 & Unit 2

Terminal 2 Unit 3 & Unit 4

Gas turbine combined cycle power generation system combines a gas turbine and steam turbine. Natural gas is burnt in a combustor. The high temperature combustion gas drives the gas turbine. High temperature exhaust gas from gas turbine is sent to heat recovery steam generator, and high pressure steam is generated. This steam drives steam turbine to generate electricity.

6) LNG cold utilization for various application

LNG cold:

1. **Air liquefaction**
   I. Liquefied Oxygen (for sewage treatment, industries such as steel, metals, shipbuilding)
   II. Liquefied argon (for steel, welding, etc…)
   III. Liquefied nitrogen (Cryogenic crushing for foods, plastics), other application for electronics, chemical)
2. **Liquefied carbon dioxide**
   I. Manufacturing of dry ice.
3. **Cold heat source for the chemical industry**
4. **Boil of gas re-liquefaction**.

7) Advanced operation control system:

Features of operation control system

- All plant systems are monitored and operated from Central Control Room (CCR)
- A high level of automated control is used to stably and efficiently produce city gas and electricity

- A unified system is used to operate and control gas production systems, power generation systems and cold energy utilization systems

8) Gas science museum:

The gas since museum was opened in 1982 as a science museum about gas and energy, introducing Environmental education about 50,000 visitor visit the museum each year.

9) Conclusion

This visit to Osaka gas company was very beneficial visit, both on-site visit to terminal 1(sea side) as well as the tour by bus around the terminal and the detailed explanation about all the activities inside the terminal and finally the gained information and the experiment for LNG as one of the cleanest fossil fuel in term of Co2, NOx, SOX emission.

Osaka Gas Co., Ltd. - Senboku Plant

Giorgi Mamuladze (Georgia)

As part of the field studies to Japan, the students of class of WMU2018, on the 18th of May visited the Osaka Gas, a Japanese gas company, that supplies gas to the Kansai region, especially the Keihanshin area. The company is also engaged in upstream, midstream and downstream energy projects throughout the world, including LNG terminals, pipelines and independent power projects, particularly in Southeast Asia, Australia and North America.

Osaka Gas Co., Ltd. was established with capital of ¥350,000 in 1897. In 1984 operations begin at Himeji LNG Terminal and The Osaka Gas Group began supplying city gas in 1905. As society evolved and lifestyles changed, the company went through numerous trials, but persevered through a commitment to customers based on "Service First," developing usage for gas in cooking, hot water, heating, and more. In 2009 Operations began at Senboku Natural Gas Power Plant and electricity supply for residences and small businesses have begun in 2016.

The company has been doing business for more than 110 years, evolving over more than a century of modernization and societal transformations, thriving to become the corporation we are today. One thing they have always done is putting the customer first and striving to meet their demands. At the time of the company foundation, the customers numbered 3,000 households. Today that number stands at about 7.3 million. The Osaka Gas Group has now grown and diversified beyond the gas business to the electric power business and home services, and supplies a wide range of products, services, and solutions.
The Osaka Gas Group is involved in the full range of processes from extracting and transporting natural gas to producing, supplying, and selling city gas. It covers several area:

Natural Gas Extraction and Liquefaction - Natural gas is a raw material used in the production of city gas. In producing countries, natural gas is cooled and compressed at extremely low temperature, turning in to a liquid. In the liquefaction process, impurities are removed. Liquefied natural gas (LNG) is then imported into Japan as LNG. LNG does not contain impurities such as sulfur. It is a clean fuel, colorless and odorless. Currently, the Group has concluded long-term purchase agreements with natural gas suppliers in 8 countries worldwide (Brunei, Indonesia, Malaysia, Australia, Qatar, Oman, Russia, and Papua New Guinea) and is working to ensure stable LNG procurement.

LNG Transportation - Special tankers are used for purpose of transportation of the LNG, that connect liquefaction terminal with receiving terminals. Each voyage takes 7 to 15 days. The company is proactively moving forward with the operation of their own LNG carriers to enable a more flexible response to changes in demand and other external factors, and to curtail transportation costs. The seventh and eighth vessels were launched in 2014 and 2016, respectively. By using new steam turbine

engines in these newly built LNG carriers, the company was able to reduce fuel consumption while also benefiting the environment through controls on CO2 and NOx emissions.

City Gas Production - Imported LNG is stored in tanks and subjected to an evaporation process using the heat from seawater. Gas is then produced by adjusting the amount of heat. Gas is conducted at two LNG terminals in Senboku and Himeji–aiming to ensure the stable supply of city gas.

Gas Supply - Focusing mainly on the Kyoto, Osaka, and Kobe areas, the company has developed a gas pipeline network that covers the Kansai urban region, ensuring the stable delivery of gas to customers through this network. At the same time, the Group actively promotes disaster countermeasures, particularly against earthquakes and tsunamis.

Along with the demonstration of liquefied nitrogen, we also had a possibility to have a tour in the Senboku LNG Terminal II, where storage tanks and berth for LNG tankers are located. Highly safe LNG Tanks have double-walled metal tank supported by about 550 steel pipe of 60 cm diameter, driven nearly 30 meters into the ground. Special steel highly resistant to very low temperature is used for the inner wall. The terminal has 733,000 m^2 land area and 4.1 million tons per year handling capacity. It accounts for 51% of the company's total city gas requirement. Senboku Natural Gas Power Plant (277,000kW x 2 units) and LNG cold utilization facilities are also located in this terminal. It should also be noted that there are one-kilometer-wide Senboku Grove within the terminal, where growth and the maintenance of the greenery, trees with flowers are conducted.

Environmental protection represents one of the focus areas for the company. Air liquefaction facilities and liquefied carbon dioxide manufacturing facilities which make use of LNG cold energy, can reduce consumption of electric power down to half, compared to conventional electric driven type of facilities. As a result CO2 emission have been reduced by about 150 thousand tons per year.
It was the huge opportunity to visit and gain valuable knowledge and insights at Osaka Gas for the Sasakawa Fellows. In order to protect the environment for generations it is essential to use emission free and clean energy, in this matter Osaka Gas is a leading company.

Osaka Gas Co., Ltd. - Senboku Plant

Augustine Obomhereru Imhomoh (Nigeria)

1.0 Introduction:

As part of the itinerary for the Japan field study trip, we visited Osaka Gas Company Limited on Friday, 18th May, 2018 between the hours 10am-12noon, at the Senboku plant. Osaka gas supplies city gas to its customers in the district of Kansai in West part of Japan Figure 1. City gas is a clean, environment-friendly energy source use in home for cooking, heating in homes, businesses and industries. City gas is also fast becoming useful for air conditioning and cogeneration.

As at March 2017, Osaka gas company has a total customer of 7.3 million supplied by a network of 61,700 km of pipelines with total gas sales of about 8,700 million cubic meter.
This facility was selected for visit to understand how Liquefied Natural Gas (LNG) is converted to use as multi-energy source as city gas, electricity, and as cryogenic energy (cold energy) application.

2.0 Senboku LNG Terminals

Upon arrival at the Senboku LNG terminal, we were warmly welcomed by the plant manager, Mr. Keiichi Tanaka. After an informative presentation, we had the opportunity to tour terminal 2 with the help of a tour guide who wonderfully explained the LNG gas processes in the Senboku facility.
The Osaka gas Senboku LNG terminal is made up of terminals 1 and 2 with total areas of 281,000 m^3 and 733,000m^3. It is said that terminal 1 is one of the oldest LNG regasification terminal in the world. The two terminal are supplies about 70% of the total city gas in the Osaka prefecture.

3.0 Supply Sources

Japan has no source of natural gas so LNG is supplied to the terminals sourced and supplied to the terminals from different parts of LNG producing countries in world. According to the plant manage, the facilities receive supplies from Russia, Qatar, Malaysia, Indonesia, Brunei, Papua New Guinea, Oman and Australia respectively. And that ninety (90) shipments of LNG ships are received per year in both terminals that feeds about 250,000 customers demand per year. It takes an average of 15-20 hours to discharge 100,000 tonnes capacity of LNG ship of 300m approximate length at the rate of 110,000 m^3/hour.

4.0 Safety and reliable transport

The safe and reliable shipment of LNG is very important in the supply chain. Care is taken at every stage of the process to ensure the liquefied product is transported safely. To this end, the ship's hulls is made of double-wall structure and the tanks are made of metals that are highly resistant to cryogenic temperatures. The common tanks for LNG ships are the Moss Independent Spherical (MIS) and Membrane type.

5.0 The gas processing plant

As at 2016, the Senboku LNG terminals are capable of handling 5.33 million tons of gas per year, with terminal 1 and two handling 1.23 million tons/year and 4.10 million tons/year respectively. At the processing plant, the compressed LNG at -160 ^{o}C from the tankers is first vaporized to gas state of "natural gas" by the heat of sea water either by Open Water Rack or TRI-EX type vaporizer. Before the vaporized gas is delivered as city gas or used as electricity or gas for transport fuel, it is mixed with LPG to increase the specific calorific value and then odorized with an odorant, usually mercaptan liquid to detect any links.

Usually, at the vaporization stage in the processing plant, the "cold LNG energy" produced can be utilized for air liquefaction of Nitrogen, Oxygen and CO_2 or use as cryogenic power generation (as cold heat source for chemical industry) or collected as boil-off-gas from ship tanker and LNG storage tank.

6.0 Senboku Natural Gas Plant

One of the major use for Osaka gas LNG is power generation. The Senboku plant consist of a clean, high-efficiency (approximate 56%) combined gas turbine power generating system, which according to the plant manage was designed by Osaka gas company Limited in 2005. There are three generating systems in the plant with a combined capacity of 1.1 GW to cover 1.2 million households**.** The cryogenic power generation in the facility of capacity 1.5 MW also designed by Osaka gas supplies about 30% of the energy usage in the plant and the first of its kind in the world.

7.0 Environmental protection and community interaction

Environmental protection as corporate social responsibility activity is key to energy supply. The Senboku LNG terminals employs management system based on international standard for reducing environmental externalities from natural gas processes and consumption. These includes environmental policy, planning, operation, checking and revision, and reconsideration by the management.

The facility at the Senboku terminals has a total green area of about 20% to absorb thousand tons of CO_2. Using the LNG cryogenic energy can reduce consumption of electric power to about half thus reducing CO_2 emissions by about 150 thousand tons per year. The introduction of eco-friendly buses and garbage recycling for cafeteria waste for fertilization by the Senboku LNG terminals have contributed to the care and protection of the environment.

Senboku LNG terminals is making great efforts to create greeneries with various species of plants, and in conjunction with the communities and local elementary schools to care for the environment.

As part of its effort to continually improved on delivery clean, environment-friendly city gas, Osaka gas company limited established Gas Research Institute and Gas Science Museum to teach gas, energy, and the environment. The properties of LNG and its ability to returned to gaseous state when exposed to atmosphere was demonstrated with liquid nitrogen at negative 190 ^{o}C.

8.0 Conclusion and recommendation

The visit to Osaka gas company in the Senboku LNG terminals is worth the time and energy spent for the visit. The warm welcome we received, the informative presentation and tour of the terminal 2 facility contributed to making the objectives of the visit worthwhile. It is recommended that the facility can be consider for visit by future Sasakawa fellows especially the Energy Management Specialization to learn

how natural gas is converted (liquefied) to liquid gas and re-gasified to the natural form and use for city gas, electricity and as cryogenic energy.

IHI Infrastructure Systems Co., Ltd.

Fabrice Yéhonnou Tchégbénton Metonwaho (Benin)

On May 18, 2018, WMU Sasakawa fellows visited the company IHI INFRASTRUCTURE SYSTEM Co., Ltd. We were received by the staff of the company who, through a video of nearly 20 minutes, introduced us to the company, its activities and experiences. Just after the presentation, questions were asked and answers were provided. Following this, the group was divided in two for a tour round the company.

From the presentation and the exchanges that followed, the following may be retained:
IHI Infrastructure System Co., Ltd. is a private company in the design, construction, assessment, repair and maintenance of bridges, gates and various other steel structures in Japan and abroad. This company is also involved in the manufacture, sales and installation of disaster prevention equipments.

The history of the company dates back to the 1900s with the creation of Ishikawajima Shipyard which later underwent several changes to become November 1, 2009, IHI Infrastructures System Co., Ltd.

This company has a capital of 1,000 million yen and has until April 2017, 799 employees. It is headquartered in Sakai City, Osaka, Japan. But it also has subsidiaries in other countries. Its current President is Takeshi KAWAKAMI.

With its quality human resources and cutting-edge technologies, the company is intended to contribute to the development in Japan and other countries. The principles that govern its management are summarized in these terms "Contributing to the development of society through technology" and "Human resources is the only and the largest asset of the company".

The introduction of the cutting-edge technologies of the company in erection led to complete the following:

- the erection of cables of suspension bridge;
- the overhanging erections for cable stayed bridges;
- the lifting long girders with a single barge;
- the fast launching erection over heavy traffic;
- the cable erection method;
- the batch setting of large blocks using a heavy-duty carrier;
- the efficient concrete placing for RCD (Roller Compacted Concrete) dams;
- the redevelopment of operational dams.

Also, several overseas bridge projects have been completed by the company both in Japan and abroad. These include, among others:

- the Akashi-Kaikyo bridge in 1997;

- the Akinada bridge in 1999;
- the Iwakurojima bridge in 1986;
- the Daini Ondo bridge in 2011;
- the Tama bridge in 2006;
- the Tokyo Bay Aqua-Line in 1996;
- the Osman Gazi bridge in 2016 in Gulf of Izmit (Republic of Turkey);
- the Nhât Tân bridge in 2014 in Hanoi (Vietnam);
- the Second Bosporus bridge in 1988 in Istanbul (Republic of Turkey);
- the Binh bridge in 2005 in Hai Phong (Vietnam);
- the Huey P long bridge widening in 2012 in Louisiana (USA).

The company provides also the dams and river gates usable for all purposes that covers from power generation and flood control to safeguarding lives from natural calamities and harnessing water in the form of warm water intakes and discharges for river maintenance. Its prospective vision led to the development of new gate types that maintain landscapes, protect the environment, and reduce life-cycle costs.

River gate technology is developed to regulate water flow and prevent the backflow of seawater. The gates are usually closed to store water, which can be used for water supply and sewerage systems as well as in agriculture, industries, power generation etc.

Furthermore, the bifurcated penstock and aqueducts techniques are developed by the company. Seismic isolation and vibration control projects are also completed. Channel beam composite slabs are developed to be used on bridges and tunnels.

Bridge maintenance is also one of the activity of IHI INFRASTRUCTURE SYSTEM Co., Ltd. As such, the company repairs not only bridges deteriorated and damaged over years to restore their original state but also reinforces and remodels them to improve their performance for increasing traffics volumes, seismic proof and other future demands.

In addition, TRIAS is also developed. It is a generalized assembly bridge which can be installed so quickly and easily in any kind of field that it functions as an emergency bridge and transports heavy vehicles immediately. There are two types of TRIAS: I-shaped girder type and truss type.
Moreover, the company carried out several researches which led to the development of techniques such as disaster prevention system, seismic resistance technologies, anti-corrosion technologies, welding technologies, wind-resisting technologies, diagnostic technologies.

The tour round the company led to the Sakai Works which is the location where fabrication, trial assembly and shipping of large-scale structures are carried out. Occupying approximately an area of 174,745 m^2, this location consists of 8 majors with several equipments, such as a large horizontal boring machine, NC machines including an NC primer remover, NC marking and plasma cutting machine, NC

laser combination boring machine and NC gantry drilling machine, an automatic panel production line for box-girders, and a steel girder production line to build large blocks up to 120 tons indoors.

IHI Infrastructure Systems Co., Ltd.

Ivan Eder Mendes Mota Braz de Carvalho (Timor-Leste)

On Friday the 18th of May 2018, the Sasakawa fellows visited the IHI Infrastructure System Co., Ltd located in Osaka, Japan, where a presentation on the company profile of IHI was launched by the Deputy & Manager of Human Resources, Mr. Kanmura. Founded on the November 1st 2009. He then explained and telling the company profile of IHI corporation which is a comprehensive heavy-industry manufacturer working to create value for customers in four main areas—Resource, Energy and Environment; Social Infrastructure and Offshore Facilities; Industrial Systems and General-purpose Machinery; and Aero Engine, Space and Defense. IHI's history extends back to the establishment of Ishikawajima Shipyard, Japan's first modern shipbuilding facility, in 1853. The company played a key role in Japan's modernization, including by leveraging its shipbuilding technology in new areas, such as heavy machinery manufacturing, bridge building, plant construction and aero-engine production. In 1960, Ishikawajima Heavy Industries, the successor of Ishikawajima Shipyard, merged with Harima Shipbuilding & Engineering to create Ishikawajima-Harima Heavy Industries. The name IHI Corporation was adopted in 2007 to help strengthen the company's global brand. Furthermore, Mr. Kanmura explained the organizational structure of their company which lead by the President Mr. Takeshi Kawakami. The company run with total capital 1.000 million yen with total employees 799 people.

The presentation than followed by short presentation by Mr, Matsuda which responsible for planning, finance and safety of the company. Which he explained about how to create a safety environment at workplace for his staff and to ensure that all the activities are follow the safety standard that the company required. Student were very enthusiast in engaging in the discussion with the presenter and asking a lot of questions regarding technical aspect, safety procedure and company policy of the company.

The third presentation is Mr. Sakuya, the General Attendance of IHI, which presented several ongoing projects and completed project around the word. He then highlighted the IHI management principle, "Contributing to the development of society through technology and human resources is the only and the largest asset of the company', he then continued explained that the IHI Infrastructure System Co., Ltd has mobilized excellent human resources and high technological capabilities, backed by abundant experience, and pushed forward with the aim of providing high-quality social capital which can accommodates the needs of society at the same time as being safe and reliable. Beside constructing and repairing bridges, the IHI Construction service also provide operation and maintenance of their project. The IHI is focusing on the inspection, diagnosis, large-scale modification, renewal of the bridges and floodgates, the needs from which are set to intensify, and strive to strengthen their effort, expand their business and to fulfill their mission.

The presentation ended with video show from Mr. Nakaya on the company profile and all the constriction projects that they handle. Several projects were shown in video such Akashi-Kaiko Bridge, Second Ondo Bridge, Tokyo Bay Aqua-Line in Japan, and some several projects overseas such Osman Gazi Bridge in Turkey, Nhât Tân Bridge in Vietnam and Huey P Long Bridge Widening in Luisiana, USA. With the video, the audience can see that the IHI is IHI is deeply committed to contributing to society through technology, combining diverse engineering capabilities to meet expanding global needs for energy, urbanization and industrialization, and transportation efficiency.

The presentation then followed by short tour of the IHI premises to see the process and the production of the heavy metal bridges, guided by Mr. Nakaya himself who provided a detailed description on the different stages of the production, update, and distribution of their product. The student was able to observe directly the actual process of producing and create a steel bridges and speak to all the engineers behind the creation of the product.

On the final of the program, the student and professor's exchanges gifts with 2 of IHI presenter and thank them for their hospitality and sharing a valuable information with all of the students. The group then took a group picture together accompany by all the IHI staff in front of IHI office and return back to hotel.

IHI Infrastructure Systems Co., Ltd.

