



Sustainable Urbanization Through Collaborative Creation

A Whitepaper of the 14th Hitachi Young Leaders Initiative

10th - 13th JULY 2017, MYANMAR



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Hitachi, Ltd. (TSE: 6501), headquartered in Tokyo, Japan, delivers innovations that answer society's challenges. The company's consolidated revenues for fiscal 2016 (ended March 31, 2017) totaled 9,162.2 billion yen (\$81.8 billion). The Hitachi Group is a global leader in the Social Innovation Business, and it has approximately 304,000 employees worldwide. Through collaborative creation, Hitachi is providing solutions to customers in a broad range of sectors, including Power / Energy, Industry / Distribution / Water, Urban Development, and Finance / Government & Public / Healthcare. For more information on Hitachi, please visit the company's website at <http://www.hitachi.com>.

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Hitachi Asia Ltd., a subsidiary of Hitachi, Ltd., is headquartered in Singapore. With offices across seven ASEAN countries - Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam - the company is focused on its Social Innovation Business to answer society's challenges. Hitachi Asia and its subsidiary companies offer a broad range of information & telecommunication systems, power systems, social infrastructure & industrial systems, electronic systems and equipment, construction machinery, high functional materials and components, automotive systems, home appliances and others. For more information on Hitachi Asia, please visit the company's website at <http://www.hitachi.com.sg>

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Preface

This white paper documents a series of discussions on sustainable urbanization at the 14th Hitachi Young Leaders Initiative (HYLI) held in July 2017 at Yangon, Myanmar. HYLI is a structured learning program for promising student leaders across ASEAN and Japan. 2017 marked the program's 14th run since its establishment by Hitachi, Ltd. in 1996. With an emphasis on collaborative creation, 14th HYLI students attended plenary sessions, workshops and activities focusing on the value of smart cities, sustainable urban transportation and environmentally sustainable cities. Renowned leaders and experts from across public, private and people sectors offered their perspectives and exchanged views with students and audience.

The main goal of this white paper is to share the knowledge and perspectives obtained at the 14th HYLI to a wider audience and build awareness on one of Asia's most challenging issues: rapid urbanization. This paper targets readers from government agencies, non-government organizations, colleges and universities, HYLI alumni, Hitachi's partners and customers, news media, and the general public. Through this paper, 14th HYLI organizers hope readers become more informed on urbanization issues; gain insight from leaders, experts and students' presentations; and be inspired to actively contribute solutions. In conclusion, this report offers a voice for those who aspire for rapid urbanization to be more sustainable through collaborative creation.

Message from Hitachi



Mr. Kojin Nakakita
Chairman,
Hitachi Asia Limited

Dear Friends,

The 14th Hitachi Young Leaders Initiative (HYLI) made a successful inception in Yangon, Myanmar earlier this year, from July 10 - 13, 2017. I would like to express my heartfelt appreciation to everyone who has contributed to its success.

From program design to implementation, we have engaged multiple stakeholders from diverse backgrounds such as government, academic institutions, private companies and non-governmental organizations (NGOs). They have supported HYLI's vision of inspiring and nurturing young Asian leaders by sharing their vast knowledge and experience with our future leaders. 14th HYLI would not have succeeded if not for their strong and sustained support.

In that week, I met thirty two (32) bright students from top universities across Asia. They were selected to represent eight (8) Asian countries to propose recommendations for the sustainable urban development of Yangon City on the final day. Throughout the 4-day program, we witnessed how students, in collective groups, crystallized their proposals through active and astute discussions, sharing their experiences and overcoming individual cultural differences.

In recent years, I've had the opportunity to live and visit many countries across Asia. In those trips, I made it a point to discuss about the concept of "Smart City" with local stakeholders. I am heartened to hear that most of them recognize its importance for society. However, I would like to emphasize the need for each society to seriously consider the means of making Smart Cities a reality. Each city has its unique set of societal issues. It is important that we learn what these issues are, and how a collective shift towards a Smart City can address these issues in the long run. This is where education and empowerment is imperative.

Our communities are what they are now because of the vision, effort and teamwork contributed by the people that live and thrive in them. Each and every single one of us has many talents to offer. We hope that the HYLI experience has proved to be influential and contributed positively to all our 32 young leaders. I am sure that they have learnt more about values of social responsibility, leadership, and teamwork. I hope that readers of this white paper will be equally influenced and inspired to contribute to a better and brighter reality in their respective communities.

In conclusion, I would like to reiterate my definition of teamwork, which was shared with students on the first day of the HYLI program. TEAM is: T - Together, E - Everyone, A - Achieves, M - More. May you discover meaningful ideas and inspiring insights from the perspectives of not just our leaders and experts, but also the young future leaders of Asia.

About Hitachi Young Leaders Initiatives

The Hitachi Young Leaders Initiative (HYLI) is Hitachi's way of fulfilling its commitment to society, particularly helping build future generations through innovative education. This community relations program seeks to identify and nurture potential Asian leaders among the best and brightest students in Asia, bringing them together to discuss regional and global issues with influential government officials, prominent business leaders, academics, and NGO representatives.

Key objectives of HYLI are:

- Further develop the student participants' perception and understanding of regional and global issues that impact society
- Encourage Asian solidarity among potential young leaders by addressing regional challenges together.
- Promote cross-cultural understanding through education, common activities and shared experiences.
- Create a platform for the exchange of views from different perspectives.
- Provide a network for potential future Asian leaders.

Since its inauguration in Singapore in 1996, HYLI consistently provides youth leader participants with a unique platform where they can broaden their perception, understanding, and perspectives while promoting Asian values and sharing cross-cultural experiences with other delegates.

HYLI is participated by countries across Asia namely Indonesia, Malaysia, Japan, the Philippines, Singapore, Thailand, Vietnam from 8th HYLI (2007) and Myanmar from 13th HYLI (2015). Each country is represented by up to four university student delegates who were carefully selected as recipients of this unique program. Prior to selection, each candidate was required to meet certain criteria. They have to be currently studying as an undergraduate or graduate student in a college or university. They must be fluent in English, have a keen interest in regional and global affairs, and possess strong leadership abilities as well as good track record in academic excellence and extra-curricular activities or community work.

14th HYLI Program Goals and Learning Steps

Main Theme:

"Sustainable Urbanization through Collaborative Creation"

PROGRAM GOALS

1

To deliver recommendations on the sustainable urbanization of Yangon City to local officials and representatives.
(Presentations by 4 teams of 8 members each.)

2

To deliver recommendations on the sustainable urbanization of their home country at HYLI Report Meetings.

LEARNING STEPS

- Infographic on their country's urbanization impacts
- Research on Urbanization best practices for Yangon

- Plenary Sessions
- Workshops
- Fieldwork
- Present Yangon City recommendations

- Research on urbanization best practices for their city
- Present their city recommendations at HYLI Report Meeting

14TH HYLI Opening Messages

Japan as a Collaborative and Strategic Partner for Urbanization of Yangon



H.E. Tateshi Higuchi
Ambassador Extraordinary
and Plenipotentiary of Japan
to the Republic of the Union
of Myanmar

I am grateful that Yangon, Myanmar was chosen as 14th HYLI venue for the first time. This year's theme, "Sustainable Urbanization Through Collaborative Creation" is very relevant to Myanmar. Japan government proposed the Urban Development and Urban Transportation Master Plan the previous year for Yangon city development through discussions and intensive planning sessions with Yangon Region Government. Moreover, Japan has consistently supported and helped the economic development of Myanmar in both public and private sectors for many years until today.

For the next four days, HYLI students will take active part in discussions while conducting the field work in Yangon, and overcoming cultural barriers. On the fourth day, they will be presenting the creative and strategic proposals with their flexible ideas. Moreover, I believe the mutual understanding and friendships built throughout these days will be cherished by everyone participating in this program. I hope all of you will gain knowledge on social issues in the Asian regions through discussions and aspire to be leaders around the world; not only in Southeast Asia. Last but not least, I express my sincere gratitude to all people of Hitachi who made great efforts in implementing such an excellent program.

Sustainable Urbanization through Collaborative Creation

We in Hitachi are very proud to hold the 14th HYLI in Yangon. We are aware of the urbanization challenges facing Myanmar and other countries across Southeast Asia. We realize that no single entity can resolve such complex issues on their own. Hence, collaborative creation is the key solution as the 14th HYLI's theme suggests.

I wish all attendees, especially the students who will be involved in discussions, networking sessions and workshops, a successful week ahead. On the final day of the HYLI program, students will deliver recommendations for the sustainable urbanization of Yangon to city officials, international organizations, NGOs and concerned stakeholders. Hitachi is more than happy to guide you in this learning journey. Never be afraid to ask and be challenged because that is the key to grow.

Remember, as young leaders, our future is in your hands. Challenge yourself over the next four days. Learn as much as you can. Make friends from across borders. Remember, you all have the power to truly be a catalyst to change the future.



Mr. Toshiaki Higashihara
Director,
Representative Executive
Officer, President & CEO,
Hitachi, Ltd.

Executive Summary



Guest of Honor; H.E U Phyo Min Thein, Chief Minister of Yangon Region Government also delighted the event by delivering his thoughts on students questions regarding Yangon city development plan and urbanization in Myanmar.

Over the past decades, urban cities of ASEAN countries have been experiencing dynamic growth. This rapid development is triggered mostly by population increase and infrastructural difficulties. There are already more people living in cities than in rural areas, and the United Nations estimates that by 2050, almost 70% of the world's population will be city dwellers. In some respects, this makes cities significant incubators of innovation, enterprise, and social progress.

At the same time, the required pace of change – amidst global uncertainties - creates a raft of challenges to sustainable development. These include pressures on public services resulting to safety, health, education and environmental problems. It is crucial for cities to adopt smart and sustainable practices.

Hitachi established the 14th HYLI program with the central theme “Sustainable Urbanization Through Collaborative Creation” as it strongly believes that the youth of Asia are the power of the future. They bring effective and efficient solutions in building smart cities through collaborative creation.

Thirty two outstanding student delegates from across Asian countries participated in the 14th HYLI program in Yangon, Myanmar on July 10th to 13th, 2017. The program

involved a city tour by Yangon Heritage Trust, dialogues with renowned leaders, plenary sessions by regional experts, and interviews with local organizations. The program also included visits to Yangon City Development Committee (YCDC) and UN-Habitat, Myanmar and student workshops. To conclude the program, a cultural night was held on the final day as a celebration of the students' successful completion of the program.

Throughout the program, students had the opportunity to interact with subject matter experts, decision-makers, opinion leaders, and community stakeholders. They participated in a dialogue with H. E. U Phyo Min Thein, Chief Minister of Yangon Region Government to better understand local urban development issues. They also heard about the corporate experience of industry leaders, namely U Aik Htun, Chairman of Shwe Taung Group and Mr. Toshiaki Higashihara, President and CEO of Hitachi, Ltd.

Furthermore, students engaged speakers at plenary sessions focusing on: The value of smart cities for Southeast Asia; Sustainable urban transportation; and Environmentally sustainable cities. These served as sub- themes in support of the central theme. Nine guest speakers from Southeast Asia contributed their thoughts, insights, and experiences based on these sub-themes.



H.E. U Maung Maung Soe, Mayor, Yangon City Development Committee with Advisors and Hitachi (first row) & 14th HYLI student delegates

Session highlights involved key characteristics of smart cities, the importance of transportation as one of the major solutions for smart urbanization, and the need to consider environmental impacts in ensuring sustainable urbanization.

Apart from these sessions, students had the opportunity to interview local organizations and exchange insights into Yangon city's sustainable urbanization. Furthermore, students visited Yangon City Hall to learn about the city's urban development plans directly from the Mayor, H.E. U Maung Maung Soe and his team. They also visited UN-Habitat to learn about programs in support of Myanmar's urban development. Mr. Bijay Karmacharya, the Country Manager of UN-Habitat presented their programs personally to the students. He shared programs covering urban planning and governance, environment and climate change, skills development and capacity building.

Through these sessions, interviews and visits, students gained direct knowledge and obtained different perspectives on social and environmental issues in Yangon's current urbanization. Working in groups, students discussed and drafted their recommendations in support of the city's sustainable development. These recommendations were presented at the final day of the program in front of an esteemed advisor panel led by the Mayor of Yangon city.

Four student groups presented recommendations around urban waste management, creation of a Yangon Smart Citizen Hub (YSCH) - a capacity building initiative for city residents, and a sustainable mobility proposal for Yangon city. The first waste management proposal presented a business model on waste separation, a smart waste management tracking and a campaign to reduce reliance on air conditioning through low-cost initiatives. The second waste management proposal presented the "Yangon Waste Management 2040" vision. The group proposed recommendations covering education campaigns for various stakeholders and introduced an economic model to sustain the waste management system.



Dialogue with U Aik Htun, Chairman of the Board, Shwe Taung Group

As for YSCH, the student group presented a vision to form resilient, informed and idea-generating smart citizens" who are able to participate in solving societal problems and creating a better tomorrow for Yangon. YSCH is proposed as a central information hub that houses a public library and holds events and workshops for the public. As for the fourth student group, they presented three recommendations on sustainable mobility: an improved transport network; improved quality of public transport services; and provision of alternative transport modes to increase people's mobility. Esteemed advisors, representing government, private sector, local and international organizations, gave insightful comments on the student presentations by sharing their life-long experiences and priceless knowledge. Members of the audience also had the opportunity to engage the students by raising questions and clarifying their recommendations.

In summary, the 14th HYLI program delivered a learning program designed to empower youth on key urbanization challenges, inspire them to address these issues through collaborating with others and build relationships across peoples. The youth delegates are expected to be the leaders of the future, shaping Asia and the world into a better place.



14th HYLI student delegates holding group discussion



14th HYLI student delegates with their certificates of completion



URBANIZATION IN ASIA

A Visual Overview

Student delegates studied the impacts of urbanization on their respective countries. Through infographics, a total of eight countries are presented in this section, namely Indonesia, Japan, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam.



URBANISATION IN INDONESIA

260,581,100 PEOPLE BY 2016



THE WORLD'S 4TH MOST POPULOUS COUNTRY

(Source: www.worldometers.info/world-population/indonesia-population/)



PERCENTAGE OF PEOPLE LIVING IN URBAN AREAS

(Source: www.katadata.co.id)



SOCIAL ASPECT



IMPROVED LENGTH OF SCHOOL

Major cities offer various types of schools which promotes better educational opportunities



MELTING POT OF VARIOUS ETHNIC GROUPS

Intermarriages between major ethnic groups are common in major cities like Jakarta.

HOUSING AFFORDABILITY CRISIS

1. Limited public housing investment
2. Shortage of housing
3. Increasing house land prices
4. Low income



ASIAN URBAN PRODUCTIVITY IS MORE THAN 5.5 TIMES THAT OF ITS RURAL AREAS.



