Tokyo Tech-AYSEAS 2014

Tokyo Tech-Asia Young Scientist and Engineer Advanced Study Program 2014

Final Report

—From Asia to the World—

ACKNOWLEDGEMENT

Tokyo Tech-AYSEAS (Tokyo Tech-Asia Young Scientist and Engineer Advanced Study Program) Administration Office and all Tokyo Tech-AYSEAS 2014 members would like to thank the following cooperating organizations, companies and universities (listed here in the order we visited them and according to other cooperation) for the precious opportunity to visit them in Vietnam and for the discussions with students from partner universities in Vietnam, Indonesia, and the Philippines.

NISSAN Motor Co., Ltd, Yokohama Plant
National University of Civil Engineering
FPT Software (F-Ville)
DENSO Manufacturing Vietnam Co., Ltd.
Thang Long Industrial Park
Vietnam HTMP Mechanical Co., Ltd
Viglacera Ceramic
TOYOTA Motor Vietnam Co., Ltd.
JICA Project (Establishment of carbon-cycle-system with natural rubber)
Hanoi University of Science and Technology
Ho Chi Minh City University of Technology
Institut Teknologi Bandung
Universitas Gadjah Mada
Universitas Indonesia
University of the Philippines, Diliman

Special Thanks to **Hanoi University of Science and Technology,** this year's host university in Vietnam.

Special thanks to the **Tokyo Tech Fund** and the **Support Office for Promotion of Global Human Resource Development** for supporting the students' travel expenses.

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1. Program Information

A) Outline

Tokyo Institute of Technology (Tokyo Tech) launched the Tokyo Tech-Asia Young Scientist and Engineer Advanced Study Program (Tokyo Tech-AYSEAS) in 2013. It is the successor to the highly successful Japan-Asia Young Scientist and Engineer Study Visit (JAYSES), which was launched in 2007 with the aim of establishing networks of promising young persons in Asia. Tokyo Tech-AYSEAS will continue in the spirit of JAYSES while developing as an integral part of the Global Scientists and Engineers Course, of which it recently became a part. Tokyo Tech-AYSEAS provides opportunities for participants to broaden their horizons through collaboration with students from different backgrounds and to experience the dynamism of rapidly growing Asian industry, education and government.

This year, we visited Vietnam, and learned from many people working for manufacturers, government organizations, and educational institutions.

Tokyo Tech-AYSEAS 2014's main theme was "From Asia to the World." The program primarily consisted of the three parts outlined below:

1) Preliminary studies

The Tokyo Tech participants had preparatory study sessions to deepen their understanding of the technical visits planned in Vietnam.

- Lectures about several topics
- Visit to NISSAN Motor Corporation, Yokohama Plant
- Basic Vietnamese
- Study and presentations (in English) on the institutions to be visited in Vietnam
- Discussion sessions to improve oral English

2) Activities in Vietnam

a. Technical visits to Japanese and Vietnamese companies, government organizations, universities and JICA project sites.

b. Group discussions and presentations

At the end of each day, students discussed what they learned at the institutions and exchanged opinions. Based on the discussions, each group chose one topic and made a presentation on the last day. The topics are below:

- Motorization and traffic jam
- Urbanization and economic discrepancy
- Development of energy resources and protection of environment
- Generation of electricity by nuclear energy and risk assessment for severe accident
- Economic growth and gap between the rich and the poor
- Education and industrial management
- Innovation and regional/global competition
- Technology transfer between countries and the effect on business growth in each country
- Cultural difference and understanding on different culture (Understand others/Let others understand us)

3) Reporting

Tokyo Tech students published the Final Report (this report) and held a final reporting session after their return to Tokyo.

B) Objectives

1) To learn how the latest technologies and methodologies are applied to the practical stage in Vietnam, and to learn about the support from and control by government organizations.
2) To experience collaboration with students from different nationalities, cultures, languages, viewpoints or fields of study.
3) To brush up on their English skills as a tool for international communication.
4) To develop close and international friendships.

C) Participating Universities

Japan	Tokyo Institute of Technology (Tokyo Tech)
Vietnam	Hanoi University of Science and Technology (HUST): Host university of Tokyo Tech-AYSEAS 2014
	Ho Chi Minh City University of Technology (HCMUT)
Indonesia	Institut Teknologi Bandung (ITB)
	Universitas Gadjah Mada(UGM)
	Universitas Indonesia (UI)
The Philippines	University of the Philippines, Diliman (UPD)

D) Benefits for the participants

1) Participants can develop an international human network.
2) Participants can learn the latest technologies in Vietnamese industry and about the relationships between ASEAN countries and Japan through private investment or Official Development Assistance (ODA).
3) Participants receive certificates issued by an Executive Vice President of Tokyo Tech.
4) Participants can collect useful information about studying at Tokyo Tech.
5) Participants can improve their English skills.

E) Expected Results

1) More Japanese students will study abroad
2) More ASEAN students will study in Japan
3) Build a strong, international student network between top-ranking universities in ASEAN countries and Japan

2. Schedule of Tokyo Tech-AYSEAS 2014

April ~ May 2014	Announcement and application
June	Selection
June ~ July	Preparatory studies
September 7~17	Activities in Vietnam
October 20	Final presentation session at Tokyo Tech

Schedule of Preparatory studies

Date	Theme
Jun 10	Orientation, Lecture by Prof. Hanamura
Jun 17	Lecture by Prof. Hinode
Jun 24	Lecture by Prof. Hayashi
Jul 8	Visit to NISSAN Yokohama Plant
Jul 15	Lecture on Vietnamese language and culture by Vietnamese students
Jul 22	Pre-trip presentation

Schedule of Activities in Vietnam

Date	Event
Sep 7	Participants arrive in Hanoi
	Ice Breaking Session
Sep 8	Opening ceremony at HUST
	Campus tour at HUST
Sep 9	National University of Civil Engineering (NUCE)
	F-ville
Sep 10	DENSO Manufacturing Vietnam
	Thang Long Industrial Park
	HTMP mechanical company
Sep 11	Viglacera Ceramic
	TOYOTA Motor Vietnam
Sep 12	JICA Project (Establishment of carbon-cycle-system with natural rubber)
	Tokyo Tech Seminar (Information about study abroad to Tokyo Tech)
Sep 13	Sightseeing
Sep 14	Sightseeing
Sep 15	Preparation for presentation and Cultural Exchange Party
Sep 16	Preparation for presentation
	Final Presentation and Closing ceremony
Sep 17	Participants Leave Hanoi

3. Selection

A) Tokyo Tech students

1) Announcement at Tokyo Tech

The Tokyo Tech-AYSEAS administration office announced the program through its website, posters and flyers in April. They had briefing sessions on several occasions including the Study Abroad Fair and English events on campus.

2) Application

Applicants submitted an essay with their application titled "What is your purpose and expectations for joining Tokyo Tech-AYSEAS?" within 500 words in English by 19 May 2014. The number of applications this year was 32.

Statistic of application (by nationality and gender)

Nationality	Female	Male	Total
China	2	1	3
Indonesia	0	1	1
Japan	7	18	25
Korea	0	3	3
Total	9	23	**32**

Statistic of application (by grade, school and gender)

Years of Study	Grade	Female	Male	Total
Undergraduate	B1	1	2	3
	B2	1	4	5
	B3	2	5	7
	B4	2	6	8
Total of Undergraduates		**6**	**17**	**23**
Graduate	M1	3	4	7
	M2	0	2	2
Total of Graduates		**3**	**6**	**9**
Grand Total		**9**	**23**	**32**

3) Interviews

Tokyo Tech-AYSEAS Working Group (WG) members interviewed the applicants in May. The applicants were divided into eight groups of 3-5 persons. They were asked to have a discussion for 20 minutes and to give a presentation about their conclusions. The topic was "Recently "research ethics" have been in the news around the world. What types of problems can occur if students and researchers do not conduct their study or research with a sense of ethics? What kind of morals should global researchers have and why?"

4) Criteria for Selection

The essays were scored based on the applicant's English ability, logical composition, and eagerness. In group discussions, applicants were appraised by assertiveness, cooperativeness, logicality, calmness, and attitude by Tokyo Tech-AYSEAS WG members.

B) Students from partner universities

Students from partner universities sent their applications to Tokyo Tech. There were 50 applications from six universities this year. The applications were sent for selection to the applicants' home universities, and 19 students participated in the program.

Statistic of application (by country and gender)

Country	Female	Male	Total
Indonesia	15	8	**23**
The Philippines	0	1	**1**
Vietnam	5	21	**26**
Total	**20**	**30**	**50**

Preparatory Studies in Japan

Note: This page and subsequent pages contain reports by Tokyo Tech students who participated in Tokyo Tech-AYSEAS 2014.

Outline

Before going to Vietnam, Japanese participants had two kinds of preparatory sessions: lecture sessions and discussion sessions. In addition, we visited a Japanese company-- NISSAN.

1. Lecture sessions

In every session, we listened to lectures that included discussion time. The schedule and contents are shown below.