Viyada Suriyakul Na Ayudhaya (Thailand)

We visited the IHI Infrastructures on the afternoon of 18 May 2018. It was indeed an enriching experience visiting the leading infrastructure developing company with many technological feats to its credit. The visit started with the overview of the company, its organization, and activities followed by visit to its industrial area. The visit was well organized providing us the exposure on the recent trends and technological advancements in the field of mega infrastructure development especially bridge construction.

IHI Infrastructure Systems Co., Ltd. (IHI) was established in the year 2009 and has its head office at 3-banchi, Ohama-nishimachi, Sakai-ku, Sakai city, Osaka. With capital turnover of 1 billion yen its main business activities are design, fabrication, construction, assessment, repair and maintenance of bridges, gates and various other steel structures. The fabrication, sales and installation of disaster prevention equipments. The company has successfully completed many mega projects all over the globe and is known for its excellence. Few of the important completed mega projects are:

(a) Osman Gazi bridge, Turkey
(b) Nhat Tan bridge, Vietnam
(c) 2nd Bosphorous bridge, Turkey
(d) Binh bridge, Vietnam
(e) Huey P Long bridge, USA
(f) Tokyo Bay Aqua-line, Japan
(g) Akashi-Kaikyo bridge, Japan

The company believes in the principle of contributing to the development of society through technology and they are doing remarkably well in this front which is evident from their completed projects which have contributed immensely to the economic and social wellbeing of the countries. They seem to give utmost importance to their customers as well as to all stakeholders. They do all that is necessary to meet the expectations and win the trust of customers as well as their partners, shareholders, colleagues and local and international communities. With this fundamental as their basic code of conduct they expect to enhance their existential value.

Their main products are

(a) Bridges
(b) Water gate/ Penstock
(c) Mass dampers/ Seismic isolation floors
(d) Marine structures
(e) Composite slabs/ sound absorbing panels
(f) Bridge maintenance

The company has introduced many cutting-edge technologies in its construction projects such as aerial erection technology in erection of cables of suspension bridge, floating balance toy in overhauling erections for cable stayed bridges, lifting long girders with a single barge, fast launching erection over heavy traffic, making the erection of arches more efficient by using preload, minimizing the suspension period of concrete placing, and cofferdam gate enabling dry construction in deep water. These cutting edge technologies have helped the company in achieving a truly world leader in the field of infrastructure development.

IHI has also displayed admirable human resource management in its functioning as well as great technological competencies, backed by abundant experience, and hence have been successful in providing high-quality social capital which accommodates the requirements of society at the same time as being safe and reliable.

Focus Areas

The company plans to continually develop its technology for constructing and repairing bridges and floodgates both in Japan and abroad, based on systematic R & D as a countermeasure to avoid stagnation. To disseminate their design/production/construction technologies accumulated over years of experience both in Japan and abroad, and develop overseas strategical bases in Asia, Europe and the U.S. in order to significantly boost the development of a global society.

Focus on providing products and services such as seismic isolation and vibration damping systems for buildings to enable safe, secure and comfortable lifestyles.

Sakai Works

Sakai works is the main industrial front of the company located in Sakai coastal industrial area facing the Sakai Senkobu port and is spread over an area of 174,745 m^2. This location is ideally suitable for fabrication, trial assembly and shipping of large-scale structures. It consists of 8 major shops with equipments, such as large horizontal boring machine, NC machines including an NC primer remover, NC marking and plasma cutting machine, NC laser combination boring machine and NC gantry drilling machine, an automatic panel production line for box-girders, and a steel girder production line to build large blocks up to 120 tons indoors. With two 100-ton gantry cranes in a wharf yard located along the shore, 51m wide and 225m long, the plant can erect blocks of up to 7,000 tons and ship them directly from the yard. These efficient production facilities and their skilled manpower has helped them in delivering high-quality products.

Conclusion

Visit to IHI Infrastructures was a sort of eye opener and made us abreast with the latest technological advancements in the field of infrastructure development. It shows the zeal and ever enduring efforts of mankind to better the life of people through positive use of technology and the leadership role played by Japan in this technological development journey.


Welcome Reception for WMU Sasakawa Fellowship 2018
May 14, 2018
Hosted by Friends of WMU Japan/The Sasakawa Peace Foundation
Sponsored by The Nippon Foundation
WMU
THE SASAKAWA PEACE FOUNDATION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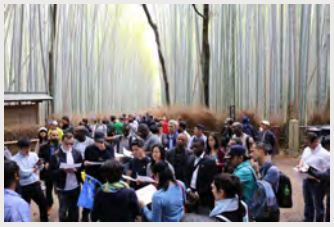
May 14, 2018


May 14, 2018
Hosted by Friends of WMU Japan/The Sasakawa Peace Foundation
Sponsored by The Nippon Foundation
WMU


Farewell Reception for WMU Sasakawa Fellowship 2018
May 19 , 2018


Sponsored by The Nippon Foundation



Overall Impression on Field Study Trip to Japan

Contents

Overall Impression

Md Harun Or Rashid (Bangladesh)

I have been visited 6 times in Japan. But, this time I enjoyed a lot in Japan. The Japan field study trip 2018 was the best trip in my life. We reached Tokyo from Copenhagen by Scandinavian Airlines on 13 May. Then we directly move to Hotel. In the afternoon, we visited the Sasakawa Peace Foundation Bldg. The orientation program of our filed trips was arranged here. The program was so organized. After that day, we visited The Nippon Foundation on 14 May morning. Mr. Yohei Sasakawa, Chairman of The Nippon Foundation welcome us there. After visiting The Nippon Foundation, we moved to visit on Japan Maritime Bureau. Here, we learned about maritime administration of Japan. At the evening, the Sasakawa Foundation arranged a welcome reception for us at Tokai University Club. Here, we meet some distinguished guest both from Japanese and foreign officials and we enjoyed the traditional Japanese food.

On 15 May 2018 morning, we visited the famous company of Japan named Kashiwa Co. Ltd which was established in March 29, 1947 and started its business with selling fire extinguishers. The present capital of the company is 220,000,000 yen and they issued 4,400,000 shares. As of May 2017, the total employees are 94. The name of the President is Yoshiro Yamashita. Our visit to Kashiwa Co. Ltd. was really an unforgettable experience. We learnt a lot from this company visit. The staffs of the company was so cordial and their cordial behave help us to learn practically. In the afternoon, we visited Japan Aerospace Exploration Agency (JAXA) which was born through the merger of three institutions, namely the Institute of Space and Astronautical Science (ISAS), the National Aerospace Laboratory of Japan (NAL) and the National Space Development Agency of Japan (NASDA). It was designated as a core performance agency to support the Japanese government's overall aerospace development and utilization. JAXA, therefore, can conduct integrated operations from basic research and development, to utilization.

We visited Ariake Water Reclamation Centre on 16 May morning. The centre was built within the Clean Centre of the Tokyo Bay waterfront region. This plant began its partial operation in 1995and started its full operation in July 1996. The treatment area includes a part of Sunamachi treatment area. In the afternoon, we went to visit Tokyo University of Marine Science and Technology (TUMSAT). It was established in October 2003 through the Integration of Tokyo University of Mercantile Marine and Tokyo University of Fisheries. TUMSAT plays a leading role in the continuing development of Japan as a maritime nation. As Japan's only university dedicated to oceanography and related studies, TUMSAT is committed to conducting education and research activities based on the motto "To know and conserve the sea". The University widely research on the environment, resources and energy, composite fields, and the fields related to these three fields.

We depart hotel to visit Port of Tokyo on 17 May. We enjoyed the boat journey at the port are. Since 1998, the Port of Tokyo has been the international trade port in Japan that has continuously handled the

most containers used in foreign trade. The Port of Tokyo is now one of the world's major ports and is connected through a network of regular container shipping routes, functioning as the core distribution hub supporting the development of industry and the lives of residents in the metropolitan area. After lunch, we travelled to Osaka by bullet train which was an amazing journey. In the afternoon, we visited the factory of Yanmar Co. Ltd. In 1910, Yanmar Co. Ltd. Founded as Yamaoka Hatsudoki Kosakusho, starting production with gas engines. Since YANMAR's founding more than 100 years ago, the company has been driven by a pioneering spirit for world-leading technology. Today, this technology continues to be a core focus, allowing us to utilize and transform all kinds of energy resources into power that can be harnessed for highly efficient human convenience.

On 18 May morning, we visited Senboku plant of Osaka Gas Co. Ltd. Osaka Gas began operations in 1897 in Nishi-ku, Osaka, on a site now occupied by the Dome City Gas Building near the Kyocera Dome. It expanded to Wakayama in 1911. Following the end of World War II, in October 1945, Osaka Gas merged with 14 other gas companies in the Kansai region, expanding its footprint to cover Kobe and Kyoto. Osaka Gas entered its first overseas upstream LNG project in Brunei in 1972, followed by investments in Indonesia in 1977 and Australia in 1989. In the afternoon, we visited IHI Infrastructure Systems Co. Ltd. The ensure compliance and proactively reform working styles, with both its executives and employees alike standing in solidarity to achieve their ultimate goal of promoting regional development as a member of society through activities related to safety and health, environmental management activities and so on. 19 May was tour days. The whole day we enjoy a lot at Kyoto region. We visited Togetsu-kyo bridge, Tenryu-ji Temple, Kyoto Arashiyama, Kinkaju-ji Temple. At the evening, a memorable farewell reception was arranged by the Sasakawa Peace Foundation where some local guest and students were presented. Finally, we leave Japan on 20 May from Kansai International Airport. The trip is a pleasant memory of my life. I never forget this memory.

Overall Impression

Fabrice Yéhonnou Tchégbénton Metonwaho (Benin)

The Japan field study which took place from May 13 to 20, 2018 was for me a great opportunity in my professional career and my life. First of all, the welcome we received was the warmest especially with the professionalism of the staff which welcomed us. It was a rare privilege and lifetime opportunity to meet and to exchange with our generous donor, Dr. Sasakawa. It was also an opportunity for me to meet several other personalities involved in the development of Japan's maritime and port activities. This exceptional week of trip allowed me to discover and learn several aspects about the Japan maritime field, the country, their language, cuisine, tradition, religion, culture amongst others.

The welcome reception was the most impressive especially with the presence of several personalities of the Japanese maritime sector, diplomatic authorities including the representative of my embassy in Tokyo. The highlight of this ceremony was the presence and the speech of the former Secretary General of the IMO, Mr. Koji Sekimizu. Through his speech, Mr. KOJI Sekimizu invited the young generation of the maritime sector to invest more in research in order to improve the problems that currently undermine this sector.

Also, the accommodations provided were of a superior quality because we were accommodated in hotels of high quality. Visits and tours were impeccably organized.

What caught my attention more about the Japanese is punctuality. They give too much importance to the time factor. According to them, time is a factor of development. As we had to observe the 10-minute rule before actual time and it was very effective as we oblige to remind our team members to keep to the rule so as to be on time. I enjoyed the 10-minute rule experience. That is why, we were able to respect the planned program.

Based on its cutting-edge technologies and unique culture, Japan has built a high standard of infrastructure. What makes this country, one of the most developed in the world. The capital, Tokyo is one of the most beautiful cities in the world especially with a rational management of spaces and the optimal use of its hydrographic network.

Regarding the behavior, the Japanese people are very welcoming, friendly and hospitable with a very spectacular culture and religion. Their culture and traditional sculpture as seen when I visited the temple is based on the Buddhist religion. I was impressed when I visited Toji and Kiyomizu temples, especially when I saw women and men dressed in their famous Japanese outfit which I found very beautiful and colorful.

Also, I was fascinated by the common tradition of bowing when greeting guest or visitors and after each visit to a site, the staff ushered us out and expressed their gratitude by waving until we were out of sight.

I remember Mrs. Miyo as she will tell us in the bus ‘It’s time for 10 minute’s waving’... and we all started waving. It was so interesting and I saw this gesture as a sign of respect and appreciation from the people we met.

The variety of foods that we tasted remains unforgettable especially with the delicious sushi that I had tasted for the first time in my life. I also appreciated Green Tea for its health benefits.
I admit that through this trip, I learned a few words in Japanese such as ‘good morning’ ohayou, how are you ‘genki’, have a nice day, ‘yoi ichinichi wo’, goodbye ‘sayonara’ etc.

The Farewell Reception was our last party during this trip. It was also well organized with the presence of several players from the Japanese maritime sector. It was an opportunity for us to multiply our contacts in order to create a wide network which certainly would be profitable for our professional career as well as for our respective administrations.

I will like to express my sincere thanks to Mr. Kudo, Mr. Shin and Mrs. Miyo and also to all interpreters for their guidance and support through-out our visit and stay. It is true that the only week of stay was rewarding. For future trips, it would be indicated the stay lasts at least two weeks. In these conditions, visitors will have enough time to learn about Japanese society.

Overall Impression

Etakong Tabeyang (Cameroon)

The Japan field study trip organised from 12th to 20th May 2018 in Japan, was an opportunity for students to learn about some key aspects of Japan maritime administration, the culture and the people as well as their history. For the students, the trip was an opportunity to enhance our camaraderie. The Sasakawa fellows of the class of 2018 visited five cities (Tokyo, Ibraraki, Kobe, Osaka and Kyoto) and visited eight companies either directly involved in shipping or related to the sector.

My overall impression of the trip remains a memorable one for the following reasons;
Firstly, the briefing (on etiquette) about Japan was helpful in enabling us adapting to the Japanese way of life. Arriving Japan and meeting with Japanese felt as if I have lived there before. It was easy for me to approach them because we had been briefed how to do so. Moreover, the warm reception given to us at the airport was the turning point. I immediately understood that Japanese are friendly and welcoming. Moreover, the accommodation was very classy and the food was very delicious.

For most of us, the field study trip was our maiden visit to Japan and we were amazed by the infrastructure development (especially the skyscrapers) of the country.

In addition, the earmarked Institutions / companies visited were appropriate to our various specializations. We had the opportunity to learn new things in the maritime sector. Since most of these companies /institutions are very advanced in their various domains, the knowledge gained will help us advice the policy makers of our countries to make better decisions on environmental sustainability.

The welcome and farewell dinners gave us opportunities to meet and make new Japanese friends. Through these meetings, I was able to learn more about the people and culture of Japan. In fact, the field study was an opportunity for me to learn some basic Japanese, the culture, history and geography of the country as well as the meaning and difference of Tokyo and Kyoto.

The visits to some of the sacred temples in Kyoto was a way of informing and teaching us about the beliefs and spiritual life of the people of Japan. We appreciated and understood their religion and cultural beliefs, which in some aspects is similar to some religions in my country.

The cleanliness observed in all the cities and places visited reveals how Japanese are conscious and take care of their environment; which is key in today's contemporary world.

In all, my impression about the trip is positive not only because of the good memories I have of the country, but also because I found the people to be polite, respectful and serviceable. During my stay in Japan, I observed the punctuality of the staff and tour guide. The trains and buses were regular; just like their transport system, Japanese are punctual and disciplined.

Overall Impression

Paulo Sérgio Rocha Sousa (Cape Verde)

After a long trip around 10 hours from Copenhagen, the group composed of 29 Sasakawa fellows 2018, Prof Olcer and Mr Peter Marriott arrived safe and happy in Tokyo on the morning of May 12. The welcome to Japan was made at Tokyo airport by Mr Shinichi Ichikawa, Mrs Sachi and the most energetic guide in the world Mrs Miyoko. I have been waiting to go to Japan since a got the scholarship from The Nippon Foundation and now I can say that in my personal opinion the Japan field study trip was the best field study as a student at World Maritime University.

One the Second day in Tokyo we went to visit The Nippon Foundation. I was so excited and nervous to be there, but everything went well. Each student got the opportunity to address to Mr Sasakawa some a few words in regards to "What is the expectation after de Master". Also, Mr Sasakawa took a speech to say welcome for all the students and WMU staff. Mr Sasakawa told me that he has not yet had the opportunity to go to my county, and I told him that he is welcome to my country and I wish one day we will see in my country. I'm so proud to be the second Sasakawa fellow from my country; the first one was Mr Antonio Monteiro in 2006 who nowadays works in my Country at Maritime and Port Agency as Harbor Master.

During the eight (7) days in Japan, we stayed on two (02) amazing hotels, the first five (04) days at Mitsui Garden Hotel in Tokyo and the rest of the days at ANA Crowne Plaza Kobe in Kobe. We had the opportunity to visit ten (10) important companies such as Maritime Bureau, Ministry of Land Infrastructures, Transport and Tourism, Kashiwa Co., Ltd, Port of Tokyo etc. What attracted my attention was the Port of Tokyo, which has the large container terminal and also the great investment made for the port growth over the years and as well Kashiwa Co., Ltd which is a specialised company in manufacturing and supplying marine hazard prevention systems.

About the food, if you mention food and Japan in the same sentence to a person, I think the first word that comes to his mind is sushi. But Japan has a lot of different stuff to offer. I tried to be adventurous when eating, and I tried to cover lots of different stuff. Sushi is basically raw fish that comes in different shapes and sizes, but normally it is served rolled in rice or on top of rice. I knew about the Japanese craving for fish before I went to Japan, but I was not aware that they also have a sweet tooth. There were pastry shops, small restaurants (such as the Cozy Corner) selling just sweet stuff and it was easy to buy a pastry at the local kiosk. The usual problem is of course that everything on the packets is in Japanese. It was the first time that I drank Sake which is a Japanese rice wine, is an alcoholic beverage made by fermenting rice.

Mrs Miyoko who is an excellent professional guide every moment was providing important information about Japanese culture and history. One of those important information was that in the past Kyoto was the Capital city of Japan and then the capital city was transferred to Tokyo, but the funny thing is that

people from Kyoto continue to believe that one day the capital city will return to Kyoto. On the day before to leave from Japan, we went to visit the Golden Pavilion Temple, also called Kinkaku-ji which is the most famous Buddhist temple in Kyoto and probably Japan. It is literally covered in gold leaf and is surrounded by beautiful Japanese gardens.

Finally, from my point of view, Japan is another "planet". I was so impressed by the people are incredibly friendly, clean streets, and as well the respect of the rules. I would like to say thank you to the Sasakawa Nippon Foundation for providing all the Sasakawa fellows 2018 with this great Field Study on Japan. I learned a lot of important things, and I will try to apply some Japanese principles on my life. I wish one day return to Japan and again enjoy again this amazing country. May God blessed Japan and continue to be this amazing country.
Just **A**mazing **P**eople **A**nd **N**ations

Overall Impression

Ivan Eder Mendes Mota Braz de Carvalho (Timor-Leste)

1. **Introduction**

   On the 12 - 20 of May 2018 the Sasakawa Fellowship of the WMU Class 2018 had the privilege to had the opportunity to visit Japan at the invitation of the Sasakawa Peace Foundation. This is an annual event given by the donor the student to travel and learn not only about Japanese maritime industries but also their culture and to personally meet Dr. Yohei Sasakawa.

   This year, the class of 2018, we are thirty (30) students that coming from different countries gather together in Japan. We are also accompanied by two members of WMU faculty, Mr, Pete Marriot and Prof. Öikut Olcer. This is my very first trip to Japan (definitely not the last – I will comeback for sure!) and this become one of my best memories in my life.

2. The Trip (12 – 14 May 2018)

   Tokyo

   Prior to the group travel, the students had been briefly informed about some do's and don'ts from Peter Marriot while we are in Japan one week before traveling.