INCREASING SLUM AREA



SHORTAGE OF PUBLIC SERVICES FOR MIGRATED SETTLERS



HEALTHCARE



EDUCATION



PUBLIC SERVICES

ECONOMICAL ASPECT

2004



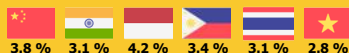
16.7 MILLION
PEOPLE UNDER
POVERTY LINE

2014

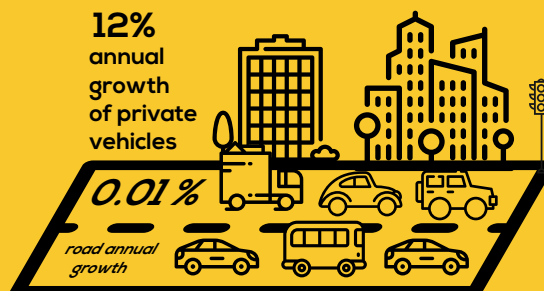


11.3 MILLION
PEOPLE UNDER
POVERTY LINE

INDONESIA HAS THE FASTEST URBANIZATION GROWTH IN ASIA AVERAGING 4.2% ANNUALLY



12%
annual
growth
of private
vehicles



ECONOMIC DISPARITY OF URBAN AND RURAL AREAS



ENVIRONMENTAL ASPECT



URBANIZATION DRIVES INNOVATION

Green technologies
Friendly vehicles
Waste management
Piped water sanitation



Base Urban living encourages walking and cycling rather than driving



The flood has inundated
60%
of Jakarta.



Urbanization cause the average temperatures in Jakarta increase by **1 degree Celsius** by 2030, and by as much as **3 degrees** by 2100.



Only
57%
has easy access to a private sanitation

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Image Source: Icons made by Prosymptoms, Icon Pond, Pixel Buddha, Freepik, OCHA, Zlatko Najdenovski, and Madebyjelly from www.flaticon.com

This infographic is best viewed in PDF. Download a free copy at <http://www.hitachi.com.sg/about/hitachi/activities/hyli/library.html>

URBANIZATION AT A GLANCE



URBAN POPULATION
93.5%
IN 2015

THE GINI COEFFICIENT INTERPERSONAL INCOME
33.6
IN 2009

TOKYO CONTRIBUTES
1/5
OF TOTAL GDP IN JAPAN
IN 2016

POPULATION WILL FALL
23.5%
BY 2050

50% OF POPULATION ONLY LIVES IN
5.2%
OF NATIONAL TERRITORY
IN 2016

*FUNCTIONAL URBAN AREAS WITH POPULATIONS OF AT LEAST 50K

POSITIVES

Create more opportunities for



Eco-friendly metropolitan cities



More access to education in urban areas



Tokyo serves app. **1.3M** residents

Stable water supply and has a low rate of leakage

Urban mine
6,800t of Gold
60,000t of Silver

20% in 1965 → **3%** in 2010

NO.1 Total reserves in the world

High life expectancy

New market opportunities "Silver Economy"

POPULATION CONCENTRATION IN URBAN AREAS

NEGATIVES

Declining Birth Rate
Japan's birth rate is 1.45 in 2015 and only 1.17 in Tokyo.

Child Raising 70% of children who cannot go to nursery schools live in ordinance-designated or core cities.

Demographic onus

The labour force participation rates of prime-age (25-44yrs) married women in

KYOTO HYOGO NARA
CHIBA TOKYO KANAGAWA

are all 5%pt below the rate for Japan as a whole.

Income Inequality

Minimum wage
¥932/hr in Tokyo
¥714/hr in Miyazaki

Economic stagnation

51 min. Commuting time

Environmental Issues

Exposure to PM2.5

Emissions intensity of the economy is +4.6%.

Global warming and heat island phenomenon +4°C over the past 100 years

Changes in streamflow and nutrient balance in coastal waters, and high water stress.

Depletion of soil nutrients

Metropolitan cities

Scored 10% higher

Spend ¥50,000 more on cram schools

University entrance rate

Achieve -ment Gap

72.5% Tokyo
38.4% Iwate

If a large earthquake hits, -50% power supply capacity

+16% increase in the number of depressed patients

Health issues 57.5% answered feeling stress in daily life

Increasing Aging Population

Shrinking labour force

Increasing elderly dependency rate

Shrinking domestic market

Increasing age-related expenditure

In Agricultural Sector, 1 in 3 farmers are over 75yrs

Increasing percentage of abandoned forest

DEPOPULATION IN RURAL AREAS

14TH HYLI TEAM JAPAN



This infographic is best viewed in PDF. Download a free copy at <http://www.hitachi.com.sg/about/hitachi/activities/hyli/library.html>

SUSTAINABLE URBANIZATION THROUGH COLLABORATIVE CREATION

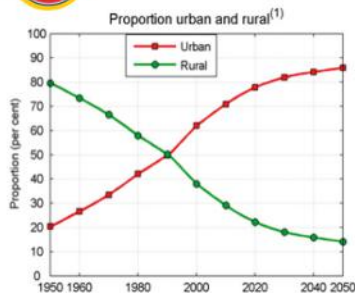
Urbanization in Malaysia

Population in Malaysia is projected to grow from 31 million in 2015 to 42 million in 2050. Kuala Lumpur and Johor Bahru are among the largest ASEAN cities.



3rd

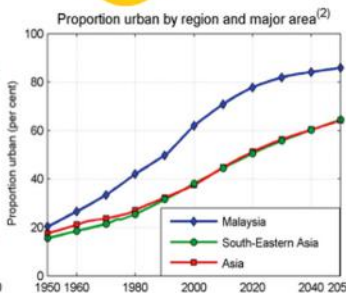
highest urbanization level in ASEAN



Source: UN World Urbanization Prospects

KL 5th

most populated city in ASEAN



Over 70%

of urban population by 2020



Source: Dept of Statistics Malaysia



10,000,000

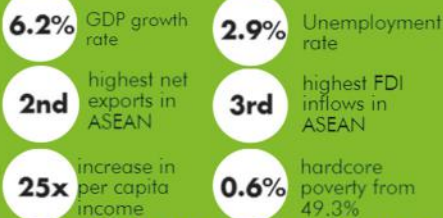
population in the Greater Kuala Lumpur/ Klang Valley area by 2020

Source: ASEAN UP

Positive Aspects

ECONOMIC IMPROVEMENT

Upper middle-income country, surpassing many countries in Asia & across the world



Source: ASEAN Statistical Yearbook 2015

EFFICIENCY

Coverage and quality of broadband nationwide reaches up to **20Mbps**

Digital initiatives e.g. e-commerce ecosystem and Digital Maker Movement



Source: RMK-11 2016-2020

CONVENIENCE & SERVICES

HIGHEST fertility treatment success rates in the world



Source: EPU 2015

Negative Aspects

INCOME DISPARITY

Average monthly income of urban households is almost **TWICE** than that of rural families.



Difference of income between rural and urban area per month **HAS INCREASED** as a result of urbanization

RM1923 in 2002 vs RM 2662 in 2012

Source: EPU, 2012

URBAN POVERTY

Rapid pace of urbanization causes vulnerability among the urban dwellers

The urban vulnerable groups **has average income of RM 2,334 monthly**

People with low educational level and engaged in low skill and less productive sector



Source: Yusoff 2013

Source: Malaysian Digest 2016 & DBKL Survey

URBAN DISECONOMIES

MOST tree loss in Asia since 2000



132 noise pollution complaints in 2015

Malaysians will suffer from mental health issues

Source: The Star Online 2017

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14th Hitachi Young Leaders Initiative

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REPUBLIC OF THE UNION OF MYANMAR



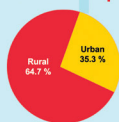
Background Information

Population
54 million



Total Land Area
676,577 km sq

Urban Vs Rural Population



70% URBAN POPULATION IN YANGON REGION, IN THE UNION IS 30%

Major Cities of Myanmar



Nay Pyi Taw (Capital City)
Yangon (Commercial City)
Mandalay (Cultural City)

Yangon Region

Area : 10276.7 km sq
Population : Over 7 million
YCDC Area : 33 Townships
Others : 12 Townships

Modes of Transportation



Socio-Economic Buildings in Yangon City Development Committee (YCDC) Area



Bank : 159



Industrial Zone : 24



Cinema : 24



Hospital : 19



Hotel : 74

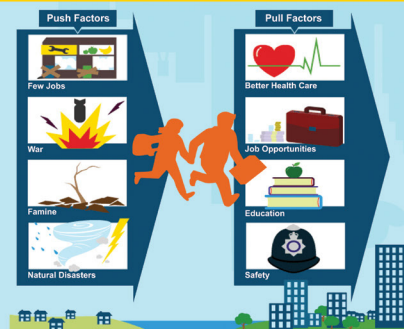


Public Park : 41



Shopping Mall : 35

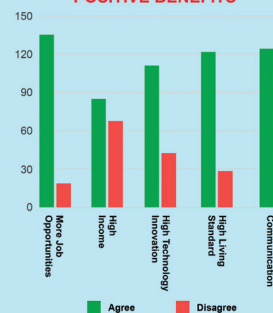
Factors Affecting in Urbanization



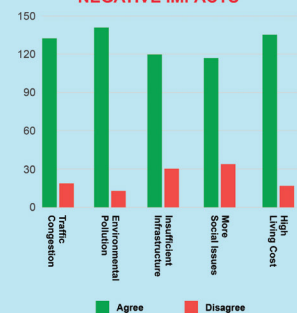
People's Opinions on their quality of life in Urban Areas

(150 INTERVIEWEES)

POSITIVE BENEFITS



NEGATIVE IMPACTS



Development Vision For Greater Yangon



Yangon Mega City 2040 plan is collaborated with Japan International Cooperation Agency (JICA)

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http://www.bbc.co.uk/bitesize/ks3/geography/interdependence/population_migration/revision/6/
<https://en.m.wikipedia.org/wiki/Myanmar>

A SNAPSHOT OF PHILIPPINE URBANIZATION



103.8 M
ESTIMATED POPULATION
BY END OF 2017

44.8%
URBAN POPULATION

33 LY URBANIZED CITIES

**POPULATION DENSITY
PER SQ. KM. (2015)**

901 and over
501 - 600
301 - 400

7107 ISLANDS

25.5M HECTARES

TOP INDUSTRIES

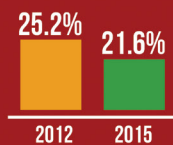
REAL ESTATE
RETAIL
CONSTRUCTION
BPOs

PROGRESSIVE RESPONSES

Poverty incidence rate decreased.

VIS
MIN

Poverty incidence rate decreased.



Better access to health care leads to higher than average life expectancy.

K-12
PROGRAM
was recently
introduced

2.15M
graduated from
TESDA courses
in 2016.

MALES
70.01
YEARS

FEMALES
75.54
YEARS

Unified tap-and-load ticketing system for the LRT and MRT lines was introduced last July 2015.

98% of passenger traffic is served by rail transport

Public transport accounts for **69%** of trips taken per day in Metro Manila (2015)

The Philippine Energy Plan and Renewable Energy Act encourage clean and sustainable energy generation.

FOREST COVER AREA (HECTARES)

6.343M	7.185M
2003	2013

There is an increase in forest cover area. Afforested/reforested areas increase with the implementation of the National Greening Program.

CHALLENGES

Accelerated land use conversions, deforestation, kaingin (slash and burn).

Accelerated land use conversions, deforestation, kaingin (slash and burn) farming have caused the quality of soil to decline.

50%

of the urban population has access to piped water.

Water-borne diseases are major concerns.

40%

There are **4M** out-of-school youth in

There is a disparity in electrification

94%
URBAN

Power rates in the Philippines are among the highest in the world (5th in 2011).

36.1%
of CO₂ emissions
from fuel combustion
come from the
transport sector.

PHP 3B/DAY
economic
losses due to
traffic in Metro
Manila in
2015.

SOURCES

[illegible][illegible]

URBANIZATION in SINGAPORE

the good & the bad

Delegates:
Ms. Claire Chan
Ms. Clare Lim
Ms. Katherine Nay Yaung
Mr. Khamchanh Thammavong

ECONOMIC: Maintaining a robust economy

Relations with other countries: Continuous urban planning enhances our competitiveness and sufficient land for critical infrastructure such as airports to strengthen inter-country linkages (Urban Redevelopment Authority, 2012).

Income Inequality: Urbanisation has also contributed to widening income gap in Singapore. Despite the economic growth, these benefits do not trickle down proportionately to the lower-income groups (Lee, 2007).

INNOVATION: Incubating new ideas & technologies

Continued R&D efforts could facilitate new breakthroughs to address challenges in:
- transport planning, waste management and energy systems (Malone-Lee, 2011).
Current urban innovations include:
- Electronic Road Pricing and NEWater.

Examples of new sustainable solutions employed:
- largest floating solar photovoltaic cell test-bed, a smarter power grid and intelligent transport systems (Urban Redevelopment Authority, 2012).

TRANSPORT: The drive towards public transport

Mass Rapid Transit (MRT) Services: Singapore's MRT system boasts excellent services and infrastructure that is constantly expanding to meet commuters' needs. There are plans to install free wifi in all MRT stations by 2020. However, there were 16 major train breakdowns in 2016, perhaps reflecting the inability of current infrastructure to handle growing demands.

SOCIAL: Provide good quality of living

>80% of the population lives in high-rise public housing, made to ensure all have access to affordable, quality homes.

CULTURAL: Preserving a sense of identity

Singapore's Conservation Programme: The areas for the different races from the early days still remain: the old streets of Chinatown, the conspicuous Muslim characteristics in Arab Street and the distinct ambience of Little India. Furthermore, there are marks of the British colonial influence in the Neo-Classical buildings around the city.

PUBLIC CONSULTATIONS

Ongoing public consultation enables collaboration and constant revision, e.g. 'REACH' online forum (Celik et al., 2009). This can prevent the NIMBY ('not in my backyard') syndrome (Soh & Yuen, 2006). The purpose of public consultation is to gain as much of a consensus as possible *but* if used extensively, it could be 'divisive' (AsiaOne, 2012).

SOCIAL: Provide good quality of living

Building a livable and sustainable city: Urbanisation has given Singapore the chance to creatively integrate nature and play into the city to make it more livable. For example, 360km of park connectors will be built around the island by 2020 (Urban Redevelopment Authority, 2012).

Rejuvenation of older estates: For example: Jurong Lake, East Coast, and Hougang will be given makeovers under the Housing Development Board's Remaking Our Heartlands programme.

TRANSPORT: The drive towards public transport

Public buses: This option is more environmental-friendly than cars and is complemented by measures to control car ownership, with constant expansion of bus services and numbers.

TRANSPORT: Private car ownership

Private cars: 45% of households own ≥ 1 car, due to increased affluence. This results in increased air pollution and carbon emissions (National Environment Agency, 2017).

INNOVATION: Controversies

Increasing use of startups: Startups like Grab and Uber tackle car use problems (Malone-Lee, 2011). But such technologies can create job instability and industry upheaval. For example, Uber and Grab were criticised by The National Taxi Association (NTA) for creating price wars and hurting consumer welfare (Ho, 2016). However, consumers quickly accepted the use of private-hire services and reported higher satisfaction with these services compared with taxis (Lim, 2016).

SOCIAL: Provide good quality of living

Catering to ageing population: With urbanisation, young citizens tend to place career before family. This results in declining birth rates. By 2050, about 1 in 4 of our population will be aged 65 and above, up from 1 in 10 today. Thus, urban planning involves provision of adequate support in terms of healthcare, community and leisure facilities to meet the needs of the elderly.

ENVIRONMENTAL: A double-edged sword

Biodiversity: Singapore has lost 90% of its forest, 67% of its birds, about 40% of its mammals and 5% of its amphibians and reptiles. Of the original mangroves, <5% is left. 39% of all native coastal plants are extinct (blogs.ntu.edu.sg).