1) June 10th: Energy issues for sustainable community (by Prof. Katsunori Hanamura)
2) June 17th: Advanced Global Environmental Problem (by Prof. Hirofumi Hinode)
3) June 24th: Biological assessment of your developing technologies (by Prof. Nobuhiro Hayashi)
4) July 1st: Orienteering before going abroad (by Tokyo Tech International Office)
5) July 15th: Lecture on Vietnamese language and culture (by Vietnamese students)
6) July 22nd: Pre-trip presentation

In the pre-study presentation, we made a presentation to share the information about the universities and companies that we would visit in Vietnam. We were divided into eight groups and each group gave a presentation about HUST, NUCE, DENSO, Thang Long Industrial Park, HTMP, Viglacera Ceramic, TOYOTA and JICA Projects.

2. Discussion sessions

During summer vacation, we held two discussion sessions on our own, aiming to improve our oral English and discussion skills. The schedule and contents are shown below.

1) August 22th, 10:00-12:00 Practice for discussion "TALK about Japan"#1
2) September 4th, 10:00-12:00 Practice for discussion "TALK about Japan"#2

3. Factory visit

We visited a Japanese company, NISSAN, on July 8th.

On the following pages, you will see detailed reports about (1) Factory visit, (2) Lecture about Vietnamese language and culture, and (3) Discussion sessions.

Lecture on Vietnamese Language and Culture

Reporter: Koomok Lee (Koomok)

Date & Time: July 15th, 2014

Program: Presentation about Vietnam, lecture on Vietnamese language

Summary and Reporter's comment:

1. Vietnamese culture

Main transportation: motorbike

Main food: pho (noodles made of rice)

Taste of food (compared to Japanese food): less oily, less salty, fragrant (using herbs), spicy

rau thơm (herb)

nước mắm (spicy sauce)

Dress: usually no socks, wear sandals or slippers

2. Vietnamese language

- Vietnamese language has 6 intonations (a á à ả ã ạ) and uses an alphabet.
- There are 3 most popular and widely using dialects which are the north area (Hanoi), middle area (Hue) and south area (Ho Chi Minh).
- About 30%~60% of the Vietnamese language was derived from the Chinese language.

Discussion Sessions

Reporter: Leo Hiramoto (Leo)

Date & Time: 1) August 22th, 2014, 10:00~12:00

2) September 4th, 2014, 10:00~12:00

Program: Discussion practice

Summary and Reporter's comment:

1. Abstract

The Pre-study sessions were organized by AYSEAS 2014 student leaders on August 22th and September 4th at Tokyo Tech. With these meetings, most of the participants could learn about "discussion" and practice discussing in English as we would do in Hanoi. Getting a better relationship with each other was also one of purposes of these sessions.

The theme was "to define the character of Japan." Before the meeting, the participants thought their own ideas deeply inside in advance, and prepared some examples. In fact, the presentation of Japanese Cultural Exchange was based on its conclusion.

2. Composition

- Lecture about ABC of discussion

One of the student leaders gave a lecture about discussion itself. Every participant learnt what discussion is, what we should be concerned about in discussion and the like after these sessions.

- Practice

After the lecture from a leader, we all discussed a certain theme which was given in advance. Each of us introduced own ideas or thoughts to the others and at last concluded as the answer to the theme.

NISSAN MOTOR CO., LTD.

Reporter: Saki Kato (Saki)

Date & Time: July 8th, 2014, 14:00~16:00

Program : Presentation about company, Exhibition and Factory tour

Contents of visit and Reporter's comment:

1. Presentation about company

One of the employees in NISSAN explained about their history, business, products and so on. Some of the most essential components such as engines, motors and suspensions are produced in this plant under the utmost quality control. We could understand the details of NISSAN.

2. Exhibition

We could visit exhibitions about history of NISSAN, products, awards and so on. For example, we saw the exhibition of state-of-the-art cars in front of the information center and learned about the mechanism of cars and engines by seeing cut models of the life-size vehicles. There was also an exhibit showing how an automobile works and a car-manufacturing robot performing a painting demonstration.

3. Factory tour

During the factory tour, we saw the process of producing components and engine assembly. In addition, we saw the signboards of "SAFETY FIRST" everywhere and the electric bulletin board of quota. This is the spirit of a Japanese company. And there were a lot of industrial robots and automatic vehicles in the factory.

Q&A:

Q1: What percentage of the entire process has been automated? And what percentage do you think will be automated in future?

A1: We have 70~80 % automated process in NISSAN factory. In the future, we will be able to automate all processes, but we have to consider the balance with money.

Group photo

Technical Visit

Outline

The 'technical visit' is the main activity of AYSEAS. We visited nine organizations in Vietnam and learned as many things as we could from factory and campus tours and presentations there.

These experiences helped us to think about the current situation in Vietnam and relationships between Vietnam and other Asian countries, especially Japan.

They were also useful when we thought about technology. For example, in the organizations, there were many machines from Japan, China and so on. In Vietnam, technology transfer was implemented. As students in science and engineering majors, we could learn about the current situation from such viewpoints.

From the next page, we will share the information of each organization as well as what we learned through our visits.

Schedule

September 8th Hanoi University of Science and Technology (HUST)
September 9th National University of Civil Engineering (NUCE)
September 9th FPT Software
September 10th DENSO Vietnam
September 10th Thang Long Industrial Park
September 10th HTMP
September 11th Viglacera Ceramic
September 11th TOYOTA Vietnam
September 12th JICA (Establishment of Carbon-Cycle-System with Natural Rubber)

Hanoi University of Science and Technology

Reporter: Leo Hiramoto (Leo), Riho Yahagi (Riho)

Date & Time: September 8th, 2014, 10:00~ 11:45, 13:30~14:30

Program: Lab Tour, and Campus Tour

Contents of visit and Reporter's comment:

Hanoi University of Science and Technology (HUST) was established on October 15th 1956 as the leading university in the field of science and technology in Vietnam. It has trained 150,000 engineers, 10,000 masters, and 800 doctors. It has 37,000 students (32,000 undergraduates and nearly 5,000 graduates), 20 Schools, and 2 faculties. There are a lot of special training programs such as the Joint ICT Program with Japan institutions, the Samsung Program (SolCT), and School of International Education (SIE)

We visited its facility to learn about the latest technologies in HUST in the 3rd day of this program. We could see the studies related to material engineering, transportation engineering and so on. In addition, we saw around the Ho Chi Min museum included in HUST.

The huge and elaborated machinery in HUST imply that this university is a leading research institution in Vietnam. We felt the latest study in HUST exists for future development and evolution. Plus, the campus was filled with many more students than Tokyo Tech.

Lab Tour

Campus Tour

National University of Civil Engineering

Reporter: Akito Yoshinaka (Akito), Akihisa Imai (Aki)

Date & Time: September 9th, 2014, 9:00~11:00

Program: Presentation about NUCE, group discussion and lab tour

Contents of visit and Reporter's comment:

The National University of Civil Engineering, abbreviated as NUCE, formerly "Ha Noi University of Civil Engineering", has been one of the leading universities in Vietnam, especially in the field of Architecture and Construction. NUCE was established in 1966. Originally, Hanoi University of Science and Technology (HUST) had a Faculty of Civil Engineering. That faculty was separated to focus on Civil Engineering, and then became NUCE.

Now NUCE has 11 faculties and 13 laboratories. The number of academic staffs is 785. Also, NUCE has cooperative relation with 80 international universities from more than 30 countries all over the world, such as Japan, France, China, and so on, aiming at developing the international projects and high-level engineers.

After the presentation of general information about NUCE, AYSEAS participants and NUCE students were divided into some groups and discussed about any topic they liked. As members of each group came from different countries (Vietnam, Indonesia, The Philippines, Japan, China, Korea), they shared cultural differences as well as similarities.

Then, we walked around the campus and visited some laboratories. The research theme of the laboratories we visited was "Soil Technology" and "Environmental Technology." There we could see equipment for investigation of ground condition and water purification. Professors and students of NUCE kindly taught us how the equipment works and how they do their investigation.

FPT Software (F-Ville)

Reporter: Jiaying Xu (Tracy), Daisuke Kikuchi (Daisuke)

Date & Time: September 9th, 2014, 13:00~15:00

Program: Presentation about FPT Software, Office tour and Q&A session.

Contents of visit and Reporter's comment:

1. General Information

FPT Software is the leading software outsourcing company in Vietnam with over 5100 engineers working in the company. The company is one of the members of FPT Group. FPT Software's vision is to lead software outsourcing service in Vietnam. They are providing different kinds of service to their customers：redundant data、custom software.

FPT Group is a multinational information technology company of Vietnam with branches in 14 countries. It is one of Vietnam's leading conglomerates, based in Hà Nội and has branches in Ho Chi Minh and Da Nang. FPT affiliate companies are active in software outsourcing, telecommunications, property, education and financial services.

FPT ranked first in the private companies section of the 2008 VNR500 List of leading Vietnam companies; the list is compiled on the basis of revenue, growth and other economic factors.