   The WMU Groups arrived in Narita Airport in Tokyo on Sunday 12 May 2018 and we are greeted by Mr. Shinichi Ichikawa and the friendly Ms. Miyoko Wada. Despite the relatively long trip (8 hours), I am very excited to finally step my feet into one of my bucket list country to visit. The group then transfer by the bus straight to the Sasakawa Peace Foundation office for orientation session and then followed by sending us to hotel. On arrival day at the hotel, the student was fully briefed by the tour guide Ms. Miyo about the intended schedule and expectations from the hosting organizations.

   Monday 14 May 2018

   On day 1, Monday, we had the privilege to visit to The Nippon Foundation and meet with Dr. Sasakawa. This interaction with Dr. Sasakawa was as always, particularly meaningful to us to say our thanks for his generosity on awarding us the fellowship. This opportunity we are able to share with Dr. Sasakawa about our commitment, mission and vision after graduate from WMU in parallel to the ideals that had seen them become beneficiaries of the Sasakawa Fellowship, which were further clarified and upheld by Dr. Sasakawa in his remarks. Of particular mention was the stress he put on the need for global recognition of the shared resource mankind has in the oceans of the world and the associated necessity that we all become committed to protecting this resource.

   Monday ended with a welcome reception dinner. We were formally welcomed by a group of key contributors to the maritime industry in Japan and by many friends of WMU! It was an excellent evening affording many opportunities for the students to network – meeting old friends, making new ones and establishing many professional and social relationships and sing the WMU song together.

After meet and greet with Dr. Sasakawa, the group on this day visited the Ministry of Land, Infrastructure, Transport and Tourism (MLIT) of Japan. We were welcomed by one of the Director of the Maritime Bureau of the Ministry. His welcome statements were followed by an in-depth presentation on Maritime Policy in Japan given by one of the officer of MLIT. An insightful and beneficial question and answer session followed. The discussion of questions, which the we had sent in prior to the meeting, was very helpful in clarifying issue for us. After this meeting at MLIT (and lunch) the students went on a short bus tour of Tokyo.

Tuesday 15 May 2018

The first visit on this day was paid to the Kashiwa Co., Ltd, where the group was met by the President & CEO Mr. Yoshiro Yamashita (among others). The WMU group was introduced to the company activity and profile and shown around the warehouse and other facilities of Kashiwa. In the site, the group were able to see the demonstration of firefighting equipment that produce. The cutting-edge technology used here in the manufacture of particularly build for ship engines, was of significant interest to the group and all were very impressed with the level.

The activity the followed by a visit to The Japan Aerospace Exploration Agency (JAXA) in Tsukuba Space Center. This is for me, the very interesting to actually see how the astronauts been monitored from air space. We also able to see how the process of training to prepare and astronaut before they went on their mission to space and the facilities they use on training and also we could see what kind of live the astronaut have in outer space.

Wednesday 16 May 2018

On this day, the group have the opportunity to visit Ariake Water Reclamation Center in Tokyo Sewerage Museum “RAINBOW”. We were presented by the group of people who show us around or the facilities. The Ariake is a separate sewage system water treatment facility. It is built in Tokyo maritime sub-city center’s Clean Center. It is informed that the center adopts advance A2O method and biological filtration process, and discharges the treated water into Tokyo Bay. A part of the treated water is further cleaned using ozone before being used inside the Center for cleaning facilities, cooling machines, and also used as water for flushing toilets in buildings in Tokyo maritime sub-city center.
We are also doing a tour taken by the staff of the Ariake inside the facility and see how the process of cleaning the water.

In the afternoon, the group proceeded next to Tokyo University of Marine Science and Technology. The group was delighted to be afforded the opportunity to go onboard an old vintage ship that has a lot of historical background. And also, followed by presentation and discussion with some of professors in the university.

Thursday 17 May 2018

On this day, the group have the opportunity to visit the Port of Tokyo. We were greeted by Ms. Yukari Hokawa the General Affairs Devision Bureau of Port and Harbour. Basically she explained how the port works, what is the capacity, how many ships were using their facility. The visit to the Port of Tokyo was just as beneficial. And then they take us on the boat tour around the port.

In the afternoon, we were visiting the Yanmar.Co., Ltd, the Japanese diesel engine manufacture in Osaka, Japan. The event followed by the presentation by Mr. Masaru Hirose which explained that their products (Their engines) are used in a wide range of applications including seagoing vessels, construction equipment, agricultural equipment and generator sets.

Friday 18 May 2018

On Friday the 18th of May 2018, the Sasakawa fellows visited the Osaka Gas which allowing us to see how the company supply the gas to the whole population in Osaka and some other place. We are also given a tour by bus around the compound and see the port terminal which ships berth to transport the imported gas to the city.

In the afternoon, we visit the IHI Infrastructure System Co., Ltd located in Osaka, Japan, where a presentation on the company profile of IHI was launched by the Deputy & Manager of Human Resources, Mr. Kamura. Founded on the November 1st 2009. He then explained and telling the company profile of IHI corporation which is a comprehensive heavy-industry manufacturer working to create value for customers in four main areas—Resource, Energy and Environment; Social Infrastructure and Offshore Facilities; Industrial Systems and General-purpose Machinery; and Aero Engine, Space and Defense. IHI's history extends back to the establishment of Ishikawajima Shipyard, Japan's first modern shipbuilding facility, in 1853. The company played a key role in Japan's modernization, including by leveraging its shipbuilding technology in new areas, such as heavy machinery manufacturing, bridge building, plant construction and aero-engine production. In 1960, Ishikawajima Heavy Industries, the successor of Ishikawajima Shipyard, merged with Harima Shipbuilding & Engineering to create Ishikawajima-Harima Heavy Industries. The name IHI Corporation was adopted in 2007 to help strengthen the company's global brand. Furthermore, Mr. Kamura explained the organizational structure of their company which lead by the President Mr. Takeshi Kawakami. The company run with total capital 1.000 million yen with total employees 799 people.

Saturday 17 May 2014

This day was reserved for something less technical – visits to some of the symbols of the religious underpinnings of traditional as well as contemporary Japanese society. These included a visit to the shinto Shrine and to the Golden Temple. At this second site, many of the students took the opportunity to to walk aroung the Arashiyama Bamboo Grove. Later in the evening of this day, the WMU group was joined in a farewell reception by many of our very cordial hosts. It was an evening filled with gaiety and a welcome time of sharing ideas and time together with any old and new found friends!

Sunday 18 May 2014

The WMU students and one accompanying faculty member departed as scheduled from the Kansai International Airport and after a safe flight all arrived safely back home, bringing to an end this year's official WMU Sasakawa Fellowship Class of 2018 Field Study Trip to Japan.

Conclusion

Japan has a lot to teach the world and me personally! To name just a few, the nation has a very rich historic culture that is still intricately woven into the fabric of contemporary Japanese society. A constant awareness of the sometimes-hostile natural environment in which the Japanese live, together with this rich culture has created a resourcefulness and ability to adapt that the rest of the global community can learn from. And of course their disciplines and punctuality in time.

Thank you, Obrigado, Arigato Gozaimashita!

Overall Impression

Fawzy Fathalla Dekinesh (Egypt)

Japan, pronounced in Japanese as "Nippon" or "Nihon", is a Pacific Ocean island nation off the coast of mainland Asia. It is comprised of approximately 6,900 islands. The most prominent and populous islands are Honshu, Hokkaido, Shikoku and Kyushu, making up 97% of the country. Within these islands, there are 47 prefectures with a total population of 127 million (11th in the world).

Early Japanese culture was heavily influenced by China. During the Edo era, Japan exercised a strict isolationist policy, closing its doors to all relationships with the outside world. This cultivated a distinct Japanese culture.

After the fall of that era in 1868, Japan reversed this practice, adopting cultural practices from all over the world and mixing them with what was established during the Edo era. Over the years, Western culture has influenced all aspects of Japanese culture including art, lifestyle and food.
Japan is a nation shaped by its rapid transition from isolationism to globalism. It represents a fusion of old world culture with newer Western practices

Japanese Cuisine
Across the nation, the Japanese are primarily fish eaters. Japan is the number one fish importer in the world, consuming around 12% of the world's caught fish.
The most well-known Japanese dish is probably sushi, a dish that includes fresh fish, seaweed and lightly-seasoned rice. Japanese also eat beef, poultry and pork as part of their daily diets.

My general impression
After losing WWII, they could build themselves back up and become one of the top technological countries.
Japan has the best food, great shopping and unlimited and top quality choices of entertainment.
Japanese people seem to be very hard-working, and I think that’s acknowledged all over the world.
Japan is great car-making, car-exporting country.
Japan has a really good customer service ethic.
Japanese people are very polite, cooperative, respectful, innovative, talking little and doing much, respecting the time.
Japanese innovation changed the world, Examples: Bullet train, Pocket calculator, Walkman, Blue led light.

Japan field study
Day 1
Visit The Nippon Foundation

After the meeting with Dr. Sasakawa, I became highly motivated to work more to protect the environment it is very important to see Dr. Sasakawa to know more about his thinking and his strategy towards the environment and one of these promotions is the new ocean institution.

Visit Maritime Bureau, MLT

After the visit to maritime Bureau, I realized the Japanese policymaker & researcher contribution to IMO and The global marine industry japan contribution based on technical background Japan has submitted the largest number of documents to IMO. More than 334 document for the past five years to maintain maritime safety and prevention of marine & air pollution by ships and ensure sustainable development of the marine industry and international trade.

Day 2

Visit Kashiwa Co. Ltd

After the visit to Kashiwa company I realized the Japanese contribution to marine safety equipment and marine environmental protection equipment, by providing testing and approval facilities to many of marine products for example inert gas system, Sulphur scrubber system, ballast water treatment system, firefighting system, and one of these product as example have been tested during our visit (high expansion foam) and was very impressive.

Visit Japan Aerospace Exploration Agency (JAXA)

After the visit to (JAXA), I realized the Japanese contribution to human being, innovation and new technologies, the co-operation with NASA in the USA has been noticed during the visit to the control room by monitoring and reporting any world crisis phenomenon discovered by the satellite. Also, the new investment in the aerospace would help for new autonomous ship technology.

Day 3

Visit Ariake Water Reclamation center

After the visit to Ariake Water Reclamation center, I realized the Japan new technology (more efficient) for sea wage water and rainwater treatment and reuse. Which have positive reduce of water consumption I am impressed with all modern equipment and technologies which installed in this system .as well as the number of experts in the working area.

Visit Tokyo University of marine science and technology

After the visit to Tokyo university the japan contribution to human element development by a very well undergraduate program for marine sector, and research center, during this visit we saw the very old Japanese ship (Mergmaro built in 1874 in England).

Day 4

Visit Port of Tokyo

Opened as an international trading port since 1941 it is commercial port provide of different type of cargo to be handled like, foodstuffs, paper product, building materials, etc…. during our visit we got

tour by cruise ship around the port and we be able to different sea terminals, and facilities what impressed me is clean water and air inside the port area.

Visit Yanmar Co. Ltd

After visit to Yanmar company I realized the contribution of Japan to marine industry by producing the marine diesel engine to power the ship since 1899 with cooperation with German, Yanmar also producing gas engine, during our visit we are able to take tour inside the workshop I impressed by the fully automated system for the production and assembling and the modern technology which has been used in order to be able to cap with the required number of engine.

Day 5

Visit Osaka Gas Co. Ltd

After visit to Osaka Gas company I realized the contribution of Japan to switch from heavy fuel oil to cleanest power fossil fuel (LNG), during our visit we got familiar and we gained knowledge about LNG characteristics, and we got full detailed information for All LNG process in addition to tour around the port and storage, power plant facilities. For more details for Osaka gas, please refer to the technical report. I impressed by the control of the whole operation and process which employed in a highly professional manner.

Visit IHI infrastructure system Co. Ltd

After the visit to IHI Company I realized the contribution of Japan to the development of society through technology by producing and installing Bridges, water dams locally and globally with international co-operation and agreement, during our visit to production workshop all production stages have been explained to us I really impressed with this technology because it needs very professional and experienced management and system to be able to provide this type of service thank you Japan.

Day 6

Free tour on foot to two places (Togetsu – Kyo Bridge and Kinkaku –Ji Template)

It’s really very good opportunity to release whole working week by having this tour to one the best landscape in Kobe and to know about Japanese tradition and culture and its great opportunity for me to by souvenirs and Japanese sweets and green tea.

Conclusion

I am pleased with this field trip but I have only one comment is to add to the program of visiting places in Japan. Japan considered one of the leading countries for solar power especially Photovoltaics PV system to produce electricity from the renewable energy it good chance to arrange one visit to a solar power plant.

thank you very much

Overall Impression

Giorgi Mamuladze (Georgia)

The long-awaited journey to Japan of 29 World Maritime University students from all over the world started with the direct flight from Copenhagen to Tokyo. The first impression on Japan, especially a sense of order and cleanliness came directly after landing in Narita International Airport on Sunday morning, where we met with Mr. Shinichi Ichikawa and our lovely guide for the week.

After the brief introduction of the forthcoming week at the Sasakawa Peace Foundation headquarter, we headed to our accommodation at Mitsui Garden Hotel. After the lunch and check-in, we had our first free evening in Tokyo. Along with the knowledge and information that we received during various site visit, we also had an opportunity to explore Japan by ourselves and experience Japanese culture.

Tokyo is a city where the past, present, and innovations for the future co-exist in perfect harmony. It's a megacity with something for everyone - an intriguing pop culture, modern architecture, traditional temples and shrines, large parks, quiet gardens, informative museums, high-end shopping, a thriving nightlife and endless opportunities for people watching. With its vibrant & bustling city streets, green parks, stunning vistas and remarkable history, I was completely blown away by the enormity of Tokyo and I loved every moment. Tokyo really comes to life at night. Tokyo at night is exactly how I imagined it would be and more. On top of that, you still feel so safe - everyone is so chill and out to have a good time.

On the first day in Tokyo, my friends and I set out to experience the modern, bustling side of the city by visiting Shibuya, one of the busiest neighbourhoods in Tokyo. During the day Shibuya is a trendy shopping area, at night a lively entertainment district. We managed not to get lost and found our way to the Hachiko exit, which is what you want for a memorable first impression of Shibuya. Exiting at Hachiko Square, we were greeted by flashing video screens, bright neon signs, and the famous Shibuya Crossing. Shibuya Crossing is rumoured to be the world's busiest intersections and was quite the spectacle, even on a Sunday. When the traffic lights turn red, people come from all directions to hurriedly cross the street. You would think it was a chaos, with people walking into each other, but it looked almost like a choreographed dance.
Another neighbourhood that we explored was Akihabara, that is a mecca of cheap electronics and gadget goodness. Day or night, it has a vibrant energy. Just a short walk from the subway station, the main street is lined with tall buildings covered in colourful advertisements depicting sales and anime characters. I could recognize some from my childhood, like Sega, Nintendo, but many were unfamiliar for me.

On the last day in Tokyo, I decided to visit Hamarikyu Gardens, former imperial gardens, where you can find trees over 300 years old and Traditional tea houses. Later, I easily reached the Ameya-Yokochō market by metro. It is a very charming area where the majority of stalls and small restaurants are all

fitted together under the railway lines, creating an atmosphere which seems like it's been taken from movie "Blade Runner". Walking between the stalls where you can find anything that you could think of: seafood, fish, all types of seaweed, dried products (for example jellyfish), clothes and accessories, electronics, etc.

From Tokyo to Osaka, we took a world-famous bullet train. The Japanese not only have punctual trains but also the safest ones in the world. These fast trains begin moving slowly and they decelerate slowly as well. The seats on the train were comfortable and even bigger than in some airlines. We were provided by traditional Japanese style lunch box. Unfortunately, the weather condition was not perfect, so we were unable to clearly see the mountain Fuji. The ride was smooth and quiet, no clicked clack. It took approximately 2,5 hours and was such a pleasant experience. Finally, we arrived in Kobe, where we stayed for the remaining 2 days.

In Kobe, we tasted the famous Kobe beef. We also got some great photos of the modern architecture and clean lines. From the hotel room, I experienced the best view I ever had. Merging of the forest mountains, the skyscrapers and sea created the stunning view of the city that was unbelievably astonishing.

From Kobe, we had the whole day trip to Kyoto, former capital of Japan for more than 1,000 years (from 794 to 1868). There's a lot of historical value and so many Japanese "classic postcards" can be found in Kyoto. It is definitely one of the most beautiful cities! We explored Arashiyama Bamboo Forest, Kinkaku-ji - a stunningly beautiful temple covered in gold leaf that is a World Cultural Heritage Site. There are more than 1,600 Buddhist temples and 400 Shinto shrines. It was really great to see a pure Japanese culture and history.

Departure from Kansai International Airport, that is located on the artificial island in Osaka, once again proved that Japan is a unique place, very hospitable for its guests. I personally have utterly enjoyed the whole trip and I will carry warm memories about it. Japan is one of my favourite countries now and I will always miss it.

I would like to thank Dr. Sasakawa and the whole The Nippon Foundation community, who provided us with such a tremendous opportunity and experience that we will always be grateful for. From our side, we will make sure that all the experience and knowledge that we have gained during the visit in Japan, will be addressed in the proper way for the benefits of the society and the environment, where we are living in.

Overall Impression

Michael Agyare Asiamah (Ghana)

INTRODUCTION

Field studies are integral part of the WMU masters' degree programme. It is intended to enable students get first-hand information about practical implementation of the theoretical maritime concepts taught in class. Students are also able to use the opportunity provided by the field studies to collect data that will help them in their research as well as other academic work by posing the right questions to the experts in the maritime industry. The aim of the Japan Field Study trip was to give students the chance to learn from one of the best maritime countries in the world as well as to enhance cooperation and unity among the Sasakawa Fellowship class of 2018.

The Japan Field Study Trip by WMU Sasakawa Fellowship class has always been the most talked about field study trip. This is because, the Sasakawa staff in-charge of the organisation of the trip do not only take very good care of students during the trip but also, afford the rarest opportunity to meet Dr. Yohei Sasakawa as well as experience Japanese culture. We again got the chance to learn from Japanese experts in shipping, ports and harbours, maritime education and training for seafarers as well as shipbuilding and ship machinery industries. The field trip did not disappoint but rather gave me an extraordinary experience, exceeding my expectations.

MY IMPRESSIONS

I was impressed from the moment we were picked up from the Narita International Airport until the time we left Japan from Kansai International Airport. I can imagine the effort, time and dedication the organizers put into arranging such a nice trip. The royal treat given us at any point in time cannot be over emphasized. The warm affection of the individuals we met, the nice hotels with their excellent services, dinners we attended and contacts made, the opportunity to experience Japanese culture etc. will all go a long way to add value to my life. To that effect, I feel very proud to be part of Sasakawa Fellowship class of 2018.

The Japanese people are so friendly and too kind. They bow to show respect at every opportune time even during conversations. I must say it automatically became part of me after few days in Japan. All the institutions and companies we visited made comprehensive arrangements to warmly welcome us and provide us with the best there is to offer, sometimes appreciating our visits with gifts. After each visit, our hosts would see us to the bus and wave goodbye until we are out of sight. This is so unique of Japanese people.