Waste: With urbanisation comes the increase in consumption. As a result, the waste generated per capita increased rapidly. Land space is limited and the only landfill available to contain the ashes of incinerated solid waste will be filled by 2035.

ENVIRONMENTAL: A double-edged sword

Cleaning of the Singapore River: 4,000 squatters, whose daily waste flowed into the river, were relocated as part of a 10 year process to rid the river of pollution (The Straits Times, 2014).

Sewage management: The Deep Tunnel Sewerage System uses deep tunnel sewers to convey used water by gravity to centralised water reclamation plants for treatment, increasing efficiency and hygiene (Public Utilities Board, 2017).

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URBANIZATION IN THAILAND

By Thai Delegates
14th Hitachi Young Leaders Initiative

DEFINITION OF URBANIZATION

is a process of transforming cities and towns as well as increasing the number of people who move from rural to urban area.

Northern Thailand; Chiangmai

Traffic conditions in Chiangmai are problematic and severe, especially in the rush hours, the times that many people who live outside the municipality, are going to work and study in the urban area.

Central Thailand; Bangkok

Land is increasingly used for commercial and residential purposes. The greater economic scale causes the high demand for land usage, especially in urban areas as well as elevates the price of land and house.

Southern Thailand; Songkhla

The rapid economic growth in Songkhla attracts the foreign workers, particularly Burmese people, to work and live in the city. The service sector, such as construction sites, is the type of job they prefer to.

Northeastern Thailand; Udonthani

It is the huge transportation hub of the northeastern region where is the linkage point between Thailand and neighbor countries namely Vietnam and Laos PDR.

MEMBERS

Ms. Champupun Sandee
Ms. Pichaya Sattasuntarakorn
Ms. Prima Pupornchai
Ms. Thammapond Pattjaike

THE CONSEQUENCES

OF URBANIZATION IN THAILAND

POSITIVE BENEFITS

Here is a list of positive effects resulted from urbanization in Thailand that creates better changes for people and society as a whole.

EMPLOYMENT OPPORTUNITIES



The majority of people migrate into urban areas to seek for employment opportunities, since all development sectors both public and private are concentrated in the town. There are higher chances to get the well-paid and high value-added jobs compared to rural area.

DEVELOPMENT OF INFRASTRUCTURE & TECHNOLOGY



Modernization as a consequence of urbanization has changed the people living mode. The development of technology and infrastructure and other public services has given people more choices of residential habits, attitudes, clothes, and food.

TRANSPORTATION ADVANCEMENT



Traffic and population growth creates the demand for more transportation infrastructure. Smarter transportation, such as BTS and MRT, operates itself effectively but it will be better if they can be connected to each other in order to overcome the challenges of traffic congestion. Also, the alternative fuels will reduce the pollution problems.

QUALITY EDUCATION



Living in urban areas basically guarantees the good quality of education provided. It will ensure that people have lifelong learning opportunities in fostering the better conditions of life as well as developing the essential skills to achieve a good job.

HIGHER STANDARDS OF LIVING

People are able to afford the requisites and earn enough income (compared to the current costs of living) to live their lives without struggling. This means to have a better life.



NEGATIVE IMPACTS



HOUSING PROBLEMS

The limited spaces in towns are not able to meet the demands of the growing populations as well as the dramatic escalated prices of land and property asset. become unaffordable for people who live in poverty.



DEVELOPMENT OF SLUMS

Within the urban areas in particular, the illegal residences (slums and squatters) increase interestingly. It has a significant implication for a huge number of people who want to achieve the better life in town but cannot afford the elevated price of land and house.



SPREAD OF CONTAGIOUS DISEASES

People in slum areas normally suffer from poor sanitation and insufficient water supply. This condition of living easily makes them infected with communicable diseases. Moreover, pollution in urban areas tend to cause health problems, particularly the weak immune people, for example food poisoning, asthma and allergies.



TRAFFIC CONGESTION

Due to poor management of the transport system, it conducts the severe traffic during the rush hours. Also, the inadequate public transportation makes more people use their own vehicles. It is the direct source of air pollution which is one of the intense environmental issues in Thailand.



UNEMPLOYMENT

Being unemployed is the state of not being able to find work. Due to the high cost of living, the standard income seems horribly low. So, most of urban people willingly leave their jobs, particularly the educated people.

URBAN CRIME



The negative results from urbanization tend to create more social problems, including drug trafficking, kidnapping, robbery, and so on.

LET'S CREATE THE PLANNED URBANIZATION
TO GENERATE THE POSITIVE FEEDBACK!

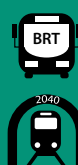
Urbanisation in Vietnam★

Positive vs Negative

Urbanisation rate: 3.4% per year (fastest rate in Southeast Asia)
 Urban residents: 34.6% (34.06 million people in 2016)
 787 cities and towns

SOCIETY

01 PUBLIC TRANSPORT



BUS RAPID TRANSIT
9,300 JOURNEYS
 IN JANUARY 2017
 METRO LINE (HCMC)
1,312,572
 COMMUTERS PER DAY

03 INSUFFICIENT PUBLIC SPACE



(HANOI)
 PARKS AREA: **0.3%**
50% RESIDENTS
 DON'T HAVE A PARK
 WITHIN WALKING
 DISTANCE

02 MORE DIGITALLY CONNECTED



+55%
 SMARTPHONE
 OWNERSHIP AND
 INTERNET USAGE
 (2015-2016)

04 INCREASE PRIVATE VEHICLES



MAKING UP
80-90% OF
 TOTAL TRIPS IN CITIES
 AND STRAINING THE
 ROAD NETWORK

ECONOMY

05 REDUCE POVERTY



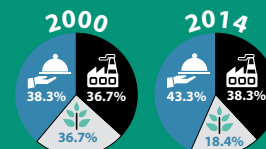
1993 **58%**
 2008 **14%**
 LABOUR PRODUCTIVITY
 VALUE INCREASED BY
5.31% (2015-2016)

07 FARMLAND LOSS



HANOI'S FARMLAND CON-
 VERSION (2000-2010):
150,000 JOBLESS
 FARMERS **30.5%**
 HOUSEHOLDS WITH
 DECLINED INCOME

06 ECONOMIC STRUCTURE SHIFTING



08 INFORMAL EMPLOYMENT



(urban areas)
42.9% INFORMAL
 WORKERS IDENTIFIED
 AS HOUSEHOLDERS
62% IF INCLUDES
 HUSBAND AND WIFE

ENVIRONMENT

09 AIR POLLUTION

January - March 2017
 (PM - Average microgram/ m³)



HIGH LEVELS OF PARTICULAR MATTER
 VIOLATING NATIONAL REGULATIONS:

HANOI - **37 DAYS**
 HCMC - **6 DAYS**

*VIOLATING WHO GUIDELINES:
 HANOI - HCMC - **78 DAYS**

10 WATER POLLUTION



UP TO **80%** OF DISEASES IN
 VIETNAM CAUSED BY POLLUTED
 WATER RESOURCES. LAKES AND
 CANALS IN URBAN AREAS ARE
 FAST BECOMING SEWAGE SINKS.

11 INCREASE ENVIRONMENTAL AWARENESS

AMONG PEOPLE OF HIGHER EDUCATION:
80% ARE READY TO HELP
 ENVIRONMENT PROTECTION
68% ARE WILLING TO PAY MORE TAXES



12 INVEST IN GREEN ENERGY (2030)



6000 MW
 POWERED BY
 WIND ENERGY



12000 MW
 POWERED BY
 SOLAR ENERGY

Sources:

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VIEWS ON URBANIZATION

This section presents multiple perspectives on sustainable urbanization by current leaders and experts in Myanmar and across Asia. They share their experience to help youth delegates and the public learn from their lessons and build on the knowledge gained.



Dialogue with Government

His Excellency U Phyo Min Thein, Chief Minister of Yangon Region Government engaging with 14th HYLI student delegates

1st Question (by Taradhinta Suryandari from Indonesia): What is the most pressing problem in Yangon city?

Answer: Waste disposal; water and sanitary system are the most immediate problems to be solved out of all the challenging problems for Yangon. Yangon Division government is also developing a plan with deep passion about them.

2nd Question (by Nguyen Duy Phuong from Vietnam): Since urbanization plan is being developed around Yangon city, how does government gain support from the citizen to solve the problem together?

Answer: Yangon is a very populated city and since many people migrate to the city very often for various reasons, there have been issues of lands and areas being invaded. So, we will develop the outskirts of Yangon equally so that the townships will have qualified urbanization. We will expand the Western part of Yangon city across the Yangon River also with three-year plan for the rural areas there in terms of transportation, electricity; water and sanitary starting from the next open season. The Yangon city will be of two parts then with the old Yangon city full of the present-day city areas and historical buildings and the new then-developed part on the western bank of the River. Recently, the government gets support and collaborates with students from universities; representatives from civil society organizations and technicians from private sectors to develop projects and consultations for the urbanization plans.



Guest of Honor; H.E U Phyo Min Thein, Chief Minister of Yangon Region Government & 14th HYLI student delegates

3rd Question (by Bianca Angelien Claveria from Philippines): How important are the Yangon's historical heritage buildings for the city development and urbanization plans? Do you think it is possible to preserve the country's rich heritages and historical sites in the same time while the cities are moving forward to the most urbanized and modernized country?

Answer: The core vision for Yangon is to be a greener and economically developed city with preserved heritages. We are now planning with Yangon Heritage Trust to preserve over 200 historical buildings and with the technical supports from the Italian experts. The main reason for the New Yangon Development project is to preserve the old Yangon.

4th Question (by Irfanda Odytia from Indonesia): Yangon has a lot of informal sectors (SMEs) and many people moving to the city from the rural areas are working there. So how is actually by opening up the new city will compromise informal sector? And how does the government manage the SMEs sector?

Answer: Yangon city is supposedly being planned to be developed by the development of SMEs. However, in order to have such great implementation, first thing we need is a better banking system since they are interrelating to sustain for long-term wise. What is in our mission is to make an SME center where such businesses could manage to cooperate with financial investors. Moreover, I believe SME can be the key factor to stabilize the Myanmar's economy. So, we, the Government, acknowledge and very much encourage the SME sector.

5th Question (by Jason Cheong Kah Lok from Malaysia): Building a Smart city requires a lot of financial support. So, how does the government find a funding for the plan and allocate them?

Answer: Private sector. Simply. We need an efficient; not only financial but also technical supports from the private sectors. Cooperative Public and private partnerships also do helps.

6th Question (by Aaron Danison Deivasagayam from Malaysia): Since this is a HYLI event, I would like to know how the Young Leaders are supported by the Yangon Region Government. Do you provide a platform to voice out their concerns and visions in urbanization? And what is the current status of the Social Enterprises in Myanmar? Are they contributing as well in urbanization in Yangon?

Answer: Firstly, thank you for the question and also, I sincerely appreciate and thank the Hitachi for such an inspiring event and program for young people in Myanmar. Youth can freely participate in our process. Just by using smart phones. To develop the aspect of youth participation, we encourage the entrepreneurship of the youngsters and we also encourage the banks and investors to enable startups and small business to grow and develop.

7th Question (by Hnin Thant Sin Oo from Myanmar): As the most problematic issues of urbanization, what is the current situation of the security and law enforcement in the slum areas of the outskirts of Yangon and for Yangon overall?

Answer: This is the very controversial issue still happening in Yangon since years ago. We, as a government, negotiate and collaborate with UN-Habitat and USAID (United States Agency for International Development) for rehabilitation and projects. And also, to improve their quality of life and the human resources development - education, transportation, health coverage, social services and so on. We believe by doing so - rehabilitating the slums quarters; it will somehow decrease the security concern and enhance the law enforcement of the City. The Yangon Region Government is now developing and implementing the strategy and plans with the proposal approved by the parliaments. We also work closely with other stakeholders for the plans and I assure you that this is the priority we are currently trying to solve

Sharing by Shwe Taung Group



U Aik Htun

Chairman of the Board, Shwe Taung Group

Hitachi's theme this year for the 14th Hitachi Young Leaders Initiative is urbanization. This theme is especially relevant for Myanmar since our country is going through a very exciting phase of economic transformation. When we talk about urbanization, one of the most important points to consider is that urbanization needs to be managed in a sustainable manner. The government, the private sector, and international organizations need to cooperate to ensure the success of Myanmar's sustainable urbanization journey.

The provision of good quality housing, job prospects and opportunities, and quality education are key success factors to ensure sustainable urbanization. Shwe Taung, as a leading conglomerate in Myanmar, has been playing our part by providing good employment opportunities for our citizens and providing schools to the both rural and urban areas in Myanmar. We also have been collaborating with many international organizations to build quality, sustainable developments. For example, Junction City, our mixed-use development in downtown Yangon, is built to meet the stringent Green Mark standards imposed by Singapore's Building and Construction Authority. We also work with Myanmar's Engineering Society to share our experiences on urbanization and jointly work on projects with them.

I would like to thank the 14th HYLI for organizing such a meaningful topic of discussion that will contribute to our country's urbanization process. I wish all participants a fruitful and enjoyable program.

Thank you very much.

Sharing by Hitachi, Ltd.



Mr. Toshiaki Higashihara
Director,
Representative Executive Officer,
President & CEO, Hitachi, Ltd.

Along with the evolution of digital technologies, we are seeing a variety of paradigm shifts characterized by massive changes, from products to outcomes, from own to share, from closed to open, and from individual optimization to overall optimization. In this era, it is becoming to be more important to think everything by the basis of “Time”, “Region” and “Value”.

Apart from digitalization and paradigm shifts, we also observed the increasing resolve of nations to address global societal and environmental issues. This is embodied by the United Nations Sustainable Development Goals (SDGs) for 2030. Given this background, Hitachi will contribute to achieving SDGs through our advanced Social Innovation Business.

Through our social infrastructure business, Hitachi has combined the many elements that it has cultivated up to now: operational technologies in front line systems; information technologies that analyze conditions and support management; and a wide range of products and systems. This combination of elements has been embodied in the Social Innovation Business.

Amid these trends, Hitachi's goal is to become an innovation partner for



the Internet of Things (IoT) era. Hitachi will accelerate collaborative creation and create new value with its many stakeholders, including those of you who have come to join us today. We will do this through the advanced Social Innovation Business, focusing on these four main fields: Power Systems and Energy, Industry, Distribution, and Water; Urban Development; and Finance, Public, and Healthcare.

As for the relation between Hitachi and Myanmar, Hitachi provided the Baluchaung No.2 Hydropower Plant

approximately 60 years ago. In this project, about 2.5 million people from Myanmar and 160 thousand people joined to complete. This plant is still generating roughly 10% power electric in Myanmar after several renovations. It was the project completed by the strong collaborative creation between Myanmar and Japan. Furthermore, the hydraulic diesel locomotive that Hitachi provided almost 50 years ago is still working. Today, Hitachi is expanding its business in Myanmar in the area of not only social infrastructure but also information technology and IoT.

We also contribute to Myanmar's society and would like to continue to contribute to increase its Quality of Life in the future. In 2015, for example, we established the Hitachi Myanmar Laboratory with the University of Information Technology in Yangon to develop the country's next generation of IT leaders. Since 1996, we have supported HYLI to help socially conscious leaders.

