Kyoto University
Research Administration Office

Science, Technology and Innovation (STI) Coordinators in Japan and ASEAN towards Grand Challenges

(2020-2021)

Summary Report

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ASEAN Foundation

Kyoto University
Research Administration Office (KURA)

In Collaboration with:
ASEAN Foundation
Japan ASEAN Science, Technology and Innovation Platform (JASTIP), and
the ASEAN Secretariat

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Contents

1. Background and Rationale

(1) Background

Cultivating highly motivated human resources with specialized skills based on universal morality to coordinate scientific and academic research projects between ASEAN and Japan is indispensable for growing the science, technology, and innovation eco-system towards grand challenges such as climate change, disaster prevention, biodiversity, and infection diseases. There needs to be communication among various stakeholders; researchers, policy makers and businesses in order to bring scientific and academic evidence-based knowledge into diverse societies impacting the well-being of all in ASEAN and Japan.

The title of such specialized professionals vary from one place to another. They can be scholars heading international or public-private collaborations, or full-time coordinators under the title of research administrator, research manager. In this report, “STI coordinators” refers to a wide range of professionals. Depending on the country and organization, the coordinators’ knowledge and skills required for the position also vary widely: command of foreign languages, research ethics and compliance, rules in accounting and procurement, management of equipment, reviewing calls for proposals and application forms to secure research funds, STI policies, academic-industry collaboration, PR, management of the team and possible risks, for instance. Accreditation of each skillset is currently being discussed in Japan. There is interest in ASEAN to develop tailor-made capacity building programs.

One of the successful programs called ASEAN Science and Technology Fellowship has focused on empowering early-and mid- career scientists and researchers to support evidence-based culture in the ASEAN region. Under the program, selected fellows representing member country bridge local issues, priority research areas and policies during their one-year fellowship placement. The fellows are exposed to the coordination with governmental officers, overseas researchers and private sectors. Equipped with communication and leadership training, they become leaders with rich practical experience in research coordination. The fellows and the alumni come from different background, but they form a friendly and integrated community.

Kyoto University Research Administration Office (KURA) has initiated the joint proposal for a series of online meetings to facilitate mutual understanding among young professionals engaged in STI and to develop their network to tackle the grand challenges including the Covid-19 pandemic. It is a joint initiative with the ASEAN Foundation, JASTIP and the Science and Technology Division of ASEAN Secretariat.

This collaboration will not look for an advanced “one fits all” capacity-building for various

countries, but will contemplate requisites of a multilateral platform where each participant pays due respect to diverse, especially under-represented cultures, and adapts succeeding programs to address their own challenges and priorities.

(2) Project Proposal

In order to build up the pool of STI coordinators to stimulate the research ecosystem in ASEAN, the KURA and ASEAN Foundation are leading an initiative to gather experienced professionals in STI coordination / research administration to discuss the emerging roles and responsibilities of STI coordinators.

The initiative aims to generate awareness of research administration and to convince the necessity to build professional STI coordinators in ASEAN. This will take the form of an online webinar. During the webinar, results of the questionnaire conducted in FY 2019 will be shared. Thereafter, participants will be invited to take part in working group meetings on specific topics identified from the questionnaire.

A series of 6 online meetings (tentative schedule in Section 4), led and moderated by KURA will take place between August 2020 and March 2021. These online meetings will be attended by a working group comprising regular attendees and invited speakers of about twenty to thirty. Criteria for attendees of the online meetings are as follows:

- Have at least 5 years of working experience in STI coordination in universities or research institutes
- Have experience as ASEAN STI fellow or strong motivation to contribute to the continuous collaboration between Japan and ASEAN at relevant meetings (e.g. INORMS)
- Have already shared concrete good practice in response to such as the abovementioned questionnaire in FY2019.

(3) Potential Topics of Discussion

A. **Pre-Awards and Post-Awards:** Which skills and roles would be essential when you are involved in launching and applying for a new international project?
B. **Bridging and coordination among different sectors:** What are your useful tips or skills to lead a negotiation and to set the same objectives, among different stakeholders?
C. **STI Policies and Management:** How do you integrate the demands of developing more skilled STI coordinators and managers into formulating related

policies and agenda?

D. **Organization and Management:** Please share your experience when you hired a STI coordinator-to-be, trained her/him into a professional, and then developed a bigger management office. How would you allocate the limited time, budget and resource, especially if the STI coordinator has several duties in teaching, research, administration and management, or if there are too few coordinators to handle piles of work?

E. **Curriculum and Evaluation:** Please concisely summarize current status and prospect of nurturing STI coordinators in your country. Does the system monitor/evaluate whether their professional knowledge has been properly transferred to the young talents in your institution / nation / region?

(4) Schedule

June – July 2020	**Preparation among Organizers** KURA, JASTIP, ASEAN Foundation, ASEAN Secretariat
August 2020	**Open Seminar: Online Webinar (90 min)** ● Sharing of research administration and research management systems in the world – US, EU, Japan, ASEAN, Australia ● Sharing of finding from questionnaire Target audience: ASEAN COSTI, ASEAN S&T fellows
September 2020	**1st Meeting (60 min)** ● Topic to be determined
October 2020	**2nd Meeting (60 min)** ● Topic to be determined
November 2020	**3rd meeting (60 min)** ● Topic: STI collaboration and international cooperation by a guest speaker from JICA, Japan
December 2020	**4th meeting (60 min)** ● Topic: STI collaboration and international cooperation by a guest speaker from MOFA (Ministry of Foreign Affairs), Japan
January 2021	**5th meeting (60 min)** ● Topic: STI collaboration and international cooperation by a guest speaker from ASEAN
March 2021	**6th meeting (90 min):** Wrap up
March – April 2021	Report writing
May 2021	INORMS in Hiroshima
June 2021	ASEAN-Japan Cooperation Committee on Science & Technology

(5) Output

A. Online webinar (1 time in August)

B. Online working group meetings (6 times between September 2020 and March 2021)

C. An integrated summary report of the questionnaire and discussion to be reported to i.e. INORMS in Hiroshima, ASEAN COSTI and Mission of Japan to ASEAN.

2. Online seminar “Science, Technology, and Innovation Coordinators in Japan and ASEAN towards Grand Challenges”

On August 26th, 2020, Kyoto University Research Administration Office (KURA) organized the online seminar titled “Science, Technology, and Innovation Coordinators in Japan and ASEAN towards Grand Challenges” in collaboration with ASEAN Foundation, Japan-ASEAN Science, Technology, Innovation Platform (JASTIP), and the ASEAN Secretariat. The seminar aimed firstly to share the current situation of research administration in the world, and to present responses to a questionnaire sent out to STI related coordinators (e.g. ASEAN S&T fellows, AUN members and research administrators) in ASEAN. This initiative was to generate mutual awareness of developing STI coordinators and their network further in between ASEAN and Japan. The announcement of online seminar was widely circulated to all ASEAN member states through the cooperative communities of ASEAN Committee of Science, Technology and Innovation (COSTI), and social medias managed by ASEAN Foundation and Kyoto University ASEAN Center.

The seminar attracted almost 80 attendees from ministries, universities and research institutions from all ASEAN member states, Japan, Europe, and was started by opening remarks from Professor Eiji Nawata, Director of Kyoto University ASEAN Center and Leader of JASTIP-WP1, Dr. Yang Mee Eng, Executive Director of ASEAN Foundation, and Dr. Michele Chew, Assistant Director, Science & Technology Division of the ASEAN Secretariat. Prof. Nawata addressed the importance of human resource development for STI coordinators to promote the international research cooperation between ASEAN and Japan towards solving common global issues such as climate changes, disaster prevention, and infection diseases (ex. COVID-19). Dr. Yan also addressed that the initiative will help to map the strength and weakness in STI administration, and lead to a betterment of management and coordination between scientists.). Dr. Chew welcomed the joint initiative and stressed the importance of the role of STI coordinators for the future. To ensure that such capabilities exist for the future would mean having to sow the seeds now.

After the opening remarks, Dr. Taro Sonobe, research administrator of KURA, Kyoto University gave a presentation to share the current situation of research administration in the world and to share the findings of the questionnaire sent out to STI related coordinators in ASEAN. He also stated the differences of professions between scientists and STI coordinators; in the sense of different roles in science, technology, and innovation eco-system and culture. This was followed by an active discussion among the participants moderated by Ms. Chisato Saito, research administrator of KURA; which has heightened our awareness to develop young talents and networks related to STI coordinators in between ASEAN and Japan. The

participants also recognized the necessity of tailor-made capacity building programs for the diversity of ASEAN' context and shared the common understandings of motivation for developing STI coordinators in ASEAN and Japan.

Immediately after the online seminar, KURA distributed the questionnaire to collect the feedback from the participants. As of September 4th 2020, about 43 answers showed that more than 98 % of participants found the online seminar useful particularly in 1) research administration and management systems in the world and 2) understanding the current status of STI coordinators in ASEAN and future prospects of ASEAN-Japan collaboration (finding from the questionnaire). Most of the participants reaffirmed that STI related organizations must strengthen the research management at all levels, be it departmental, institution, and country. The participants provided plenty of valuable comments on and expectations for nurturing STI coordinators in ASEAN and encouraging the exchange between ASEAN and Japan.