I was very much impressed about their politeness and how they pay attention to minute details. The Japanese society is characterized by politeness, courtesy and consideration for people around you. This includes keeping to the left on escalators, holding lift doors for strangers and putting suitcases where

they will not obstruct other people. In Japan, you are expected to remain quiet in public places where Japanese people are quiet, especially you are discouraged from speaking on mobile telephones whiles eating in a restaurant. Even though their streets are crowded, you hardly hear unnecessary noise from the crowd. Being polite also includes the use of mobile telephones whiles at a function. The Japanese host requires guests to always turn mobile telephones to silence and put them away until after interactions.

In Japanese culture, timekeeping is very essential. Being a military officer, I understand the essence of time consciousness for every battle preparation and the actual battle. This is why I admire the punctuality of the metro buses and trains, especially the Bullet Train (Shinkansen) To a Japanese, it is customary always to be early for an event. You will need to arrive for a program ten (10) minutes ahead of time. Lateness is a sign of disrespect and is not tolerated in anyway whatsoever in the Japanese culture.

CONCLUSION

To sum up, I must say I have learnt a lot from this short stay in Japan. The aim of the field trip was achieved to the letter. The Sasakawa Fellowship class of 2018 used the opportunity to know themselves better and also, learnt a lot from the experts in the Japan maritime industry. A major take home point from Japan as a country is the fact that, commitment and dedication to duty brings about development and advancement in all endeavours. Giving this opportunity again, I will be more than glad to take it without thinking. To all the people who helped in diverse ways to make my stay in Japan a very memorable one, I say “Arigato Gozaimashita”.

Overall Impression

Eleni Kelmali (Greece)

The field study trip of the MWU Sasakawa Fellowship, Class 2018 to Japan, took place from the 13th to the 20th of May, 2018. It was a fascinating trip for the most of the students. After a long flight from Copenhagen to Tokyo, we arrived in our destination on May 13th and Shin and Miyo were there to welcome us to Japan.

During out staying in Tokyo we were accommodated in 'Mitsui Garden Hotel', a modern hotel located in the city centre and visited a lot of interesting destinations. In the first day of activities, Monday 14th of May, we had the opportunity to meet the chairman of The Nippon Foundation Mr. Yohei Sasakawa. In his speech, Mr Sasakawa pointed out some important remarks about the threats of the marine ecosystem and stressed the fact that a big part of the natural activities taking place in in the deep oceans and sea-bed has not still been discovered. Moreover, he analysed the weaknesses of scientific research of the oceans, comparing with the progress which has been achieved in the field of land exploration. He also underlined the need for the establishment of an organisation that will coordinate the initiatives targeting to the protection of the seas and sustainability, which are key factors for the survival of the humanity and the role of the Sasakawa Global Ocean Institute in this direction. Regarding the Sasakawa Fellowship programme, he pointed out the importance of the establishment of life long relations and support between the members of the network and expressed his satisfaction for meeting this year's students.

In the same day, we visited the Ministry of Land, Infrastructure, Transport and Tourism, where we attended a presentation on the functions of the Japanese Maritime Administration, its role and presence in the IMO and their initiatives towards the protection of the marine environment. During the welcome reception in the afternoon, we were pleased to meet officials form our countries, guests of The Nippon Foundation, which organised the occasion with the ''Friends of WMU, Japan Secretariat'', and discussed with them about their experience in working in Japan. Welcome speeches were also addressed by the SPF Executive Director Mr, Atushi Sumami and the Senior Deputy Director – General of the Maritime Bureau, MLIT, Mr. Shinichiro Otsubo.

Our schedule in Tokyo also included visits to the marine safety equipment company ''Kashiwa'', the Japan Aerospace Exploration Agency (JAXA)- Tsukuba Space Center, the Ariake Water Reclamation Center, the Tokyo University of Marine Science and Technology and the port of Tokyo. During the activities in the abovementioned companies and authorities, we were explained the attribution of those organisations to the Japanese society and economy and their dedication to offering quality services to the market.

On Thursday, 17th of May, 2018 we travelled by the bullet train to Kobe and spent the last part of the trip on visiting Kyoto, Kobe and Osaka in including the Yanmar Co, Ltd.- Amagasaki Factory, the

Osaka Gas Co., Ltd- Senboku Plant and the IHI Infrastructure Systems Co., Ltd. Representatives of those leading companies in the maritime sector presented their achievements, goals and future challenges. The last day of our trip to Japan, we had the chance to enjoy some sightseeing, the Togetsu-kyo bridge, Tenryu-ji Temple, Kyoto Arashiyama and Kinkaku-ji Temple and we were fascinated by the natural beauty and historical value of the monuments. Our visit was completed in the afternoon of the same day, when we enjoyed discussing with the distinguished guests and expressed our gratitude for this opportunity to visit Japan during the farewell reception which took place in the hotel, ANA Crowne Plaza Kobe.

The trip was excellent in its organisation, the transportation and guidance were absolutely professional. We all enjoyed the accommodation in luxurious hotels and the variety of food offered during the meals. The schedule was targeted to getting the students in touch with key stakeholders of the Japanese maritime and energy industry. After the conclusion of the visit we had a good picture of the dynamics of the maritime sector in Japan, its achievements in the field of transportation and the contribution of the public and private organisations in the future development of shipping globally. The successful operation of the shipping and energy industry has a reflection on the prosperity of the national population, since it increases the employment opportunities, and improves the national economy and infrastructure.

We also realised that those achievements result from hard methodical work by people who are dedicated to their tasks and committed to their authorities. Those virtues are characteristic of the Japanese culture and have contributed to the success of their economic and social policies. Apart from the working attitude, we admired and appreciated the Japanese culture. By meeting and discussing with locals, we realised why the civilisation of this country is admired worldwide. The Japanese are polite, respectful and friendly people, keeping their city clean and willing to offer assistance. We were impressed by the history and beauty of sceneries of the cities and at the same time, by the advanced technology, punctuality and effectiveness of the infrastructure.

For all the above reasons, I think that this experience to travelling in Japan is going to be an unforgettable memory and is going to have a positive impact on all the participants. For myself, it is going to be a useful reference point on how to improve my working performance and empower my social networking. This trip achieved its objectives since the students enjoyed the experience to meeting people with common goals and perspectives, getting to know each other better and acquiring useful knowledge, which is the key to a successful carrier in the maritime sector.

Overall Impression

Aniruddha Chaki (India)

The Sasakawa field trip for the class of 2018 has been a dream come true for me which made me experience and appreciate the Japanese culture with its emphasis on humility, discipline, courtesy etc., the wonderful cuisine and made me view first-hand the technological progress and innovation so ingrained in the Japanese way of life. The field trip was a meticulously planned and well-balanced study tour that gave us a deep understanding of the maritime sphere of Japan and its cutting edge technology in the spheres of space technology and environment protection.

The courtesy visit to The Nippon Foundation and meeting Dr. Yohei Sasakawa was the highlight of the trip. His vision and effort towards realising the vision have left us in awe of the person instilling much greater respect for him.

The visit to the MLIT assumed much significance for me as I am myself working in the maritime administration and this was a great forum for sharing ideas and with our Japanese counterparts. This visit to MLIT would go a long way in addressing issues in our own maritime administration.
It was a humbling experience to be a part of the Welcome reception as so many dignitaries and diplomats from many countries were present.

The visit to the Kashiwa company and their demonstration of fire-fighting equipment and innovations to further improve them was very informative.

This was followed by one of the most awaited visits to the Japan Aerospace Exploration Agency (JAXA) where we got insights into the world of outer space and space exploration. It was an eye opener for us as so many experiments are being conducted in the zero gravity for the benefit of human kind and it is Japan which is at the forefront of designing the experimental lab at the international space station.

An overview of how seriously Japan considers the issue of pollution into the oceans was seen at the Ariake Water Reclamation Centre. It was heartening to see that environmental consciousness is imparted to school children here so that they are aware of the dangers of environmental pollution and will have this feeling ingrained in them when they grow up.

The visit to the Tokyo University of Maritime Sciences and its infrastructure in the form of training labs, simulators, machinery etc. towards imparting quality education to budding seafarers is worth emulating in many countries.

One of the highlights of the trip was the ride on the Bullet Train (Shinkansen) from Tokyo to Osaka which was a first time and unique experience for me and which I always wanted to do. We just cannot

stop and wonder at the technological advancement of Japan and it is no surprise that Japan is the leader in cutting edge technology in the world.

Personally the visit to the Yanmar Engine manufacturing works at Amagasaki was a most satisfying one. Being a marine engineer there can be no more satisfying sight the see how the engines we worked on the ships are actually manufactured and the technology and effort that goes into the manufacture of these highly sophisticated internal combustion engines and gas turbines.

The visit to Osaka Gas Company and the LNG port associated with it exposed us to the increasing use of LNG fuel around the world and how this reduces the emissions to the atmosphere and how the cold heat to the liquefied gas is used in cryogenic converters to further increase the energy efficiency of LNG.

The visit to the IHI works left us awestruck at the magnitude of the infrastructure projects that they undertake around the world and build such beautiful bridges which are technological and engineering marvels that are difficult to emulate.

The visit to the historical city of Kyoto was an experience in itself. The peace at the monastery and the shrines have a profound effect on our selves. Here it must be mentioned that I was pleasantly surprised that there are so many similarities between the Shinto religion and our own religion of Hinduism in India.

Overall it was a remarkable study trip with so many memories to cherish. The enthusiasm of the tour guide was infectious and kept us enthralled during the entire trip. It gave us a great opportunity to bond with all the Sasakawa Fellows of 2018 and we hope that this relationship will last forever.

Overall Impression

Banshidhar Singh (India)

Japan or Nippon, the land of the rising sun, has always fascinated me as I grew up reading several travel accounts of this mystic land especially the one by great Indian Philosopher Swami Vivekananda. I always dreamt of visiting this country. So, while onboard flight SK 983, flying from Copenhagen to Tokyo, I was extremely excited to realise my long standing dream finally coming true. As we, twenty-nine of Sasakawa Fellowship awardees 2018 accompanied by Professor Aykut I Olcer and Mr Peter Marriot, landed at Narita International Airport, Tokyo we were greeted by our beloved friend Shinichi Ichhikawa, or Shin as we adorably call him, and Miyo, the ever smiling lady who guided us throughout our visit. From airport we straightway proceeded to the Sasakawa Peace Foundation Building where we were given orientation with regard to our weeklong visit to Japan. The orientation really set the atmosphere and tone for visit, filling our heart with enthusiasm, excitement, and fervor. I felt like being a kid at my heart who was very much excited about visiting his dream place whose joy knew no bounds.

On the second day into study visit we get to meet and hear from legend himself, Mr Yohei Sasakawa, the chairman of The Nippon Foundation. His vision of all-inclusive ocean development for the betterment of present and future generations really inspired me and filled in the sense of responsibility which we owe to future generations. Delivering a talk with Mr Yohei Sasakawa in audience was a moment whose reminiscence will be engrained in my memory forever. Over the next six days we visited and experienced various facets of Japan's administrative, industrial, and cultural excellence. I am not exaggerating when I say that all our visits were organized to perfection with due attention to even minutest of details. But then, that's the Japanese traits, systematic, dedicated, devoted, disciplined and courteous. Visit schedule provided us ample opportunities to explore the cities, temples, markets, and cuisine. Expert advice of our lovely guide Miyo and our colleague Nao helped me to obtain maximum experience in the time available.

It is not uncommon for travelers to make generalized observations about the people, food, and culture of the country. I too have formed opinion about the Japanese people and culture based on my observations and experience. I found the people to be extremely polite, kind, and respectful. Everyone is aware of the traditional Japanese bow used as greeting during any exchange. Though, handshakes were common, they were more often followed with traditional bow. Everywhere we were greeted with cheerful smile and enthusiastic hand wave. These small gestures speak volumes about the positive qualities of people. However, the trait which impressed me the most were punctuality and cleanliness. I observed Japan to take its time management very seriously. The Japan Railway, Metros, and subways followed the incredibly punctual schedules. People were also extremely punctual and delay was regarded as a sign of disrespect. Since childhood I have studying "Cleanliness is next to Godliness". No other country can come even close to Japan in terms of cleanliness. Even though hugely populated all the cities were so clean and tidy. No traces of dirt and trash to be observed anywhere in open. World

needs to learn and imbibe this quality from Japan. I was told that the sense of cleanliness is instilled in the children since early age so that they grow to be a responsible citizen. Just marvelous!!!

During our weeklong trip I kind of feasted on local cuisine such as Sushi, Ramen, Tempura, Okonomiyaki, Rice with miso soup, and Sake the local alcoholic drink. Wide array of main dishes and side dishes to choose from was indicative of the rich traditional Japanese cuisine.

I also happen to visit few temples notably Senso-ji temple and Tenryu-ji temple. Temples and shrines were observed to be among the most famous and important religious buildings in Japan. What impressed most is the natural beauty and serenity surrounding these temples which gives a tranquil aura and touches the traveler's sense of quietude. Architectural beauty of the temples is also magnificent. In one of the temples I so happen to witness Japanese attired in traditional dress and I was mesmerized by the colorfulness, simplicity and aesthetics, it was a sight to behold.

Bidding adieu to Japan was really difficult. The visit to Japan was one of the most satisfying, enriching and splendid experience for me, a milestone in my life. It is said the seeing is the best way of learning and which place better than Japan, from which the world needs to learn so much. Another great outcome of this visit was the close bond which we developed among the Sasakawa fellows, which ought to benefit us, our countries and the world as a whole. No words can truly convey my sense of gratitude and appreciation to the Sasakawa Peace Foundation for this visit and for everything else.
MILESTONES ARE RARE, AND THEIR MEMORIES RARER

Overall Impression

Adel Ali Desher (Iraq)

I'm so grateful that we get to experience this in Japan. It is the place which I consider to be the most fascinating in the whole wide world. I might be biased, but I sure know that I'm not the only one… Last time I travelled here in 2008, to attend a training course, organized by JICA, for approximately five months. I consider that as the first important change in my employed life. During that time, I learned some Japanese words and I experienced their culture. When the Japanese Airline plane departed Narita Airport, I said " oh! Who difficult for me to be here again" and I felt sorry along the flight time, although I am in the way to my home country. Then, I continued my life and in my mind lovely memories and a dream of coming back again to that country.

In 2018, thanks to Sasakawa, I revisited Japan, and my dream became true. Again, an essential change in my life comes from Japan, and this time it will be a change in the direction of my life not only in my job. In this paper, I will write about some of the things I experienced during my stay in Japan in 2018. The Japanese are very organized and are interested in detail when planning something in addition to their great interest in the quality of the things they offer. The planning of our field study was very precise, and we were provided with the details of our visits from the first day we arrived. It was clear that everything was carefully chosen for us, such as hotels, restaurants and transportation. In addition to supervisors of the field study, they were highly professional in their performance.
The field study includes visits to different sites to help us to understand the various activities like the sciences, management systems, marketing, safety and environmental protection activities. The program also contains some events; these events gave us the advantage to meet some important persons of different levels. The most important event is our meeting with Dr Y. Sasakawa, who spent with us a long time compared with how long he stayed with the Sasakawa students he met them in the previous years.

When we landed here and visited Tokyo, we were scared that we would get lost in an overpopulated concrete jungle. Yet, we were happily proven wrong. There is order & discipline in everything, which might seem crazy or over the top, but…it creates a steady base for living in harmony. There is no risk of being pushed around or stepped on, as people queue for just about anything – even outside the supermarket. Walking and getting around is a breeze, or it's at least much easier than in other countries/cities. There is not much of a risk of getting robbed either, as this is considered very shameful in Japanese culture. Instead it is a society based on collectively, honesty and kindness. So much kindness, in fact! I'm not going to be biased and say that everything about Japanese society is perfect (no ideal society really is), but I want to stress that every single person we've met here has been polite, kind and generous. They strive to helpful and kind to everybody, regardless if they are foreigners like us, or fellow locals. We're all treated the same way. I'm sure that their religion has something to do with this, or possibly a combination of other reasons. Either way, it's heart-warming and it inspires everybody to be a better person.

Naturally, there's also a huge culture of "giving" and generosity. You are welcome to spend as much time as you like in every place you go to. In many spots, whether it's an eatery, a coffee shop, or a shop, tea is offered free of charge, as a way to say you're gladly received. The Japanese aren't particularly loud or touchy. In fact, they seem to be quite shy, but they will always care about other people's wellbeing. They will go out of their way to make you feel at home. So much to love about this, so much to get inspired of.

Finally, our field study in Japan was finished, and we go back to join our classes at WMU, but in the mind of each of us very nice memories from Japan with a dream to visit back again in future.

Overall Impression

Naohiro Saito (Japan)

Culture

Japanese culture what I had seen in Japan is very unique. First, generally speaking, the streets are very narrow, quiet and clean even if there are a lot of people cross by. Of course, in the center of Tokyo such as Shibuya or Ginza, these places do not look like, but we could see in the other places. I did not feel unsafe even when I walked down the street. Secondly, old buildings such as temples are distinct. The design is most prominent in the temples and teahouses. For example, Kinkaku-ji that we stopped by is attractive for us because the wall is covered by gold. Gardens display arranged rocks, gravels, and pruned trees, which nothing looks like in the world. I was very proud of the unique and remarkable culture when I went around in Kyoto.

People

People are extremely polite and friendly. For example, our tour guide, Miyo-san, kindly helped us, and coordinated and organized out whole tour. When we were in the bus, she told us about Japanese culture, and explained it in a plain way. Thanks to the opportunity, we understood Japanese culture very well and could be more interested in the culture. Moreover, she always took care of all of us every day so that possible serious problems did not occur. She provided a better atmosphere that everyone relied on her. The other example is that the attitude what shopper give to customers is very polite. The assistant in the shop was always smile and talked to me in a polite way. I have never seen such kind of attitude in the foreign countries. This attitude makes people happy. I thought this behavior is one of the strongpoint of Japanese people.

City

Tokyo is a wonderful city, with lots of things to do – buildings, shops, restaurant, incredible architecture. When I looked around the city from the high building in the upper floors that we had visited for the welcome party, a lot of building could be seen. The view was so nice and clean, but I felt that there are few parks or trees compared to Sweden or other foreign cities. Some parks in Sweden are very huge and many people have use of these parks for jogging, sunbath, or any other exercise. Those who have use of parks look happy and healthier than those who live in Tokyo. I felt that urban tree-planting is important for making our living much healthier.

Kyoto is a traditional city that has many temples and shrines. What I impressed in Kyoto is a Japanese style garden design that is an important Japanese art for more than 1000 years. We visited a temple which is very famous in Kyoto and saw Japanese gardens. These gardens express a flowing river that was so beautiful. Such gardens can be found throughout Japan, with particularly many in the former capital of Kyoto. I thought I want to see around the other type of garden when I will come back to Japan.

Transport; JR train and Shinkansen

When I moved to anywhere from the hotel in Tokyo, every day I had got on a local train, Yamanote line from Hamamatsu station. This is because the ticket was so cheap, only 120 yen, to go to near station. The

train and subway are more convenient and economical way to move as a mode of transport in Japan. Moreover, departure time is punctual and a que that people make on the platform is in a proper manner so that it would be comfortable even its crowded. JR Shinkansen that we got is another specific transport by using high technology in Japan. The maximum operating speed of the Shinkansen train is about 300 km/h. The trip from Tokyo to Osaka with a distance of 515 km takes 2, 5 hours by the Nozomi train (the quickest). Despite high speed, it was also comfortable because the noise was not loud and vibration was not generated. According to the maker of a train car, Hitachi, the specific technology, which combines lightning and silencing, is used for reduction of internal noise. Any other technologies for external noise reduction, rolling stock and cutting noise structure are utilized effectively. I thought Japan should be proud of these technologies and continue to develop technologies in order to contribute to all countries.