FPT Software

Achievement room

2. The trip to FPT SOFTWARE

In the afternoon of Sept. 9th, we went to FPT Software to have a visit. Around 14:00 PM, we arrived at the FPT Software Company. On the right side of the building of the company, there is a big cartoon character with a big head wearing a pair of glasses and holding a hoe. The tour guide told us that the symbol of their company's employees. All the software engineers in their company are just like farmers, working very hard to produce more harvest. The software outcome of their company is just like the grains of

farmers. Based on this, the company uses the shape of grains to decorate the windows of their building.

Then we went to the second floor and the tour guide of FPT introduced the history, the company service and the company culture to all of us. From the presentation, we came to know that the FPT started from a very small company in 1988. Right now, they are providing service to 250 clients from all over the worlds. About 40 clients are the fortune 500 companies.

After the presentation, the tour guide showed us the FPT office, the guest rooms, the rooms for employees' children and the recreation room. The security of FPT is very strict. In every office, they have their own security system. Visitors or employees need to use a card to open the door to get into that room. We were all very shocked about that. One more thing is the guest room of FPT. They tried to build it into a Japanese style because they have a lot of Japanese clients and they need to stay in FPT sometimes. In order to let them feel more comfortable, FPT made some guest rooms into Japanese style. The other thing which surprises us is the playrooms for employees' children. Besides considering the need of the employees themselves, FPT also considers about the family of the employees. In order to let their employees to work without any worry about their family and their children, the company also provides the places for little children to play when they come to FPT with their parents.

The achievement room is also very interesting. On the first floor of FPT building, very near the main gate, there is an achievement room of FPT. For people who have contributed a lot to the company, his or her name will be written down on one wood block with grain shape, and then it will be hung up on the branch made of iron. It is really a good way to motivate the employees to work harder and harder.

It is really a great experience for us to visit FPT. From it, we have known the IT development in Vietnam and also the Vietnamese sprit of hard working and willing to take the adventures.

Guest room

Nursery for employee's children

DENSO Manufacturing Vietnam Co., Ltd

Reporter: Daisuke Kikuchi (Daisuke), Myonso Yoshiyama (Myon)

Date & Time: September 10th, 2014, 9:00~ 11:00

Program: Presentation of DENSO, factory tour and Q&A session.

Contents of visit and Reporter's comment:

We visited DENSO in Vietnam, the name of which is DENSO MANUFACTURING VIETNAM. At first, we heard the presentation of the basic information about DMV. And then we visited the factory. We could see assembly lines. Finally, there was a Q&A Session.

What impressed us is the high education of employees. Employees in this company are taught the company's policy such as 5S (Seiri, Seiton, Seisou, Seiketsu, Sitsuke) and QCDS (Quality, Cost, Duty day, Safety) and forced to keep it. There is also an opportunity to join the "World Skills Champions Forum 2014" in which the most skillful engineer in the world is decided and this helps to increase worker's motivation.

The percentage of female workers in DMV is also one of the most interesting things. It reaches about 80%!!! These days, the Japanese government urges Japanese women to have jobs. However, still male workers are much more than females and we have never seen a large industrial company like DMV in Japan. A guide in DMV told us that large portion of materials in this company is small enough to take and carry and it is easy for women to work. That's one reason why a lot of women are working in this company.

Q&A:

Q1: How does DMV contributes to economics growth of Vietnam?

A1: We gain money from the other countries and this helps Vietnam to grow its economy.

Q2: What is the secret for success story? Tell us efficient information!

A2: We have DENSO spirit and many good workers. We always believe that our work will be done by a team, not an individual.

Thang Long Industrial Park

Reporter: Taiga Okai (Taiga), Jumpei Nishikawa (Charlie)

Date & Time: September 10th, 2014, 12:00~13:00

Program: Presentation of general information about TLIP, Q&A session.

Contents of visit and Reporter's comment:

In 1997, Sumitomo Corporation, a world-leading integrated trading house of Japan who has 58% of TLIP's legal capital and Dong Anh mechanical Company, one of the most successful Vietnamese companies under the ministry of construction who holds the remaining 42% of the legal capital jointly established Thang Long Industrial Park.

They have many facilities and infrastructures. For example, canteen, clinic, security, fire station, electric substation, water purification plant and so on.

First, they started to sell the space for factories with good working and living conditions. After they sold out all the space, they do the management and operation of TLIP. Especially they support the operation of tenants, contribute to the development of local society, try to keep good environment, contribute to the improvement of worker's living condition, and intend to maintain the social order and traffic safety.

Not only Ho Chi Minh, But also Hanoi is developing quickly in recent years. Near Noi Bai Airport, where we arrived first in Vietnam, we felt the energy of a developing country, seeing many construction sites and smelling exhaust gas. In Hanoi city, we saw skyscrapers and a lot of tower cranes. It can be said that TLIP, located between these two sites contributed to the development around Hanoi city through industrialization. We are sure that Hanoi continues to develop since we visited Hanoi and Thang Long Industrial Park.

Q&A:

Q1: Why are there Singaporean and Malaysian companies?

A1: Mainly because TLIP provides richer infrastructure. For example, we have few power shutdowns.

Q2: Why do the workers choose to work in TLIP?

A2: For higher salary, stable and better working condition.

Vietnam HTMP Mechanical Co., Ltd

Reporter: Harish Reza Septiano Warsono (Harish), Tomomi Sugiyama (Tomo)

Date & Time: September 10th 14:00~16:00

Program: Factory tour and Q&A session

Contents of visit and Reporter's comment:

Vietnam HTMP is a company making molds and plastic injection products. It was established in 2006, and it's a really high speed growing company.

First, we were allowed to see inside of the factory. There was no limited area, so we can see anywhere we want and get a close look at their facilities and employees. We were sorry we were not allowed to take pictures inside the factory because of protection secrets of their customers, but it was such a precious experience.

After that, we backed to the conference room, and had a Q&A session. Since the CEO of Vietnam HTMP could speak Vietnamese only, a professor coming from HUST gave us translations. It was very active session.

CEO of HTMP and HUST professor

The Company's policy

Q&A:

Q1: What is the use of the oil like liquid when cutting the metal in the mold making process?

A1: First, to release the heat produced in the cutting process. Second, to protect the metal from surrounding electricity. Both of them increase the efficiency and precision of the cutting process.

Q2 Does this company also employ a big proportion of female workers like Denso and Thang Long?

A2: In the making of small plastic part, yes. But in the mold making process that need a lot of power, we only employ male workers.

Viglacera Ceramic Co.

Reporter: Koomok Lee (Koomok), Yuka Morimoto (Yuka)

Date & Time: September 11th, 2014, 9:00~11:00

Program: Presentation about company, factory tour

Contents of visit and Reporter's comment:

1. Presentation about company

Established since 1974, Viglacera has been a leading manufacturer of construction materials in Vietnam as well as in South East Asia. Composed of more than 40 subsidiary companies with the potential labour resource of more than 18,000 employees in all over Vietnam and supplier of construction materials for all national big important projects in Vietnam and for more than 40 oversea markets. Viglacera supplies all high quality products such as sanitary wares, building glass, ceramic tiles, granite tiles, cotto tiles, tap, bathtub accessories etc.

2. Factory tour

In the factory tour, we saw the processes of making toilets. They make the shapes by using mold and dry it for some days. The color changes into white day by day. They combine and burn them. It takes for about 10 days for making it. Some of the failed products are crushed and made into an ingredient. We could see colored toilets too.

Many toilets!!

Q&A:

Q1: In the farm, I saw some colored toilets. Why does your company make them? Why are most of the toilets white? Is it easier to make?

A1: It is easier to make white ones. We make colored toilets for demands of foreign people. Some country's people prefer colored toilets. Do you want to use colored toilets? That's why we make white!

Q2: About the pipe line connected to sewage, is it made before or after the making the toilet?

A2: The pipeline is made before making toilet. So the design of the toilet matches the pipeline design.

Q3: When workers work, they don't wear any masks or glasses and in the working place there are so many floating fine dust which might harm workers health condition. Any opinion on this matter?

A3: We haven't thought about the safety measures yet. But we will consider it seriously from now on.

TOYOTA Motor Vietnam Co., Ltd.