Some good feedbacks from participants, i. e.;

- Networks are valuable resources and very important in R&D. The open seminar shared the positives of existing STI organizations throughout the world and the information presented will be helpful in my country's future R&D development through good practices.
- We must strengthen research management systems because management is needed in every field to handle the whole system of research.
- Managing research groups or faculties is an increasingly challenging task. On the one hand, we need to be prepared to collaborate and compete at a global level, but on the other, we are often obliged to depend on local sources of income. Furthermore, creating a strategy that will lead to the best outcomes in terms of research impact or innovation requires a highly-specific skill set which frequently lies outside the experience of our team, regardless of our professional distinction.
- All stakeholders (researchers, scientists, policy makers, decision makers, authorized persons, local communities, local ethnic groups, indigenous communities, etc,.) are involving in the communities as well as organizations, therefore, when we all can enhance / encourage to implement all tasks with effective stakeholder mapping, in doing so, our communities will surely develop with sustainable progress. Similarly, STI is also playing as the key player to be must strengthen research management systems.
- There is a need to harmonize all activities to have better impact of R and D.
- I feel that STI related organization can build new relation with many private universities in Indonesia
- In response to the national vision toward economic development by using STI.
- Seminar should highlight more how to strengthen research management systems withing Department, Faculty, University in the country

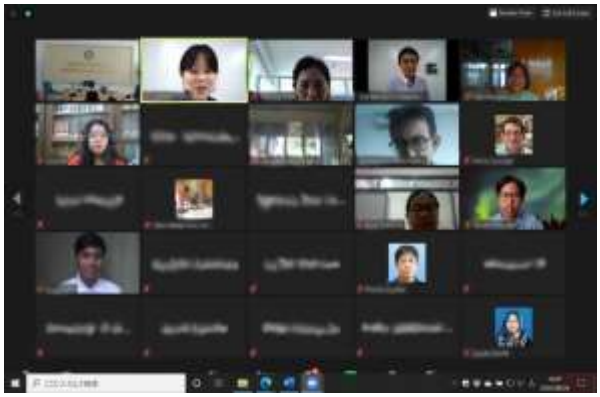
Additional comments of current status of STI coordinators in ASEAN;

- We just started a new research monitoring and evaluation protocol. Having a research management system will complement our protocol.
- If we can continue to have similar seminars to continue the initial motivation from this meeting
- My university/department has not have the research administration and research management systems similar to those presented in the cases of the webinar.
- My country has weak support for science and technology. it relies too much on foreign sources for science and technology.
- STI coordination is still weak in my country. Innovation requires substantia , coordination efforts from organization and government to be able to boost innovation based on the result of S&T.
- I think it's better to add the research institution more to follow up our meeting and work in the future.

Program:

12: 45 – 13:00	Zoom open & housekeeping announcement
13:00 – 13:15	**1. Opening Remarks** (5 minutes each) - Prof. Eiji Nawata, Director, Kyoto University ASEAN Center / Leader, WP1 of JASTIP - Dr. Yang Mee Eng, Executive Director, ASEAN foundation - Dr. Michele Yen Cheng Chew, Assistant Director, Science & Technology Division, the ASEAN Secretariat
	2. Presentation by Dr. Taro Sonobe, URA, Kyoto University Research Administration Office / ASEAN Center, each session being followed by Q&A from the participants Chaired by Ms. Chisato SAITO, URA, Kyoto University Research Administration Office / ASEAN Center
13:15 – 13:35	2-1. Background and objectives of the online meetings in between ASEAN and Japan
13:35-13:55	2-2. Sharing of research administration and research management systems in the World
13:55 – 14:15	2-3. Sharing of finding from the questionnaire on the current status of STI coordinators in ASEAN and future prospects of ASEAN-Japan collaboration
14:15 – 14:30	2-4. Introduction of upcoming online meetings among working group members and wrap up

Presentation Slide: Dr. Taro Sonobe, Kyoto University Research Administration Office, Kyoto University
https://www.dropbox.com/s/81p1e017hb3o6q0/STI_openseminar_0826.pdf?dl=0



Pictures: Online seminar screen and studio of online seminar at KURA office

Pictures: Generating the awareness of STI coordinators in ASEAN and Japan through the communities of ASEAN foundation and Kyoto University ASEAN Center.

3. Online meetings

1st Working Group Discussion

Topic: Bridging and coordination among different sectors: What are your useful tips or skills to lead a negotiation and to set the same objectives among different stakeholders?

Date: September 30th, 2020

Participants:

- 52 participants (ASEAN 9 countries, Japan, Korea)
- 75 registration

Presentation Titles and speakers:

- Dr. Mie Mie Kyaw (Senior Lecturer and Researcher, Department of Zoology, University of Mandalay, Myanmar)
- Dr. Eng, Muhammad Makky (Secretary of Institute for Research and Community Services, Andalas University, Indonesia)

Poster:

(1) Current status of STI Coordinators for the topic in ASEAN and Japan

Defining “STI Coordinator” as a profession is not yet under way in the science, technology, and innovation community in ASEAN. However, professional human resources who can bridge and coordinate among different stakeholders including academia, industry, government, local community, and indigenous groups are in demand to synergize individual resources of STI activities in different sectors in ASEAN and Japan. Two presenters at the 1st Working Group Discussion; Dr. Mie Mie Kyaw and Dr. Muhammad Makky have been playing a major role of so-called “STI coordinator” at their current positions, and illustrates their personal experiences on site.

During the Q&A sessions and from the follow-up survey, other participants shared the current status of STI coordinators in each country and institution. In Malaysia, for instance, the Malaysian Association for Research Managers and Administrators (MyRMA) was just launched in 2019 which is the first nationwide of association for so called “STI coordinator” in the ASEAN member states except for ARMS Singapore Chapter established in 2015. For example, In the University of Malaya, STI was coordinated under the portfolio of Research and Innovation, which is headed by a Deputy Vice-Chancellor (R&I). The DVC (R&I) is assisted by the Associate Vice-Chancellor (Research & Innovation) and Associate Vice-Chancellor (Industry & Community Engagement). A group of research managers and administrators with different skills (heading different functions) were hired to support the STI coordination under the research & innovation portfolio. STI is managed centrally with the assistance of the Deputy Dean (Research) at the faculties. There is a one stop center for research at the University, named Institute of Research Management & Services. However, they are still in the capacity building stage and need more cooperation for training and earning the full skill sets.

One Cambodian participant commented that majority of researchers are yet junior and early-career level. They would request a guidance and role model to envision “STI coordinator” as their professional career path too. Upon another question from a Cambodian attendee, the chair answered that STI-related program managers at several agencies (i.e. research institutions, public organization, and funding agency or foundation) could be also categorized as “STI Coordinator” and that some Japanese research administrators also work as program manager for internal research grant and research support program at their university.

According to the follow-up questionnaire, in Vietnam unlike many other countries, the protection of IP rights is mainly done by applying administrative penalties for violations. Therefore, the number of IP violations has increased rapidly, while the capacity of enforcement agencies for IP protection is still quite limited at the central and local levels.

(2) Current issues and challenges on the topic in ASEAN and Japan

Overcoming communication and cultural barrier among different stakeholders is the common challenge and interests among the participants. Dr. Mie Mie Kyaw stated that weak stakeholder mapping are the biggest issues based on her practical experiences on hydropower project in Myanmar. According to her experience, mutual respect and value is important and STI coordinator needs to reduce the knowledge gaps through sufficient communication and feedbacks among different stakeholders. Corporation with related ministries, decision makers, local indigenous groups and scientists could successfully implement the project into local community. Dr. Muhammad Makky compared issues and challenges before and after COVID-19. In particular, since the pandemic, unseen research ecosystem in terms of limited/restricted mobility, budget reallocation, safety/health concern became more critical. Indonesia government now encourages STI community to form the consortium among academia, business and society to generate better impact of science, technology and innovation for the society.

In Malaysia, more than 90% of industries are small to medium enterprises (SMEs) in which enough funding for research and development is not yet secured on their own. Therefore, these SMEs tend to rely on universities to do related research and development for their profit, while universities wouldn't receive so much return to the R&D. One Malaysian participant observes that this derives from the lack of standard rules and guidelines for researchers and scientists when they contribute to technology transfer and commercialization. Having support from professionals in those standardizations would solve the current issues.

It is also stated from a participant that coordination, facilitation, and finance are major challenges for junior and young researchers in Cambodia, and there is big gap between ongoing research activities and the relevant STI policies. Therefore, it is proposed that we should share a good practices and examples on how STI is coordinated in a birds-eye's view.

Attendee from Laos said that it is still under way to write the national framework for STI community there. Due to the lack of data, mutual learning with ASEAN and Japan would help to get to know science-based approach and actual practice in international cooperation. Joint shadow program and mentorship program in international collaboration research can be probably useful for a professional development to mentor ASEAN Junior and young researchers in collaboration with ASEAN senior researcher and Japanese senior researcher.

Vietnamese participant feels that dialog between researchers and policy makers is still limited. There is no frequent channels/occasions to reach high level policy makers around him/her.

There are also issues and challenges for individual level to improve understanding and visibility of STI at top level management in order to narrow the gaps of knowledge and awareness with bottom and middle levels of players in the relevant STI activity. In Cambodia, most research projects and grants do not cover salaries of administrative and accounting assistants, so junior and young

researchers need to manage these non-academic tasks by themselves. In addition, research grant management can be complicated and researchers tend to bear heavy burdens to manage administrative works in addition to the research project itself.

To sum up the discussion, it seems to be necessary to develop individual capacity until s/he become competent enough to work in STI coordination and to post the right person with well cultivated skills. It is suggested that researcher and scientists need to increase their capacity to think more STI related activities with a birds-eye's view.

(3) Good practices and unique activities for the topic in ASEAN

Interpersonal and negotiation skill are recognized as the basic competency of STI coordinators to bridge and coordinate among different sectors. Dr. Mie Mie Kyaw paid attention to build the trust with local indigenous groups over time. Dr. Muhammad Makky shared his best practice in palm oil production in Indonesia where local industry and community produced palm oil without any purification technology and knowledge. By building firm trust with local government, industry, and community through visiting them many times, he could build the partnership among these stakeholders and contribute to gain mutual benefits with relevant stakeholders. The contribution of indigenous and local knowledge is also highlighted as a good practice and unique activity to build synergies with science. Andalas University considers the local wisdom as "technology" and "belief system", and facilitates the communication with locals while paying attention to the intangible values linked to local culture, tradition, social system, and belief, faith, trust, and so forth.