Overall Impression

Georgian Kansuah (Liberia)

First, I like to thank Dr. Sasakawa and The Nippon Foundation for providing me with such a worthy cost opportunity to studied in WMU and, to also have the chance to visit famous places in the world including Japan. The Nippon Foundation scholarship programs have benefited thousands of students across the globe, and I am honored to be one of the luckiest beneficiaries for 2018. The fellowship creates a network that bonds students together irrespective of their cultural and religious backgrounds. Being part of The Nippon Foundation family is a wonderful and remarkable experience for me and a blessing and proud to my family and nation (Liberia).

It was a pleasure traveling to Japan and learning about Japan along with my wonderful colleagues was indeed existing. This year, 29 students of the World Maritime University from 23 countries were afforded the opportunity to visit Japan as part of their study program. The visit was designed to expose the students to the unique culture of Japan, technological advancement and the Japanese maritime program among others. At the same time, students were able to establish a professional relationship with Japanese, institutions, and companies during their visits. Most importantly the trip was used to strengthen the relationship among the students as prospective fellows of the Sasakawa Peace Foundation.

Second, the 2018 Japan field study trip lasted for eight days beginning from the 13th to 20th May 2018. The visit was principally directed by Mr. Shinichi Ichikawa and Mrs. Miyoko (Tourist Guide). They received and warmly welcomed the group to Japan at the Narita International Airport, Tokyo. With the aid of a well-designed program which was characterized by visits to public as well as private institutions, sightseeing, and dinners, the visits was a memorable and interesting one for all of the students. Ms. Miyo (tourist guard) made the Japan field study more interesting and exciting. She kept the group acquainted with the history, the cultural and political importance of various sites visited.

It was the first time visiting Japan for most of the students, as it was interesting to see some beautiful cities in Japan like; Tokyo, Osaka, Kobe, and Kyoto, and to also learned that Kobe is one of Japan historical city, that provided Japan with it first maritime gateway for trade and commerce by sea. I was amazed and impressed with the layout, cleanness of cities in Japan. Thirdly, I was able to learn a lot during my stay in Japan. It was observed that Japanese are humble and kind-hearted people, judging from the ways they interact with foreigners, as well as their fellow Japanese. They are always willing to assist if they could, and if not, they will refer you to someone that could render you the help you seek.

Another unique thing about the Japanese is their clean and organized nature as evidence with the way they conduct themselves in public areas, like; metro stations, bus stations, fast food centers among others. When I joined the WMU in Sept 2017, I appreciated the conscious nature by which people make time, commonly called “the Swedish time.” In Sweden, you are required to be at a 10 O’clock

appointment 9:45 which is 15 minutes ahead of time. Interestingly in Japan, you will be expected to arrive 10 minutes ahead of the appointed time. If you got 10 O'clock appointment, you have to be there 9:50, and late coming is view as disrespect.

It was a pleasant and welcoming learning process, and I appreciate been part of the Japan trip this year, and I am sure my colleagues do. I was also fascinated by the traditional method of bowing when greeting visitors or guests at public facilities, the staff ushered you in, and on departure, they keep waving until you are out of sight as a way of expressing their gratitude. It was in indeed an exciting part of our tour in Japan. At first, it was surprising, students raised questions to the tourist guard on this gesture, and with Mrs. Miyo respond, and it became fun and exciting. We could keep waving for more than the 10 minute as a way of expressing our gratitude to the host. I learned a lot from Japan, and I'm assured my colleagues did. As we return to our respective countries after our graduation from the WMU, we will remain friends of Japan and contribute to the programs and activities of The Nippon Foundation.

Overall Impression

Htet Khaing Kyi Lin (Myanmar)

We departed from Copenhagen Airport on 12th May and arrived to Narita International Airport on 13th May. We had a brief orientation at the Sasakawa Peace Foundation building, conference room at 10th floor. In our very first orientation, Mr. Eisuke Kudo gave an opening speech and Mr. Shinichi Ichikawa explained about the whole Japan Field Study Trip program. In my opinion, this field study trip is really a tremendous opportunity for us and we got lots of knowledge and new ideas from this field trip. After orientation session, the trip organizer team sent us to Mitsui Garden Hotel Shiodome Italia-gai and had a very delicious buffet lunch then we checked-in our nice and pleasant hotel rooms.

On our second day of field trip, we firstly visited to The Nippon Foundation and met Dr. Yohei Sasakawa, Chairman of The Nippon Foundation who is my greatest mentor. As a representative of WMU, Professor Aykut I. Olcer, Head of Maritime Energy Management gave a greeting speech then we introduced ourselves one by one. After that occasion, Dr. Yohei Sasakawa gave a very remarkable speech to us and he also suggested us to perform in the Sasakawa Peace Foundation as an active fellowship and to provide supportive actions to the very new WMU-Sasakawa Ocean Institute as a WMU graduate. Then as a representative of the students, class of 2018, Mr. Banshidhar Singh from India gave a greeting speech after that we had a group photo session with Dr. Yohei Sasakawa and received the memorable gifts from him. In my opinion, I am proudly being a Sasakawa fellowship student and I promised to contribute my efforts as much as I can.

After that, we continued our field trip to Maritime Bureau, MLIT and Mr. Otsubo, Senior Deputy Director General gave a welcome speech to us. Then Mr. Kohei Iwaki, Deputy Director for International Affairs, Ocean Development and Environment Policy Division gave a presentation about International Approach towards Marine Environment Protection. And Mr. Tadashi Uchihira said that he will join our remaining field trip with us and we took a group photo. In my opinion, Department of Marine Administration, Myanmar needs to emulate the Maritime Bureau of MLIT in many different fields because our country administration is weak in Marine Environment Protection compared with Japan. At that night, we celebrated our welcome reception party at Room Bousei, 35th floor, Kasumigaseki building of Tokai University Club and we sang the WMU School Song and captured a lot of photos.

On our third day of field trip, we firstly visited to Kashiwa Co., Ltd. and Mr. Yoshiro Yamashita, President & CEO gave a welcome speech and explained the products of his company. Kashiwa manufactured high expansion foam system for pure car carrier, deck foam system, high performance firefighting system, fire extinguishing system, inert gas system and ballast water management system. After his presentation, we had a site visit tour and he watched their product demonstration. In my opinion, this site visit gave me some knowledge about how safety measure is important in global shipping especially firefighting related issues.

After that, we continued our field trip to Japan Aerospace Exploration Agency (JAXA) – Tsukuba Space Center. We had an opportunity to watch a short video clip about how JAXA is working and connecting with the astronauts in international space station. We also had a site visit tour in JAXA compound including their museum and different departments' working station. I thought that JAXA site visit gave a very useful concept for the future autonomous ships issue in our maritime industry.

On our fourth day of field trip, we started from Ariake Water Reclamation Center and Tokyo Sewerage Museum "Rainbow". They have six different places inside the museum which are as followed:

1. Earth-kun's House – Children can look how water flows into the drain pipe.
2. Ball Circus – Children can learn the water circulation with ping-pong balls.
3. Rainbow Cinema – Children can watch three kinds of movies: "Walter" in the water wonderland, Water that would not come back, and Rainbow heart.
4. Reconstruction of sewerage pipes – There are several methods for reconstructing old sewer pipes. One of them is a way of reconstructing the old sewer pipe to new one from inside.
5. Pumping Station – The electric motor pumps up sewage and sends it to the water reclamation center.
6. Water Reclamation Center – Children can see the sewerage systems.

I liked the architectural design of the building which shape is like a UFO and the architect's concept is that aliens came to earth and looking for the water resource. After we walked around inside the museum, we went down into the underground to explore the process of water reclamation. In my opinion, this is like a giant freshwater generator system compared with onboard ship freshwater generating procedure.

Then we continued our field trip to Tokyo University of Marine Science and Technology (TUMSAT) - Etchujima Campus. Professor Yoshiaki Kunieda from Department of Maritime System Engineering presented a brief outline of TUMSAT. Then we toured around the Etchujima campus guided by Associate Professor Jun Kayano and Associate Professor Hitoi Tamaru and explored the research facilities of TUMSAT. We visited to Meiji Maru, Internal Combustion Engine Laboratory and Advanced Navigation System Classroom during our TUMSAT campus tour. As a Master of Science in Maritime Education and Training student from WMU, I really interested in this TUMSAT field visit. One day, if I have a chance to continue my Doctoral Degree, I want to do my PhD research paper in TUMSAT.

On our fifth day of field trip, we started from Port of Tokyo and Ms. Yukari Hokawa from General Affairs Division, Bureau of Port and Harbor guided a short site visit in Exhibition Room of the Tokyo Waterfront Area. After that, we had a cruising tour with Inspection Cruise Ship "Shin Tokyo Maru". During the cruising tour, we saw Takeshiba terminal, Hinode terminal, Shibaura terminal, Rainbow bridge, Shinagawa terminal, Oi container terminal, Aomi container terminal, new passenger ship terminal, container terminal at outer side of central breakwater, outer central breakwater reclamation area, new waste disposal area, Tokyo Gate bridge, Umi-no-Mori (sea forest), ferry terminal, Odaiba liner terminal and Tokyo waterfront city. I thought that it was a very pleasant cruising tour and it is really supported to Port Management students from our university.

After that we took Shinkansen – a bullet train from Shinagawa station to Shin-Osaka station. We had an experience of having lunch box inside the bullet train. We continued our field trip to Yanmar Co., Ltd. – Amagasaki Factory. Yanmar manufactured marine propulsion diesel engine, marine auxiliary diesel engine, marine dual fuel engine, industrial diesel engine and industrial gas turbine. During our site visit tour, the staffs from Yanmar explained the stages of diesel engine and gas engine production which are machining, assembling, outfitting, testing and shipping. Then we visited to Yanmar Historical Museum and captured a group photo with Yanmar representatives. This site visit is suitable for marine engineers and it was a second time visit for me but I was still very interesting on their manufacturing process. After that, we left from Yanmar and arrived to our second fantastic hotel named ANA Crowne Plaza Kobe.

On our sixth day of field trip, we visited to Osaka Gas Co., Ltd. – Senboku Plant which consists of Terminal I (LNG handling capacity: 1.23 million tons/year and Terminal II (LNG handling capacity: 4.1 million tons/year. It has the world's largest aboveground LNG tanks at 230,000 kiloliters. Firstly, we listened to their presentation and secondly, we visited a guided site visit tour with eco-friendly LNG buses then finally, the staffs from Osaka Gas demonstrated liquefied nitrogen gas. It was an amazing site visit and it is suitable with Marine Energy Management specialization students from our university.

After that, we visited to IHI Infrastructure Systems Co., Ltd. which is building bridges and dams in all over the world. We had a chance to wear safety suits and explored a site visit tour which is related to heavy industry for infrastructure. This is actually not so related with maritime studies but it can give lots of knowledge about how bridges and dams are constructed.

The last day of our field trip started at Arashiyama and Tenryu-ji temple which is one of the world cultural heritage sites. This was the happiest moment for us during our field trip. We captured a lot of photos at Bamboo paths, Nonomiya shrine, Okochi villa, Tenryuji temple and Togetsukyo bridge. We tried Japanese traditional noodle soup and green tea ice-cream. After that, we moved to Kinkaku-ji temple – the Golden Pavilion which is a shariden, a Buddhist hall containing relics of Buddha. The garden and buildings, centered on the Golden Pavilion, were said to represent the Pure Land of Buddha in this world. It was also registered as a World Cultural Heritage Site. I bought so many packages of Wasabi peanuts as a gift for my family. At that night, we celebrated our farewell reception party at Room Linden of our hosted hotel and we sang the WMU School Song and captured a lot of photos.

On 20th May, we departed from the Kansai International Airport to Copenhagen Airport and we flew overnight to go back to our home away from home, Henrik Smith Residence, Malmo, Sweden. I can't forget every single moment of this Japan Field Study Trip and I really appreciate to The Nippon Foundation and the Sasakawa Peace Foundation for hospitality and conviviality.

Overall Impression

Elias Chiaca Mwenyo (Namibia)

As a business development practitioner, extensive travelling has become part of my schedule throughout the years. I have been to many countries around the globe, but this was my first time to visit Japan - thanks to the Sasakawa Peace Foundation for creating this opportunity to explore the beautiful Japan, environmentally well preserved.

Our arrival at Narita International Airport was a memorable event as I experienced my first Japanese hospitality after leaving the plane. The airport ground staff were very friendly and were willing to assist at all times. Thanks to the basics of the Japanese language that I learned before the field trip, I could converse with airport officials but not for too long. The cutting-edge technology at the airport was evident with the long queues at the passport control been reduced to a bare minimum in a matter of minutes. The waiting period at the carrousel was very short thus confirming the good service levels at the Narita Airport. Outside the airport, the team under the leadership of Mr. Shin and Mrs. Miyo that directed the program, where extremely organised and planned the trip meticulously. We clearly knew from day one what was expected from us and the continuous reminders and counting in the bus made it more fun.

Further interaction with the Japanese community disclosed etiquettes and customs as part of the fundamentals of the Japanese Tradition. Manners are very important amongst the Japanese thus people greet each other by bowing. The bowing ranges from a small nod of the head (casual and informal) to a deep bend at the waist (indicating respect). I noticed that hand shake is not very common but the gesture of bowing and the expression during the bowing places more emphasis on compassion and respect. Japanese culture also emphasises on punctuality and deadlines. Punctuality governs social interactions and preserves group harmony and this was evident throughout the visit. The 10-minute rule before actual time created a buffer for team members to be on time and developed a bond among all participants.

With the arrival at the hotel in Tokyo, I was captivated when I was advised about the public bath in the Hotel. I was informed that in the past, many homes in Japan were not equipped with a bathtub. To fill this void, the neighbourhood public bath was a place where the locals could go to wash themselves, soak in a tub and socialize with neighbours.

Nowadays, as most households have their own bath, the number of traditional public baths has decreased, but they can still be found in many of the more old-fashioned city neighbourhoods. In addition, a new type of public bath has emerged in recent decades. Much larger than the traditional *sento*, these bathing complexes features a range of pools, saunas and fitness facilities similar to the one in the hotel. I had the opportunity to spend time in the public bath and established contacts with people I found there.

Cuisine is an integral part of any local culture, and no trip to Japan is complete without tasting the authentic, Japanese made food. I had the opportunity to explore the local restaurant to enjoy first hand Japanese cuisine. Sushi is, perhaps, the most famous worldwide Japanese food but considering the wider available food, it was not part of my list. I enjoyed Sukiyaki, sashimi, tempura, ramen and the traditional drink called sake.

With regards to the environment, the visit to the garden in Kyoto was indeed fascinating as it represents the importance of preserving the environment jointly with its association to the Japanese heritage. The preservation of the Japanese history and the effort to teach the youth and grant them opportunities to visit historical sites is commendable. We met many high school children from various corners of Japan who were exploring the gardens and learning what they represent.

All the companies that we visited displayed high level of technological advancement as a mechanism for sustainable growth and environmental protection. I also established that young people are been groomed to take over from the aging population in Japan. Education and knowledge transfer seems to be high on the agenda of all the companies. The various receptions that was held, also granted us the opportunity to expand our network in the maritime field.

Finally, the knowledge I gained during the days spend in Japan will add immense value to current and future sustainable development of my home country and the company I work for. Namibia being a maritime nation, has a lot to emulate from Japan.

Overall Impression

Hammed Damilare Ibrahim (Nigeria)

Personally, it was indeed a great opportunity for me to visit Japan and experience the uniqueness of the country first hand. I have been quite fascinated by the Japanese way since I was a kid when I watched a documentary about the beauty of nature, lakes and landscapes of the country. My interest and curiosity increased when I learnt that, the country in its long history of independence for more than a thousand years had experienced more than 200 years of self-imposed seclusion from the external world. That, it was just within a period of the last 150 years that the country has been completely transformed from a feudal state to an advanced and modernised society. Like many countries, Japan had also witnessed many devastating circumstances and catastrophes in its long history, such as; Wars, Tsunamis, Earthquakes etc. However, the resilience of the society is admirable as it always emerge stronger from every crisis. Before the trip, I had many questions and interesting stereotypes about the Japanese people and culture on mind. I must confess that this short visit has really unmasked many of my stereotypes and answered many of my questions! As our tour-guide, Miyo-san remarked, Japan has a lot more to offer than a single one week trip can achieve. Therefore, visiting Japan again in the nearest future, of course, remains a great wish for me.

Firstly, I will like to acknowledge the great efforts of the Sasakawa Peace Foundation (SPF) in organizing this trip and communicating closely with us before our arrival through the World Maritime University (WMU) Assistant Registrar, Mr. Peter Marriott to ensure a seamless and successful field study trip. The pre-visit communication, planning and organization gave us a great impression of how eventful the trip would be. I must confess that the expectations are far exceeded!

We arrived according to schedule on Sunday, 13 May 2018 at the Narita International Airport, Tokyo after a very long flight hours from Copenhagen. We were warmly welcomed by the SPF team, Mr. Shinichi Ichikawa, Ms. Sumitomo and Ms. Miyoko Wada (Our tour guide), a very interesting and jovial personality! Then, we were taken on a bus ride to the SPF building in the heart of Tokyo. Along the way, the stress of the long trip dissipated by viewing the beautiful landscapes and the stunning structures of Tokyo. Also, the friendly announcement and remarks of Mr. Shin and Miyo-san made the atmosphere very lively and relaxing.

At the SPF building, we had a well-organized orientation session with opening remarks by Mr. Eisuke Kudo and Mr. Tsutomu Akita. Then, detailed presentation and discussion by Mr. Shinichi Ichikawa on the activity plan, the detailed timelines and general questions & answers. The whole phase of the trip was meticulously planned and judiciously executed according to the plan. A great indication of Japanese hospitality from the very first day, I must say!

On the next day- Monday, 14 May 2018, we paid a courtesy visit to The Nippon Foundation building with a view to showing our appreciation and paying respect to the Chairman Yohei Sasakawa, for the

generosity and opportunity of being a proud Sasakawa Fellowship Student. At exactly 01:30 pm, the Chairman Sasakawa himself met us at the conference room of The Nippon Foundation with an obvious warmth and cheerful personality. He was happy to listen keenly to each of us introducing ourselves and was kind enough to give insightful remarks on expectations, global challenges and responsibilities that lie ahead of us. He stressed the need to continuously work together and leverage on our diversity of skills and nationalities to address the general myriads of problems affecting our common heritage, the oceans. Looking at him, I could see a man of strong determination, commitment and dedication to the ideals of humanity. It was indeed a great privilege for me to receive lectures and insights from a personality of such a calibre of high-ranking achievements. An appreciation remark was made by WMU faculty, Prof. Aykut Olçer and a vote of thanks by our colleague, Mr. Banshidhar Singh (India).

Afterwards, we had a commemorative photo session with the Chairman Sasakawa; then, out of sheer kindness, the Chairman gave each of us the opportunity to take a personal commemorative portrait photo with him. The overall impression was great for us to meet the Chairman and also experience his warm welcome and sense of humour. He noted quite nicely, that in his long years of receiving letters of various achievement in different spheres of life from WMU-Sasakawa Fellows, he has never received any letter informing him about any divorce. He then wondered if Sasakawa fellows never divorce? We happily answered , Yes ! He was quite cheerful and had a genuinely happy countenance!