Hitachi's goal is to be an innovation partner for the IoT era, using digital technologies to connect businesses with businesses, industries with industries, data with data, people with people, and communities with communities, and to connect industry, government, and academia, to resolve issues.

The future is truly open, and can be changed with ideas. We look forward to creating new value together with all of you.

THE VALUE OF SMART CITIES FOR SOUTHEAST ASIA

Plenary Session 1

This section presents views from regional experts on how smart cities can help address urbanization challenges across cities in Southeast Asia.



“Being smart by reacting faster, thinking deeper and devising creative solutions is the only way to go.”

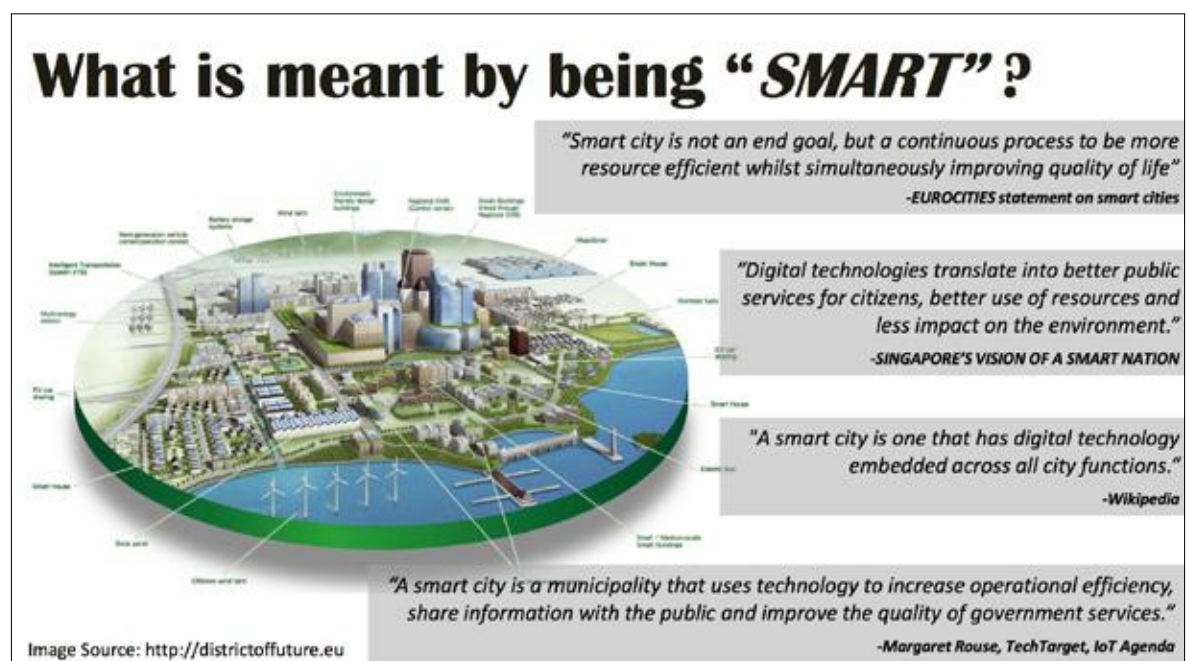


Mrs. Nina Yang
Chief Executive Officer; Sustainable
Urban development,
Ascendas-Singbridge

What is meant by being “smart” for cities? There are many definitions but we all can appreciate that it is not just about technology. In my observation, when a city chooses to adopt technology that can be embraced by both public and private sectors and underpinned by governance, the city can be labeled as “smart.”

A smart city is one that is able to react faster, think deeper and come up with creative solutions. Through information technology (IT) and the Internet of Things (IoT), real time data can be captured, collected and analyzed that allows a city to react faster. This data can be applied for improving city management and public service delivery.

To think deeper, data collected by the city can be used for simulation and prediction. Applying and managing this data allows us to identify behavioral patterns and key trends which help to predict future outcomes and offer insight to devise solutions for people.



A smart city also means harnessing smart technology for an agenda of sharing. Most Asian cities will need creative solutions to accommodate rapidly expanding populations and use its limited resources more efficiently. By applying a sharing economy, a city may achieve the objective of being “smart” in a better and faster way.

In conclusion, there are huge amounts of available technology. The challenge is how do we take them and integrate into cities in an economically sustainable manner. Today the evolution of ‘smart’ cities is about solving specific problems and no longer about sweeping or ground breaking urban transformation. All cities have limited resources. Being smart by reacting faster, thinking deeper and devising creative solutions is the only way to go.

For the young leaders, it is your mission to find your own game-changers for your community.

“For a city to be smart, the government should be smart first for the sustainability of the development.”



Mr. Setiaji

Head, Jakarta Smart City Management Unit of the Communications, Information and Public Relations of the Jakarta Capital City Government

What is a smart city? There, with interrelating to each other, are six indicators - smart people; smart economy; smart environment; smart government; smart living and smart mobility. However, for a city to be smart, the government should be smart first for the sustainability of the development.

A city is said to be smart when being focused on three aspects and also Jakarta is a smart city because of:

1. Government that listens
2. System that connects
3. Citizen that participate

Jakarta has a smart system with statistics for the other two focuses to interlink for a better solution – using apps so that the citizen can participate (i.e. feedbacks and complaints) and for the government to listen and implement the action plans. The recent statistics reports the trend of citizen complain app utilization and the response on citizen complaints and for the data transparency, there are also a technology utilization online - open data portal (www.data.jakarta.go.id);



JKT smart city portal (www.smartcity.jakarta.go.id) and CITY API for development (www.api.jakarta.go.id) which are all open sources meaning anyone can access to for the data.

The important point of being a smart city is to get data access from the citizens living in through the system that analyzes then to provide information and actions - a better solution for the citizen's problems by the government.

“Flexibility is the key to develop the plan for long-term urbanization plans.”



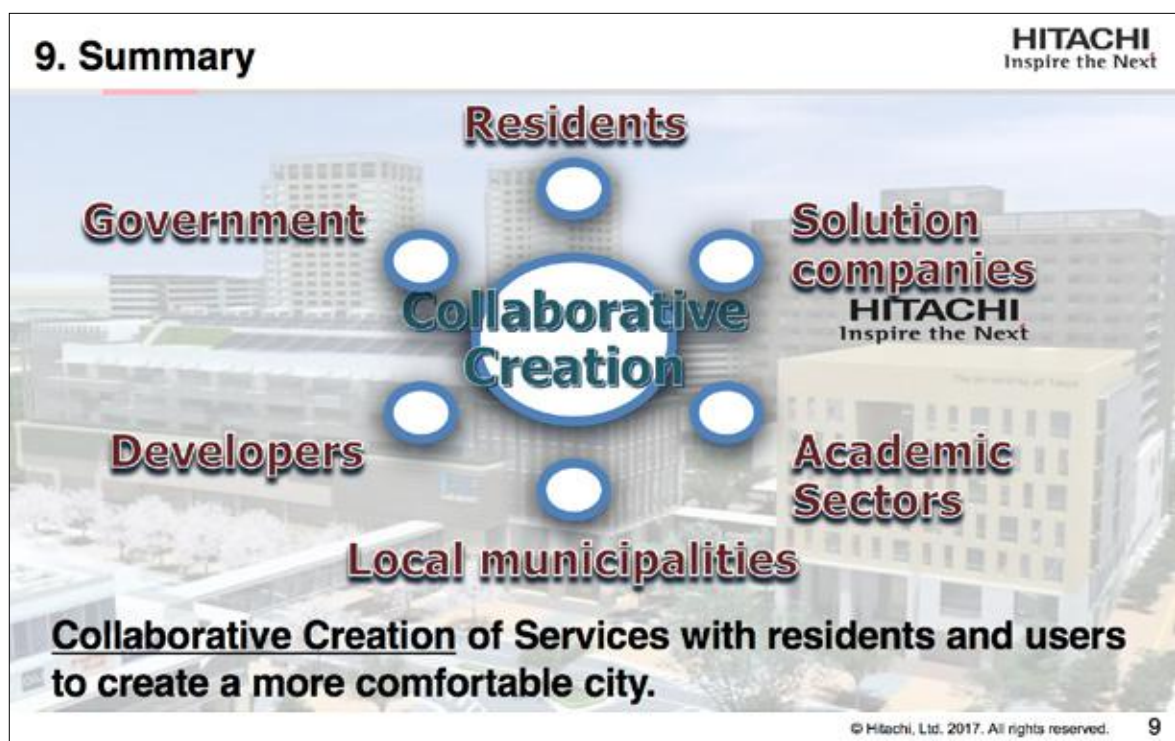
Mr. Keizo Kobayashi

Vice President and Executive Officer,
CEO of Urban Solutions Business Unit
Hitachi, Ltd.

For urban development, Hitachi provides solutions for facility management, Area/Energy Optimization, and Multimodal analysis to observe human behavior. Smart cities are one of the important opportunities to expand our Social Innovation Business. There are various types of smart cities and Hitachi provides a range of services from energy solutions to system integration. So, today let me introduce Kashiwa-no-ha smart cities, one of the leading smart city projects in Japan.

The city promoted three concepts: (1) Environmental Symbiotic Cities, (2), City of Health and Longevity (3) City of New Industry Creation. For achieving the first one, Hitachi developed a total area management solution that includes energy management system.

We have a future plan to be better, to be more comfortable, and to deliver a smarter city by adding advanced technologies for mobility and security.



Based on our experience, the important points of smart cities are:

- (1) Start development plan considering long-term visions, flexibility is the key and I think advanced functions must be needed continuously.
- (2) The more we live in the town, the more value it generates for residents, the more it is important to engage them in co-creating the town.
- (3) Create towns in a human centric way with stakeholders through collaborative creation.

Types of smart cities should be different depending on each region and each country. So collaborative creation is important. I would like to ask young leaders to think of a vision that fits your city. Hitachi and myself would be more than happy to assist in providing solutions for the future.

Session 1 Panel Discussion and Q&A

“THE VALUE OF SMART CITIES FOR SOUTHEAST ASIA”

U Thaung Su Nyein (moderator): Are there any differences between normal city and a so-called smart city?

a very smart and creative approach to adapt the changes so that all your citizens will benefit.

Mrs. Nina Yang: Going forward, all cities need to be smart. Simply, because of the increase of population rates are becoming so fast. We need to know how to use your limited resources whether it is a technology, or policies or even government; which is all leads to the ultimate goal - to benefit the citizens. Smart city is a high-density city with

Mr. Setiaji: Smart city is about how we can optimize data to solve the problems and then how we can get data from the citizens so that we can do the action plans.

Mr. Keizo Kobayashi: For me, it is about how we can utilize the data then to benefit the people living in the city. Smart city is the new solution.

ON SMART CITY AND THE ENVIRONMENTAL ISSUES

U Thaung Su Nyein (moderator): Smart city uses technology so environmentally; what kinds of effects does a smart city have on?

Mrs. Nina Yang: To me, future city needs to be compact. If the city spreads too large, too much land is wasted on the construction of roads and this will add pressure to the environment.

Mr. Keizo Kobayashi: Smart city will always be growing so we will always have environmental issues. But we sure need to think about the long-term plan on how to make the smart cities eco-friendlier.

U Thaung Su Nyein (moderator): Smart cities are only seeming to be the developed city so how can we make a developing city smart too? And who will fund it?

Mr. Setiaji: In Jakarta smart city project, we have a management team for financing. And of course, we have to collaborate with the “Big start-ups” and we also get funds by collecting taxes and revenues from the businesses. And also by allowing the private sector to endorse the project.

Mrs. Nina Yang: I think it is not realistic to think the government must fund for the smart city. The technology tends to exist in the private sector. The government should be looking at ways to work with the private sector for them to roll out their technology in a financial feasible manner.

Mr. Keizo Kobayashi: Who gets benefit for a specific solution - a smart city? Then it automatically decides who should pay.



U Thaung Su Nyein , Mrs. Nina Yang , Mr. Setiaji , Mr. Keizo Kobayashi
(from left to right)

Session 1 and 2 Moderator



U Thaung Su Nyein
CEO & Managing Director
Information Matrix Co., Ltd.

U Thaung Su Nyein (40-yr old), CEO of Information Matrix, is a successful media and technology entrepreneur. He grew up in Europe and the United States, but returned to Myanmar in 2000 to pursue his dream of running an Internet business. The company today is active in media, IT and services sectors. The media division publishes one of the leading newspapers called 7Day News, 7Day Daily, Internet Journal and People Magazine. The IT division works in e-government and e- education. He leads a very capable, youthful and energetic team of over 400 staff, dedicated to the corporate vision of doing everything in an innovative way for the future.

U Thaung Su Nyein also serves on the Executive Committees of several NGO sectorial associations, such as Myanmar Young Entrepreneurs Association, Myanmar Computer Professionals Association, Myanmar Computer Federation and the UMFCCI. As part of his company's CSR activities, he also leads a non-pro t organization called Hero Foundation.

Q & A Session with Students and the Panelists

Jason Cheong Kah Lok (student, Malaysia): The higher the smart city grows, the higher the living costs. So, is it a want or a need?

Mrs. Nina Yang: Smart city is not a cosmetic. It is a better utilization of resources economically to sustain in the future. Indeed, it is a need to solve citizens' problems in various aspects by embracing a technology to immediately solve issues with the use of the limited resources.

Arika Fadhia Rahmi (student, Indonesia): How can a lower class participate in developing a smart city?

Mr. Setiaji: Of course, they can. In Jakarta, when we started the smart city project, we advertised them by providing information in open spaces and in distance areas; and by giving Wi-Fi access for them to search further information. We also have Girls' Scout for wider information. So, in this way, people will know and they can participate in the development of the smart city.



Jason Cheong Kah Lok,
Malaysia



Natsuko Kitagawa,
Japan

Natsuko Kitagawa (student, Japan): Smart cities are being focus in a big city. So, what about middle-sized city? And do you think a smart city can be done in the rural areas?

Mrs. Nina Yang: There are two aspects for making a smart place the non-urban people – public safety and embracing the technology. And when we combine both, the outcome utilizes to benefit the non-urban areas.

Tran Le Minh Thuy (student, Vietnam): Is there any alternative system to temporarily replace the smart city system in case of breakdown?

Mr. Keizo Kobayashi: As a private company, we supply a system to the customer through a contract. In this, we apply system integration especially for very critical operations involving people's lives. For example, systems for hospital services would have double even triple backup systems. For elevators, we have a battery to allow for people trapped inside to evacuate even in blackout. As a company, it is our business to think of and address system crash.



Taradhinta Suryandari,
Indonesia



Tran Le Minh Thuy,
Vietnam



SUSTAINABLE URBAN TRANSPORTATION

Plenary Session 2

This section presents views from regional experts on the role played by urban transport infrastructure for moving people in a safe, inclusive and efficient manner. This session also highlights real-world challenges facing urban transportation.



“Being sustainable doesn’t mean doing nothing. Something must be done to preserve the opportunities for the future.”