Reporter: Daisuke Ujiie (Uji), Haruka Saso (Haruka)

Date & Time: September 11th, 2014, 13:00~16:00

Program: Presentation about company, factory tour

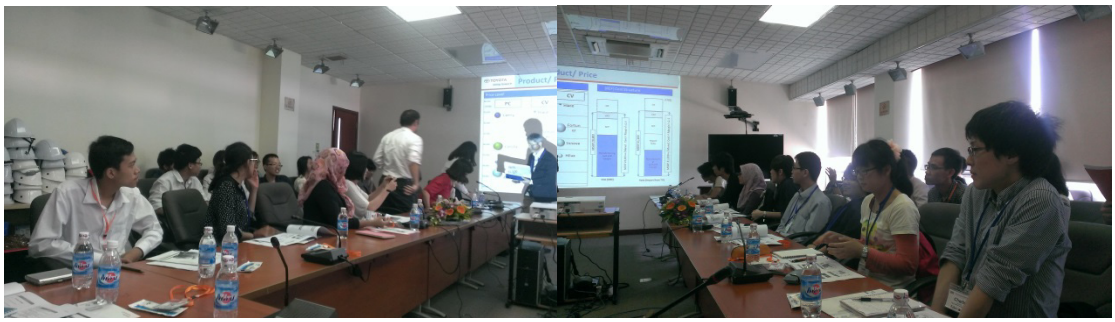
Contents of visit and Reporter's comment:

1. Outline

TMV (TOYOTA Motor Vietnam) was established in October, 1996. There are mainly five offices in Vietnam. Three lie in Hanoi. Two lie in Ho Chi Min There about 1,690 workers including 10 Japanese and produces 34,500 cars every year. Their average age is 28.2 years old. TMV is making 5 models of cars. They are mainly made for domestic customers. TMV has 34% share of the car production and is the top shared company in Vietnam now. In the factory we visited on this program, TMV introduces 2shift/day and operates 274 days/ year.

2. Contents

We visited Me Linh Head Quarter in Thang Long Industrial Park, where production, distribution, and management is done. Firstly, we had a presentation and question time with a Japanese staff in TMV. He gave us presentation slides and introduced about not only the status of Vietnam and the factory but also the future perspective of TMV. After the presentation, we had six questions. Unfortunately, some students seemed to have more questions but we really appreciate their attentive preparation. After that, we went to a factory tour for about an hour. We looked at the process from pressing the frame to checking the car. Even though this tour may be a hardest one in this program, we could see manufacturing in a developing country which is mainly made by human hands.



During the presentation

3. Findings

We found how cars made in TOYOTA and it was amazing to see every single part of production. We have not visited TOYOTA before so this was great experience for us all. Even though it was very hot and some people felt ill, we are sure that it was worth it. We are not certain about the difference between the one in Vietnam and in Japan, we would guess in Vietnam more people work in the factory than in Japan because in Japan the technology has been more developed so machines would work more than humans with low cost. We would say in the near future TOYOTA in Vietnam would encourage using less people and more machines for better quality and safety. We were also surprised that there were many young females. In Japan only a few young female work in factories and we think working in factories is a job for young men. Our biggest finding is even pregnant work with a baby on her stomach.

JICA (Establishment of carbon-cycle-system with natural rubber)

Reporter: Saki Kato (Saki), Jiaying Xu (Tracy)

Date & Time: September 12th, 2014, 9:30~11:00

Program： Presentation of general information about JICA and JICA Vietnam, Laboratory tour and Q&A session.

Contents of visit and Reporter's comment:

JICA (Japan International Cooperation Agency) is a Japanese government-related organization that works to support development in other countries. JICA has 3 ways of cooperation, which are the technical cooperation, loan assistance, and grant aid. In this program, we heard about joint research (Hanoi University Science and Technology, and Nagaoka University of Technology – one of the JICA's activities) and went to the laboratory. The project theme is "Establishment of Carbon-Cycle-System with Natural Rubber". This project promotes many activities. For example, development of sophisticated purification and new evaluation technologies of natural rubber, and development of advanced methane treatment technology of waste water.

Group Photo

Q&A:

Q1: You said that in this experiment project, you normally make the rubber waste samples by yourself according to the standards of the past samples that you collected from the factories because of the unavailability of the samples from factories. However, how could you make sure that samples that you make are equal to the samples of the factories?

A1: We could not say the samples that we make are totally equal to the samples of the factories every time. However, the purpose of this project is to treat the rubber waste water from the rubber industry factories. According to the past waste water samples from the rubber factories, we add the same amount of materials into the water to make the samples for our experiment. By doing this, we are sure that we still can get the good results for our experiment.

Discussion and Presentation

Outline and Schedule

We had nine tours in this program. To show what we learnt and could discover with students from foreign countries, we had a discussion and presentation at HUST. We were divided into six groups. We talked about what we thought in that day's tour and did preparation for the final presentation. In the final presentation, each group had 15 minutes for presentation and 10 minutes for questions. Here is the schedule and a brief introduction of each group.

9/8 (Mon) Discussion about campus tour at HUST and the final presentation topic
9/9 (Tue) Discussion about NUCE, F-Ville and topic
9/10 (Wed) Discussion about DMV, TLIP, HTMP and topic
9/12 (Fri) Discussion about JICA and topic
9/15 (Mon) Preparation for final presentation
9/16 (Tue) Preparation for final presentation

Group1 "Motorization and traffic jam"
Member : Daisuke, Uji, Tracy, Tun, David, Seshana

Group2 "Technology transfer between countries and the effect on business growth in each country"
Member : Leo, Saki, Myon, Anthony, Nga Quynh, Fia

Group3 "Development of energy resources and protection of environment"
"Generation of electricity by nuclear energy and risk assessment for severe accident"
Member : Tomo, Koomok, Anh, Trung, Devina, Hapsari

Group4 "Development of energy resources and protection of environment"
"Education and industrial management"
Member : Aki, Riho, Trung, Icha, Kholqi

Group5 "Development of energy resources and protection of environment"
Member : Harish, Charlie, Yuka, Michael, Tuan, Nadia

Group6 "Economic growth and gap between the rich and poor"
Member : Taiga, Haruka, Akito, Minh Dong, Mic, Arche

Group 1: **Motorization and traffic jam in Vietnam**
Member: **Uji, Daisuke, David, Tracy, Seshana, Tung**

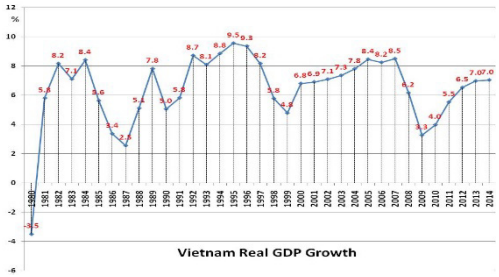
Contents:

1. Background

1.1. 1976-1986: The centrally planned economy

Centrally planned economy is a national financial system where the country's government operates, owns and manages production facilities. During this period, the situation of Vietnam's economy could be described as: heavy war damage, impoverished economy, difficult international environment.

1.2. 1986-now: socialist-oriented market economy



1986: Renovation (Doi Moi) with the following main elements: 1/ Shifting from a planned centralized economy based on public ownership to a multi-sector economy based on the market, 2/ Democratizing social life by building a state on the basis of the rule of law, 3/ Strengthening external cooperation with other countries. As a result, in 1976 GDP per capita of Vietnam was just 90 $. However, in 2013, the GDP per capita in Vietnam had risen to 1960 $. You could see the growth of Vietnam GDP clearly from the graph.

2. Situation

2.1. Vietnam

In 1980s, bicycles dominated urban streets. The major cities had bus networks. Hanoi even had a tram system. In the late 1980s, the government stopped subsidizing local public transport and rising incomes have allowed a growing number of people to switch to motorbikes. Nowadays, Vietnam's major cities suffer traffic congestion resulting from excessive motorbike and automobile usage. Private transport has been growing rapidly: In HCMC, the number of private cars registered is growing at 10 % per year. In 2015, HCMC (10 million people) will have 1 million cars. However, the rate of public transport is only 10 % traveled by bus. Streets are still narrow, but the inner city roads of Hanoi and HCM City can be extended by only 2% per year. These traffic problems cause air and noise pollution, losing productivity, too much fuel consumption and driver's frustration.

2.2. Japan

After WW2, A lot of engineers came to make an effort to develop car manufacturing. In addition to that, a lot of cars were sold, which the general public could afford. Tokyo

Olympic Game led them to develop infrastructure –highway, public road. These factors resulted in increased motorization in Japan dramatically. Especially, there were a huge number of deaths in early 1970s, this period is called “Traffic War”. In order to resolve this terrible situation, Japan carried out various kinds of solution –improvement of public transportation, equip highway and widen road, development of infrastructure and reconsideration to freightage.

2.3. China

Almost all of people in the world always hear that economy in China has been increasing rapidly and strongly. However, because there is still the big gap of income between the poor and the rich, only rich people can have their own car. Although the number of cars is much more than 10 years ago, the traffic situation did not change so much. The government has been not only building a lot of highways and underground bypasses, but also limiting registration and entrance of motorbike. The main solution for motorization is the restriction to possess cars or motorbikes.

2.4. Indonesia

Jabodetabek is a metropolitan area, includes the province of Jakarta and surrounding regencies of Bogor, Tangerang, Depok, and Bekasi. The growth of motorization in Jabodetabek has reached over 10% per year compared to the growth rate of road infrastructure that doesn’t even reach 1% per year. In addition to that, average velocity has been decreasing, 30.5 km/h to 8.3 km/h because of traffic jams.

We can find the governmental policies are not to be too late to fix the situation. Road maintenance, toll road and flyover, and Parking and Fuel policies have been applied.

3. Solution

From the solution of each foreign country, we came up with five solutions.