Most of the networking among different sectors have been paid to contribute to local communities and livelihoods. It is also important to share information and feedbacks with colleagues from different units within the university and entities including government and industries via liaison offices. Establishment of communication and interaction platform could possibly promote the exchanging ideas and creating mutual understanding.

(4) Recommendation for the future collaboration between ASEAN and Japan on this topic

Collaboration in human resource development with wide range of skillsets for STI coordinator is needed in ASEAN and Japan, especially the improvement of interpersonal and negotiation skills are underlined for bridging and coordination among different sectors. Dr. Mie Mie Kyaw recommended that stakeholder mapping (researcher, scientist, STI coordinators, decision makers, local communities, and indigenous groups) is essential to achieve the integrated action among the relevant stakeholders.Dr. Muhammad Makky highlighted the "local wisdom strategy" comprising knowledge transfer, leadership, community partnership, and government support to bridging with local government, industry, and community.

It is also recommended by Dr. Muhammad Makky that the visibility of scientists and research project in ASEAN and Japan has to be increased in order to have a seamless connectivity in researchers in excellent sciences. A more direct engagements and multilateral active networks among ASEAN and Japan is more powerful than simple ASEAN “one-stop hub” system. In order to promote the international STI collaboration among various countries and cultures, it is also important to translate complex tasks into simple and tangible missions to overcome several barriers in communication, knowledge gap, and different cultures.

A representative from the Philippines proposed that establishment of formal working group and networks among STI coordinators including research manager and administrator can be effective for promoting the human resource development of STI coordinator. This network can contribute to strengthening the capacity building in pursuing technology transfer until commercialization. It is also expected to gather the members from all of the different agencies for STI related activities into the network for generating various types of positive synergies among those available resources of research. Adaptation of research output and technologies from researcher and scientist by private sectors are expected to be promoted by STI coordinator like a “last miler”. The benefit of adaptation of research output by the private sector can be maximized by government investment. In addition, policy dialogue is still effective and brings wider influence from research to policy.

To sum up, establishing working group and network can be a driving force to exchange the best practice in research management and stakeholder engagement, developing more ASEAN and Japan research collaborative projects under international grants, and research collaboration in research management. A common definition and term for STI coordinators is to be stipulated, but joint effort to drive capacity development program for STI coordinator need to be tailor made in ASEAN and Japan.

2nd Working Group Discussion

Topic: Bridging and coordination among different sectors: What are your useful tips or skills to lead a negotiation and to set the same objectives among different stakeholders?

Date: October 28th, 2020

Participants:

- 41 participants (ASEAN 7 countries, Japan, Korea)
- 77 registration 75 registration

Presentation Titles and speakers:

- Dr. Puvadol Doydee (KU-WEF Nexus coordinator/Assistant Professor, Department of Agriculture and Resources, Faculty of Natural Resources and Agro-Industry, Kasetsart University, Thailand
- Dr. Takuya Sato (Researcher, Business-Academia Cooperation Office, Ministry of Agriculture, Forestry and Fisheries, Japan)

Poster:

(1) Current status of STI Coordinators for the topic in ASEAN and Japan

Many STI coordinators in ASEAN and Japan play a key role in bridging the gaps of knowledge, culture, custom among different sectors and connecting scientist to other scientists, policy makers, businesspersons, as well as local people. To do so, the coordinator is required to translate research and technical knowledge as well as cultural difference in simple terms, so that all the stakeholders from different background can understand the common issues. Followed by the 1st Working Group Discussion, two presenters of Dr. Puvadol Doydee and Dr. Takuya Sato introduced their hands-on experiences on international and intersectoral projects related to agricultural industry during the 2nd Working Group Discussion.

Dr. Puvadol Doydee has rich experiences as “STI coordinator” based on many institutes such as Southeast Asian Regional Center for Graduate Study and Research in Agriculture’s scholar for accelerating transformation through agricultural innovation in Indonesia (2000) and the Philippines (2005), ASEAN – U. S. Science and Technology Fellows (2016); and recently has been appointed as assistant professor of Kasetsart University and serves as Water Energy Food (WEF) nexus coordinator. Dr. Takuya Sato also has been building up his unique professional career by having various “on-site” working experiences at private, academic, and government sectors in different cultures abroad such as Kikkoman USA lab, Kikkoman Singapore Lab, and National University of Singapore. He also has conducted collaboration with A*STAR in Singapore and NSTDA in Thailand. Since 2019 he has been working at Ministry of Agriculture, Forestry and Fisheries, Japan. Apparently, these actual visit to “on-site” between different sectors and cultures could cultivate their coordinating capacities and wisdoms to recognize the gaps of knowledge, culture, custom etc. among different sectors and then bridge them on friendly terms.

During the Q&A sessions and from the follow-up survey, some participants shared the current status of STI coordinators in each country and institution. In Malaysia, University of Malaya has research officers, administrators and research mangers who manage and coordinator STI within the institution and between the university and other agencies. One Thai participant addressed that STI coordinators need to understand the difference in the levels of science skill set of each scientist in order to build up the collaborative team among different scientists together.

One attendee from Myanmar stated the current role of STI coordinator around her is to link all stakeholders via forming a collaborative community among researchers, scientists, science, technology and innovation (STI) coordinators, decision makers, policy makers, local communities, and indigenous groups. This coordination seems to be also required to promote original academic activities at a small scale local, private or educational institutes, and to bridge regional universities and governmental ministries in the capital city.

(2) Current issues and challenges on the topic in ASEAN and Japan

Building firm trust among different stakeholders is one of the essential issues and challenges around STI coordinators in ASEAN and Japan. Many attendees also commented on that they should cultivate communication and adaptation skills. Dr. Puvadol Doydee emphasized on the importance of caring and understanding the differences and diversities of behavior and cultural practices among various stakeholders. Time management is also pointed out essential among different stakeholders as people can be busy, having different priorities during the joint activities.

To launch a new collaboration in STI related activities under the current COVID-19 situation, STI coordinators have been facing common issues and challenges in building a sound trust with new partners and stakeholders through online tools. For instance, a couple of Thai participants told that they like to get to know personality of counterparts at first over social events and meals together during on-site meetings, then it is easier to adapt to their working style and time management for the future collaborative activities.

According to the following-up survey, a couple of attendees from the Philippines pointed out the issue at the institute where there is no centralized office coordinating several departments and properly disseminating information internally; this resulted in weak person-to-person connection at the institutional level. Malaysian participant also listed up the current issues such as lack of skills in knowledge exchange and research communication, bureaucracy in governance, industries' focus on trading than on R&D. One attendee from Indonesia shared that Indonesian Institute of Science (LIPI) has been trying to adapt to the situational change at national level regarding to the STI coordination but the adaptation process has been delayed due to the COVID-19 situation.

Some of the attendees from Myanmar and the Philippines show concern on the finance related to STI activities which need to be resolved by building the gaps between university and governmental sectors.

(3) Good practices and unique activities for the topic in ASEAN

Interpersonal and communication skills to understand the social, cultural, scientific and ecological diversity are core competency of STI coordinators to bridge and coordinate among different sectors. Dr. Puvadol Doydee introduced that three moral steps of understanding, approaching, and respecting others is a good practice from his experience. Upon field trips, he has listened to the voices from local people, policy makers, and scientists etc., which is a model attitude of bridging and coordination among different stakeholders. It would narrow the gaps among them and facilitate decision making, if the coordinator translates the complex research activity and output from scientists into simple appropriate terms for other stakeholders. He has been also cultivating his capacity of STI coordinator through hand-on experiences from other international collaborative activities such Japan ASEAN Science, Technology, and Innovation Platform (JASTIP) and

JASTIP_Net program.

Dr Takuya Sato introduced several good practices on how business-academia cooperation office (BCO) at Ministry of Agriculture, Forestry and Fisheries (MAFF), Japan, coordinates international collaboration with ASEAN region. Field for Knowledge, Integration and Innovation (FKII) is one of the governmental open innovation programs for business-academia cooperation in the field of agriculture, forestry, fisheries and food industries. Followed by its success of forming a large community from wide range of fields (Life Science, Physics, Chemistry, Social Science, Mechanical Engineering, Distribution Engineering, Computer Science, Medical Science etc) during phase 1 from 2016 to 2021, Phase 2 of FKII from 2021 to 2026 will be putting more focusing on international activities. He emphasized that FKII is unique in a sense that it builds a bidirectional relationship between Japan and overseas countries in order to improve and modify the technology together. FKII members share technology, face current issues and challenges on site, and expect scientific contribution to the members. For example, he plans bilateral joint matching event between National University of Singapore and MAFF. He also holds hybrid on-site seminar for ambassador, diplomats and attachés at foreign embassies in Tokyo, which would be connected online with government research institutes and universities in their home country under COVID-19 situation. He also coordinated the on-site visit of H. E. Ambassador of Timor-Leste to plant factory developed under FKII which expects to accelerate the process toward future possible collaboration.

One attendee from Thailand shared the practical experiences to connect people togethers from several levels such as ministry, university, department, and program levels. Appropriate level of coordination and its effectiveness also depend on the position of STI coordinator whether s/he is in the level of dean, faculty, and junior level. The good combination of top-down and bottom-up approaches is to be taken by STI coordinator in order to effectively achieve the goal of joint program.