On our departure, courtesy of the generosity of Chairman Sasakawa, each of us was given a souvenir which included a book written by him titled *"Leprosy in our time"* outline his long commitment and achievements in the struggle to ameliorating the challenges faced by people suffering from leprosy. I find the book quite interesting and I thank the Chairman for the wonderful gift!

Later in the day, we were at the Ministry of Land, Infrastructure, Transport and Tourism (MLIT) for briefings about the efforts of the unique Ministry cum Maritime administration of Japan. The general impression by the end of the presentations by the MLIT staff was a sense of awe and respect for the efficiency of the ministry in making ample contributions and setting the pace at the IMO. Then, later in the evening, we had a dinner party at the Tokai University Club, Kasumigaseki Building to commemorate our class to the elite WMU-Sasakawa family and welcome us to the great country, Japan. At the dinner, many of us had the opportunity of meeting and networking with experts from various fields in Japan, diplomats from the Foreign Affairs Ministries of our countries and most importantly, we had the honour of meeting the former Secretary-General of the IMO and former Chancellor of the WMU, Mr. Koji Sekimizu.

The subsequent days feature interesting visits and events that would make us understand the Japanese society more deeply. We had academic visits to private and public organizations contributing to the impressive performance of the Japanese economy; such as: Kashiwa Co., Ltd, Japan Aerospace Exploration Agency (JAXA) Tsukuba Space Center, Ariake Water Reclamation Center, Tokyo University of Marine Science and Technology, Port of Tokyo, Yanmar Co., Ltd.-Amagasaki Factory, Osaka Gas Co., Ltd, and the IHI Infrastructure Systems Co., Ltd. Likewise, we had memorable cultural

visits to the Togetsu-kyo bridge/ Tenryu-Ji Temple, Kyoto Arashiyama and the Kinkaku-Ji (Golden Pavilion) Temple.

From the key takeaways from the visits and presentations by the organizations are the core values and principles that characterises the Japanese business culture. A Japanese concept, in my humble opinion, very apt to these core values is the concept of "*IKIGAI*" (生き甲斐)- meaning " A reason of being" !(See Fig. 1). According to Hector Garcia, the co-author of "*Ikigai: The Japanese Secret to a Long and Happy Life",* the *Ikigai* is the intersection of four fundamentals; What one loves, what one is good at, what the world/society needs, and what can be paid for. The *Ikigai* is at the core of passion, mission, vocation and profession. In fact, it is the central core of the meaningfulness of life!

Personally, I was impressed by the passion, hospitality, humility, politeness, neatness and the general culture of respect that uniquely characterises the Japanese society. Everywhere we went, everyone was treated nicely that we all felt like nobles. Also, there was contentment and deep sense of satisfaction with life among the people in whatever they were doing as no one was begging to survive. Moreover, the Japanese people are very diligent and committed people; and the society is imbued with hardworking culture built on reward for merit, fairness, team spirit and respect for time! I must confess that I have great awe and respect for the great values of the Japanese people and culture.

Finally, I will like to reiterate my heartfelt appreciation for the wonderful opportunity granted to me by the Chairman Yohei Sasakawa through the auspice of the Sasakawa Peace Foundation to study at the World Maritime University and for the memorable Field Study trip to Japan. Also, I salute the patience and acknowledge the great efforts of SPF team for making our time in Japan memorable, comfortable, enjoyable and worthwhile academic cum cultural exchange experience. It is telling to note, that I have started some basic Japanese language self-study course in memory of my trip to Japan. In particular, I will like to thank Mr. Eisuke Kudo, Mr. Tsutomu Akita, Mr. Shinichi Ichikawa, Ms. Miyoko Wada (Miyo-san), Mr. Kato, Ms. Sumitomo, the interpreters, the drivers and everyone involved in ensuring that the trip was memorable, for their successful planning and execution of every phases of the field study trip. The memory would be cherished for the rest of my life!

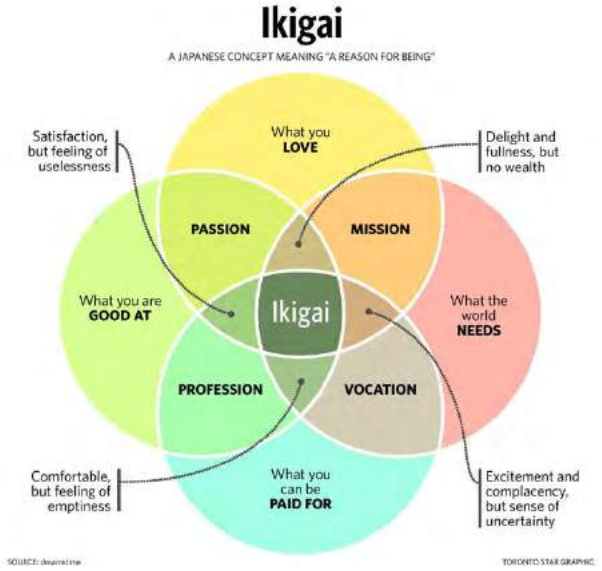


Figure 1: The Japanese Concept of IKIGAI

Overall Impression

Augustine Obomhereru Imhomoh (Nigeria)

1.0 Introduction

The field study trip to Japan by twenty nine (29) World Maritime University- the Sasakawa Peace Foundation fellows is one of the most exciting and highlight of my 14-months study period at WMU, Malmo. The trip started Saturday May 12 to Sunday May 20, 2018. We started our visits from the east side of Japan in Tokyo and ends the visits in the west in Osaka, Kobe and Kyoto Figure 1. The entire period in Japan was full of excitement and good memories as follows.

2.0 Sunday May 12-13

The team started off by congregated at the Copenhagen International Airport, Denmark. After about 10 hours of flight, we arrived at the Narita Airport Japan where we were warmly received by Mr. Shinichi Ichikawa accompanied by Mrs. Miyoko Wada whom we later know to be our tour guide. Upon arrival at the SPF building, Mr. Shinichi introduced the students to SPF staff members, including Mr. Kudo Einsuka who gave the welcome speech and stated the objectives for the trip to includes:

- To bring the students together and forge a sense of fellowship among them.
- To learn about Japan and how the country has developed over time by utilising the Ocean and its resources as contained in page 8 of the field study program booklet "Maritime Japan Update".

My first impression of Japan from the drive from Narita Airport to SPF building and to the hotel was one of excellent outlook.

3.0 Courtesy visit at The Nippon Foundation and MLIT in Tokyo

The first day Monday May 14 2018, we started with courtesy visit to The Nippon Foundation. Dr. Yohei Sasakawa gave impressive and educating speech where he highlighted his philosophy on philanthropy and on Ocean research. He stressed the need for Sasakawa fellows to contribute to the development of maritime industry in their respective countries collectively mitigate challenges to sustainability of the oceans.

We continued the visit for the day to the Maritime Bureau at the Ministry of Land, Infrastructure, Transport and Tourism (MLIT). We were warmly received by the Senior Deputy Director General Mr. Otsubo followed by informative presentation about the ministry. He highlighted what Japan is doing on the international scene on maritime policies formulations. On behalf of the student, Augustine Imhomoh from Nigeria delivered a thank you message for the privilege and honour given WMU-Sasakawa fellows to visit the ministry. The people were warm and friendly and they assured us of support should we have need in our academic pursuit.

We ended the day with a warm welcome party organized in our honour by friends of WMU Japan and The Nippon Foundation where we had the opportunity to interact and share the evening with WMU alumni, The Nippon Foundation and SPF staffs and maritime experts.

4.0 Field visits in Tokyo May 15-17, 2018

4.1 Kashiwa Company Limited

The business for the day Tuesday May 15, began with a visit to Kashiwa Company Limited in Ibarake. a world leading manufacturer of firefighting equipment onboard a Ship. Before we arrived at the company, Mr. Eisuke Kudo explained the reason Kashiwa Company was selected to be visited was the integrity the firm has built over time in the manufacturing of marine equipment and the company is known to complied with international regulations by IMO including SOLAS. Upon arrival, we were warmly received by the Chief Technical Operations Officer and members of staff of the company. The people were so nice to us and feel so happy to take us on tour of the factory. We ended the impressive visit with a group photograph with member of staff of Kashiwa Company Limited

4.2 Japan Aerospace Exploration Agency (AXA):

The visit to the Aerospace Exploration Agency (JAXA) very impressive. Before we arrived at the agency, Mr. Kudo explained that JAXA was included as part of the visits because science is a major aspect future autonomous shipping will depend on the use of satellite imagery. And upon arrival, we were warmly welcomed by the staff of the agency followed by informative presentation on the how the agency work, and we had the opportunity to tour the facility and visit the space doom where we learnt about the life and works of astronaut. Again the people at JAXA were so friendly and nice and we had a group photograph

4.3 Ariake Water Reclamation Centre and TUMSAT:

On Wednesday the 16th, we visited both Ariake Water Reclamation Centre and Technical University of Marine Science and Technology (TUMSAT). At the Ariake Water Reclamation Centre, we were received warmly staff of the company. We immediately had a tour of the center where we learnt about the processes of water reclamation in the Ariake prefecture.

At the TUMSAT on same day, we had the opportunity of a presentation by professor Yoshiaki KUNIEDA, followed by tour of the engine room, navigational aid, and the training Ship. The visit to TUMSAT was educating with professors Yoshiaki Kunieda, Tsukamoto, and members of staff been exceptionally wonderful in assisting with both the presentation and tour guide.

4.4 Port of Tokyo:

The Port of Tokyo is located in the metropolitan area of the city of Tokyo between the estuaries of Arakawa and Tamagawa rivers. The port handles both domestic and international trade cargoes, with port and harbour areas of 5179 and 1,028.1 hectares. Tokyo port boast of some 4 million TEUs of cargo on the international bound vessels. It was so fascinating having a tour of the port on a boat ride where we got to know how much Japan has done to further the course of shipping and the future plans of the port to further grow domestic and international trade.

5.0 Field visits in Osaka

On Thursday May 17 at about 12 noon, we departed for Osaka. First we drove on a bus to the Shinkansen train station in Tokyo, and for about two and half hour on train to Shin Osaka, and then we had a smooth bus ride to Yanmar Company Ltd in Amagasaki. We were received warmly by the plant

manager followed by informative presentation, we had the opportunity of a tour of the factory floor to see firsthand the production processes of Marine diesel and dual fuel Engines. The entire production is organized in five processes of Machining and Grinding process for camshaft which operates 24/7, Hardening of steel surface to 5mm deep at a temperature of 800 ^{o}C, Assembly process which consist of main and sub assembly lines for small engines of six per day and big engines of two per day, outfitting process, and testing and shipping. The big engines of up to 6800 horse power are done in cell production while the small engines are done in line production processes.

Marine engines produced by Yanmar have thermal efficiency of 45.3% for the diesel and 46.8% for the dual fuel engines, with SOx, PM reduction of 99%, NOx up to 80% and CO_2 reduction of 25%. Yanmar marine engines can therefore be said to be good for ECA and SECA areas in line with IMO regulations 13 and 14 of MARPOL Annex VI.

5.1 Osaka Gas Company and IHI Infrastructure

On May 18 at our lodge at ANA Crown Hotel in Kobe, we had a bus ride for one and half hour to the Senboku LNG Terminals of Osaka Gas Company. We were warmly welcomed by the staff, followed by informative presentation. This facility was selected for visit to expose the team to how LNG is used as multi-energy source for City Gas, Electricity and as Cryogenic energy. We had the opportunity to tour terminal 2 with help the of a tour guide who wonderfully explain the LNG gas processes at the gas plant. Experiments were performed with liquid nitrogen at negative 190 ^{o}C to demonstrate the properties of LNG to returned to its gaseous form when exposed to atmosphere temperature.

The days programme was concluded with the visit to IHI Infrastructure Systems Co. Ltd. Our main objective of visiting the company is to expose us to the art of manufacturing of large steel structures for bridges and Watergates. After the presentation which highlighted five business areas of IHI, we had the opportunity to tour the floor of the factory.

5.2 Cultural and leisure visit Kyoto

Our final day in Japan was so colourful as we were treated to cultural visit to the Arashiyama area in Kyoto. We visited the Tenryu-ji Temple (a United Nations World Heritage site), the Baboon Paths, Togetsukyo Bridge, and the Nonomiya Shrine. We had a good time shopping for souvenirs, eat and drank ice creams. We concluded the day with a lovely farewell party hosted by friends of WMU Japan and the Sasakawa Peace Foundation at our lovely ANA Crown Hotel in Kobe.

6.0 Departure, Sunday May 20

The Sasakawa fellows depart the hotel for Kansai International Airport. My first visit to Japan open a lot of memories for me that will last a life time. I fell in love with the city of Tokyo and all the wonderful people we meet on the trip.

7.0 Conclusion

The trip to Japan was an eight days heartwarming field study visits. The beautiful landscape of Japan and the experiences we had of the country from the sea, train and buses and the warm hospitality and generosity we enjoyed for eight days at every visit and location will sure last forever.

My sincere thanks to The Nippon Foundation and SPF, MLIT, host companies, and all those involved in arranging the extraordinary visit to Japan. My very special thanks to Dr. Yohei Sasakawa of The Nippon Foundation and the Sasakawa Peace Foundation for the opportunity offered me to partake in the field study to Osaka Gas Company, Messrs. Shinichi Ichikawa, Eisuke Kudo, Akita and Kato, and Mses. Sachi Sumitomo and Miyoko Wada for the wonderful contributions made for the success of the field trip.

Overall Impression

Gustavo Adolfo Mejía J. (Panama)

The Japan Field Study Trip that is subsidized by The Nippon Foundation with assistance funds derived from proceeds of motorboat racing was a unique experience that I will never forget in my entirely live. One more time is proved that is more interesting learning from the culture and history of one country by visiting different places, restaurants, hotels, and others interesting places.
I have to admit that I have long wanted to visit the country of Japan because I'm a big fan of the Japanese anime and the authentic sushi that you can find everywhere you turn, and the visit does not disappoint any point of my view.

The trip of the 29 students WMU Sasakawa Fellows started in the capital of Japan, the city of Tokyo, full of huge towers that does not have anything to claim to Paris, and the famous Shibuya crossing scramble that you always see in popular movies scenes and is very impressive to be present in the place for the moment of the green light. The picture with the Hachiko dog statue was something that I did not miss considering probably the most famous dog in Asia region.

Part of the experience in Tokyo included the visit to The Nippon Foundation to finally meet the Dr. Yohei Sasakawa, Chairman and the person that makes possible the formation of persons in the maritime sector in places like the World Maritime University and other institutions like IMLI and ITLOS.

As the first day come to an end, we had a Welcome Reception Hosted by Friends of WMU, Japan/ the Sasakawa Peace Foundation to share a nice moment with the staff of the organization and ambassadors from different countries. Such a great honor to represent the 29 WMU Sasakawa Fellows during the Welcome Reception in Tokyo, Japan. The experience offered a unique opportunity to discover the Japanese culture and history for one complete week. The Reception counts with the presence of Mr. Sekimizu, former IMO Secretary General, Mr. Sunami, Executive Director of the Sasakawa Peace Foundation and other distinguished guests.

Other part of the itinerary that call my attention was the visit to the Port of Tokyo. I'm a fan of visiting ports over the world to compare and check for new possibilities to my country and without a doubt the view that you have from the building was perfect to understand why this Port is such important to the economy of this country. Just to take into consideration that is surrounding by water and was very difficult to discover a place without ports entries or maritime activities to places beside the coast. In the same way, the role that covers the Ministry of Land. Infrastructure Transport and Tourism (MLIT) is object of applause and emulate.

We missed the opportunity to see in real time a race boat competition, however, the time in the capital was very complete and fulfil all what you can expect of a city of the first world.

Once the capital of Japan, our journey continues through the city of Kyoto. In this place you can really transform your change of view and feel as you were living in the past or old town in Japan. Full of nature and relaxing places like the Tenryu-ji Temple or Temple of the Heavenly Dragon in Kyoko which is part of the world cultural heritage, were the cherry of the cake to an excellent field study.

On the other hand, other aspects that have relevance to this trip and I consider very important to mentioned is that:

1. The punctuality is something very characteristic of the Japanese culture and you must always be ready at least 10 minutes before the time of living.
2. The culinary cuisine of Japan is very delicious, and the price will depend of the number of person and popularity of the restaurant.
3. The tour guide makes special every place visited and will be in mi memory for such a wonderful job.

To conclude this report, I just want to offer gratitude and thank you for all the persons involving the hospitality, transport, organization, planning and basically all actions taken by the Sasakawa Peace Foundation with the financial support of The Nippon Foundation to make this Field Study Possible and chosen me to be part of such a wonderful family. The friends and connections that I created during the trip will not be forgotten and I dream with the possibility to visit again your incredible country.

Overall Impression

Eduardo Israel Zamora (Peru)

Visit Japan is an amazing experience. Always it is a dream to know a place where the words hospitality, respect and education make sense. Since our arrival to the airport, we could see the order, clean and education of the people and organizations. It was like a master class and experiential 5S method and taught by the best, the Sasakawa Peace Foundation.

Our first activity was the Courtesy visit on Mr Yohei Sasakawa, chairman of The Nippon Foundation. After the initial nerves, we were able to say some words of thanks to our sponsor. After all, is due to his generosity that we are studying at the World Maritime University. It was amazing to see how a man who does not have too much time due to his diverse activities gets time not only to listen to us but also to take pictures with all the students.

Then we had the opportunity to visit important institutions and organizations related to each one of our specializations in the Master Program. We visited Kashiwa Co. Ltd., The Japan Aerospace Exploration Agency, Ariake Water Reclamation Center, Tokyo University of Marine Science and Technology, Port of Tokyo, Yanmar Co. Ltd., Osaka Gas and IHI Infrastructure Systems Co. Ltd. In each one of the visits, strategically planned by our sponsor organization we could see the engagement with the sustainability and the community of our guest. Each one of them from their specifics points of view and their organizational culture they showed us the best of them, worried about our comfort and to giving to us their knowledge and experience.

Due to my personal background and my career of all my life I could say that the most interesting visit for me was the Port of Tokyo. Nevertheless, my current studies in the Master Program have allowed me to open my mind and see things where I could not see before. Therefore, the most interesting visit for me was Yanmar Co. Ltd.

Personally, I think that the most important thing that we could notice but Yanmar did not say to us is the direct relationship between the daily work of the company and the Sustainable Development Goals (SDG). During the presentation and also during the visit to the productive area of the company we could see that there were in front of us the evidence of their work in favor of many of such SDG, including quality education, gender equality, clear water and energy, decent work, innovation in industry, sustainability communities, climate action, life below water and partnerships for the goals. Thanks for that! Maybe Yanmar could be more proud of that and show it in a direct way.

On the other hand, we also had the opportunity to know a little of the cities and their people. Tokyo with all its modernity is maybe one of the most awesome cities that I had known. However, also Kobe, Kyoto and Osaka were magic places that fed our minds, hearts and souls. Relate to its people, its culture, its food and overall its kindness is something that has not price.

Apart from the planned visit to the different institutions we also went to cultural places. The most interesting place for me was the Golden Palace in Kyoto. The peace of the place rounded by nature inspires to meditate and to know more about the traditional Japanese culture that is the base for their current development.