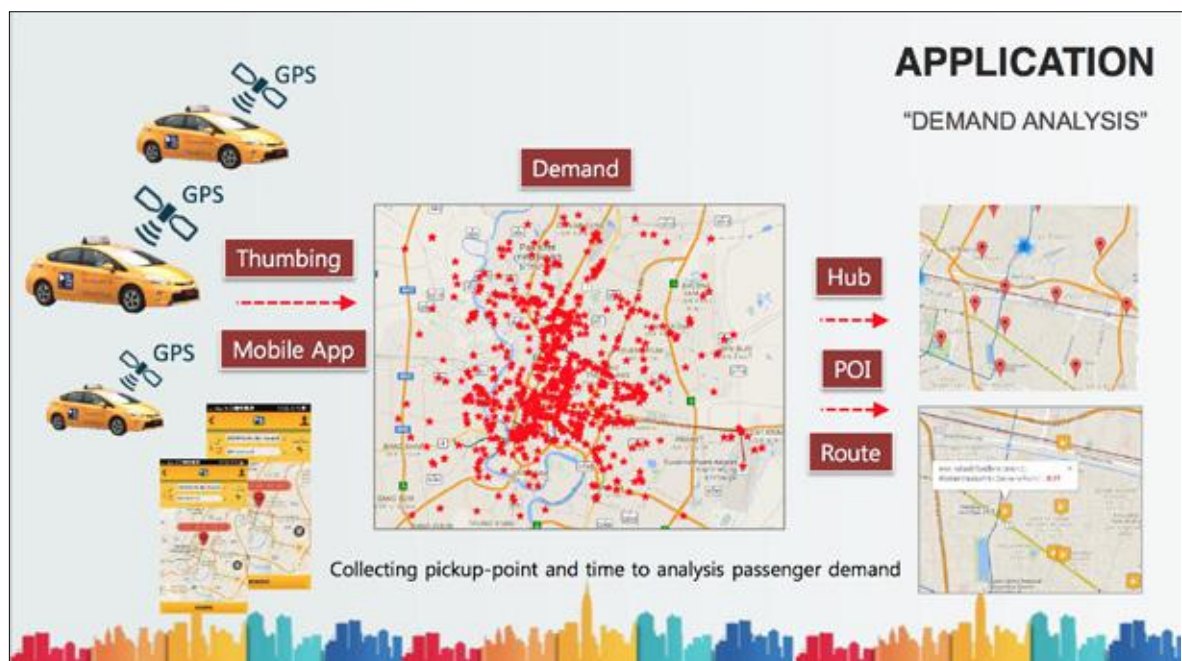
Dr. Agachai Sumalee

Director of Smart City Research Center,
KMUTL

Bangkok city is a very highly car dependent. So, people waste their times more on cars since there are traffic daily. Then, what in comes to question is whether the way we operate our policy for transportation – both macro and micro system is sustainable or not. That is why Bangkok has done reforms in mass transit system and public transportation.

Bangkok taxi services have been in question for its relatively bad services. The taxi services were getting complaints for bad customer cares and for accidents. Bangkok public transport was also lesser priority by both government and by citizens as the buses were less presentable and for the safety concerns. The solution was to renovate the whole Bangkok mass transit system. Using technology, the public transportation services are able to break the boundary of ordinary transport system to the technology-renovated networks with the implementation of the Renovation Master plans for mass transit network.

The government also established the new law stating all public transport vehicles must be equipped with the GPS system which leads to the most innovated system for public transportation insides Bangkok. The example is the All Thai Taxi which is connected with a highly smart technology system operation. Data and information of the vehicles and drivers alongside with the resourceful tracking system - the average speed indicator, the route taken and map of driving miles are collected online for public and as of today, 200, 000 vehicles are recorded in the system. Another taxi services called VIP Taxi and Taxi OK are also in development.



The technology allows everyone to monitor the system for which there has been tracking system installed insides every public transport vehicles. The system fits with the demands and as for the public sector, data online can be retrieved and analyzed for more master plans in the future.

Not only the taxi, but also the bus network has been renovated. There has been reorganizing of the bus routes and line-ups with said system mentioned. However, what is most impressive about the changes in bus system is that there can be shown data for revenues and loss calculated alongside with the optimum distances for every bus.

Such changes were economically and academically preferable but it is still challenging politically. The reforms are only implemented in Bangkok city and for that, Thailand, as a nation still faces future challenges. The key to sustain is a way of achieving it – by either technology or smart mobility. Change is not easy but it is the only way forward.

“The future of urban mobility is to end the competition and rather strengthening the collaborations in urbanization development plans.”



**Prof. Dr. Tech. Lr. Danang
Parikesit, MSc**
Professor of Transportation Studies,
Gadjah Mada University

The future of urban mobility is to end the competition and rather strengthening the collaborations in urbanization development plans. What is meant by urbanization? When the topic has been explained, there are positive and negative perspectives that are needed to be balance.

Asian countries have been raising urbanization issues politically, economically, socially and even legally as there have been cases of migrants moving to bigger cities and that leads the question of what are the benefits for them as well as government and the city, itself. When talking about urbanization and the social fabrics from the drawback of urbanization, there comes transportation aspect. Is there any limit for car ownerships? Is it a plus or minus for environmental quality?

Globally, the auto market is a \$20 trillion asset class with just 4% to 5% utilization. We need to ask ourselves a big question:

As two billion more drivers move into the middle class over the next decade, should we be adding another \$20 trillion in assets, or should we strive to reach 10% utilization instead?



What Malaysia came up for an urban agglomeration enhancing the economic development is deemed as the future of mobility – the connective vehicles with no drivers which has been operating in the port of Surabaya, the greenest port in Asia. IoT vehicles carrying containers connect their network with the pavements in the port for the routes and traffic management is the most innovative concept already implementing in Malaysia and also other developed countries around the world. Another innovation is the self-healing pavement using Nano technology that enables the road itself to detect the faults and heal itself so there is no room for maintenance.

However, as a still-biggest issue in every innovative solution, regulations remain the biggest enemy of innovation in the era of technology.

“The importance of Public transport plays the key in urbanization development for a city.”



Dr. Maung Aung
Secretary,
Yangon Urban Transport Authority

The importance of Yangon Public transport plays the key in urbanization development for the city.

However, before 2017, the existing situations were not favorable by the public to use public transport although they have been using it daily as the operating system was said to be the core problem with the rise of safety issue and poor service management. There was no fixed bus stop, and weakened standard regulations. Also with no service evaluation and poor management as well as no safety guidelines, the bus system became a controversial issue among the public and there have been many criticisms to do any solutions.

What the Yangon government did is to reform the whole bus system. The recent reform was in January 2017 with YBS (Yangon Bus System) was established. The ownership pattern changed from private to public sector and the operation system is one road - one-line system with the downtown areas having shuttle bus system implemented. The Management system is also said to be reorganized from multi-bus line management (Ma Hta Tha) to YRTA and recently there are the substitutes of the old vehicles to the new buses.

Way Forward

Key factors for Yangon Public Transport Reform

- Political will & leadership
- Strong authority
- Paradigm shift (Private own – public co.own)
- I C T based scientific administration
- People’s consensus & participation
- Sustainable solid budget
- Policy oriented think tank group
- Sustainable public transport

The infrastructure and technology for the buses are still challenging however they have been designed to implement as a reform plans with a new smart card system being developed.

The new innovative solution for Yangon city is the so-called water taxi which are already being developing and to be launched officially by the end of the year.

Way forward, key factors for Yangon Public Transport Reform are by the political will and leadership and a strong authority to change the whole system. However, there still needs a sustainable solid budget and a policy for the sustainable public transport for Yangon.

Session 2 Panel Discussion and Q&A

Aaron Denison Deivasagayam (student, Malaysia): Specifically, to Dr. Agachai; the project sounds impressive yet costly? So how much budget is needed to do the project and what are the privacy issues for the public in taxis?

Dr. Agachai: Whatever implemented must have an added value. So, cost is not priority in the case. Some part of the development is free since the national GPS system is a government project. For privacy issue, it is not an issue too since the taxi are commercial cars like buses; not private owned.



U Thaung Su Nyein , Dr. Agachai Sumalee , Prof. Dr. Tech. Ir. Danang Pariesit , Dr. Maung Aung
(from left to right)

Reina Mizote (student, Japan): To Prof. Danang; who is responsible for the auto-driving vehicles in case they have accidents such as car crash?

Prof. Danang: We haven't gotten into an agreement and what to do with that autonomous vehicles, what we called in term of liability. Who is liable for the actions taken by autonomous vehicles? Developers of vehicles or operators or the one who actually giving orders to vehicles? It has a lot of implication on commercial site and liability on safety. One of the paradox is a route guided system. For example, if everyone from the same group uses the same GPS assisted - guided system to go to the place at the same time, everyone will be congested because all of them follow the guidance of the system. This is one of the ongoing conversation, I don't know the answer yet.

Ms. Cherry Wai (student, Myanmar): The main transportation system in Yangon is the bus. Although some people use circular rail system, the amount is quite small. I think we can solve the problem of traffic conjunction if we have other alternative transportation system likes train. My question is why Yangon circular rail system is not popular, what the challenges and is there any short-term plan to attract people to use the train?

Dr. Maung Aung : The circular railway for inner city is 29.5 miles and we are trying to improve this system. We have one project assisted by JICA which will be started on October to renovate the existing railway. According to our need, we are planning to have elevated rail system. When we introduce it, we will do this with BRT system. The existing trains are very limited to use. In morning and afternoon, we cannot make to increase the number of trains because there are around 35 crossroads in the circular rail system. Increasing the number of trains on that period will make terrible traffic. The existing trains can carry 80 to 100 thousand people per day. Nowadays in Yangon, 2.8 million people use the public transportation system. We want to change to mass rapid transportation (MRT) system. After renovation process, the existing trains will be able to carry 600 thousand people per day. But, it is still quite small comparing in number with the people who use other transportation systems. So, we will construct one elevated system in near future.



Reina Mizote, Japan



Aaron Denison
Deivasagayam, Malaysia



Cherry Wai, Myanmar



ENVIRONMENTALLY SUSTAINABLE CITIES

Plenary Session 3

This section presents views from regional experts on implementing environmental sustainability alongside urban planning and development. They share their experience and challenges in leading this agenda.



“The environmental challenges that urbanization may face in coming future is the impacts of the climate changes for what we do today with this existing generation.”



Ms. Norliza Hashim

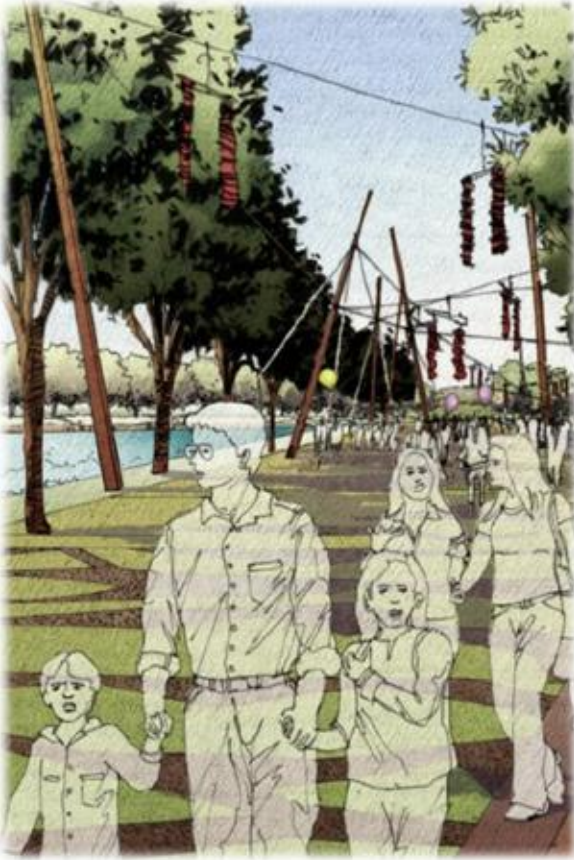
Director, Malaysia Institute of Planners,
Low Carbon Cities & Sustainability
Centre and Managing Director, AJM
Planning and Urban Design Group Sdn
Bhd (APUDG)

Environmentally sensitivity is a boring topic to talk about is actually very important issue today.

When talking about environment, it is not only about trees and forests and greener spaces. It is also about environmentally sensitivity. Technically, carbon has been the centered issue in environmental issues. However, what more important is the phenomena of the climate change itself; which is relevant nowadays.

The variation of the climate changes is an issue as it never happens in a short term but rather in long term periods. What we do today will impact something much bigger in the future as one affects others in consequences.

In urbanization, not only deforestation is an issue for land development but also it includes car parking space. An average person might need four to five car parks per one day and the city has more car owners so the amount of car parks needed by the whole population is enormous. The larger greener spaces for greener leisure have been turned into car parks. This is very serious and even if there are the best transportation systems in the line, the land for car parks and roads will be needed very much. My advice is not to make favors for cars in urbanizations but to develop environmentally sustainable ways like pavements and public spaces.



Pedestrian Network

Walking

- The most efficient alternative for short distance movement or trip
- No harm to the environment
- Reduce car dependency

PGC 2025 :
Walkable City

- Separate route for cyclist and pedestrian
- Covered pedestrian walkways
- Pedestrianized streets
- Universal Design Concept
- Safer routes for school
- Crime Prevention Through Environmental Design (CPTED)
- Planning & Design action plan for pedestrian
- Provide pedestrian rest and relax facilities (e.g. drinking water, benches, police beat)

Concluding, the environmental challenges that urbanization may face in coming future is the impacts of the climate changes for what we do today with this existing generation; so, the last solution these days is to cut less carbon emissions which have already been established.

“The public transportation must be encouraged for the lesser polluted and environmentally friendly city.”



Mr. Jarupong Pengglieng
Head of Vehicle Emission Control
Subdivision, Air Quality and Noise
Management, Department of
Environment, Bangkok Metropolitan
Administration

Bangkok is a highly populated city with a mass number of cars meaning the city has already been polluted. The public transportation must be encouraged for the lesser polluted and environmentally friendly city.

The key recommendations from the studies on Green Growth in Bangkok conducted by OECD for improving public transport through metropolitan land-use policies are to encourage development along mass transit lines and to introduce area development plans for stations; and to promote the greater reliance on canal transport and bicycles.

Waste water treatment is also an issue in Bangkok; and the city plans to improve the obsolete water pipes and meters increasing connectivity to wastewater system. So, the City introduces wastewater tariffs as a solution for the waste water treatment and management and the solid waste management system to accelerate domestic solid water separation and improving greater use of recycling. The government also implements the promotion of waste-to-energy plants nation-wide.

Bangkok Master Plan on Climate Change was developed and the key elements are:

1. Environmental sustainable transport
2. Energy Efficiency and alternative energy
3. Efficient solid waste management and waste water treatment
4. Green Urban planning
5. Adaptation planning



The Bangkok Resilience strategy was developed. Its vision to make a safe, livable and sustainable city for all; in terms of the increasing quality of life, reducing risk and increasing adaptation and driving a strong and competitive economy.

However, the challenges to achieve environmentally sustainable development in Bangkok are inclusive policy, coordinated actions, database, raising awareness and participation, networking and capacity building which are very much needed to be solved firsthand for the future development plans.

“The impacts of climate changes on Yangon population these days are the growth in population itself.”



Dr. Tun Lwin

Specialist in Meteorology, Climate and Weather in the Myanmar Climate Change Watch (Former Director General, Myanmar Department of Meteorology and Hydrology)

The impacts of climate changes on Yangon population these days are the growth in population itself; flooding and drainage systems; heat; natural disasters such as sea level rises and earthquakes. Water shortage is, of course, the problems of the city however, the whole nation faces the similar issues; especially in summer.