The first one is to develop infrastructure. Ring roads and flyovers raise the percentage of land for transport to solve traffic jams. The second one is about cluster development. By constructing high building with lavish shopping centers, business offices and services, people can decrease time to move on a road during day. The third solution is to expand public transport. We should increase and re-organize routes and timetables. The fourth one is restriction. Since motorbikes are a main cause of traffic jams, banning the use of them can achieve smooth traffic flow. The fifth one is taxation. By raising the cost of cars or motorbikes, we can stop their sharp increase and lead people to use public transport in the same time.

Edited by Daisuke, Tracy, Uji

Group 2: **Technology transfer between countries and the effect on business growth in each country**

Member: **Leo, Saki, Myon, Fia, Anthony, Nga**

Contents:

1. Introduction

Technology transfer is the process of transferring skills, knowledge, technologies, methods of manufacturing, samples of manufacturing and facilities among governments or universities and other institutions.

In Vietnam, a lot of companies such as Toyota, and JICA have set up joint ventures or made partnerships to bring new technologies to market or organization and this helps countries to develop and make innovation.

You can buy high quality goods at a reasonable price and we can make an eco-friendly and sustainable world because many companies and organizations can do efficient job by cooperating with each other. Countries to which technology is transferred also can gain more money and techniques for commodity production.

It goes without saying that technology transfer is very important but senders and receivers have some problems. Therefore, we discussed the important advantages and disadvantages and how we can solve these problems.

2. Discussion

Regarding technology transfer, we discussed to find advantages and disadvantages of supplying countries and receiving countries.

2.1 Supplier's advantage and disadvantage

First of all, through the visits and our discussion, an advantage and a disadvantage for suppliers of technology transfer have been found: the advantage is the cost will be lower in developing countries. Once factories or other facilities start to run, suppliers will use the cheap resources, including "human" resources.

The disadvantage is the necessity of higher education. Without that, both cannot grasp the sustainable success and keep the quality of their product.

2.2 Receiver's advantage and disadvantage

When it comes to receivers, we considered three advantages of receivers. First, they get sustainable economic growth. The technology transfer itself can produce some products so it can make investors come because they are encouraged by investment, which will lead to business profits, so will lead to the higher GDP of the countries. Second, the momentum of independent country will rise. Finally, the number of unemployed would be reduced.

Also we considered two disadvantages of receivers. First, structural change occurs.

Although a growing economy will be creating more jobs, it also leads to structural changes in the pattern of jobs. Some industries will be in decline whilst others will be expanding. Second, technology transfer will lead to the running out of resources.

3. Our suggestion

Through the visits and our discussion, an advantage and a disadvantage of Technology Transfer have been found. So we suggest some solutions.

3.1 Solution to supplier's disadvantage

First, a solution with which we can avoid the disadvantage of suppliers above is "to consider an adjusted education system" for each receiver country. With the visits of the companies in Vietnam, we found the critical gap of workers education between a Japanese company and a Vietnamese one. In fact, transferring certain technology as it is in supplier country can be guessed that would be done without any trouble to think deeply. However, considering the differences of workers' skill, loyalty or momentum, clearly we cannot expect that the system works as well as in its own country. In order to overcome this problem, an adjusted education system should be introduced to a receiver country, such as introduction of more fundamental practice methods that is adjusted for the country.

3.2 Solution to receiver's disadvantage

And then, a solution with which we can avoid the disadvantage of receivers above is "to govern countries and companies". For example, the government should be strict and have a strong rule of law and think about the appropriate technology that will be applied with better regulations.

4. Conclusion:

From this discussion, we can see that the technology transfer is also a double-edged sword. The benefit of technology transfer is not only huge, but also the harm of it is tremendous. We believe that with our solution, developed countries and developing countries will get to have a precise strategy to deal with the negative side of technology transfer and make a win-win relationship between these two countries.

Group 2

In this era technology transfer is a trend all over the world and it is one of the shortest and fastest ways for a developing country to become a developed country. For developing countries, it is the cheapest way to make products and then the result is a huge amount of profits. After all, it makes the world a better place to live.

Edited by Leo, Saki, Myon

Group3: **Development of energy resources and protection of environment**
Generation of electricity by nuclear energy and risk assessment for severe accident

Member: **Koomok, Tomo, Trung, Anh, Hapsari, Devina**

Contents:

1. Introduction

Nuclear energy is really useful and a potential energy source for our future society. Plus, if it is controlled in a very safe condition it creates little energy waste. However, we had had some severe nuclear accidents in the world. Therefore, we discussed about how we can use nuclear energy.

Outline:

1. Introduction
   : Introduce about the nuclear energy by giving an example of egg
2. Nuclear Accidents
   : Introduce about two accidents (Chernobyl, Fukushima) caused by nuclear energy
3. Evaluation
   - Safety
     : Analyse the safety evaluation in Chernobyl and Fukushima
   - Environment
     : Analyse the environment evaluation in Chernobyl and Fukushima
4. Future plan
   - Controversy
     : Introduce about controversy in Korea whether reactivation or shutting down the power plant
   - Efficiency
     : Showing the processes and good points of using nuclear energy in the future
   - Solutions
     : Suggesting solutions about safety precaution and further efficiency using nuclear energy in the future
5. Conclusion
   : Conclude our group's opinion about using nuclear energy

2. Discussion and work

First, we discussed about the best energy resource. There are many energy resources

besides fossil fuel; like wind, solar, geothermal, hydro energy and so on. Nuclear energy is also included in one of these. Although nuclear energy is quite dangerous, it is the best energy source from a viewpoint of power generation efficiency. In addition, nuclear power plants need no conditions of site and weather. If we use nuclear energy, we can get power from everywhere, anytime. Therefore, we found that nuclear energy is the best energy resource.

Next, we discussed about how we can develop nuclear energy and use it safely. Before we use nuclear energy, we shouldn't harm the environment. So, we tried to analyse some severe nuclear accidents that happened in the past, and learn some lessons.

3. Our solutions

To use nuclear energy safely, we suggested some solutions. Some of them were quite technical, and some were general solution. From the viewpoint of international relationship, we found one solution that we should make international collaboration to improve safety across countries that have developed and are developing nuclear power plants.

4. Conclusion

Finally we found that even though the nuclear energy could be dangerous, we should use it. We have to continue to discuss about safety of nuclear energy from now on.

Discussing members

We are KTTAHD!

Edited by Koomok, Tomo

Group 4 : How can developing countries develop without damaging environment

Member: Riho, Aki, Trung, Icha, Kholqi

Contents:

1. Introduction

Today, many Asian countries are developing rapidly. As they concentrate on their industrial development, they tend to neglect natural environment. Problems of environmental destruction and pollution are really serious in developing countries. However, we humans are also animals, part of nature and if this trend continues, the day will come when all living organisms including humans cannot live on the earth any longer. If countries want to develop with sustainability, they must care for the balance between natural environment and human society. We can say that this balance has been disrupted in many Asian developing countries today.

Our suggestion is that to protect natural environment in developing countries, first we must consider the ways to improve the human environment. When human society becomes healthy and people get enough room to think about natural environment and take action to protect it, the natural environment will be much better.

2. Natural Environment Problem

As mentioned above, many Asian developing countries pursue their development and never care for natural environment. In China, they produce energy by traditional heat power plants. Exhaust gas from those power plants is emitted without purification or treatment. Then the air of Beijing became so dirty that people cannot walk around without a mask. In Vietnam, rivers are highly polluted by wastewater from factories and houses. In Indonesia, deforestation has been occurring because pulp companies are cutting down trees to produce paper.

Air pollution in China

3. Human Environment Problem

These are the three main problems of human environment.

[1] Economic inequality.

The discrepancy between the rich and the poor in some developing countries is so high. Socio-economic gap among the people, especially between people from the hinterland

and ones from the city is really high. This is because income and employment are not equal in every region of the country.

[2] Education gap among the people

People in the city can get an education. On the other hand, people in mountainous areas and villagers cannot even read and write. So the mindset of those people cannot develop and they sometimes damage the environment. That is because they don't know the impact of their activities to the environment. For example, some people cut trees and burn lands to build agricultural land without any consideration, which destroys the biodiversity of that region.

[3] Government role

People think the government should play a powerful role in the developing country and also it should have the responsibility for what happened in our society. However, to tell the truth, the government is short of funds and has little power. Many problems occurred by the government can be caused by these reasons

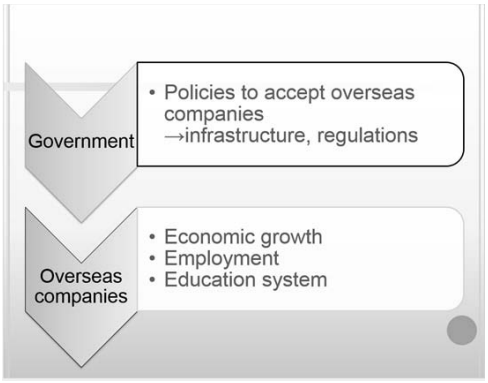
4. Human Environment Solution

There are two agents: government and overseas companies. In developing countries, it is impossible for only government to promote their economic development because it has little power and that costs a lot. So, we thought that overseas companies will play an important role. First, government makes policies to accept overseas companies easily. For example, it prepare for infrastructure such as highway, airport, train, and so on. After that it needs to lay down regulations to accept overseas companies easily while it protects domestic companies. We thought overseas companies will play a big role on economic growth, local employment, and the education system.