(4) Recommendation for the future collaboration between ASEAN and Japan on this topic

Joint program for STI related activities and exchanging expertise among ASEAN and Japan are needed to learn good practices from other countries as well as to know local needs and challenges. Sharing technology and resources to resolve the common issues can be promoted by fostering the well-cultivated STI coordinators as well as utilizing existing collaborative platforms such as JASTIP and FKII for instance. Dr. Takuya Sato summarized key players and resource in international collaboration; key players are diplomat, ministry, university, industry, government institution, and resources are technology, student/scientist, sample, friend, challenge and difficulty. From industry perspective, he also addressed that accessibility to use the resources managed by government organization and institutions such as natural product library in each country or region become an important factor for building industry – government and or academic collaboration.

Dr. Puvadol Doydee and Dr. Mie Mie Kyaw who is a previous speaker at 1st WG discussion

addressed again that stakeholder mapping on matrix (researcher, scientist, STI coordinators, decision makers, local communities, and indigenous groups) is useful to visualize the integrated action and priorities among the relevant stakeholders. He also recommended to cultivate the moral self-attitudes to respect the others and the rules where you are now.

One participant from the Philippines recommended that we should continue open communication, meeting and joint papers from ASEAN and Japan among STI coordinators. Then we would learn good practices from others and promote the international collaboration. Arranging the partnership grant to initiate the collaboration in STI activities is also recommended by Malaysian participant. Related to this, JASTIP has also implemented the partnership grant so-called as “JASTIP_Net” targeted to ASEAN and Japan STI communities, which can be a model grant program for future collaboration between ASEAN and Japan.

To sum up, the participants at 2nd working group discussion learned good practices and hands on experiences of bridging the gaps of knowledge, culture, custom among different sectors and connecting scientist to other scientists, policy makers, businesspersons, as well as local people by translating research and knowledge. MC from Kyoto University also reminded that internal communication and negotiation with top-management, colleagues, staff at different offices and sections within our own organization are also required for STI coordinators, as s/he needs to understand the strengths and priorities of the organization within the limited time and resources.

3rd Working Group Discussion

Topic: Pre-Awards and Post-Awards: Which skills and roles would be essential when you are involved in applying for and launching a new international project?

Date: November 26th, 2020

Participants:

- 43 participants (ASEAN 8 countries, Japan, Korea, Russia)
- 80 registration

Presentation Titles and speakers:

- Dr. Nguyen Thi Hoang Lien, Associate Professor / Senior Lecturer, Faculty of Environmental Science, VNU University of Science, Vietnam National University, Hanoi, Vietnam
- Dr. Mohd Amran Mohd Radzi, Associate Professor, Deputy Dean (Research and Innovation), Faculty of Engineering, University Putra Malaysia (UPM), Malaysia

Poster:

(1) Current status of STI Coordinators for the topic in ASEAN and Japan

Being involved in pre-awards and post-awards related to domestic and international research projects, young talents develop their professional careers in the academic community. Their practical experiences of try and error and mentorship from senior mentors during the project application and implementation period are apparently effective and they gain added values of coordination skills in Science, Technology and Innovation. Speakers for the 3rd working group discussion, Dr. Lien and Dr. Amran have been working together under the Asian academic network of Sustainable Energy and Environment Forum (SEE Forum) for more than 10 years and introduced their hands-on experiences and findings when they were involved in applying for and launching international projects.

Dr. Lien gave an overview of her career development in environmental studies and observed how much she has changed herself for the past 10 years under the guidance of her mentors. After completing the Ph. D. degree program in the field of Environment at Griffith University in Australia in 2010, she has joined several international collaborative projects such as Feasibility study on renewable energy potential in Asia under JST (2010 – 2011), ODA-UNESCO projects on energy science education activities for sustainable development in Asia (2011 – 2015), Review of renewable energy practices in the Philippines and Vietnam under Toyota foundation (2014), and Co-benefits of protection of natural forest and preservation of herbal medicine profession of the Dao ethnic community in Vietnam under JASTIP-Net (2019 – 2020). Through the projects, while receiving guidance from her senior mentors, her position and roles transitioned from a young researcher to a leading researcher. At her university in Vietnam, she could also receive an administrative support to manage the research project if the project is funded by Vietnam or own university. However, if the project is funded by other funding sources, she personally needs to ask for administrative support.

Dr. Amran also introduced his career journey worldwide in the fields of power electronics and renewable energy with continuous mentoring from his supervisors at University of Malaya and Kyoto University. He has joined several international collaborative projects such as SEE Forum, Feasibility study on renewable energy potential in Asia (2010 – 2011), Optimal design of green energy systems based on multi renewable resources for rural electrification under JASTIP-Net (2016) since he was still a young researcher. By doing so, he could accumulate hands-on experiences of planning and making a strategy to develop these international collaborative projects with close communication with established professors.

(2) Current issues and challenges on the topic in ASEAN and Japan

Current issues and challenges on pre-awards and post-awards can be mainly divided into three aspects; the first one is how to cultivate an individual capacity of each STI coordinator, the second one is how to oversee research progress and budget of an international projects as a project investigator, and the third one is how to strengthen an institutional administrative office to support international collaborative projects.

Dr. Lien proposed three important skills to be required for launching a new international project. They are project management skill, budget-handling skill, and team leading & management skill, based on her experience. Step by step, she planned milestones to reach the final objectives of the international research projects. She admitted, however that she faced a difficulty to handle budgets from overseas funding agencies such as Toyota foundation and others. One attendee from Myanmar wrote a similar opinion as that of Dr. Lien's in the follow up questionnaire, saying that these management skills are necessary and STI coordinators should fill gaps in technological development and environment conservation.

Dr. Amran addressed on issues and challenges when he joined in developing multilateral international collaborative projects during his early career stage. Some young researchers from different fields and cultures need to secure enough times and efforts to produce many papers in fundamental research, but at the same time they are required to secure external grants even with less experience. This hinders them to contribute to a new international collaboration.

Dr. Amran also pointed out that due to the current pandemic there are limited interaction and physical visits among other researchers and stakeholders. This results in the lack of mutual understandings of research interest, working cultures, and personality. One student from the Indonesia also wrote in the follow-up survey that the limited person to person interaction under the current COVID-19 situation where students and lecturers are not able to meet at campus but must communicate through online.

According to the following-up survey, some participants from Indonesia raised a problem for young researchers or STI coordinators in gaining a confidence during their early career stage when s/he faces challenges to launch a new international collaborative project. Even earlier in the career journey, one lecturer at university from the Philippines proposed that we should raise consciousness of Science and Technology from undergraduate students and increase the number of Ph.D holders, which would nurture more skilled STI coordinators in the future.

One participant from Cambodia shared the current challenges to design appropriate policies and incentives of funding schemes in order to raise the awareness of science, technology and innovation.

(3) Good practices and unique activities for the topic in ASEAN

Young researchers' practical experiences with try and error and on the job training (OJT) in pre-award and post-awards are recognized as one of the most effective means of the capacity development of STI coordinators. Dr. Lien and Dr. Amran joined a common international academic network of SEE Forum in 2010 and obtained various skills in project development and coordination with continuous mentoring supports from domestic and international senior professors. They also formed a friendly and inspiring network with other fellow researchers from abroad so called "SEE Forum Young Researchers" and facilitated both bilateral and multi-lateral international collaborative projects in Asia. They organized the training-camp workshop among young talents from Indonesia, Malaysia, Philippines, Thailand, Vietnam, India, and Japan at UNESCO Jakarta office in 2010 and promoted mutual understanding of various aspects; personal & family, culture & traditions, politics, and working cultures in the beginning. They published a comprehensive country report on renewable energy potential in Asia and proposed an emerging concept under the Feasibility study on renewable energy potential in Asia (2010-2011). This style of training workshop was effective to initiate a collaborative work towards common targets and could be a practical platform to write a project proposal for multilateral research collaboration with mentorship from their close senior professors in each country. Dr. Amran could expand his cooperative networks with different sectors and an eminent Japanese professor as his mentor abroad.

During the working group discussion, attendees from various countries introduced other good examples. One attendee from Indonesia introduced his institute's strategic program for fostering young researchers and STI coordinators. This program offers three items; firstly internship program to send young researchers to industries or another research institute either in Indonesia or abroad; secondly a mobility program to get a formal degree such as Ph. D., and to conduct research exchange or training at other university; and lastly a special internal competitive grant for young researchers to support and brush-up their fresh ideas. One attendee from Malaysia also introduced an "attachment program" which is a long-term internship program for 1 to 2 years at private and government sectors to narrow the gaps with academia and to strengthen the personal connection. Attendees from the Philippines also introduced their experiences of short-term internship program for young researchers at the embassy of Philippines in some foreign countries instead of placing an official scientific attache there. This short-term internship can provide a young researcher with a valuable opportunity for a few month to understand the strength of STI at the host country and to promote matching and narrowing gaps between the two countries. They also dispatched young researchers to the ASEAN secretariat under the program of US-ASEAN ST fellowship program. One alumni of ST fellows has been promoting the evidence-based approach to develop the funding program for climate change adaptation at local community.

(4) Recommendation for the future collaboration between ASEAN and Japan on this topic

The skills in pre-awards and post-awards for handling domestic and international funding projects is one of the central pillars for STI coordinators. Without the skills, they could not develop their professional careers in the academic community. While participating in the project and receiving guidance from mentors, young researchers and STI coordinators could obtain valuable experiences and networks at their early career stage.

Several items for tailoring the capacity development program of STI coordinators in ASEAN and Japan have been gradually materialized at the 3rd Working Group Discussion.

(4-1) It would be beneficial to design a mentoring program for young researchers and STI coordinators so that they could initiate a collaborative project between ASEAN and Japan. This international mentoring program could increase the capacity of STI coordinators expanding their management, negotiation, planning and teamwork skills as well as open mindness.