To evaluate and analyze the information about climate change and disasters and to develop a plan for such situations, the urban resilience initiatives have been established for Yangon city to promote safer settlement and land use planning Myanmar national Building Code for the supervision of institutionalizing safer construction practices (Earthquake engineering, etc.) was also established as well as the new city drainage system networks; mainly a cooperation by private with public sectors.

City level resilience programs such as formulating the resilience strategy for the cities linked with development and spatial plans which will be aligned with national level development goals; have also been developed and being implemented.

Urban Resilience Initiatives

- Promoting Safer Settlement- Land Use Planning
- Myanmar National Building Code
- Institutionalizing Safer Construction Practices
(Earthquake Engineering, etc.)
- City New Drainage System Network
- City Level Resilience Programmes
- Formulation of Resilience Strategy for the cities linked with development and spatial plans- Which will be aligned with national level development goals

Ref: Dr. Kyaw Thu, (UN-Habitat) Myanmar

Session 3 Moderator



U Win Myo Thu

Managing Director,
Ecology and Economic Development
Company Limited (Ecodev)

U Win Myo Thu is a development practitioner with the over 30 year's working experiences extensively in environmental conservation and rural development. He studied at Asian Institute of Technology (AIT) for M.Sc in Rural and Regional Development with the background of B.Sc (Forestry) from Yangon University and Yezin Agriculture Institute. Since mid-1990s, Mr.Win has initiated and pioneered the civil society movement in Myanmar for promoting participatory democracy and he led three nationwide water-land- air environmental campaigns during last five year in order to fortify the resource rights of the grassroots from the investment projects related to commercial agriculture plantation, hydro power dam construction and so-called clean coal fire power plant. At present, he is a chairman of local non-profit organization - Association of Advancing Life And Regenerating Motherland (ALARM but previously known as EcoDev) while serving as a co-founder of several NGO networks. His professional contributions also included the policy works of developing climate change national communication report, national biodiversity strategic action plan (NBSAP), national environmental performance assessment, and national rural development strategic framework for poverty reduction. He is one of the civil society representatives/focal point in national resource governance process of Extractive Industry Transparency Initiative (EITI) and EU-Myanmar's negotiation for Volunteer Partnership Agreement on Forest Law Enforcement Governance and Trade (FLEGT) as well as a member of special invitee's group in national reconciliation and peace process with the particular focus on resource and power sharing issue of natural resource management for building democratic federal state of Myanmar.

Session 3 Panel Discussion and Q&A

Hnin Thant Sin Oo (Student, Myanmar): As Yangon uses a lot of underground so what will be the impact of using it in long-terms and what are the consequences of using underground water in urbanization?

U Tun Lwin: Water resources in Myanmar are decreasing every year because of the climate change; mainly because of the temperature increasing. Underground water is also decreasing because of less rain annually. Water shortage is not a problem for only Yangon but also for Myanmar, itself.

Dafi Adinegoro Putra (Student, Indonesia): I believe that we, as citizens need to act and respond right now because of the climate change however because economic is the priority in developed cities, is there any business model where citizens can have added values that can be felt immediately especially when changing a greener life styles?

Ms. Norliza Hashim: I think the most challenging and critical issue of urbanization is land development for greener spaces for greener life styles. What we will deal in it is that even if we encourage people to develop spaces for greener leisure, what we should critically consider is costs. So, the business model itself is a question. Of course, there are models applicable in most countries but regulations are common issues. As long as the end goal is clearer, we can always encourage private land owner to use the business model to develop greener spaces for greener life styles.



U Win Myo Thu , Mr. Jarupong Pengglieng , Dr. Tun Lwin , Ms. Norliza Hashim
(from left to right)

Chompupan Sandee (Student, Thailand): What is the root cause of the rising numbers of car dependents in Bangkok though the city has underground and sky trains? And Do you have any plan to reduce and control air pollution in Bangkok enhancing people to use more public transportation?

Mr. Jarupong Pengglieng: Bangkok has a people using mass transports by 40% and private car users 60%. So, we have a competence plans to reverse those numbers and also to set a shared system in public transportations.



Hnin Thant Sin Oo,
Myanmar



Chompupan Sandee,
Thailand



Dafi Adinegoro Putra ,
Indonesia

Visit to Yangon City Development Committee

Overview on the Greater Yangon 2040 Urban Development Master Plan



H. E. U Maung Maung Soe, Mayor of Yangon and his team engaging with 14th HYLI student delegates and Hitachi at Yangon City Hall on July 12th, 2017.

On 12th July 2017, the group of students visited Yangon City Development Committee (YCDC) to explore and learn the state of urbanization and city development of Yangon. One representative of the YCDC willingly demonstrated the students the Greater Yangon 2040 Urban Development Master Plan, which will be implemented steps by steps in building Yangon into a smart city.

The workshop started by highlighting the facts and figures of the Republic of the Union of Myanmar, International Road Linkages in Myanmar, which consists of 4 Asian Highway Routes, 23 ASEAN Highway Routes and Transport Corridors of GMS as well. Then, the workshop focused on the National Spatial Development Framework Plan highlighting National, Regional and Special Function Growth Center. Yangon and Mandalay Bi-Polar Development Concept and Concentrated Decentralization and Balanced Development Strategy were also demonstrated.

Yangon, being the economic city of Myanmar, accommodates around 32% of urban population and nearly 10% of total population of Myanmar. It is the main international gateway to Myanmar as well as the meeting point of Maritime and inland shipping. In addition to being the center of export and import and an industrial center, Yangon is the center of knowledge, education, diverse culture and population.

The population of Yangon has been increasing over the past few years, from 2.8 million in 1973 to over 5 million in 2017, with Yangon having the greatest amount of population density. And it is expected that the population will continue to grow up to over 13 million in 2050. The vision of 2040 Yangon consists of building Yangon into an International Logistics HUB City, Knowledge & Comfortable City, Well-managed Infrastructure City and a city of good governance.

To implement the sub-center development of Yangon, the policy should consist of (1) designing 5 sub-centers around

10km from the existing CBD to promote decentralization, (2) accumulating commercial and business functions in public-owned lands to accelerate economic activities and (3) introducing advanced and well-designed urban facilities to stimulate people's attention for the future. The 5 sub-centers are Mindama with 200 acres and to change into Trade center, banking and administration, Thilawa with 300 acres to transform for R&D, Logistics and IT software, Yankin with 200 acres to be the commercial and tourism center, Myothit with 100 acres for Hotel complex, Sports and Leisure and R&D and Seikkan with 100 acres for amusement, Inland port and business center.

In addition, the development projects of new towns will be implemented mainly in Kyee Myin Daing, East Dagon and Dala, with the first one to become stand-alone satellite and education city, the second one to become stand-alone satellite and research city and Dala to become commuter city connected with CBD.

The Railway Station Area development will cover Mingalar Taung Nyunt, Kyee Myin Daing, Insein, Mayangon and Mingaladon. It is to function railway well and increase ridership, 7 railway station areas of YCR are designed for commercial/ business and transit node. And to promote transit oriented development (TOD) coming from surrounding areas by feeder, multi-model function shall be provided in the areas.

In order to create Yangon a creative economy platform in Indochina, YCDC will focus on urban planning the most, followed by Metropolitan Transportation, Water Supply and Sewage and Social and Welfare projects. Moreover, Myanmar's attempt to conserve heritage buildings to attract tourists which will be a boost for country's economy. The students had the opportunity to comprehend the national level master plans of YCDC which are great supports in developing their ideas and solutions for building Yangon into a smart city.

Visit to UN-Habitat, Myanmar

Urbanization in Myanmar and the Value of Urban Planning and Management

On 12th July, the 14th HYLI students visited the UN-Habitat, Myanmar Office in Yangon and learned about UN Habitat's projects that support the urban development of Yangon in areas such as urban planning and governance, environment and climate change, skills development and capacity building. From this visit, the students have gained knowledge about different perspectives on social and environmental issues in Yangon's current urbanization.

Mr. Bijay Karmacharya, the Country Programme Manager of the UN-Habitat, Myanmar, warmly greeted the students and provided an insightful workshop. The students gained a vast amount of knowledge through the expertise of Mr. Bijay, who has led National development programs aimed at community infrastructure development, employment generation, improving livelihoods of rural and urban poor, food security, poverty alleviation, resettlement and rehabilitation planning; urban, rural and regional planning. Mr. Bijay led the workshop by first explaining the conditions of urbanization in Myanmar. According to census data, 15.2 million people (29.6% of total population) are living in the urban areas in Myanmar. Myanmar's urbanization rate is about four percent lower than the rate estimated by UNESCAP, which was 33%, prior to the data collection of 2014 census. Yangon Region, Kachin State, Mandalay Region and Nay Pyi Taw possess the highest shares of urban population while Ayeyawaddy Region, Rakhine State, and Magway Region possess the lowest shares.

Mr. Bijay then compared the state of urbanization and GDP per capita of Myanmar with other peer countries. Malaysia led the comparison chart with GDP value of 6,570 USD per capita and with urbanization rate 74% while Myanmar has the low income which is only 445 USD per capita.

The reason of low growth of urbanization from 1990 to 2014 was caused by Myanmar's decades of political and economic isolation. However, Myanmar economic and urbanization growth rate increased more than 8% over last

5 years. The growth of urban areas is usually generated by a mix of push and pull factors. It can be expected that urbanization will be mostly driven by components which were effective in neighboring countries as well.

As the second part of the workshop, Mr. Bijay shared the possible consequences if people do not plan. In the Economic sector, there will be loss of urbanization economies, agglomeration benefits, and job opportunities. For Social sector, the consequences are socio-economic segregation, mobility & transport breakdown, lack of access to energy & clean water, lack of public health and increased safety risks. As for Environment, sprawl-induced stress on land & resources, geographic vulnerability to disasters, waste management, drainage problems and the vital urban system becomes dysfunctional are the disadvantages that can happen to Myanmar.

Moreover, Mr. Bijay explained why the 20th Century Urban Development Model was unsustainable with solid reasons and displayed planning suggestions that would upgrade Myanmar urbanization rate the best. The greatest advantages of 21st Century Urban Development Model are urban resilience, sustainable energy and practical and enforceable norms and rules. The three enabling components in facilitating planned city expansions includes rules and regulations, urban planning and design and financial plan.

The workshop was concluded by explaining the priority corridors of the National Spatial Development Framework that are vital in Myanmar urban development and factors in climate change, DRR and environment that are in need to be integrated into all urban development activities to create resilient, sustainable and low-carbon cities. The workshop at the UN-Habitat, Myanmar office provided the students sufficient and supportive knowledge which, supported them in the best way for preparing the best solutions for the urban development of Myanmar.



14th HYLI student delegates visited the UN-Habitat, Myanmar Office in Yangon

Exclusive Interviews

14th HYLI students seek further guidance from local organizations promoting environmental sustainability, smart cities and urban heritage



U Win Myo Thu

Managing Director,
Ecology and Economic Development
Company Limited (Ecodev)

U Win Myo Thu shared all the development projects he completed since establishing EcoDev. He championed the cause for conservation and maintenance of Myanmar's natural environment through different projects especially public campaign and focusing on community based value chain development and livelihood security activities. EcoDev has been helping poor farmers from villages sell their products to technology nor facilities, to be able to generate income by providing them trainings, market survey and supply chain support. And that is in connection with our environmental projects, so we also helped them educate the soil erosion, improve their water supply.

U Win Myo Thu shared a message to the students by saying "People need resource for the development of a country. However, we also need to take climate change, global warming and environmental issues into consideration. If the environment is being destroyed for a country to develop, when the country is fully developed, the people will be in danger. Luckily, nowadays, we have technology professionals and methods to build a smart city with the least amount of effect on the country. And I believe, the later generation like you will be able to conserve the environment more."

U Aung Aung first shared the institutional hierarchy of MCF, its states & regional associations and its relations to NGOs. Current MCF was formed in 2017 February with 28 EC members and working together with 6 committees. U Aung Aung introduced and highlighted the workshops, conferences, exhibitions, SME development meetings, Road shows, ICT summits that the MCF has been working in collaboration with other associations and organizations.

After illuminating why a smart city is needed to build, he suggested the responsible Myanmar officials to analyze whether Yangon is being built in the right way. Building a successful smart city will require smart governing body, smart citizens, smart infrastructures, smart technologies framework, cooperation and collaboration, strong institutional framework and standardization and interoperability.

U Aung Aung then defined the term "Smart" as making the right decision. In order to be able to make the right decision, we need right data at the right time. Smart city will be a continuing process and a city can only be as smart as the people living and managing it.

During the exclusive interview session, U Aung Aung clearly exposed his ideas in building a Smart City and delivered perceptive and insightful solutions in order to take action in creating a Smart city utilizing ICT technologies.



U Aung Aung
CEC

Myanmar Computer Federation



Daw Moe Moe Lwin

Director and Vice-Chairman,
Yangon Heritage Trust

Yangon Heritage Trust has been actively doing different projects to maintain and conserve Yangon heritage places in the most possible, fastest and most effective ways. Our projects include Yangon Heritage Strategy, Urban Heritage Planning, Conservation projects, Advocacy and Public Engagement and Blue Plaque Project. Moreover, we provide Trainings & Studies for the public to be aware about country's heritage sites. And with the sponsorship of Prudential®, we are currently presenting an exhibition that reveals Yangon's cosmopolitan past and present, which is located in the lobby of YTH office. The exhibition titled "Global City: Yangon's Past, Present and Future" showcases more than 120 photographs which expose Yangon as the hub of many of the key events in the history of Myanmar. It reflects the Trust's mission to conserve this city's rich cultural heritage and our vision for Yangon as one of the most livable and vibrant cities in Asia. We are doing all these projects with our vision by collaborating heritage and urbanization and it would be highly appreciated if public is aware of how important heritage as well as urbanization and participate in the conservation projects for Yangon.

14TH HYLI YOUTH ADVISORS

A key part of the 14th HYLI Program Goals is providing student groups a platform to present their recommendations on sustainable urbanization for Yangon to an esteemed audience. A panel of advisors from esteemed local organizations gathered on July 13th, 2017 to hear their presentations and provide feedback and advice to these future leaders.

The 4-member panel was led by the Mayor of Yangon City. Panel members included the Country Programme Manager of UN-Habitat Myanmar, the Historical Researcher and Project Manager of Yangon Heritage Trust and the General Manager of Hitachi Asia Ltd. Myanmar Branch. All four individuals offered diverse perspectives covering government, local and international organizations and private sector respectively. Their profiles are presented in this section.



**H.E. U Maung Maung Soe**

Mayor

Yangon City Development Committee

H.E. U Maung Maung Soe is the mayor of Yangon. He was concurrently appointed as Mayor and Chairman of the Yangon City Development Committee and he is a retired professor at the Yangon Institute of Economics.

**Mr. Bijay Karmacharya**

Country Programme Manager

UN-Habitat Myanmar

Mr. Bijay Karmacharya has been in the field of Development in various capacities for 25 years. He experiences in the National Government, International Agency and United Nations. Since 2008, he has worked in UN-Habitat in Pakistan, Mongolia, Afghanistan until 2012, and now he is now the country programme manager in Myanmar.

He has led large National development programs aimed at community infrastructure development, employment generation, improving livelihoods of rural and urban poor, food security, poverty alleviation, resettlement and rehabilitation planning; urban, rural and regional planning.