We, the World Maritime University-Sasakawa Fellowships, class of 2018 are very happy and satisfied not only for the traditional Japanese hospitality of the company but also with the invaluable knowledge received. I am sure such information will be very useful for the students of all the specializations of the Master Program not only for the current academic studies but also for our future when return to our home countries.

Finally, many thanks to the chairman of The Nippon Foundation, Mr. Yohei Sasakawa, not only for their generosity to be the sponsor of our studies but also for the enriching experience that makeable us to know Japan to learn about their maritime activities and their culture in general.
This experience, from the point of view of the students, cleary complement the topics learned in the classroom in Malmö-Sweden and showed us the application of the learned, in the real world.

Overall Impression

Pamela Dela Cruz Dolina (Philippines)

It was a one find day when we first landed our feet in the place so called "Land of the Rising Sun" – Japan. We came from a long flight of almost 12-hours with 7-hours time difference from the place of our origin – Malmo, Sweden before we finally touched the ground of our destination. The long waiting, I would say, was entirely enveloped with nothing but pure excitement especially for those first timer (just like me!) knowing the week long field study would be jam-packed with activities and adventures and learning experiences. And perhaps, this is one of the reasons why most of the WMU students are hopeful of being part of the Sasakawa Fellowship because apart from its impressive networking system, it gives the fellows the opportunity to travel in Japan and get to know it better as one of the strong countries in the world taking into account its economic strength and considerable contribution to the international community.

The flight was worth the effort. The twenty-nine students and two accompanying staff and professor were guided accordingly from Narita International Airport to the Sasakawa Peace Foundation building for the orientation. We were officially welcomed by the Sasakawa Peace Foundation family headed by Advisor Eisuke Kudo San and Shinichi Ichikawa San. The orientation was conducted to lay down the activities expected for the week and the requirements. This forum was an opportunity to disseminate instructions and clarify issues pertinent to the week-long field study thus every detail of activities was coordinated well to the participants. It gave a glimpse of the good preparation done by the Foundation for this activity as everything was in order and well-organized. We checked-in in our respective room immediately after the buffet lunch at Mitsui Garden Hotel at around passed 1400H just enough to have rest to recover from jetlag and prepare for the next day's activities. As such, I would say that the flight arrangement was carefully considered in that sense with respect with the need for the students to relax and adjust from different time zone and weather and be in good condition for the hectic schedule.

A new day came and we were ready for the fresh start as we were all eager to meet the man who moved the world with his gentle kindness and heart for humanity and the one who generously invested for our education and future – the Chairman, Dr Yohei Sasakawa. During the meeting with the Chairman, though he was speaking in his mother tongue, we could sincerely felt his passion for his mission and how he desires to contribute progress to the global community and ocean sustainability. His words were inspiring enough to challenge ourselves of what we can do now to significantly help our own country into the light of progress and development effecting maritime environment and ocean. His message to us was truly empowering and this would be kept in mind as we hold key position and responsibilities in our society and make positive impact. He expressed that "once a Sasakawa Fellow, forever a Sasakawa Fellow" and for that I am so blessed as well as challenge to be part of this big family. We appreciated the rare opportunity of spending precious time with the Chairman which was highlighted with having individual photo with him. We left The Nippon Foundation building with a grateful heart full of hopes for a better world.

The Welcome Dinner, attended by diplomatic attaches, guests from different agencies and companies, The Nippon Foundation Family and Friends of WMU, offered us the platform to mingle with these important peoples to exchange pleasantries and shared friendship and networking. It was indeed a night to remember.

As scheduled, we visited different sites and facilities to broaden our learning experience about Japanese industries and technologies, the education system and the best management practices. We explored the Maritime Bureau of Ministry of Land, Infrastructure, Transport and Tourism, Kashiwa Company, Japan Aerospace Exploration Agency, Ariake Reclamation Center, Tokyo University of Marine Science and Technology, Port of Tokyo, Yanmar Company, Osaka Gas Company, and Ishikawajima-Harima IHI Infrastructure Systems Co. Our interaction with them made increase our understanding relative to their critical operations and systems implemented.

As we toured around and learned about their important works and relevance, we also understood a lot of values. On a personal note, I have drawn the following discernments relative with our stay in Japan which made me more appreciative of the Japanese kind of way of life:

- Value of Punctuality. Japanese really do value time. In a time-conscious society such as Japan, to be late is being disrespectful. Being on time in a Japanese context means coming 10minutes earlier than the scheduled time. Time matters to Japanese people and they managed it well. Efficient use of time is a common concern among its people. Hence, in most Japanese social gatherings, you can observe in the program on how they segmented the time in every activity defining clearly the beginning and the ending. On this opportunity, we learned to be mindful of time.

- People are genuinely helpful and polite. I appreciate their every effort to help and assist in every way they can and the desire to please and make you feel comfortable. As such, we certainly feel safe to go out even at late night. We also understood that the traditional form of greeting is bowing which is also a gesture of respect. And with such, we gently sense their kindness and sincerity in their every dealing with the guests thus giving us the feeling of being welcomed.

- Commitment to productivity system of 5S and 3T especially in a workplace. We noticed the concepts being observed particularly in production facilities as the 5S practices Seiri (Sorting), Seiton (organizing), Seiso (cleaning), Sieketsu (Standardizing) and Shitsuke (sustaining) while 3T work methodology requires Teii (Where to put), Tei Hin (What to put), Tei Riyo (How much to put). Such traditional approach aims to reduce waste and increase positivity and productivity through an orderly and clean work environment. This kind of discipline, which is seemingly integral to every Japanese, is truly admirable and worth emulating by others as a good management practice.

- High investments on research and innovations. The word “Quality” is a byword to most of the companies, institutions, organizations and other places we visited. There is an emphasis to delivery of quality product, quality service, quality performance and the likes and they must have

perfected this kind of quality to which they are known for. Japan is one of countries being looked up to when it comes to advancement of technology and innovation breakthroughs. One underlying reasons perhaps is that they recognized the important role of research to development with the aim of providing a more efficient and better solutions to improve quality of living attuned to the needs of time and environment. They put on heavy investments to such kind of work in collaboration with stakeholders and impact world standard and international trends.

- Use of interactive museums to facilitate easy understanding of learning. From most of our visits (Japan Aerospace Exploration Agency, Ariake Reclamation Center, Tokyo University of Marine Science and Technology, Port of Tokyo, Yanmar Company, Osaka Gas Company) there are museums showcasing exhibits and collections containing pertinent information relative to their unique kind of works. They see museums as more than that of a space preserving historical value but more on an avenue to communicate and educate. It is oriented to foster learning experience through visual tools and hands-on activities.

- Premium to Culture of Safety. Considering its exposure to both natural and man-made risks based on past experiences, Japan, as observed, is far better prepared in comes to dealing with such events as it effort to master disaster preparedness. For one, culture of safety is widely observed in the production and heavy works and children are trained through drills. Safety mechanisms are also largely established to promote public safety. Taking their train stations as example, we noticed that warning signs abound in every areas and barrier doors were installed on train platforms to promote safety.

As I reflect on the insights, we could say that Japan is a considered role model to the world. Despite the numerous disasters it battled all throughout the years, Japan still emerged to stand up robustly and regained its momentum. It gives me the impression that certain ability to rise from calamities and other adversities could be attributed to their innate hardworking persona high sense of achievement and their capacity to collectively work together for a common goal. We applauded such unique character as truly remarkable. Their core values are what strengthens its people and their perceived brand of unity often engineered the country to be competitive and strong and ever relevant.

Though our stay in Tokyo and Kobe is only for a while, but the moments we enjoyed in the place were truly lasting that it would long be remembered in a most special way. The six-day short program if to be measured is not just a field study so to speak. It is more than that. It is about learning experience, engaging and touching lives of one another and trying to bring out the best in each other and make influence to human society. It is also about reflection that together is better and with one another we are stronger. We need not competition but cooperation. A reflection that challenging us to carry the torch and share yourself and be something for this world and make it a better place to live for years to come and for posterity.

It is also gratifying to be given the chance to expose to Japan's customs and traditions and experience the generosity and warmth hospitality of Japanese people. We cannot thank enough for all the good cares that were accorded to all of us for the entire duration of our stay from the day we arrived till the

day we departed. We are humbled for all the good things that have shown apparently to us. We applauded the people behind the success of all these activities most especially to the Sasakawa Peace Foundation, officials and staff, for their best efforts.

With all those great time and great moments and bonded friendship, which we are thankful for, we went home with all those fun-filled memories all kept in our heart and moreso insights to ponder. Till our next journey!

Overall Impression

Mohamed Amjath Mohamed Fahumy (Sri Lanka)

It was in the year 2000, Sri Lanka won its second Olympic medal in the history. An entire nation on a victorious mode and smells of joy was on the air. That time I was in the seventh grade and our teacher assigned us to write an essay on “Olympics and Sri Lanka”. So I went to library to find books or articles on that matter since the internet was not a common commodity during that time. Then I came across article about “Ranatunge Karunananda 1964 Olympics Tokyo” in a newspaper. Story was, in the 10,000 meter race, Karunananda was soon overtaken by the leading athletes and was lapped four times when the winner, Billy Mills of the United States, broke the tape to finish the race. But Karunananda continued to run alone even after the others had finished the race. Spectators first started to jeer at him. But when he came around a second time, there was silence. Finally he finished the race amid cheers and applause. Then Karunananda told reporters: "The Olympic spirit is not to win, but to take part. So I came here. I took part in the 10,000 meters and completed my rounds. Instantly Japanese media started to acclaim Karunananda as a hero." Karunananda's Olympic story has been entered into Japanese elementary school national language textbooks. From that very moment I read this story, I dreamed to visit Japan one day in my life. Thank you Dr. Sasakawa for fulfilling my long lasting dream.

From the moment we landed in Narita airport everything I noticed was in nice and proper order. Discipline was an inculcated value of every Japanese irrespective of the status. Then we went to the hotel and had a great Japanese cuisine for our lunch. I really like the way they made the shrimp and it was delicious. Words were not enough to describe the desserts that were offered after the lunch. Jelly and almond puddings were my favorite.

Next I had the chance to see the gentleman who was responsible for making our dreams come true, Dr. Sasakawa. It was one of the special moments of my life. He is a humble man with a great vision. I was lucky enough to pose for a photograph with that gentleman. That photo goes to my treasure vault definitely.

Companies such as Kashiwa, IHI, Osaka Gas taught the lessons if that hard work and discipline never fail. I was wondered that without having any natural resources Japanese companies competing with the global players, made me speechless.

Also places such as Ariake water reclamation center, JAXA aeronautical center, Tokyo University of Marine Science and Technology made me feel envy of Japanese kids. I wish I had chance to visit such places when I was young to explore the world more.

The both hotels that I stayed are places filled with hospitality. The staff were always greeting and very helpful when I had an inquiry about something. I enjoyed the public bath for the first time in my life and it was a good experience.

I met this young gentleman from MLIT, Mr. Tadashi Uchihira and he is an epitome of young Japanese generation. Disciplined, professional yet with the blend of enjoying the life to its fullest. Furthermore the people I met during the welcome reception and farewell reception were priceless networking in my career life.

During the trip I developed my Japanese vocabulary, words such as Ohiao gozaimasu, Arigato gozaimasu, genkideska and also I learned how to introduce myself in Japanese. Also I had the chance to travel by shin Kansu, bullet train from Tokyo to Kobe. That was a refreshing experience and an unforgettable one not only due to the speed of the train but also for the discipline of the Japanese passengers.

Finally I have something that needs a special mention here, I was fasting for last few days of the trip and the organizers had arranged everything as per the order and requirement. Therefore a big thanks goes to the organizers on this matter.

I believe it was a privilege to able to visit Japan and see the Japanese way of doing things. I pretty sure that if I get a chance to visit Japan again I will never hesitate to book by ticket. All in all this Sasakawa Japanese trip was a sensation in my life which remains with me until my last breath.

Overall Impression

Wajira Vidhuranga Premathilaka (Sri Lanka)

The tour to Japan – the "Land of Rising Sun", is one of the unforgettable experience I was lucky enough to have as a student studying at World Maritime University. The one-week tour gave us lots of wonderful memories while allowing us to learn new things for our personal and professional life as well. The tour started from 12th May to 20th May 2017, with the participation of 29 WMU Sasakawa Fellowship students along with Prof. Aykut Olcer and Mr. Pete Marriot as staff representatives. During the time period we stayed in Japan we were able to visit lots of places including Port of Tokyo, Japan Aerospace Exploration Agency (JAXA), IHI Infrastructure Systems Co. Ltd and many more. Among all, it was a great pleasure for me to meet our honorable donor Dr. Yohei Sasakawa at The Nippon Foundation office; without his effort, dedication and great sponsorship I would not be able to achieve my dream to study at WMU in Sweden.

Coordination

The program was well organized and coordinated by Mr. Eisuke Kudo, Mr. Shinichi Ichikawa and Ms. Miyoko Wada; who welcomed us at the airport with a great friendship and hospitality when we landed in Japan and looked after us till we left that wonderful country. They guided us throughout the time period showing us their culture, customs, places to visit and even telling us what to do and what not to do at each and every places.

The Program

The program is well organized to fully utilize the limited time period we had in Japan. Every day we had to visit at least two organizations which are related to maritime industry; or some other institutions such as JAXA that shows the technological advancements of Japan. Those were very good and rare opportunities for us, as we do not get opportunities visit those places without such a courtesy from The Nippon Foundation, the Sasakawa Foundation.

Culture and People

Even before visiting Japan I had heard that Japanese people are very humble and polite. But I was so surprised when I saw it by myself that how many times they bow during a conversation showing their politeness and respect to others. Japanese people give real value to the time and they respect other's time. Throughout the program everything was perfectly on time on schedule where they start the programs exactly on time and finish on time. As I heard being late is considered as disrespect to others; thus even when we go out to take a bus, metro or a train everything arrives exactly on time. That is one good thing that we can learn and practice.

Cuisine

Being a Sri Lankan; or as a South Asian I am used to eat spicy food with lots of curry. But I must say that Japanese foods are very delicious and I liked them a lot. The foods mostly contained sea foods,

fresh vegetables and fruits which are very healthy and nutritious. Further, it was obvious that wherever we go we were served with green tea or something made of green tea. I think this dietary behaviour may be one of the reasons why Japanese people are so healthy and they are having high life expectancy.

Things to do and places to see

In Japan there are lots of places to see and lots of things to do. Although we did not have much free time during day times to go out and explore more due to our tight schedule; I had some good time with my colleagues to roam around cities after we arrive back to our hotels. Most of the nights we went out to taste different Japanese foods for our dinner and sometimes we were able to hit some shopping streets as well.

Therefore, once again I must say that the visit to Japan was a wonderful experience for me. I could learn lots of things that add value to my personal and professional life. As such I really grateful to all the wonderful people I met during this visit and who worked hard to make it a success.

However, before concluding I would like to make two suggestions that may be helpful for future field studies to Japan. (i)As we see, the program schedule was too tight, thus after first few days the students felt little bit tired and exhausted. So it's better if it is possible to make it more flexible. (ii) Although we stayed in Japan for a week we rarely got an opportunity to enjoy Japanese Culture, Music, Art and Sports which are unique to them. Thus it is better if one day can be allocated to allow the students to get some exposure to the things that are unique to Japan.

Overall Report

Theeratch Amphanthongpaphakul (Thailand)

It was a big chance in my life having a good opportunity to visit Japan during 12-20 May 2018. The journey began at the Henrik Smith Residence in Sweden, where all Sasakawa Fellows prepared well the big bag for wonderful trip. We took a long flight from Copenhagen Airport to Narita International Airport, where I was very excited to visit. At first day we arrived, I had sight-seeing during the way to the Sasakawa Peace Foundation building. The weather and surrounding atmosphere were beautiful along the way, while the bus was driving. Once we arrived the Sasakawa Peace Foundation building, we had an orientation and warm welcome and hospitality.

14 May 2018, I had a courtesy visit on The Nippon Foundation, where everyone had a chance meeting with Mr.Yohei Sasakawa. We introduced ourselves and took photo with him individually. At this time, I believe that everyone was very happy and it was encouraged to do our job successfully both studying and our life's path. After that, Maritime Bureau from Ministry of Land, Infrastructure and Transport of Japan presented the mission and the tasks related to IMO. These enabled us to see the well development 15 May 2018, We visited to Kashiwa Co., Ltd, who is the lead in the world in developing high expansion foam system. There was a show in pump room where a foam was generating into the entire room. This system was designed to prevent and extinguish oil fires in the ships. Moreover, there are many products that such a company developed, for instance, deck foam system, high performance fire fighting system. We then visited the Japan Aerospace Exploration Agency, where there is an aerospace museum. The real operation room was interesting and we had a chance seeing the communication system, which is being used to communicate with Japanese astronauts.

16 May 2018, Japan has a very good water reclamation system. All students were taken to Ariake Water Reclamation Center. It was built within the Clean center of the Tokyo Bay waterfront region, where the water has been cleaned in order to protect the water environment. During the visit, we had a chance to see the whole process of cleaning water that center adopted. This includes, for instance, an anaerobic-anoxic-aerobic process and biological film filtering process. Such a good experience contributes to the future development, where we can look at Japan as a model. The staff of center gave us very warm hospitality and we took a group photo in front of the building at last. In another half day, we visited to Tokyo University of Marine Science and Technology. At this place, I had a chance to see the navigational system, which allows the students to monitor and see the progress of the ship. Later, the university's staff took us to observe the laboratory for marine engineering, where the big machine was installed for studying purpose. In addition, one of the famous ship, Meiji Maru represents lighthouse tender and a royal ship in Japanese's history. These were interesting and I was very impressed. At the end of the day, we had to pack our items in order to transfer our luggage to Osaka in advance. We were excited to visit the new interesting city of Japan.

17 May 2018, we went to Port of Tokyo in the morning. Port of Tokyo is a big port in Tokyo metropolitan area, where the international trade is occurred since 1941. It plays a significant role in Japan's growth, supporting the lives and business nowadays. It is considered as a hub, where increases the support of Japan's structure change. By observing the port, we all took the Shin-Tokyo-Maru, which is the guiding cruise to see the main viewpoints including Rainbow bridge, Shibaura Terminal, Hinode Terminal, Shinagawa Terminal. These terminals are serving large shipping companies in Japan and the world. We all got knowledge here and it absolutely provide the insight information of how Japan is growing. After the site visit, we moved to Osaka by taking a Shinkansen train. This was another experience I have ever got because I had a chance to see the Fuji mountain along the way while travelling.

18 May 2018, we visited the Osaka Gas Co, Ltd. This plant is supplying the gas to the Osaka city as a concept clean and environment-friendly source. We took a bus to see the entire plant comprising of the gas processing process and LNG tank. The full containment LNG tanks are very big and interesting. We met the beautiful staff of the company and they showed us the experiment of the dry ice. Not only the knowledge we got, but we also got the beautiful photo at the end of session of them. After the delicious lunch, we went to visit the IHI Infrastructure Systems Co., Ltd, where the large infrastructure using the steel are produced. The tour factory had been taken by their staffs and the interpreters. It was a great experience seeing how the industry of Japan does the business with the Japanese concept such as JIT, Lean and Agile logistics.