(4-2) More domestic or international internship opportunity at universities, private companies, and government offices could also enhance the capacity of STI coordinator to understand the different sectors as well as to expand the collaborative networks. Short-term internship programs at the embassy in a foreign country could be cost-effective to cultivate STI coordinators who bridge between home and host countries towards strategically promoting STI activities.

(4-3) It is also recommended that we should set up a special grant or internal seed-funds targeted for young researchers to initiate a new project. This would encourage young talents to foster creative minds. Their challenging ideas can be supported by continuous mentoring from international and domestic supervisors.

(4-4) One attendee from Thailand Young Scientist Association (TYSA) proposed to share experiences with each other and to set up a common platform to facilitate policy recommendation for further enrichment of STI community in ASEAN and Japan.

4th Working Group Discussion

Topic: Pre-Awards and Post-Awards: which skills and roles would be essential when you are involved in applying for and launching a new international project?

Date: December 17th, 2020

Participants:

- 51 participants (ASEAN 8 countries, Japan)
- 95 registration

Presentation Titles and speakers:

- Dr. Keophousone PHONHALATH (Head of Water Supply and Waste Water Engineering Division, Department of Environment Engineering, Faculty of Engineering, National University of Laos, Lao PDR)
- Mr. Kazuma INOUE (Deputy Director, Technical and Higher Education Team, Human Development Department, Japan International Cooperation Agency (JICA), Japan)

Poster:

(1) Current status of STI Coordinators for the topic in ASEAN and Japan

Throughout the process of pre-awards and post awards, it is essential to a secure coordinating function such as a secretariat and dedicated coordinators who effectively manage domestic and international collaborative projects. At 4th working group discussion, a bidirectional view was shared on the current status of STI coordinators from an academic institution in Lao PDR and an international cooperation agency in Japan.

Dr. Keophousone from National University of Laos introduced her rich experiences in project coordination, as a young researcher at National University of Laos and after receiving Ph. D. E (Geological Engineering) from Gadjah Madah University Indonesia under JICA-AUN/SEED-Net Program in 2012. She has gained more hands-on experiences by involving in TECHNO project 2 under the European Commission in 2012, JICA-AUN/SEED-Net program in 2012-2013, Sustainable Climate Change and Energy Education Development (SUCCEED) Project under Finland Future Research Centre in 2016–2019, and USAID-ASEAN Science and Technology (S&T) Fellowship in 2019-2020.

On the other hand, Mr. Inoue shared a long-term capacity development plan for faculty members in engineering institutions under AUN/SEED-Net program in between ASEAN and Japan, from an administrative viewpoint of Japan International Cooperation Agency (JICA). This program set up a project secretariat office in Bangkok, Thailand and its function is to coordinate 26 member institutions from 10 ASEAN member states and 14 supporting universities from Japan.

During the Q&A session and from the follow-up survey, one senior researcher from Laos pointed out that the current status of STI activity in Laos is still at its beginning stage. He welcomes further international cooperation in capacity development for coordinators to strengthen the project management of domestic and international research cooperation at research institutions and universities in Laos. One Cambodian participant said that STI coordinators at any stage of the career path often encounter similar difficulties in monitoring and evaluation (M&E) of a funded project.

One attendee from Indonesia commented in the follow-up questionnaire that STI coordinators works under different ministries. STI coordinators at a university are usually managed by the Ministry of Education, while other STI coordinators at research institutions under different ministries have a corresponding management line. A coordinating ministry is responsible for the overall management of STI activities in Indonesia.

(2) Current issues and challenges on the topic in ASEAN and Japan

Each STI coordinator faces similar issues and challenges in the processes of pre-awards and post-awards for domestic and international collaborative projects. Dr. Keophousone categorized her issues and challenges into the following 5; (1) financial challenges, (2) technical challenge, (3) time-management challenge, (4) communication challenge, and (4) government performance management system challenge. Young researchers are required to learn numerous procedures and rules to handle research budgets in accordance with governmental guidelines during the funded project period. Insufficient and old statistic date causes some technical challenges to advance and manage the research projects as planned. As a coordinator, she had to respond to multiple tasks simultaneously, and she had trouble in time management particularly during the early stage of her career. Knowledge gaps among different stakeholders such as research institute, local government and communities also causes a big challenge for a STI coordinator at a university, as s/he needs to bring up keywords and essence of the stakeholders' needs and to implement the project to improve their quality of life.

During the Q&A session, one participant from the Philippines asked how to manage intellectual property (IP) during the research collaboration, and several participants from Cambodia, Laos, Malaysia and Myanmar shared their examples. In Laos, Ministry of Science and Technology (MOST) started to prepare the policy for IP management around 4 years ago but it is mostly for case of how to adjust external technologies and IPs into Lao condition. One Myanmar attendees wrote in the follow up questionnaire that formulation of national STI policies, regulations and guidelines for researchers is yet underway in Myanmar. Some participants from Malaysia addressed a common challenge for the management of international research collaboration especially during the negotiation of contract in terms of publications and IP. Any intellectual properties generated by a researcher at Malaya University would belong to the institution, and the inventors are researchers by themselves. Such agreement and ownership of IPs has to be clear from the beginning especially in case of international research collaboration.

One researcher raised problems when he tried to submit a proposal for a bilateral research program in between Vietnam and Japan. The submission schedule is different from both sides. Also, his organization belongs to the Ministry of Education and Training, which means that it is not in the system to apply a bilateral research program with the counterpart funding agency in Japan (JSPS).

Procurement of chemicals and research equipment can be troublesome and time-consuming for researchers in some ASEAN member states, due to the lack of supply chain across the countries as well as within the country. This also gives a big challenge for the STI coordinator to manage international research collaboration while transporting the research materials and equipment to foreign countries in accordance to several regulations (e.g. legal, custom, financial, and administrative regulations).

It is important for a STI coordinator to collect appropriate information on grants and to secure the continuity of the STI related project. This would eventually bring the outcomes of STI activities and efforts toward the enrichment of public environment and social contributions. Complicated procedures of an international joint funding program also cause serious problems partly due to the insufficient information and guidance from the relevant funding agency and ministry. Furthermore, many research projects are eventually stopped after the termination of research fund if they are heavily dependent on one funding source. and are hardly transfer into the other public funding projects and opportunities to fulfil the entire goal of project. One participant from Indonesia suggests that it might be strategic to involve industrial partners from the beginning of the project, as they are very skilled in financing and commercialization.

To sum-up the discussion, many of the young talents including researchers and STI coordinators at academic research institutes and universities faced common challenges to adopt to the regulations in each country when they are involved with research collaborative projects. It was proposed that sharing knowledge and good practice can make STI coordinators more resilient against difficulties related pre-awards and post awards (e.g. technology challenge, acquiring research grants, report, policy making and science communication). This eventually strengthen multilateral eco-system of STI activities in ASEAN and Japan.

(3) Good practices and unique activities for the topic in ASEAN

Dr. Keophousone has been able to extend her network with a local governor, residents and private stakeholders for future government-academia-industry collaboration when she led an on-site survey and communicated with local community under several international and domestic collaborative projects since 2012. She could also develop her leadership skills to translate the local needs of community and government for different stakeholders. One participant from Myanmar added that narrowing the knowledge-gap among the different sectors can be promoted by developing interpersonal skills and stakeholder mapping.

One participant from Brunei also talked about her expansion of the cooperative network after she took part in multi-lateral projects in between ASEAN and Japan. She gained confidence to coordinate people from different backgrounds and sectors. It seems that such practical experience to be involved in research projects will be an effective means for young talents to develop their individual capacity in STI coordination.

Mr. Inoue introduced a good practice how AUN/SEED-Net has been able to coordinate the large and multilateral collaborative projects in between ASEAN and Japan for a long period. JICA assisted to establish a coordinating secretariat office in Bangkok, Thailand nearby ASEAN University Network (AUN) Office. It is the rare case for multilateral cooperative projects under JICA to co-manage a secretariat office in the counterpart country. AUN/SEED-Net secretariat appoints a dedicated coordinator at each member university in ASEAN and s/he would assist communication,

information dissemination, follow-up and documentation to promote the research collaboration.

One Myanmar attendee wrote in the following up questionnaire that it is also necessary to heighten ethical awareness to responsibly conduct research project away from any misconducts. Her university in Myanmar organize a training seminar on research knowledge and ethics to follow-up the national regulations and guidelines during research.

(4) Recommendation for the future collaboration between ASEAN and Japan on this topic

Many participants shared the common awareness that STI platform for collaboration between ASEAN and Japan is needed to nurture STI coordinators and enrich the STI related activities towards better quality of lives in ASEAN and Japan. Dr. Keophousone recommended to set-up more collaborative training programs to improve soft skills such as communication skill with local government and community to understand their actual needs and to implement the research project. This skillset for STI coordinator is also highlighted as a good practice of transdisciplinary research (TDR) approach in the latest OECD science, technology, and industry policy paper published in June 2020. As she mentioned, a skilled coordinator often visits the field site together with other stakeholders and propose a solution together.

It is also recommended to have a secretariat or coordinator in order to coordinate promote a multilateral and multi-sectoral research collaboration. Related to this, it is pivotal to have a secretariat and corresponding coordinators at the project level, institutional level and national level. Then, the operation of the project would be more sustainable and bring more research outcomes and benefit for the society.

Some participants from Cambodia, Indonesia, Laos and Myanmar agreed that sharing the good practices and lessons learnt among ASEAN and Japan STI community is one of the best ways to build capacity of possible STI coordinators at each organization. With this collaboration, ASEAN and Japan can nurture and mentor each young talent to develop their professional careers in STI community. To this end, it is also recommended to identify common research interests and grand challenges among ASEAN and Japan and to initiate the concrete actions simultaneously.