He possesses extensive experiences in program conceptualization, program development and management.

With his prolonged experiences in leading large country programme in the developing countries, he has led large recovery programmes after major disasters and worked in post conflict environment. He experiences in Urban planning, management, Human settlements development, decentralization.

He holds a Master's degree (Germany) and Bachelor degree (Pakistan) in Engineering.



Mr. Thurein Aung

Historical Researcher & Project Manager
Yangon Heritage Trust

Thurein Aung worked in education and tourism for 10 years before joining Yangon Heritage Trust (YHT) in 2014. The main focus of his research is the history of Yangon, providing historical significance assessments in heritage preservation projects. He manages Blue Plaque Project and YHT's acclaimed walking tour program. He also curates Yangon's Past, Present and Future - Global City exhibition, which is on display at YHT office. He was a research assistant for the Yangon Heritage Strategy, which was published in 2016. He takes an interest in diverse subjects such as anthropology, sociology and history. Born and raised in Yangon, he is inspired by the rich history and heritage of the city. He joined YHT to play a part in ushering in a modern city which keeps its heritage and character intact.



Mr. Masaaki Otake

General Manager, Hitachi Asia Ltd. Myanmar Branch (Former)
Senior Project Advisor, Industry & Distribution Business Unit,
Hitachi, Ltd. (Current)

Mr. Masaaki Otake is General Manager of Hitachi Asia Ltd. Myanmar Branch. Prior to this, he was Deputy Managing Director of Hitachi Asia Ltd. and served concurrently as Group President & CEO of Hitachi Infrastructure Systems (Asia) Pte. Ltd. He is responsible to grow Hitachi's Social Innovation Business in areas such as ICT and transportation in Myanmar.

Mr. Otake started his career in Hitachi in 1982 right after graduating from university and first joined Hitachi Plant Engineering & Construction Co. Ltd. In April 2005, Mr. Otake was appointed Deputy General Manager of Hitachi Plant Technologies Ltd. Since then, he has held various managerial positions within the company and played an instrumental role in leading Hitachi Plant Technologies to contribute to public infrastructure, commercial and industrial developments in the region.

In January 2012, Hitachi Plant Technologies was incorporated as Asia's regional headquarters, Hitachi Plant Technologies (Asia) Pte. Ltd., and Mr. Otake served as Chief Operating Officer. 10 months later, he became Group President & CEO, and the company was subsequently renamed "Hitachi Infrastructure Systems (Asia) Pte. Ltd." in April 2014 to expand Hitachi's Infrastructure Systems Business. As Group President & CEO, Mr. Otake was to create and execute business and sales strategies for the entire Southeast Asian region.

Mr. Otake graduated from University in 1982, with a Bachelor of Economics.



VIEWS FROM ASIAN YOUTH

This section presents views of the 14th HYLI student delegates for the sustainable urbanization of Yangon city. Views are presented by four groups of students from across Asia. The first and second group delivered proposals on urban waste management. The third proposed the creation of a Yangon Smart Citizen Hub (YSCH) - a capacity building initiative for city residents. The forth presented a sustainable mobility proposal for Yangon city. Feedback from advisors and discussions with audience are also presented in this section where available.



Waste Management in Smart Cities (Yangon)

Arika Fadhia Rahmi
(Indonesia)

Reina Mizote
(Japan)

Loh Kai Ying
(Malaysia)

Hnin Thant Sin Oo
(Myanmar)



Aira Patrice Ong
(Philippines)

Clare Lim Min
(Singapore)

Thammapond Patjaiko
(Thailand)

Ngo Pham Khanh Han
(Vietnam)

Group I Proposal

Group I started out by analyzing the key issues of current Yangon waste management system through comprehensive PEST Analysis and identified three main causes of solid waste problems, which are (1) Lack of strategically-placed rubbish bins which perpetuates littering in public spaces, (2) Labor-intensive municipal waste collection systems (reliance on manual workers and vehicles), (3) Low public environmental consciousness (frequent littering, low public efforts in waste separation).

Students from Group I displayed amazing team work and presented three main ideas that would improve and enhance current waste management system. They are (1) "Drop to Shop" to control land waste management, (2) "Snap to Clean" to mitigate dirty waterways due to littering, (3) "Cool Share" to mitigate high temperature in Yangon.

They suggested having waste-separating kiosks all over the country to develop consumer's habit of appropriate waste deposition (it will mitigate technology failure) & increases community awareness as well as having the opportunity to receive materials which can be recycled for new product development.

For the very first step in implementing the kiosk, the kiosks are to be positioned at entrances of school canteens at 10% of middle schools for first 6 months and at entrances of school canteens at 10% of universities in Yangon for another 6 months of the year. Upon the one-year result, the

kiosks are to be placed at entrances of convenience stores and grocery chains with the highest concentration of consumers in Yangon and monitoring process to be carried out for 2 years before executing nation-wide implementation. After this step, kiosks are to be piloted to adjust for different learning curves in varying habits, cultural nuances and geographical differences before full-scale implementation.

The "Snap to Clean" is a smart waste management tracking system, which would be a great support for better waste management in Myanmar. As a reference, Group I suggested to use "Qlue" app developed and widely used in Indonesia. The functions of Qlue app are (1) to verify information through real-time monitoring in public spaces, (2) accumulation of consumer behavior reports for further analysis and projections.

If government voluntarily collaborates by providing relevant infrastructure (on-street CCTVs) to support Qlue's function and by stating clear and explicit signs to warn and inform the public of penalty fee when caught, there will be cleaner roads, fewer littering, better community engagement and more revenue for changing Yangon into a smart city. The students proposed to test Snap to Clean in 2 townships of Yangon for 6 months, in 3 townships in another month, followed by testing at waterways and Irrawaddy river where there is a highest concentration human traffic (within Yangon) prior to fully implement nationwide.



The last smart city idea of Group I is “Cool Share” with the purpose of keeping Yangon, its environment and its citizens cool with low-cost measures in order to reduce reliance on air conditioning, to reduce consumption of electricity

and CO2 emission. The demand of air-conditioning (AC) has increased in Yangon due to high temperatures, from a number of 70,000 units in 2011 to 206,000 units in 2016. The AC produces CO2 emission, which is one of the main causes of temperature

rise. Group I proposed that despite of using AC, people should start inventing, exploring and using other alternative ways to stay cool in order to create a smart, cooler environment.

Waste Management in Yangon

Dafi Adinegoro Putra
(Indonesia)

Ai Tanno
(Japan)

Aaron Denison
Deivasagayam
(Malaysia)

Cherry Wai
(Myanmar)



Jamil Faisal Adiong
(Philippines)

Katherine Nay Yaung
(Singapore)

Pichaya Sattasuntarakorn
(Thailand)

Tran Le Minh Thuy
(Vietnam)

Group II Proposal

Group II pointed out the problems, identified the challenges, developed objectives and presented a comprehensive, detailed and efficient solution for Yangon waste management system. It was presented that waste management is still an issue in all ASEAN countries. According to data announced by World Bank, 5,616 tons of waste were produced daily in Myanmar in 2012 and expected that the amount will rise to 21,012 tons in 2025, with Organic waste, Plastics and Paper being top three waste.

The main challenge Myanmar is facing is the lack of effective solid waste management. Other challenges are low enforcement in controlling the waste system, increase in population, needs in basic infrastructure development, and people throwing waste carelessly.

The reason of Myanmar people having impoverished life quality is a result formed by rise in volume of generated waste, problems with waste separation and lack of sanity awareness.



In order to mitigate these problems and to create cleaner, better and smarter Yangon, Group II proposed a master plan for 2040 Yangon. The objectives of this master plan are to minimize waste production and enhance overall public attractions, which will lead the number of footfall into country increase and enhance tourist potential.

Group II presented three plans to tackle the problems. These include: (1) Educating public (2017-2022, short-term plan), (2) Implement healthcare, air & water pollution and monitor waste production (2017-2027, medium-term plan) and (3) Plan in-line with YCDC initiatives, create job opportunities, build smart city, smart energy (2017-2040, long-term plan).

A series of recommendations proposed by Group II consists of:

Method	Approach	Objective	Benefits
Media	Traditional and Digital Media	<ul style="list-style-type: none"> • To change the mindsets of people and modify their behaviors • To educate and encourage 	<ul style="list-style-type: none"> • Generate Penetration • Innovative Methods • Increase Awareness
Private Sector	Effective collaboration of the private and public sectors including international and local NGOs, religious organizations, academia		<ul style="list-style-type: none"> • Sustainable, valuable Partnerships • Organized, long-term Plan
Schools	<ul style="list-style-type: none"> • Teach and share students about the diseases and ugliness which can result from poor waste management system. • Provide trainings to students about waste separation • Instruct students to separate waste, recycle and transform into DIY items. • Encourage university students to cooperate with NGOs and organizations to create campaigns. 	<ul style="list-style-type: none"> • Start from this short-term solution on the road to better waste management • Improve environmental lessons • Waste separation training and waste-to-stuffs projects 	<ul style="list-style-type: none"> • Increase Awareness • Encourage Waste Separation • Decrease Volume of Waste Production • Potential Uses of Separated Waste
Outside Schools	Creation of Garbage Collection Committee	<ul style="list-style-type: none"> • Leadership will be a person from the government, basic staffs will be the jobless people or low-class people, which will be an act of creating job opportunities for citizens. • According to statics, 2.5 square kilometer areas of Yangon are covered in waste and an estimated number of 4,000 employees are needed to manually clean those areas. 	<ul style="list-style-type: none"> • Improve overall quality of waste management, • Waste production minimized • Create smart environment • People join the campaigns and create attractive and efficient solutions for the city.

It was included in the presentation of Group I that for changing Yangon into a better and smart city, waste separation and recycling machines should be built near factories to transform organic wastes into fertilizers. Positioning smart trash stations across cities, defining waste collection points and monitoring waste were recommended as possible operations.

Finally, Group 2 presented waste bank program, which is a community-based waste bank

Both Group I and II understood well that there will be no change unless there is voluntary participation of people. Changing the mindsets of people is as important and critical as other on-ground operations. Transformation of Yangon to smarter city is a mechanism where collaboration of different sectors needs to exist.

Feedback from Advisors for Group I

Mr. Masaaki Otake : The presentation was very good. I am impressed by that you highlighted the important needs for Myanmar. Yangon City Development Committee (YCDC) has constructed one waste management plant which is operating 60 tons of garbage daily. The main problem is funding as it would need USD 16.5 million for construction of one plant. And YCDC has announced that another plant is going to be constructed in Yangon. As for penalty system, I am a bit concerned as Myanmar is a Buddhist country and people are religious, this penalty system would not be favored by public. This is one thing we need to consider. Other than that, students from Group I presented well and did a good job.

Mr. Bijay Karmacharya: It is a fantastic presentation. I am proud of your effort to complete these presentations in a short duration. I would like to have one comment. What is about a system that requires balance? The punishment-based system is not suitable for a listening society. It is not always a matter of money and force. What matters most is transformation and mortality. Let me compare with an example. If there is pressure on egg from outside, it will definitely be broken. But if the pressure comes from inside, we all can see the creation of life. That's why we need to remember change comes from inside. So, I personally think this punishment-based system may not be a successful mechanism. Overall, I like the approach of easy and important places and of starting with children and transformation of mind. You need to think carefully about separation resources: organic waste is better separated at homes or stores and develop kitchen management to reduce waste production. And incinerating plastics can produce harmful exhausts and I would not suggest this solution.

Mr. Thurein Aung: We need to think of ways to be able to make a littering fund. When I was young, my grandmother made me collect waste and she would exchange what I had collected with either toys or food. We should think of collaborating new modern technology for changing waste into energy or money.

Feedback from Advisors for Group II

Mr. Bijay Karmacharya: The presentation was very structured, clear, precise and detailed. You have shown us a sense of systematic way of thinking by setting goals, analyzing situations, identifying problems, seeking solutions, doing analyses and understanding the root causes. Step-by-step presentation covering energy, compost and recycling, the amount of knowledge Group II has is very impressive. Although there were some places lacking link in the presentation, I had a very great time listening to their proposal which is a combination of technology, science, human and social culture. However, I would like you to think how to flip incentives to family.

Mr. Thurein Aung: It was such a brilliant idea that Group II decided to start from schools. The areas that produce most amount of waste should be educated first. More information about waste collector would be more interesting. How to manage and handle to enforce the government if they are ignoring the issues should be taken into account as well.

Mr. Masaaki Otake : I was fascinated by the idea of waste collection system using gravity. In Yangon, 88% of soil contamination is due to water waste. If Group II focus more on water waste management and treatment system, the presentation would be more attractive.

Feedback and Discussions with Audience

Mr. Koji Tomita: I like the way you included a contrast of software and hardware and auto-collection system (Group I).

Prima Pupornchai (Student, Thailand): How would you identify person who litters (Group I)?

Ans : We will use Qlue, the government will get notification when a person litters in a place within the range of alarm sensors.

Dafi Adinegoro Putra (Student, Indonesia): Qlue may violate the safety and privacy of the person who took the picture of someone littering. How would you solve this problem if it arises here (Group I)?

Ans: The pictures sender will be anonymous and only the person who violated the law will be observed and fined.

Audience : Since Yangon lacks of facility, I would like to know your plan of constructing recycling process (Group I)?

Ans: We have studied that 75% of waste generated in Yangon is from food and organic so we will transform these organic wastes into fertilizers in an environmentally friendly way by using microorganism. We will develop this system as small businesses to receive funding as well.

Audience : In the implementation of Qlue application, my question is whether there will be a specific group or organization to handle the system or assign government forces, such as YCDC or police to deal and address the problems? And if so, will there be any reward for the government forces (Group I)?

Ans: Our main plan is to operate mostly with machines rather than relying on human resources. And for administration part, we will start with people from academic sectors to educate third-party. We will not be biased by choosing merely the government. We will provide handsome salary and welfare of public servants. We will encourage multiple stakeholders to participate and to raise awareness and advocacy.



Audience



Group I

Yangon Smart Citizen Hub

Irfanda Odytia
(Indonesia)

Yuri Asahina
(Japan)

Jason Cheong Kah Lok
(Malaysia)

Kyu Shein Moe
(Myanmar)



Bianca Angelen Claveria
(Philippines)

Claire Chan
(Singapore)

Chompupan Sandee
(Thailand)

Tran Thu Huong
(Vietnam)

Group III Proposal

Student delegates from Group III highlighted the strategic plans of the formation of smart citizens as human resource is the fundamental factor in building a smart city. They defined that a smart citizen is a Starting point for a smart city, who is Making informed choices, Adaptable to changes, Relevant to current time and Technology-oriented.

In order to explore and identify the underlying issues, Group III did an impressive survey about people's opinions on Yangon city and its infrastructure by interviewing simple, yet effective questions to people of different classes. They have learnt the main challenges Yangon city has been facing are transportation and waste management problems. Upon completion of further discussions, surveys and analyses, Group III presented creating a Yangon Smart Citizen Hub (YSCH) for public, with strong perception that change begins with citizens.

YSCH is a platform where citizens can engage or collaborate with government upon various development issues revolving around the country and where they can have proper training to develop their skills in order to contribute in socio-economical activities. The vision of YSCH is to "form resilient, informed, and idea-generating smart citizens, who not only solve the problems of today but will also visualize and create a better tomorrow".