5. Natural Environment Solution

Government and companies should collaborate with each other and introduce their technology and education to the society.

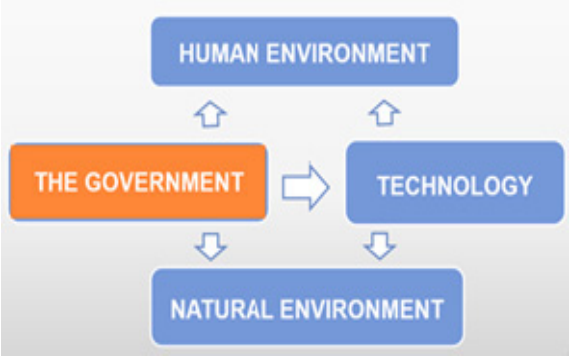
The technology should maintain the sustainable relationship between the natural environment and human environment, such as renewable energy, eco-friendly products and machines with good work efficiency. By the solution of human environment, we will have much better



Collaboration of government and companies

infrastructure, education and economy. These elements make those sustainable technologies easier to be introduced to developing countries.

In addition to technology, government and companies should have the responsibility to give environmental education to people there. If people understand the importance of the natural environment and take action to protect it, the balance between the natural environment and human environment will become healthy and sustainable.



For the sustainable balance

6. Conclusion

There are a lot of problems in both the natural and human environment in developing Asian countries. And each problem connects with the other. It is important that we seek out the causes of each problem in detail and then find solutions considering other problems.

Group members!!

Edited by Aki and Riho

Group 5: **Energy Resources and the Impact to Environment in some Asian Countries**

Members: **Harish, Charlie, Yuka, Michael, Tuan, Nadia**

Contents:

1. Introduction

Our team considered some themes such as transportation, environment, and about difference of culture as our subject of final presentation. After discussing thoroughly, we decided to take the theme concerning about the energy and environment because we learned about the energy in Vietnam, especially nuclear energy, through the tour in HUST. Also, some of us are environmental engineering students who had knowledge about the relationship between the energy and environment; so it will give us chance to explore this theme more thoroughly. We researched the proportion of energy resources of each country (Japan, Vietnam, and Indonesia) and compared them. Finally, we predicted the tendency and suggested the solution for each country. For example, we discussed whether Japan should use nuclear power or not or what kinds of resources Indonesian should use or whether it's good for Vietnam to use hydroelectric or not.

Group discussion

Introduction about Nuclear Energy in HUST

2. Background

We collected information about each country's energy resources, especially about the electricity generation condition and summarized it.

(1) Indonesia

82% of electricity generation in 2012 comes from fossil fuel such as coal (48%), natural gas (22%) and oil (12%). 11% is hydroelectric and the rest is waste heat, geothermal and so on. Electricity generation in Indonesia has increased drastically from less than 5,000 GWh in 1971 to more than 120,000 GWh in 2005. Most of electricity generation comes from fossil fuel. This is because Indonesia has abundant resources such as coal and natural gas and they chose to utilize them.

(2) Japan

Japan has very little energy resources and needs to import them. Before, the government of Japan was planning to increase nuclear power plants to 50 % of electric generation in 2030. But, in 2012, about 90% of electricity generation came from fossil fuel. This is because all of the nuclear power plants in Japan were stopped after a serious earthquake in 2011. Now, since all the nuclear power plants stopped by the earthquake, the energy problem in japan became more and more severe. The government is now considering whether to restart nuclear power plants and expand their use or not.

(3) Vietnam

About 40% of electricity generation is hydroelectric and the rest is fossil fuel in 2010. The main reason why Vietnam uses hydroelectricity is that Vietnam has much potential for hydroelectricity. Vietnam has abundant water resources so the cost is stable and the water storage can also be used for drinking water. The government of Vietnam announced in 2008 that they intend to start nuclear power plants by 2020. As another energy resources and one which takes a very big proportion in total energy, biomass is also common in Vietnam. It is used mainly for city gas, for such as cooking.

3. Discussion and suggestion

(1) Indonesia

Since 2004, Indonesia exits the OPEC and became a petroleum-importing country. But, concerning about coal and natural gas, Indonesia is still one of the biggest exporters in the world. So we predict and suggest that Indonesia should increase the proportion of coal and natural gas and coal usage instead of using petroleum: considering utilization of their own resources is the most efficient way.

Another thing from Indonesia is its geographical condition of being in middle of the ring of fire, so that many volcanoes are still active and have the potential to give their energy as new resources. Therefore, the development of utilization of that energy as geothermal energy is another suggestion for Indonesia.

(2) Japan

As we explained before, the Japanese government is now still considering whether they will reactivate the nuclear power plants or not. Even though a world scale accident happened before, why Japanese still insist to use the nuclear power as their main resources? The main reason is its superb fit with Japan's condition that only has a little amount of resources. It will be good for Japan to have a power plant that is stable, efficient, and produces vast amounts of energy. Moreover, from the environmental perspective, it does not emit CO2, which helps reduce the global warming phenomenon.

But still, controversy is on the air because many big earthquakes happen frequently

in Japan making the risk of nuclear power plant accidents high. So, there is a big chance that Japan could not use nuclear power plant any more. If that happened, besides developing the new renewable resources such as solar energy and wind energy, we suggest Japan should use coal effectively as their main energy resource. Because its abundance in the world makes it have a comparatively cheaper and stable price than any other resources. We also encourage Japan to not stop the saving energy campaign that has been started since the Fukushima accident.

(3) Vietnam

Vietnam is a country that has a lot of water energy potential. Its capital's name, Hanoi, which literally means inside the river, show its richness of water. As we explained before, because of that richness of water, although it has some drawbacks, hydroelectricity is still the main energy resource to generate electricity. But, since the government decided to construct the nuclear power plant from Japan and Russia, the energy proportion will change drastically, especially from the completion of the nuclear power plant in 2020. We agree with that government decision seeing Vietnam's risk of natural and another disasters.

But, on the other hand, Vietnam is one of the biggest agricultural countries in the world. Its exports rice more than any other countries in the world except Thailand. If we look for energy resources not only from electricity, we could say biomass energy used for cooking and city gas account for more than electric energy produced by hydroelectricity. Therefore, we suggest that, beside from still constructing the nuclear power plant as another new energy resources, we believe, the current utilization of biomass is still far from the word "efficient", so Vietnam should develop its biomass energy potential to utilize it fully as electricity soon.

4. Conclusion

Nowadays, because the tendency to consider the environmental aspect of everything is very high, the tradeoff between energy and environment became very difficult. Moreover, the particular condition make the decision for each country different. Each country has its own problem and condition to overcome. Therefore, a careful consideration of energy demand, environmental aspect and condition of the country should be conducted to get a best decision of energy resources management.

Group members

Edited by Harish, Charlie, Yuka

Group 6: Economic growth & The gap between the rich and the poor

Member: Akito, Taiga, Haruka, Mic, Arche, Minh Dong

Contents:

1. Introduction

While the world is developing in general, there seems to be a rise of inequality. Our estimates suggest that about 90% of the global population possesses barely 14% of global wealth, while the richest 10% of adults own 86% of all wealth, and the top 1% account for 46% of the total. Because of this background, we were interested in the gap between the rich and the poor and decided this topic.

In our group there were three Japanese, two Vietnamese and one Filipino. We have different backgrounds and different points of view so it was interesting to discuss the topic but hard to get each ideas together.

Group member

Group discussion

2. Discussion

We took four steps to make the final presentation.

Firstly, we discussed the cause of the gap between the rich and the poor. We had many ideas, and these ideas could be divided into two groups. The First one is the gap between the rich countries and the poor countries. And another one is the gap between the rich and the poor in a country or a society. After discussing we decided that we focus the second group.

Secondly, we collected information about the economic growth and the gap in many countries. We used two data, “GDP” and “Gini Coefficient” to check the economic growth and to check the gap, respectively.

Thirdly, we discussed the reason why it happens and the method to improve both the economic growth and the gap at the same time. Also, we collected the information by using the Internet.

Finally, we discussed “what we can do as young generation” which is the most important point in our presentation.

3. Our suggestion

To improve both the economic growth and the gap between the rich and the poor, we came up with two suggestions.

The first suggestion was “raising the quality and equity in education”. We believed that if everyone could get high quality education, the economic growth would be higher. The reason was that the chance to get the good job would be more equal and the gap would be smaller.

The second suggestion was “Fighting discrimination”. We thought that discrimination based on gender, religion and race is one of the biggest causes of the gap and prevents the economic growth. So we believed that accepting and understanding the differences is the good way to improve economic growth and the gap.