At the end of the discussion, the Malaysia Association of Research Manager promoted their Journal of Research Management & Governance (MyJRMG) as a platform for sharing and dissemination of knowledge in research management area. Likewise, Japan and ASEAN Science, Technology, and Innovation Platform (JASTIP), which was endorsed by ASEAN COSTI as a multilateral cooperative framework, can promote new collaboration among STI coordinators.

5th Working Group Discussion

Topic: How to Tailor-Make a Capacity Development Program for Young Talents: Science, Technology and Innovation Coordinators in Japan and ASEAN towards Grand Challenges

Date: January 26th, 2021

Participants:

- 73 participants (ASEAN 7 countries, Japan, Australia and India)
- 208 registration

Presentation Titles and speakers:

- Dr. Kuok Fidero, (Director General, National Institute of Science, Technology & Innovation, Cambodia)
- Dr. Norbert Norris Bonifacio Z Falguera (Assistant Professor, Department of Social Sciences, University of the Philippines Los Banos, the Philippines)

Poster:

(1) Current status of STI Coordinators for the topic in ASEAN and Japan

Tailor-made capacity development programs targeted for STI coordinators have been gradually taking shape through this series of online working group discussion. At the 5th working group discussion KURA proposed in the introduction that what can be called as “STI conscience” should be a source of the wisdom that facilitate the coordinator’s research administration and management towards the overall goal of a project. This followed by two presentations to introduce hands-on experiences of guiding undergraduate students and junior researchers from a governmental institute of Cambodia and an academic institute of the Philippines.

Dr. Fidero Kuok from National Institute of Science, Technology and Innovation at Ministry of Industry, Science, Technology and Innovation of Cambodia gave a talk titled “Creation & Nurture of STI Talent Pool” based on his rich experiences in universities in Japan and Cambodia, international academic and youth networks such as Agro-Ecology learning Alliance in South East Asia (ALiSEA), Cambodian Youth Agro-ecology Team (CYAT), and ASEAN S&T Fellow 2018 - 2019. Previously he served as a Dean of Faculty of Chemical and Food Engineering at Institute of Technology of Cambodia (ITC), and he is currently a board member of advisor to the ASEAN Committee on Science, Technology and Innovation (COSTI-Cambodia). During the online presentation, he firstly gave a current overview of global competitiveness of Cambodia and eco-system of science, technology and innovation in Cambodia. He pointed out that other STI related organizations in the world also face similar challenges in recruiting and maintaining talented human resources.

Dr. Norbert Norris Bonifacio Z Falguera from University of the Philippines Los Banos, Philippines shared his hands-on experiences in raising a science and technology consciousness of undergraduate students through his classroom lectures, exams, and assignments about Science, Technology and Society (STS). He completed his master’s degree in international Relations and Ph.D. in Public Administration at Japanese universities, which made him aware of the difference in cultures and human behaviors. From his viewpoint of social science, he drew many concrete examples to grow science and technology consciousness in the students’ mind.

During the Q&A session, some participants from the Philippines and Thailand also shared the similar concept of “STI talent pool” in their countries. One Thai participant and Dr. Fidero agreed on the difficulty in bringing talented experts together because they are often occupied with prior appointments and tend to focus on the specific field of research. Several participants also shared their activities and experiences in guiding young students and junior staff/researcher to raise STI awareness at the university.

(2) Current issues and challenges on the topic in ASEAN and Japan

To maintain a balanced eco-system of STI in ASEAN and Japan, it is essential to secure enough qualified talents, yet this is currently challenging. Dr. Fidero quoted diagnostic studies on skills gaps employment by Asian Development Bank (ADB) and International Labor Organization (ILO) in 2015. There is a great mismatch between supply and demand of talented human resources at major occupational categories especially in professionals, technicians and associate professionals in Cambodia. Given the rising demand and declining supply of the talented people under the rapid transformation of digitalization, globalization, demographic trends, and talent mobility now, he highlighted the challenges how to secure the adequate number of talented people and how to assign an appropriate staff in STI coordination. Finally, he proposed that the framework to create and nurture of STI talent pool would consist of three components, Professional Development, Deployment, and Network, intertwining with each other. In harmony with the trilateral interplay of the three components, this STI talent pool can perform effectively and cooperatively towards the common goal. One's passion and sense of purpose is pivotal, while senior staff should offer mentoring and coaching to their junior STI talents.

Dr. Norbert introduced his challenges in raising science and technology consciousness of the undergraduate students during his classes in the Philippines. If students learn to think and conceptualize science, this reasoning skill would help them to decide and act more objectively. However, some undergraduate students for example in art and humanities majors remain subjective and hard to extend science and technology consciousness.

During the Q&A session, the participants discussed about challenging issues in guiding students and junior staff to raise their STI awareness. Some participants from Australia, Malaysia and the Philippines mentioned that it is very important to guide students to become responsible scientists equipped with appropriate sense of research ethics. One attendee from the Philippines also shared a current trend of young students in the Philippines that they are more interested in how STI can apply to their daily life rather than fundamental theories and concepts of STI. This appears to be a common challenge for us to have more STI talents versed in research ethics, communication skills with layperson, and deep understanding of the role of STI activity in the society.

(3) Good practices and unique activities for the topic in ASEAN

As a model of STI talent pool, Dr. Fidero introduced his good practices of building a multilateral team of Agro-ecology learning alliance in Southeast Asia from diverse backgrounds and countries. This learning alliance promotes professional development of soil and agricultural management. Members of the alliance mentor the junior colleagues with each other to tackle agro-ecology challenges in the Southeast Asia.

Being dedicated to teaching, Dr. Norbert shared his efforts to heighten science and technology

consciousness of undergraduate students in a familiar context (e.g., cooking and pandemic). In his class on “Science, Technology, and Society (STS)”, he asks students to memorize common scientific terms as a part of the examination. He also gives group assignments where students shoot and compile a video clip on the theme of science and technology in their daily life.

During the Q&A session, participants from several countries shared their hands-on experiences and activities to awaken the science, technology, and innovation (STI) consciousness at their universities and institutions respectively. One attendee from Australia introduced an international competition for science communication named “Visualize Your Thesis”. Related to their actual research work, the participating students can gain practical experiences and necessary knowledge about copyright and open publishing. One Malaysian participant teaches a course on STI ethics and guides the students to be a responsible scientist equipped with an appropriate sense of ethics. Another participant from Malaysia also commented on a training program for undergraduate and postgraduate students where they pitch short presentations among non-academics and non-specialists in the field. This program aims to improve their communication skills in science and technology. One participant from Vietnam also shared their promotional activities in STI communication among students, scholars, and researchers from different academic disciplines at a university in Vietnam. They organize a series of seminars and workshops to update STI activities and lectures on entrepreneurship and innovation. It seems that some other universities and institutions in ASEAN have dedicated a center or department for STI communication.

Other participants from Cambodia, Philippines, and Thailand introduced national events such as Science Technology Week, or Science, Technology, Engineering, and Mathematics (STEM) Week. The events are to heighten STI consciousness among the general public including young children, their parents and grandparents. One participant from Cambodia suggested that STI consciousness could be taught from very early age step-by -step. At home, school, and society, it can be taught what STI consciousness is, how to apply STI to the society, and how to improve STI knowledge and analytical skills. One participant from the Philippines also highlighted that it is possible to grow STI consciousness of young children without high technology and expensive equipment.

One representative from Thai Young Scientist Association (TYSA) mentioned how to design a program tailored for young and middle researcher’s levels. Such program needs to be more creative and effective for different academic disciplines and specialties than programs for students and children. It also needs to incorporate cultural differences and diversities among ASEAN member states and Japan, and cultivate STI consciousness within the context of each region and country.

(4) Recommendation for the future collaboration between ASEAN and Japan on this topic

Through the series of working group discussions, essential roles and skills of STI coordinators in ASEAN and Japan have been gradually and mutually recognized among the participants. Coordinator's key mission of "bridging and coordination among different sectors" and "pre-awards and post-awards" towards the overall goal of a research project is based on well-cultivated STI consciousness. The STI consciousness is inseparable with and rooted in STI "conscience" or morals, paying due respect for rich cultural diversity, academic diversity and person-to-person relationship among all stakeholders in the society. To do so, it is firstly needed to raise STI consciousness for every generation of researchers, students, STI coordinators, and community members.

It is recommended to jointly create and nurture STI talent pool to maintain a well-balanced STI ecosystem in between ASEAN and Japan. It is necessary to consider cultural diversities in each region and country and to tailor make an appropriate capacity development program for the young talents there. The mechanism should be creative to accommodate specialists and experts from different disciplines and organizations, so that they can collaborate in STI coordination.

Related to this, many participants are willing to work together and share good practices for improving STI consciousness and research ethics of all generation, including small children, students, researchers, and other stakeholders. There are various examples such as national STI events, creating a video clip for heightening STI consciousness, "Visualize Your Thesis" competition, pitch presentations to the general public.

4. Wrap-up and recommendation

Topic: Wrap-up meeting of the series of online working group discussion on “Science, Technology, and Innovation Coordinators in Japan and ASEAN towards Grand Challenges”

Date: March 10th, 2021

Participants:

- 20 participants (ASEAN 9 countries, and Japan)

Agenda

- Agenda 1: Basic roles and skills of STI coordinators in the STI eco-system between ASEAN and Japan: Balance factors of STI coordination
- Agenda 2: Framework for Creation & Nurture of STI talent pool
- Agenda 3: Conceptual map of the roles and skills of STI coordinators
- Agenda 4: Overview of plan of actions
- Agenda 5: How to tailor-make capacity development programs

(1) Basic roles and skills of STI coordinators in the STI eco-system between ASEAN and Japan: Balance factors of STI coordination

After all of the series of working group discussions, we could list up basic roles and skills of STI coordinators between ASEAN and Japan. STI coordinator needs to balance four elements: (1) STI-driven Grand Challenges, (2) Grand Challenge-driven STI, (3) Economic growth-driven STI, and (4) Conscience-driven STI, in the eco-system, which can be described as follows (Fig.1).