CHALLENGES



Transforming Mindsets

HOW TO OVERCOME



- Two-way education through workshops
- Hands-on displays
- Gradual introduction to technology

YSCH will be established by modifying an old heritage building in the center of Yangon into a hub. The building of YSCH will feature sports and recreation centers, training workshops, public library, event room, working café and trash to cash store. In the training workshop, adults, senior citizens and the youth will be involved and various activities such as handicraft & recycling, social responsibility training, skill-enhancement, Yangon urban planning projects, Volunteer training & recruitment.

The stakeholders mapping of this development includes local government, community, enterprise, NGO/ International and Local Organizations.

Group III then laid out goals and plan up to next 10 years and more and developed best possible approach in nurturing smart Yangon citizens, who will in return build smart Yangon city.

A series of recommendations proposed by Group III consists of:

Challenges	Approach
Funding and Resources	<ul style="list-style-type: none"> • Incentives for businesses and other organizations to invest and contribute to the hub • Efficient partnership with different stakeholders
Attractiveness to Community	<ul style="list-style-type: none"> • Provide a one-stop place to work, learn and play • Social media and advertising
Ownership and maintenance of heritage sites	<ul style="list-style-type: none"> • Comprehensive cultural heritage regulation • YCDC & UN-Habitat & Myanmar Engineering Society & Yangon Heritage Trust
Transforming Mindsets	<ul style="list-style-type: none"> • Two-way education through workshops • Hands-on displays • Gradual introduction to technology

Sustainable Yangon Mobility

Taradhinta Suryandari
(Indonesia)

Natsuko Kitagawa
(Japan)

Kui Chi Yan
(Malaysia)

Ei Theint
(Myanmar)



Francis Ian Tobias
(Philippines)

Khamchanh Thammavong
(Singapore)

Prima Pupornchai
(Thailand)

Nguyen Duy Phuong
(Vietnam)

Group IV Proposal

Group IV presented the detailed effective solutions for “Sustainable Yangon Mobility” with four key topics: Situational Analysis, Recommendations, Timeline, Education and Conclusion. Current issues revolving in Yangon transportation system are that (1) about 80% of Yangon’s population are dependent on public transportation, (2) the limited number of bus lines and lack of other effective public transportation alternatives, and (3) a range of 4-5 hours of 90% of passengers are wasted on the roads due to heavy congestion and lack of traffic management system in Yangon. Group IV students came up with “Yangon Inter Model Transportation Hub (YIMTH)” as the very first proposed recommendation. The hub features bus terminals, inter and intra trains and airport services. Yangon is a place of perfect blend of culture, religion, ethnic groups with attractive insights. By making transportation

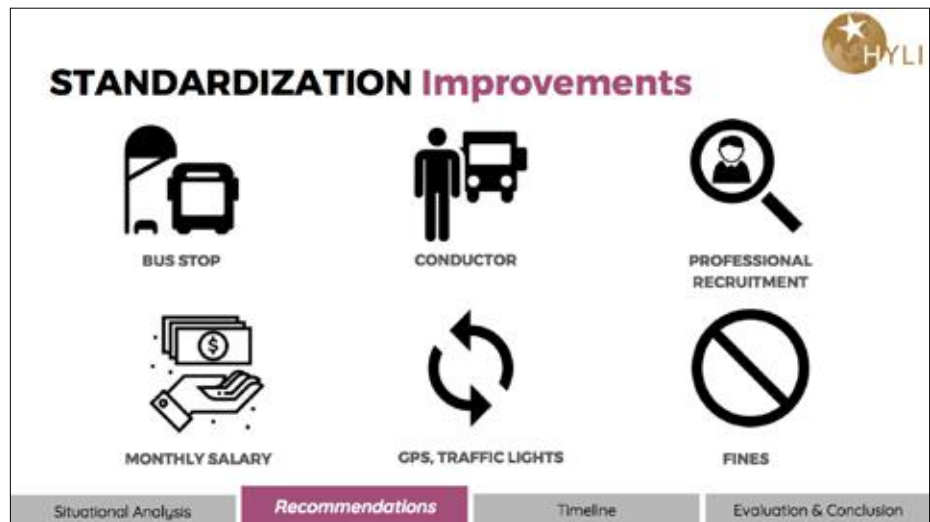
systems in Yangon better, it will transform the city into a smarter city, a center of a variety of commercials and businesses, with features of entertainment, recreational areas which would enhance tourism potential. YIMTH circles Yangon with railroads which connect all the areas situated in the outskirts of city, with internal bus lanes running between North and South in one main road, two roads connecting East and West, each in the upper and lower parts of city and one main vessel road running across East and West. However, the possible constraints are requirement of high investment cost, environmental concern due to cutting down trees to make roads, energy concern as there is not any sufficient technology and last but not least, land constraint, soil in some locations difficult so support big buildings.

The second recommendation is to improve bus systems across Yangon

focusing on six points which are (i) providing bus stops every 100 meters, (ii) train driver to be responsible, (iii) recruit professional drivers, (iv) providing average fixed amount of monthly salary, (v) monitoring drivers by synchronizing with traffic lights, and (vi) making punishments and fines on littering, spitting and violating rules. The benefits that will result from this system are flexibility, safety, less congestion, comfort and time-saving whereas the constraints are difficulty in disciplining people and limited space for bus stop.

Along with executing implementation processes for better bus systems, Group IV proposed that Yangon is in need of improvements in facilities such as sidewalk, developing route display and regional GPS, which can save time, know schedules of public transportations and identify specific landmarks.

Group IV then combined technology into the plan and developed YanGO! a digital application, a 24/7 card payment system, that displays bus routes and schedule, route options, card data and feedback system and which can be used in all transportation types. Based on data analytics, peak hours, most congested hours, information of routes can be collected. Although it can increase convenience and improve data management, it needs long-term planning and can cause privacy concern to some individuals and thus careful trial test would be necessary prior to full implementation. As the last recommendation, Group IV proposed bike sharing system. Utilizing bicycles instead of cars can create a cleaner and more-ecofriendly environment as well as can reduce pollution. However, it can be effective by weather conditions and current legal and infrastructural conditions should be changed in order for the bike sharing system to be successful. Rules and regulations currently in Yangon, which prohibit using bikes in the downtown should be changed. Basic infrastructures such as roads and traffic systems should be modified to become bike-friendly and



the change the mindset of people by educating public to become aware of the environmental system, effects of CO2 emissions from motor vehicles and advantages of using bikes. Group IV then presented SWOT analysis of this system and possible implementation plan as well. They then concluded the presentation with detailed evaluation on identifying the main financial sources to implement the four recommendations mentioned above, how educating public is a key foundation in building up better Yangon city, how government should

engage in changing the education system, provide vocational and training schools and invest in sending outstanding students abroad for further studies and to contribute back into the country. Finally, rules and regulations should be modified and laws and policies are required to enforce strictly to control the city development.

Feedback from Advisors for Group III

Mr. Bijay Karmacharya: It will be a more brilliant idea of establishing Hub as a platform for engagement with elected representatives. Currently in Yangon, there are only three representatives. It is in need of more representatives to represent and stand for the citizens and work for them. The idea of holistic views of city's challenges is well appreciated. However, Group III needed to highlight the problems what they intend to address with hub.

Mr. Thurain Aung: It was impressive that Group III generated the idea of using a heritage building as a hub. It is aligned with Yangon Heritage Trust's mission and vision as they presented changing buildings into other useful, efficient buildings, highlighted the funding and resources, suggested the importance of public-private partnership, making a hub for small enterprises and start-ups. Most of the start-up groups in our country are having to worry about having a space to work and develop their business plan. It would be so much better if the hub plan is more specific and precise.

Feedback from Advisors for Group IV

Mr. Bijay Karmacharya: I especially enjoy the idea of YMATH and YanGO! Although you need to think for another name for YMATH. I like the practicality, the impressive way of knowledge transfer. Some of the recommendations Group IV have suggested existing practices in other countries and Myanmar has already started learning these successes to use as references in its development. As for Bike Sharing program in Yangon, it is the dreams of everyone to buy a car. It would not be a great task to convince people to rely on public transportation and bikes rather than motor cars. I want to suggest to start trial sessions with small quarters of people and perform analyses and evaluations carefully.

Mr. Thurein Aung: As this presentation reflected mobility of the city, current issues in congestion and proposed an efficient solution, I truly was interested in your presentation. Myanmar can easily become a HubSpot for tech as the percentage of smart phone users rose massively during the past years. Please carry on with your good work.

Feedback and Discussions with Audience

Audience 1: Even if we promote transportation options, the roads in Yangon are narrow and the number of roads are not enough. I do not think widening the roads is a good option, in my opinion. Do you have any idea to solve this kind of problem (Group IV)?

Ans: The roads in Yangon are actually wide but the problem arising are cars parking alongside the roads and street vendors taking their territories on the streets and roads. To tackle these problems, we will collaborate with government for developing suitable, best and effective ideas for cars to park and street vendors to do their businesses.



Group IV

Audience 2: What is the role of legal framework governing in this mechanism (Group IV)?

Ans: The initiatives could set up systems and programs helping and encouraging people to participate in these systems.

Audience 3: How can we raise awareness of the importance of bicycles (Group IV)?

Ans: We will focus on group discussions. And we will create campaigns and hold mass cycling events or parades to show and attract public as in other Southeast Asia countries. And we will try to fix the laws and regulations for the bike lovers to get the right to cycle on the road.



Audience 1



Audience 2



Audience 3

NOTABLE QUOTES FROM LEADERS



For Youth Delegates



H.E. U Phyo Min Thein
Chief Minister
Yangon Region Government

“

The young generation is very important for the future. In order to develop further and gain international networking among young people, I sincerely appreciate and thank Hitachi for organizing such inspiring event in Myanmar.

”



H.E. Tateshi Higuchi
Ambassador Extraordinary and
Plenipotentiary of Japan to the
Republic of the Union of Myanmar

“

I hope all of you will gain knowledge on social issues in the Asian regions through discussions and inspire to be the leaders around the world; not only in Southeast Asia.

”



U Aik Htun
Chairman of the Board,
Shwe Taung Group

“

I would like to wish HYLI the very meaningful reform and contribution to our country's urbanization and also to all participants the fruitful and enjoyable programs throughout the 14th HYLI.

”



Mr. Toshiaki Higashihara
Director,
Representative Executive Officer,
President & CEO,
Hitachi, Ltd.

“

Remember as young leaders, our future is in your hands...

”



Mr. Kojin Nakakita
Chairman,
Hitachi Asia Ltd.

“

Education is necessary to know advance technology. Now you are in HYLI and you can be together sometimes as reunion and share information as a team. The meaning of TEAM is T - together, E - everyone, A - achieve and M - more.

”



Prof. Daw Si Si Shein
Chairman,
Myanmar Association of
Japan Alumni

“

I would like to wish promising young leaders all the best of luck, and good wishes for the future and the great success to HYLI.

”



H.E U Maung Maung Soe
Mayor,
Yangon City Development
Committee

“

I truly believe this 14th HYLI is a strong network of future ASEAN leaders and I wish student candidates, who are the youth and the heroes of the future success.

”



Mr. Bijay karmacharya
Country Manager,
UN-Habitat, Myanmar

“

The future belongs to the youth. I am sure some of you will become the leaders of the world someday.

”



Mr. Thurein Aung
Historical Researcher & Project
Manager
Yangon Heritage Trust

“

Yangon is a green and fundamentally well-planned city. By adding infrastructure needs, there are many advantages in terms of tourism, economy, sustainability and development.

”



Mr. Masaaki Otake
General Manager, Hitachi Asia Ltd.
Myanmar Branch (Former)
Senior Project Advisor,
Industry & Distribution Business Unit,
Hitachi, Ltd. (Current)

“

ASEAN cities need to prepare their next generation of leaders to better cope with the urbanization trend, and HYLI provides the platform for both current and next generation leaders to come together to resolve these urbanization issues...

”



Ms. Yukiko Araki
Corporate Officer, Executive
General Manager, CSR and
Environmental Strategy Division,
Hitachi, Ltd.

“

I believe that the presentations performed by all of the delegates today at the 14th HYLI will be a great help in making Yangon a smart city. And I hope the friendship and the bond developed among all the student delegates through this HYLI event shall last for a long time.

”



Mr. Koji Tomita
Deputy Managing Director,
Hitachi Asia Ltd.

“

Your ideas are not only applicable to the city, but also to every city in the world. Let's continue to work hard and let's make the world a better place for living. Of course, Hitachi will participate in trying hard to improve the world.

”

Youth Delegates of the 14th Hitachi Young Leaders Initiative

Indonesia



*Like an eagle, we soar through the sky.
We will go through the journey, we will
hit our goals. Let's make a brighter
tomorrow for others. Make impossible
dreams possible.*



Irfanda Odytia , Arika Fadhia Rahmi , Taradhinta Suryandari ,
Dafi Adinegoro Putra (From Left to Right)

Japan



*Make an effort together to seek for a
brighter future and have a good will to
change the world by our hands...
Thank you HYL!
Arigato Yangon!*



Yuri Asahina, Ai Tanno , Natsuko Kitagawa ,
Reina Mizote (From Left to Right)

Malaysia



*We Jason, Aaron, Kai and Chi pledge
to contribute to Malaysia National
Transformation 2050*



Jason Cheong Kah Lok , Kui Chi Yan , Loh Kai Ying ,
Aaron Denison Deivasagam (From Left to Right)

Myanmar



*Let's build a sustainable and smart
Myanmar by all forces*



Cherry Wai , Kyu Kyu Shein Moe , Ei Ei Theint ,
Hnin Thant Sin Oo (From Left to Right)

Quotes have been paraphrased for greater clarity



Jamil Faisal Adiong , Bianca Angeli Claveria,
Francis Ian Tobias , Aira Patrice Ong (From Left to Right)



Philippines

We pledge that we will work on the process of sustainable urbanization through collaborative creation. From our cross-cultural experiences, we will also approach human dignity, understanding and commitment in our work for sustainable development. Through this we hope to realize genuine and positive change for a better Philippines, for a better world and for a better tomorrow



Katherine Nay Yaung , Claire Chan , Clare Lim Min ,
Khamchanh Thammavong (From Left to Right)



Singapore

We pledge ourselves as one HYLI family, regardless of nationality or religion, to build a sustainable society for Singapore environment and urban planning.



Thammapond Patjaiko , Pichaya Sattasuntarakorn ,
Chompuphan Sandee , Prima Pupornchai (From Left to Right)



Thailand

We will contribute our knowledge and energy to Thailand's sustainability



Nguyen Duy Phuong , Tran Thu Huong , Tran Le Minh Thuy ,
Ngo Pham Khanh Han (From Left to Right)



Vietnam

*Alone, we can do so little.
Together we can do everything*

Quotes have been paraphrased for greater clarity



PHOTO GALLERY

Pictorial Overview of 14th HYLI



*City Tour*



Students interacting with speakers, audience at ballroom, lunch venue, exhibit area on Day 1 and 2, Stage pictures with VIP speakers



Visit at City hall and UN Habitat



Student workshops (Day 1, 2 and 3)



Student presentations scenes, closing ceremony scenes



Cultural night

HITACHI
Inspire the Next

You!!

14th Hitachi Young Leaders Initiative

Sustainable Urbanisation Through Collaborative Creation

10th - 13th JULY 2017, MYANMAR

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