4. Conclusion

Considering these suggestions and thinking about “what we can do as the young generation, we concluded that “we should support global activities”

Through global activities, we could be aware of the incidents happening in the world.

It motivates us to participate in other global activities. This movement could change the world to become more equal.

Also, through global activities like AYSEAS, we could make a lot of good friends in other countries. Of course there are differences between countries, but accepting the other ways of thinking, cultures and customs, we could understand each other.

Supporting global activities, we could make the world happier.

Edited by Akito, Taiga, Haruka

Evaluation of Tokyo Tech-AYSEAS 2014

All 35 students who participated in Tokyo Tech-AYSEAS 2014 were given a questionnaire about the program on September 16. The following evaluation was prepared based on the answers to the questionnaire.

The first half of Q1 in Section B was answered only by Tokyo Tech students, Section E was answered only by non-Tokyo Tech students, and the rest of the questions were answered by all students.

[Section A] Evaluation for overall Tokyo Tech-AYSEAS 2014

Q1. What was your FIRST MOTIVATION to participate in this program?

- To exchange culture
- To enhance my communication skill
- To communicate with many friends
- To make many friends

Q2. Were you satisfied with Tokyo Tech-AYSEAS2014? (Rate 1 (Not satisfied at all) to 5 (satisfied very much))

Rate	5	4	3	2	1	Average
Number	22	8	1	0	0	4.68

Q3. What did you think of schedule arrangement? (Rate 1 (very hard) to 5 (not hard at all))

Rate	5	4	3	2	1	Average
Number	4	15	5	8	0	3.47

Q4. Describe your suggestions, ideas, and comments for all of Tokyo Tech-AYSEAS.

- Let “student leaders” have more independence
- Thank you very much for this memorable program, this is a useful program and I hope that Tokyo Tech-AYSEAS will expand in the future

Comments

What we could get from this survey is basically almost all participants had a great time through this program and could have good opportunities. But there is still something we could improve for next year so we would be happy if the Tokyo Tech members would make use of it and the next project is going to be better than this one so that students would be able to learn more and satisfied with it.

[Section B] Evaluation for parts of Tokyo Tech-AYSEAS2014

Q1. Please grade each part of the program (Rate 1 (Not satisfied at all) to 5 (satisfied very much)).

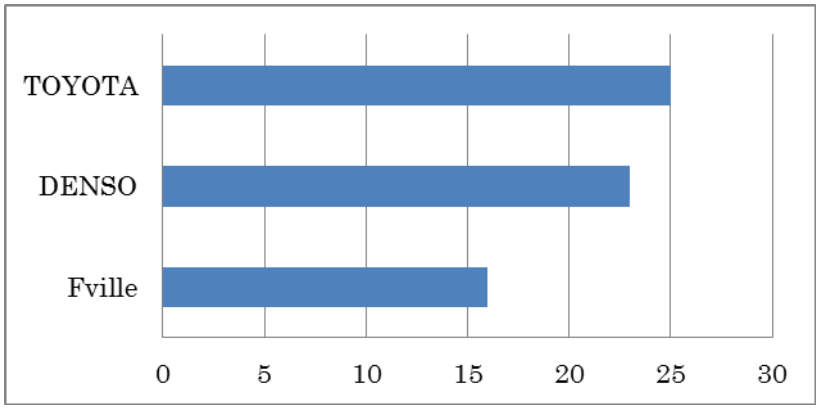
Program in Japan (only for Tokyo Tech students)

Program	Average
Energy issues for sustainable community	4.38
Advanced Global Environmental Problem	3.31
Biological assessment of your developing technologies	2.62
NISSAN factory tour	4.15
Vietnamese language and culture class	4.31
Presentaion	4.08
Preparation study session	4.23

Program in Vietnam (for all participants)

Program	Average
Hanoi University of Science and Technology(HUST)	3.94
National University of Civil Engineering(NUCE)	3.65
Fville	4.48
DENSO	4.55
Thang Long Industrial Park	4.10
HTMP	3.68
Viglacera Ceramic	3.75
TOYOTA	4.29
JICA Project(Establishment of carbon-cycle-system with natural rubber)	3.84

Q2. Please choose the best 3 programs from your viewpoint within the technical visits.



[Section C] Evaluation for "Discussion and Presentation"

Q1. What did you think about discussion and presentation (discussion topic, group discussion and final presentation)?
Please grade the method (Rate 1 (Not satisfied at all) to 5 (satisfied very much)), then describe your opinion.

Rate	5	4	3	2	1	Average
Number	9	17	2	0	1	4.14

Opinions

- Good opportunity to improve skill
- We want more time to discuss and study the subjects for the presentation

Q2. Please grade following items (Rate 1 (Not satisfied at all) to 5 (satisfied very much)), then describe your opinion.

	Average
Time for discussion	3.97
Number of members in each group	4.70
Time for presentation	3.94

Q3. What did you learn through discussing with members?

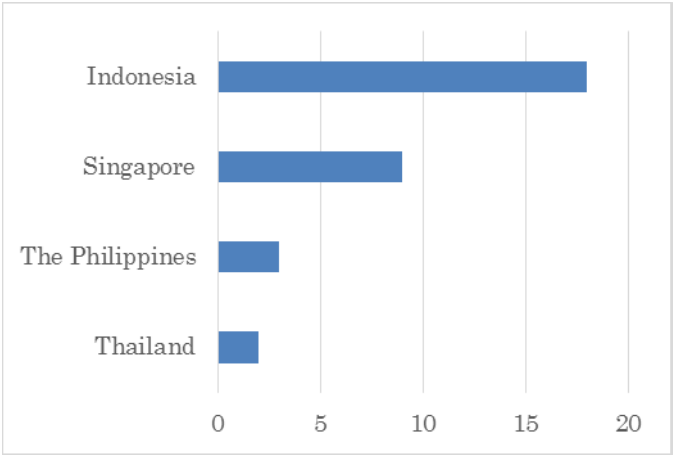
- Work in a group
- How to discuss in English
- Need to practice English more

[Section D] Your opinion for future Tokyo Tech-AYSEAS

Q1. What kind of program do you want to join?

- Short term volunteer work and home stay
- Program in which we research more scientific topics

Q2. Which country should we visit next time?



Q3. What did you think the number of days (length) for Tokyo Tech-AYSEAS2014?

Most of the participants think 10 days is proper but some students need more time.

Q4. What kind of discussion topic do you want to suggest for the future Tokyo Tech-AYSEAS2014?

- The society and culture of countries
- Development of Asian countries
- The gap between the rich and the poor
- Stock trading

Q5. Your suggestions, ideas, and comments for future programs.

- This program is great. Please keep this program going.
- We need not only factory visit but also lectures or fieldwork to learn about that

country's culture and history.

[Section E] Present state in your university (Only for non-Tokyo Tech Students)

Q1. When and how did you know about Tokyo Tech-AYSEAS first? (from your friend? past AYSEAS participants? Ad?)

- Office
- Web
- Professor
- Study abroad fair
- Lecture
- Friends

Q2. What kind of Tokyo Tech-AYSEAS advertisement was displayed in your university?

- Web
- Paper
- Email

Q3. Was there any interview test in your university?

Yes	No
5	15

Q4. When was the first time to meet with your university members?

Some students have already known each other but others met a month before the program or on the first day of the program.

Q5. Were there any preparatory study sessions in your university?

Yes	No
9	11

Q6. Any suggestions, ideas, and comments to improve future application process?

It is good to have an interview from Tokyo Tech itself.

ASEAN

Reporter: **Harish, Tomo**

1. Basic Information

ASEAN means “the Association of South East Asian Nations”. The members are now 10 countries.

ASEAN was established in 1967 in Bangkok (Thailand), with five countries; Indonesia, Malaysia, Philippines, Singapore and Thailand. They signed the ASEAN Declaration (Bangkok Declaration). Brunei joined in 1984 and Viet Nam joined in 1995. Lao PDR and Myanmar joined in 1997 and Cambodia joined in 1999. In this way, today ASEAN was formed.

Map of member states

(http://www.asean.org/asean/asean-member-states)

2. Aims and purposes

In the ASEAN Declaration, they made 7 aims and purposes of ASEAN.

The main purpose of ASEAN is to accelerate the economic growth, social progress and cultural development in the region. For that purpose, they aim to provide assistance to each other in the form of training and research facilities in the educational, professional, technical and administrative spheres.

They also aim to collaborate more effectively for the greater utilization of their agriculture and industries, the expansion of their trade, including the study of the problems of international commodity trade. Therefore, they made AFTA. We will tell

about AFTA further in the next chapter.
(Reference: http://www.asean.org/asean/about-asean/overview)

3. AFTA

AFTA stands for ASEAN Free Trade Area. Signed in Singapore in 1992, it was established to encourage the trading activity by lowering the intra-regional tariffs, and also to attract foreign investors to directly invest inside the AFTA. Originally, only 6 countries (Brunei, Indonesia, Malaysia, Philippines, Singapore and Thailand) that have nearly similar economic conditions and are geographically located in the same area joined the AFTA. However, Vietnam in 1995, Laos and Myanmar in 1997, and Cambodia in 1999 also joined the ASEAN, and signed the agreement.