(1) STI-driven Grand Challenges: The coordinator considers how STI can contribute to improving our diverse society as well as solving common challenges. This is often led by governmental or organizational “top-down” approaches on priority issues, aiming to promote innovation.

(2) Grand Challenge-driven STI: The coordinator reserves and enriches the diversity of STI, based on researchers’ academic interests and original, liberal ideas in multidisciplinary fields including humanities. This is to facilitate “bottom-up research” or “curiosity driven-research”.

(3) Economic growth-driven STI: The coordination is primarily driven by an incentive of economic growth or profits derived from STI activities. This can be called as “Utilitarian” and is often seen in industrial, business sectors rather than public academic sectors.

(4) Conscience-driven STI: The coordination of STI activities is mainly driven by a one’s moral sense of right and wrong for public interest and social responsibility rather than for one’s own profits and selfishness.

It is important that STI coordinators are able to diagnose the current condition and requirement of the research project, based on the four elements (1) to (4) above. In addition, we should take into account the fact that each research project could be influenced by current economic condition, STI policy and different cultures in participating countries. For example, in a developing country where economic growth is placed as one of the top priorities in order to catch up with developed countries, the STI coordinator would need to pay more attention to economic growth-driven STI. On the other hand, in a country where innovation has led to steady development of industry and private sector, the STI coordinator may gear the research projects toward conscience-driven STI. If an STI coordinator feels that the country needs all of the four aforementioned elements, he/she may contribute to the creation of equally allocated eco-system. Therefore, a good STI coordinator should be able to figure out the STI needs of the country and the specific research programs, and allocate appropriate weights/ratio of four elements to achieve the specific project objectives (see Fig. 1).

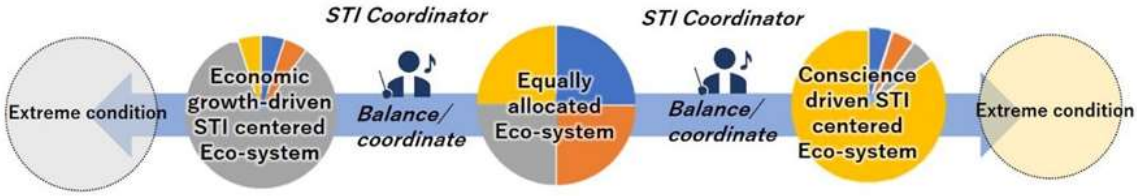


Fig. 1 Balance factors of STI coordination

Since pre-award stage when planning a project proposal, a skilled coordinator may set an ideal/optimal ratio of four elements for the certain project, considering the project objectives to achieve at the end. During the post-award stage, STI coordinator shall compare the current status of the project, with the initial/ideal status, in order to achieve the overall goals. To this end, we still need to develop a methodology how to measure four elements and evaluate their good balance; e.g., check list or form to monitor the overall status and elemental ratio of the project.

(2) Framework for Creation & Nurture of STI talent pool

Following the 5th working group discussion, Dr. Fidero Kuok from National Institute of Science, Technology and Innovation at Ministry of Industry, Science, Technology and Innovation of Cambodia illustrated that the framework to create and nurture of STI talent pool would consist of three components, Professional Development, Deployment, and Network, intertwining with each other (Fig. 2). In harmony with the trilateral interplay of the three components, this STI talent pool can perform effectively and cooperatively towards the common goal. One's passion and sense of purpose is pivotal, while senior staff should offer mentoring and coaching to their junior STI talents. First stage involves the Professional Development where the focus should be concentrated on introducing the challenging task, peer assistance and mentoring & coaching for junior staff. Second stage, senior staff should seek understanding on junior's passion and introduce the sense of

purpose and multi-disciplines engagement. Final stage is networking where well-trained junior staffs could have the opportunity to be connected to expert, resources, and research/development program.

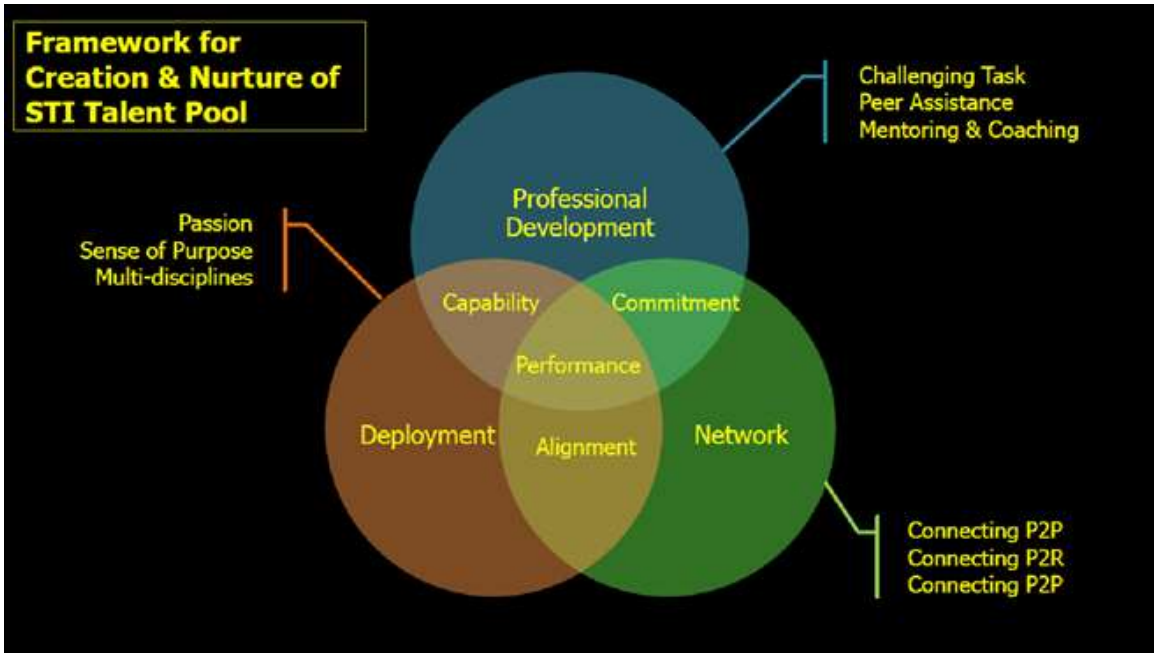


Fig. 2 Framework for Creation & Nurture of STI Talent Pool

(3) Conceptual map of the roles and skills of STI coordinators

The performance of STI coordinators for “bridging and coordination among different sectors” and “pre-awards and post-awards” towards the overall goal of a research project depends on STI talent pools such as economic growth-driven STI or conscience-driven STI.

In an economic growth-driven case, research projects are coordinated to increase one’s profit like as is often the case of business and private sectors. The project members, regardless of their background, are required to work for economic growth and profits, rather than for other objectives. Resources (human resources, money, and time) for the research project tend to be selective and focuses on the short-term tangible results and profits. On the other hand, a conscience-driven STI coordination guides research projects from one’s moral sense of right and wrong for public interest and social responsibility rather than for one’s own profits and selfishness. It is also desirable to pay due respect for rich cultural diversity, academic diversity, and person-to-person firm relationships among all stakeholders in the society.

While it would be ideal for many projects to shift toward a conscience-driven approach from economic-growth-driven one, in reality, both coordinating approaches and mixed approaches coexist, due to differences in national and regional economic conditions, science and technology policies, cultures, and academic fields. Therefore, it is important that STI coordinators from different

organizations, countries, and regions exchange information and learn from each other, in order to develop tailor-made STI coordination, which is most suitable for the project in between ASEAN and Japan.