19 May 2018, we went to Tenryu-ji temple and Kyoto Arashiyama. We spent almost half day to see the beautiful village where a lot of people were coming to see the Japanese village styles. There were a lot of store selling the Japanese foods and souvenirs, which I believed that everyone did not hesitate to buy for their family and friends. For myself, I have brought a lot of them because I love those kind of foods and items in Japanese styles. In the evening of the day, we had a farewell party, where we met a lot of networks in there. After that, in 20 May 2018, we flew back to Sweden safely with a great memory and knowledge from Japan.

To sum up, this Japan Field Study Trip provided us not only the happiness and knowledge, but also the networks. Without the support from the Sasakawa Peace Foundation and The Nippon Foundation, we will not have chance to explore the world and beautiful country like Japan. I would like extend my sincere gratitude for your generosity in providing us to have the chance both studying at Sweden and visiting at Japan. This will enable us to achieve our life's goal and path in the future.

Overall Impression

Kanchisa Deerod (Thailand)

On 13-20 May, 2018, I had a great opportunity to join “The Japan Field Study Trip 2018” with 29 students from World Maritime University. Moreover, this trip is subsidized by The Nippon Foundation and with the perfect organized by all Sasakawa staffs especially Mr. Eisuke Kudo, Mr. Shinichi Ichikawa, I have got a lot of great experiences from this journeys and the loveliest unforgettable tour guide Mrs. Miyoko Wada who had assisted us from the beginning until the end of this trip.

In This trip I had visited many potential organizations and companies in maritime field as Japan is the maritime nation. I have been visiting The Nippon Foundation, Kashiwa Company, Japan Aerospace Exploration Agency (JAXA), Ariake Water Reclamation Center, Tokyo University of Marine Science and Technology, Port of Tokyo, Yanmar Company, Osaka Gas Company and IHI Infrastructure company. It is undeniable that if I am not Sasakawa fellowship, I will not be able to have opportunity to visit such a bunch of leading Japanese companies with the great welcoming and obtain a lot of information that are really useful for our acknowledge in study and work in the future.

The most memorable moment for me is to meet Dr. Sasakawa at The Nippon Foundation. It was a dream come true as we were privileged to meet him in person and he gave me a good opportunity to introduce myself and thank him for his generosity in making my study in WMU possible. Moreover, I was so much impressed by his simple nature, humble and pay attention as he listened to our messages for appreciation. It was a good encounter with him and we had a lot of good individual and group photos together.

I learnt a lot about Japan during this trip, although I have been in Japan so many times because Japan and Thailand have had a good relationship for long time. Moreover, Japan is one of the most dream destination Thai tourists. However, nothing could compare to this trip from my point of view because within 5 days, we have traveled to 4 major cities of Japan which are Tokyo, Osaka, Kobe and Kyoto. Furthermore, this was the first time I took the famous Shinkansen Bullet Train from Tokyo to Osaka which I feel very amazed by the speed of it.

The last day of the trip, we spent one whole day to visit Kinkaku-ji or "The Temple of the Golden Pavilion" in Kyoto. It is one of the most popular buildings which is attracting a large number of tourists annually which is designated as a National Special Historic Site and a National Special Landscape and has been inscribed on the UNESCO World Heritage List. Including the beauty of Togetsu-kyo Bridge and Tenryu-ji Temple.

One thing that I would like to mention is the Japanese culture on punctuality, I was surprised to find the difference of importance of "being on time" in other countries. It seems to be valued by many people in many countries from what I've heard in developing countries. In Japan, people get ready 10 minutes

before they actually start something. For example, in our trip, if you were told to meet at the bus at 8 a.m. and you arrived just on time, you would be considered as late. Because it is common for people to arrive 10 minutes before the time they are told to come in Japan. Therefore, when you are told to come at 08.00 a.m., it means that you are expected to be ready on the bus before the bus can departure from the hotel sharply at 08:00 a.m. not at 08.05 a.m.. The important of "Being punctual" for Japanese is a way to telling the other person that you respect him and his time. If you are not on time often, you will definitely lose trust, which is one of the most important value in Japanese society.

Finally, I would like to say that I am really proud to be a part of the Sasakawa family and grateful for the opportunity to had a magnificent visited in Japan. This journey surely enriches my knowledge and open the opportunity to make a maritime network around the globe that will accelerate to build a sustainable development in maritime industries. Moreover, I have had the good opportunity to spend time explore the beauty of Japan which is no doubt that I have learn the best of Japan as country and the best of its culture, society, knowledge and technology. I am sure that me and my friends will take the best things in each aspect that we have seen in Japan to our countries and pass it forward to the world.

Overall Impression

Viyada Suriyakul Na Ayudhaya (Thailand)

The Japan filed study for WMU Sasakawa Fellowship, Class 2018 started from May 13 till May 20 2018. The one-week long trip was fulfilling with informative knowledge and impressive experience. The participants were totally 31 persons, including 29 Sasakawa Fellow Students, 1 Professor, and 1 WMU senior staff which come from various culture and countries. I feel very thankful to the Sasakawa Peace Foundation and the most kindness sponsor of The Nippon Foundation with assistance funds derived from proceeds of motorboat racing. Because at the first date that I reached to Japan, Narita International Airport, I receive very warm welcome from Shin, Sachiko and Miyo (the lady guide). Moreover, I very surprise that Shin could remember all of the fellow name that I recognized when he counted the number of person and mention each name and he knew who was missing.

From airport we went directly to the Sasakawa Peace Foundation for orientation about an hour to get some overview introduction, learn some useful Japanese phrases, interesting places, and acknowledge for punctuality that every time we had appointment, we need to come before time by 10 minute and the lately come would mean as disrespected to others. So I always came before the appointment time to show I respected to Sasakawa, shin, and my fellow friends.

The entire visit was extremely well planned, organized, and executed to the perfection providing us exposure on varied fields encompassing maritime, aerospace exploration, port management, water reclamation, infrastructure development, gas plants etc. however, the main highlight of the entire programme was meeting Mr. Yohei Sasakawa in person, having a photograph with him and listening to his vision for the world oceans. I still feel the general atmosphere of excitement which engulfed us on that day. On the afternoon of second day we visited Maritime Bureau, MLIT, wherein we learned about its organization, and functioning. Japan being a major maritime country, Maritime Bureau is certainly up to the task in achieving its herculean target. At Kashiwa company limited we learnt about the latest firefighting systems being manufactured for the shipping industry which is so much essential for the safe operations and functioning of shipping industry. On the pleasant afternoon of third day we had another enriching experience at Tsukuba Space Center of Japan Aerospace Exploration Agency (JAXA). The visit to JAXA comprised of brief about its history, organization and various functions providing us insight into the advancements made by Japan in the field of aerospace exploration and satellite based communication which is at core of increasing automation onboard ships. Highlight of visit to JAXA was tour of space museum which was very informative and lively.

Seeing and learning about the water reclamation at Ariake really fascinated me about the highly efficient water management system of Japan contributing to its socio-economic wellbeing. In order to sustain the thriving Japanese maritime industry seafarers training is an absolute essential and at the Tokyo University of Marine Science and Technology we saw the glimpses of world class maritime education, training and research & development. Being the student of port management I had so much to learn

from the visit to port of Tokyo, its historical perspective, efficient functioning and developmental plans. Boat tour of the port water front was like an icing on the cake. At Amagasaki factory of Yanmar company limited we saw the manufacturing and assembling process for various shipboard engines. Though a tad technical for my background what fascinated me was the level of automation in the manufacturing process and efficient organization of the shop floor. If the visit to Senboku plant of Osaka Gas company limited taught us about the efficient energy management, the visit to IHI Infrastructures was equally rewarding in terms of learning about the technological advancements in the field of bridge construction.

In addition to study visits to the above places I also took time to visit temples, shrines, local markets learning about the Japanese traditions, culture, people and enjoying Japanese cuisine. Guided tour to Kyoto Arashiyama and Kinkaku-ji temple by our lovely guide Miyo really provided a peek into the glorious history of Japan and its cultural richness. I found the people of Japan to be extremely courteous, polite, punctual and cleanliness sensitive. The Japanese sense of time management and order and cleanliness of Japanese cities fascinated me, which according to me plays very important role in the overall development of Japan.

It was one of the most fascinating, enriching and thrilling week of my life. The entire visit was so well organized was that I could just marvel at the entire experience. Thankyou the Sasakawa Peace Foundation for this life time experience.

Overall Impression

N'Hôboutoun Santa (Togo)

The Sasakawa Fellows' field trip to Japan was an opportunity for me to discover what I learnt about this country in books since the primary school up today. I was fascinated to learn that the country was during more than 200 years living in self-sufficiency, secluded from the rest of the world. The more striking information that raised admiration from me is the fact that Japan has no natural resources and entirely depends on the external resources; that the country like many east Asian countries has been facing devastating catastrophes, such wars (the bitter experience of the world war II), the tsunamis, the earthquakes .Despite those natural barriers, the development of Japan, to be in the first 5 top developed countries seems to me what I might call the ''Nippon miracle''.

However, I understood that this achievement is made possible by the reliance on the hardworking Japanese people, devoted to the well-being of the Japanese Nation.

With regard to the Organisation of the field trip to Japan, I would like to express my admiration to the Sasakawa Peace Foundation, which has been keeping communication with its Fellows via the WMU. Indeed, we were well informed about the eventful coming field trip to Japon.The same level of preparation was displayed by the Sasakawa Peace Foundation staff when we arrived at the Narita International Airport of Tokyo. We had a warm welcome by the SPF team, composed of Mr.Shinichi, Ms. Sumitomo and Ms. Miyoko Wada, our very interesting, helpful and jovial guide. From the airport to the SPF Headquarters, we were informed about all the activities that would take place during our stay in Japan.

Concerning the logistics, let me say frankly that it was very satisfactory, especially, the hotels where we had accommodation and the means of transportation.
With regard to the SPF staff, they were devoted to our satisfaction everywhere we went; I want to express my sincere gratitude to the whole staff.

With regard to Japanese society, I experienced what I learnt about it by hearsay, in the books since the primary school up today. First, the Japanese people have a special hospitality for their hosts and this was proved everywhere we went, materialized by the hand waiving when we were leaving them until we disappeared. Another aspect of this hospitality is the interests to organize a welcome and farewell parties in honour of their hosts.

Second, Japanese people have the sense of humility and politeness. The fact to bow when addressing to interlocutor is a sign of humility I noted during my stay in Japan.
To conclude on the Japanese society, let me say that the people are hardworking, devoted to the national interest and this was displayed on all the sites we visited where the workers were applied to their jobs.

This raised admiration for me and I have been asking myself how people are trained in Japanese schools and Universities to be work alcoholics as I saw the workers at work places.

With regard to the sites we visited, such as Kashiwa Co.Ltd, Japan Aerospace Exploration Agency (JAXA) Tsukuba Center, Ariake Water Reclamation Center, Tokyo University of Marine Science and Technology, Port of Tokyo Bay, Yanmar Co.Ltd, Amagasaki Factory, Osaka Gas Co.Ltd and the IHI Infrastructure System, I was amazed by the Organisation and the working system of these entities. The abnegation of the workers, the punctuality at the workplace are the most triking quality of the Japanese workforce. This observation does not purport to advertise the Japanese Companies, but it is just a description of the reality I "touched with finger"when visiting these sites.

To conclude on my overall impression on the field trip to Japan, I was impressed by the politeness, the humility, the sense of respect, hospitality and passion which characterized the Nippon people everywhere we went.

On this note of satisfaction, I would like to reiterate my sincere gratitude and admiration to the whole Japanese people and particularly to The Nippon Foundation and the Sasakawa Peace Foundation for the Fellowship Award to allow me to achieve my academic dream at the WMU.

Vote of thanks to the dynamic SPF staff ,namely Mr.Kudo,Mr.Akita,Mr.Shinichi,Mr.Kato,Ms Miyoko Wada,Ms.Sumitomo and all the other interpreters involved in the success of our field trip to Japan. Once again, I would like to say to all of you "**'Arigatou gozaimasu and sayonara**".

Overall Impression

Minh Quang Nguyen (Vietnam)

As part of annual academic program, WMU students are offered distinguished Field Studies to developed countries to further strengthen the theoretical concepts they got in class. Among which, Japan has been regarded as one of the most favorite destination. Apart from the achieved maritime insights, students also learn from good characteristics of Japanese as well as have chance to experience the culture, the night life and the cuisine of this amazing nation. This report will elaborate the above mentioned issues and make some comments at last.

Regarding the site visit program, it was very well organized and informative to various visiting venues include maritime institutions, companies as well as cutting-edge research centers. Through these site visits, students gain more understandings regarding latest technology knowhow not only in maritime industry but also other sectors. Additionally, it is also the way how Japanese organize and the management model that they could benefit from visiting these organizations. However, the ultimately anticipated event for the whole trip was the courtesy visit to The Nippon Foundation where students have the honor to meet the Chairman-Mr Sasakawa, the man who brought their academic dreams at WMU came true. Despite his high rank position, he showed a surprising humbleness and friendliness during his inspiring speech, from which the whole group was reminded about the importance of environmental protection in economic development to achieve the aim of UN sustainable development goals. Moreover, he stressed the role of Sasakawa Fellows network in contributions for these goals in their home countries and showed his strong belief that the 2018 WMU students will continue the missions of their predecessors.

Apart from these site visit, students also have some relaxations with cultural tours to the ancient town of Kyoto to explore the architecture as well as the traditional customs of the country of sunrise. This outdoor activity was really useful to help the group further understand about Japan and to provide them with memorable pictures bringing home!!!

Another thing that should be mentioned is the hospitality, punctuality and helpfulness of Japanese in general and Sasakawa staffs in particular. The students were very surprised about the way how their donor welcome them, prepare minor things to make their trip perfect since their very first moments until the last minutes in Japan. Even for strangers on streets, they also showed strong willingness to help when asked for despite of language barriers. Moreover, the group was also impressed about the concept of punctuality in Japan means 10 minutes in advance.

Public transportation was very well organized, cleanliness and speedy. Especially the Shinkansen bullet train which offered excellent service with comfortable seats and just around 2 hours for travelling from Tokyo to Osaka with a distance of 400km roughly. With such very high speed, it is amazing that the train can be capable of stopping exactly right at the boarding gate. It is really fantastic train.

Despite of the tight schedule, students still had time for free night out in Japan for sightseeing and shopping in crowded streets of Tokyo where they had the experience of crossing the busiest intersection in the world of Shibuya and enjoy shopping in famous shopping centers with very reasonable price and high quality products.

One of the most interesting things for students to explore at night time is Japanese cuisine. They had chance to taste the famous dishes such as sushi, sashimi and sake in the country of origin. Among which, the dishes that they enjoyed very much was the Okonomiyaki pancake, but most of all the extremely distinguished ramen noodle left really impressed them even it was served in a small restaurant under an overhead bridge.

To sum up, it was just a few days visiting, but I was really impressed about the great achievements this country has achieved despite of many disadvantages after wars. I will treasure the nice memories in Japan and hope for another chance to revisit this wonderful country. Nevertheless, I will bring the insights I got as well as the wonderful experience there home and dedicate my best with a belief that my country moving forwards like Japan.

Lastly, I would like to thank Mr. Kudo, Mr. Shinichi and Mrs. Miyo for accompanying us during the trip. Most of all, I would like to express my gratitude to Sasakawa Peace Foundation for offering me such a knowledgeable and helpful trip. Wish for the thriving and prosperity of the Sasakawa Peace Foundation and Japan as well.

Overall impression

Manh Xuan Nguyen (Viet Nam)

Being selected as a member of Sasakawa fellowship 2018 has been one of the best changing things in my life because it gives me a chance to change my vision of the maritime industry. In this year, I have been going to field study a lot of places in which each location brought me many different experiences. However, Japan is one of the most interesting places that I have ever visited.

This is not my first visit to Japan because I had a month training in Japan in 2015. From the experience that I had, Japan impresses me time and time again. Japan has not only well developed society but also well advance in science and technology. In addition, science and technology applications are applied by the Japanese in many areas to create great breakthroughs in the development of those areas. Referring to Japan cannot fail to mention the maritime industry. Japan is an island nation; it is largely dependent on the sea. With a strategic vision, Japan is one of the leading maritime countries in the world which has very strong development in shipbuilding industry, efficient shipping, hi-tech marine equipment as well as seaport.

According to my observations during the trip, Japan is very focused on the development of human resources. This is ideally suited to a country lacking natural resources like Japan because, by wisdom, people can change everything. Nowadays, Japan has been one of the most developed economies in the world by their greatest resource which is human resources. The training and research are not only concerned by the Japanese government but also other private social organizations especially The Nippon Foundation. Indeed, I have a chance to visit and explore many institutions such as the JAXA, Kashiwa Co., Ltd, Tokyo University of Marine Science and Technology, Yanmar Co., Ltd and I realized that The Nippon Foundation has contributed a lot in the field of research and development of technology as well as human resources in these facilities which reinforces my belief in the issue of training and research of Japan. These visits were also an opportunity for us to see the efforts of Japan on ship machinery industries in order to improve the competitiveness of Japan maritime industry. Under the close cooperation between the government sector, industrial and academic, many maritime achievements have been made to make Japan to become a maritime power in the world. On the other hand, Japan also plays an essential role in contributing global ocean policies and promoting the maritime environmental protection are admired by Sasakawa Fellows. There are many foundation has been established such the WMU-Sasakawa Global Ocean Institute, making the global ocean policies, boosting the relationships amongst coastal countries and funding the potential candidates for enhancing their maritime education.

Likewise, meeting Dr. Yohei Sasakawa was a privilege and unique opportunity. He hosted us with a remarkable humility that reflects his genius personality. I was impressed by his pure nature and keen interest as he listened to our messages of appreciation despite his busy schedule. On his speech, he highlighted his keenness to meet the WMU Sasakawa Fellowship students 2018. He also showed his

interest in letters received from the Fellowship students after the graduation and emphasized the essential of networking for achieving the foundation's goals. It was one of the best moment for all student to realize the importance of community work.

Eight days, three cities and ten visits in Japan will always be a memorable experience for WMU Sasakawa Fellowship students in 2018. It will always remind us of the pride of being a member of the Sasakawa, scholarship family. After graduation, the students will carry the knowledge learned to apply to their work. I firmly believe that with the learning opportunities created by The Nippon Foundation it will bring a lot of positive contribution to the development of the world in general and the marine industry in particular. Finally, we would like to express our most profound gratitude and appreciation to Dr. Yohei Sasakawa, Mr. Eisuke Kudo, Mr. Shinichi Ichikawa, Mrs. Miyoko Wada for the beautiful field study trip. I wish you always happy and healthy in your life, and I hope that I will get chance to visit beautiful Japan shortly again.

The Japan Field Study Trip 2018

May 12-20, 2018

Hyogo

Yanmar Co., Ltd. - Amagasaki Factory

Osaka

Osaka Gas Co., Ltd. - Senboku Plant
IHI Infrastructure Systems Co., Ltd.

Ibaraki

Kashiwa Co., Ltd.
Japan Aerospace Exploration Agancy (JAXA) - Tsukuba Space Center

Tokyo

Courtesy Visit on Mr. Yohei Sasakawa
Courtesy Visit on Maritime Bureau, MLIT
Ariake Water Reclamation Center
Tokyo University of Marine Science and Technology
Port of Toky

http://www.spf.org/e/

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