The agreement said that the first 6 members of ASEAN should eliminate the import duty between those countries inside the AFTA by 2010 except for the 3 types of products (Temporary exclusions, Sensitive agricultural products, and General exceptions). But for the newer member of ASEAN, they are given an exception to conduct the elimination of import duties by 2015 and will be an important check point for all the members of ASEAN.

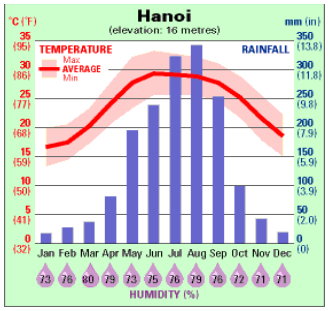
Vietnam, Laos, Myanmar and Cambodia, from the economic perspective are still far below the older members of ASEAN. It means that they should put more effort until 2015 to make strategies to compete with another ASEAN members. This also means, from 2015 a wider market will be there to support the high development rate of South East Asian Countries.

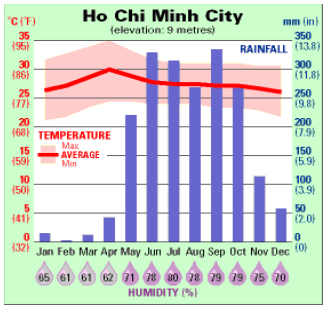
Vietnam

Reporter: **Daisuke, Tracy**

1. Location & Climate

Vietnam, officially the Socialist Republic of Vietnam, is the easternmost country on the Indochina Peninsula in Southeast Asia, with an estimated 90.0 million inhabitants as of 2013. The country is surrounded by china to the north, Laos to the northwest, Cambodia to the southwest, and the South China Sea to the east. It has two biggest cities –its capital city Hanoi and Ho chi Minh. In the north around Hanoi and in the south around Ho Chi Minh City, there are extensive low-lying regions in the Red River delta and the Mekong delta respectively.





The two figures on the left show the climate status of Hanoi and Ho Chi Minh. We can find differences of temperature and the amount of rainfall. Basically, it has a tropical monsoon type of climate. However, Ho Chi Minh has more typical tropical climate than Hanoi because the former is located in a more southern part of Vietnam.

2. History

Vietnam was part of Imperial China for over a millennium, from 111 BC to 938 AD. The Vietnamese became independent from Imperial China in AD 938, following the Vietnamese victory in the Battle of Bạch Đằng River. Successive Vietnamese royal dynasties flourished as the nation expanded geographically and politically into Southeast Asia, until the Indochina Peninsula was colonized by the French in the mid-19th century.

Following Japanese occupation in the 1940s, the Vietnamese fought French rule in the First Indochina War, eventually expelling the French in 1954. Thereafter, Vietnam was divided politically into two rival states, North and South Vietnam. Conflict between the two sides intensified, with heavy intervention from the United States, in what is known as the Vietnam War. The war ended with a North Vietnamese victory in 1975.

The figure above shows the soldiers in the war.

After the end of the war, the government initiated a series of economic and political reforms which began Vietnam's path towards integration into the world economy. By 2000, it had established diplomatic relations with most nations.

3. Economy

Thanks to the series of economic and political reforms, the economic growth of Vietnam has been increasing dramatically, which resulted in the highest one in the world that has been recorded since 2000. In 2011, it had the highest Global Growth Generators Index among 11 major economies. Its successful economic reforms resulted in its joining the World Trade Organization in 2007. However, regardless of the advancements performed in recent years, the country still experiences high levels of income inequality, disparities in access to healthcare, and a lack of gender equality.

4. Culture

Vietnam's culture has developed over the centuries from indigenous ancient Đông Sơn culture with wet rice agriculture as its economic base. In recent centuries, the influences of Western cultures, most notably France and the United States, have become evident in Vietnam.

The traditional focuses of Vietnamese culture are humanity (nhân nghĩa) and harmony (hòa); family and community values are highly regarded. Vietnam reveres a number of key cultural symbols, such as the Vietnamese dragon, which is derived from crocodile and snake imagery; Vietnam's National Father, Lạc Long Quân, is depicted as a holy dragon. The lạc – a holy bird representing Vietnam's National Mother, Âu Cơ – is another prominent symbol, while turtle and horse images are also revered.

We can find the outstanding and unique aspects to Vietnam in the clothing. The áo dài, a formal girl's dress shown on the left, is worn for special occasions such as weddings and religious festivals. Today it is mostly the preserve of women, although men do wear it to some occasions, such as traditional weddings.

Vietnamese cuisine traditionally features a combination of five fundamental taste "elements" (Vietnamese: ngũ vị): spicy (metal), sour (wood), bitter (fire), salty (water) and sweet (earth). Common ingredients include fish sauce, shrimp paste, soy sauce, rice, fresh herbs, fruits and vegetables. Vietnamese recipes use lemongrass, ginger, mint, Vietnamese mint, long corianders, Saigon cinnamon, bird's eye chili, lime and basil leaves.

List of Participants

University	Name	Nickname	Sex	Department
Tokyo Tech	Daisuke Ujiie	Uji	M	International Development of Engineering
Tokyo Tech	Leo Hiramoto	Leo	M	Earth and Planetary Sciences
Tokyo Tech	Riho Yahagi	Riho	F	Social Engineering
Tokyo Tech	Koomok Lee	Koomok	M	International Development Engineering
Tokyo Tech	Harish Reza Septiano Warsono	Harish	M	International Development Engineering
Tokyo Tech	Yuka Morimoto	Yuka	F	Inorganic material chemistry
Tokyo Tech	Akihisa Imai	Aki	M	Mechanical Engineering/ Energy and Environment
Tokyo Tech	Taiga Okai	Taiga	M	Metallurgical Engineering
Tokyo Tech	Daisuke Kikuchi	Daisuke	M	Metallurgical Engineering
Tokyo Tech	Haruka Saso	Haruka	F	Social engineering
Tokyo Tech	Tomomi Sugiyama	Tomo	F	Metallurgical Engineering
Tokyo Tech	Jumpei Nishikawa	Charlie	M	Mechanical Engineering and Science
Tokyo Tech	Saki Kato	Saki	F	Biomolecular Engineering
Tokyo Tech	Jiaying Xu	Tracy	F	Environmental Science and Technology
Tokyo Tech	Akito Yoshinaka	Akito	M	Social engineering
Tokyo Tech	Myonso Yoshiyama	Myon	M	Chemical Engineering
HUST	Le Minh Dong	Minh Dong	M	Biomedical Engineering
HUST	Nguyen Minh Hoang	Michael	M	Center for Training of Excellent Students (CTES)
HUST	Anh Duo ng Hong	Anh	M	Center for Training of Excellent Students (CTES)
HUST	Le Phuong Tuan	Tuấn	M	Chemical Engineering
HUST	Nguyen Hoang Ngoc Anh	Mic	F	Electronics & Telecommunications
HUST	Nguyen Thi Nga	Nga	F	Mechanical Engineering/ mechatronic
HUST	Nguyen Thanh Trung	Trung	M	School of Information and Communication Technology

HUST	Nguyen Thanh Trung	Nguyen Trung	M	School of Information and Communication Technology
HUST	Pham Viet Anh	Anthony	M	School of Transportation Engineering / Department of Automotive Engineering
HUST	Thang Duc Phung	David	M	School of Transportation Engineering/Department of Aeronautical Engineering
HCMUT	Pham Thanh Tung	Tun	M	Civil Engineering
ITB	Seshana Junisa Aviananda	Seshana	F	Civil and Environmental Engineering / Environmental Engineering
ITB	Musfiandini Zahra	Fia	F	Environmental Engineering
ITB	Devina Jonathan	Devina	F	Industrial Technology/ Chemical Engineering
ITB	Hapsari Damayanti	Hapsari	F	Civil and Environmental Engineering
ITB	Nadia Risky Putri	Nadia	F	Civil and Environmental Engineering / Environmental Engineering
UGM	Kholqillah Ardhian Ilman	Kholqi	M	Mechanical and Industrial Engineering/ Mechanical Engineering Program
UI	Nisa Aziza	Icha	F	Engineering/Industrial Engineering Department
UPD	Arche Bryant Abad Afable	Arche	M	Mechanical Engineering

Faculty members

Tokyo Tech	Katsunori Hanamura	Professor, Department of Mechanical and Control Engineering
Tokyo Tech	Nobuhiro Hayashi	Associate Professor, Department of Life Science
Tokyo Tech	Masaki Yamakita	Associate Professor, Department of Mechanical and Control Engineering
Tokyo Tech	Eriko Tone	Staff, International Affairs Division, International Affairs Department
HUST	Nguyen Phu Khanh	Director, International Cooperation Department
HUST	Nguyen Mai Chi	International Relations Coordinator, International Cooperation Department

Tokyo Tech-AYSEAS 2014:
Tokyo Tech-Asia Young Scientist and Engineer Advanced Study Program 2014

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