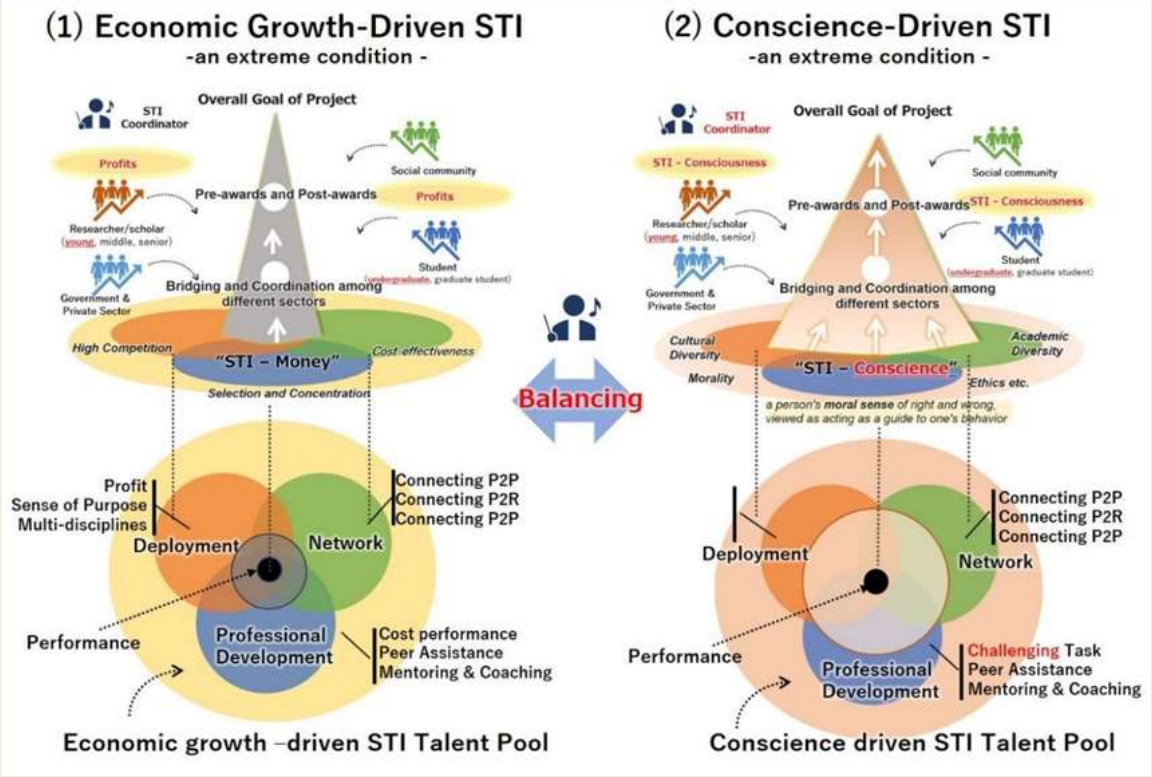


Fig. 3 Conceptual map of the role and skills of STI coordinators

(4) Overview of plan of actions

An overview of plan of actions from 2021 to 2026 was briefly shown at the meeting. Based on the concept note endorsed by ASEAN COSTI in August 2020, an integrated summary will be reported to the INORMS (The World Congress of the International Network of Research Management Societies) 2021 Hiroshima, ASEAN COSTI, and Mission of Japan to ASEAN. Participants in this working group discussions expected to share our report with colleagues around and generate awareness of STI coordinators further in ASEAN. The participants also anticipate that by 2023, as part of the celebration of the 50th Anniversary of the establishment of diplomatic relations between ASEAN and Japan, we could make steady progress in nurturing more STI coordinators in ASEAN and Japan towards grand challenges.

(5) How to tailor-make capacity development programs

Tailor-made capacity development programs targeted for STI coordinators can be implemented through (1) generating awareness of STI coordinators among various stakeholders,

(2) mapping and sharing available resources, platforms and networks, (3) partnership grant and seed funding programs, (4) training programs, and (5) STI coordinator awards, as follows.

(1) Generating awareness of STI coordinators among various stakeholders:

Since August 2020, our 7 webinars on STI coordinators have attracted about 400 registrants from about 15 countries (including all ASEAN states) in total. Apparently, they raised awareness of human capacity development for STI coordination to a greater extent among STI communities in ASEAN. It is important for us to continuously visualize STI coordination skills, with more engagement with various stakeholders including academia, industry, government, and local communities. Majority of the webinar participants have become eager to share related knowledge and practice and to participate in practical events for STI coordination. They have requested that Kyoto University should organize more online seminars or workshops designed to train STI coordination skills in developing a research project, writing a proposal, and translating technical knowledge to target audience effectively. Upon their request, Kyoto University is planning a JASTIP symposium 2021 designed for more STI coordinators, researchers and various stakeholders. The symposium will be held in conjunction with JASTIP_Net, which is seed funding program to launch new international projects.

It is also proposed that joint publication or academic paper at the relevant peer review journals for research management and administration will make emerging STI coordinators more creditable and visible. For example, University of Malaya welcomes articles on their Journal of Research Management & Governance (JRMG).

(2) Mapping and sharing available resources, platforms and networks:

Existing collaborative platforms and networks can be useful to promote capacity development and to share knowledge and other resources in STI coordination. This working group has already identified some available platforms such as Japan – ASEAN Science, Technology, and Innovation Platform (JASTIP), Field for Knowledge, Integration and Innovation (FKII), JICA-AUN/SEED-Net Program, USAID-ASEAN Science and Technology (S&T) Fellowship, Thailand Young Scientist Academy (TYSA) and International Network of Research Management Society (INORMS), ARMS Singapore Chapter etc. It is crucial for a STI coordinator to map and access such a platform around, which would cultivate her/his coordination skills further. Over the platform, s/he would meet fellow coordinators and foster inspiring and collaborative atmosphere. They would have a chance to learn practical lessons, mistakes, and solutions with each other. By doing so, building personal trust and friendship among coordinators is utmost important and they could fulfil their individual missions in an effective and synergetic manner.

(3) Partnership grant and seed funding programs:

Some participants have said it effective to set up a partnership grant or seed funding program targeted for early-career researchers or STI coordinators to initiate a new project. This would encourage young talents to foster creative open minds and practical skills for STI coordination. JASTIP has already implemented a partnership grant so called as JASTIP_Net among ASEAN and

Japan STI communities, which can be an exemplary grant program for future collaboration between ASEAN and Japan.

(4) Training programs:

Based on online survey received from participants of 5th online working group discussions in January 2021, following five items are high in demands for cultivating skilled STI coordinators 1) mentoring programs by senior-staff and researchers with a sense of passion and purpose, 2) online seminar or workshop designed for STI coordinators (e.g. proposal writing, IP management, and research ethics etc.), 3) On the Job Training (OJT) at Kyoto University Research Administration Office (KURA) in assisting the operation of online working group discussion, 4) short-term training camp to develop a joint research proposal, 5) short-term internship programs at a research administration/management office, and 6) Short-term internship programs at an embassy or international organization abroad.

(5) STI coordinator awards:

Awards for outstanding STI coordinators in ASEAN and Japan are said to be important to gain their international recognition and develop their professional career ahead. This would also further raise motivation and awareness of STI coordinators in ASEAN and mature their community in between ASEAN and Japan. It is yet underway to design the awarding scheme in details and needs to form a new working group to establish a suitable one for STI coordinators.

(6) Recommendation for the future collaboration between ASEAN and Japan

6-1 Some participants raise a challenging question how to measure and evaluate four elements (1) STI-driven Grand Challenges, (2) Grand Challenge-driven STI, (3) Economic growth-driven STI, and (4) Conscience-driven STI in coordinating a research project. In accordance to the methodology, it is suggested that we should draft and fill in a check list or form to monitor the current condition of the STI project.

6-2 It is recommended that we should jointly enrich STI talent pool to maintain a well-balanced STI ecosystem in between ASEAN and Japan. Considering cultural diversities in each region and country, we aim to tailor make an appropriate capacity development program for young talents from different backgrounds. The program scheme can be creative and flexible enough to accommodate specialists and experts from different disciplines and organizations.

6-3 It was pointed out that the conceptual map of roles and skills for STI coordinator (Fig.1 and Fig. 3) could illustrate two extreme conditions on economic growth-driven STI and conscience-driven STI. It is important that STI coordinators from different organizations, countries, and regions exchange information and learn with each other in order to preserve and monitor balanced academic diversity in between ASEAN and Japan.

6-4 All participants in this working group were encouraged to freely share our report of the discussion, then colleagues and stakeholders would learn more about STI in ASEAN. The participants also shared the anticipation of 50th Anniversary of the establishment of diplomatic relations between ASEAN and Japan in 2023 as a pivotal year for STI coordinators in ASEAN and Japan towards grand challenges.

6-5 Five means for tailor-made capacity development programs have been proposed: (1) generating awareness of STI coordinators in various stakeholders, (2) mapping and sharing available resources, platforms and networks, (3) partnership grant and seed funding programs, (4) training programs, and (5) STI coordinator awards. Together with colleagues in ASEAN, Kyoto University will plan JASTIP symposium 2021, which would involve more STI coordinators, researchers and various stakeholders, in conjunction to the JASTIP_Net as seed funding to launch new projects.

Science, Technology and Innovation Coordinators in Japan and ASEAN towards Grand Challenges

Taro Sonobe, Ph. D. (in Energy Technology, KMUTT, Thailand)

Research Administrator,
Kyoto University Research Administration Office (KURA)
Kyoto University, Japan

Outline:

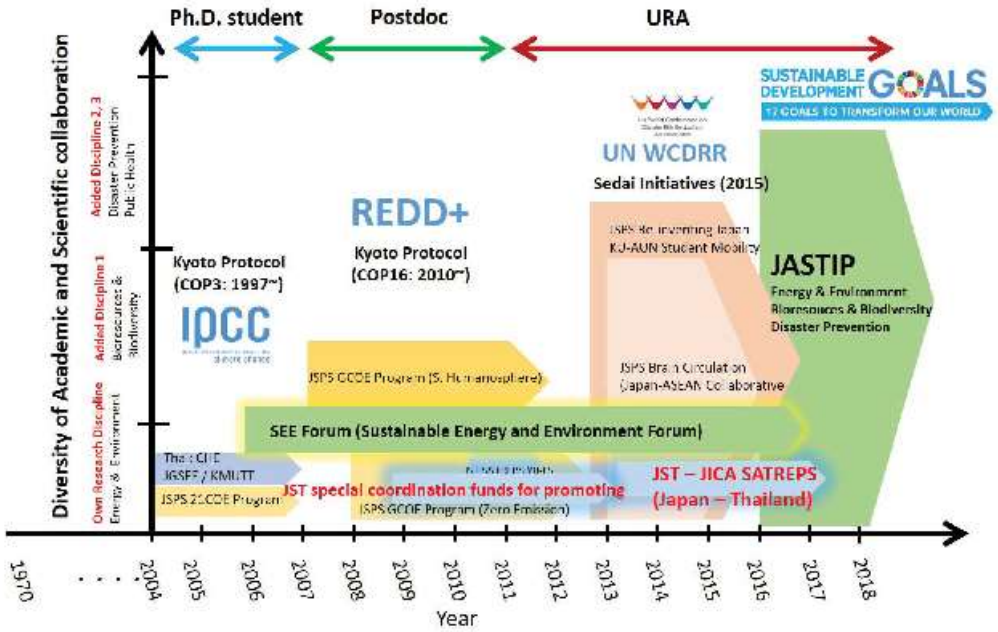
(1) **Background and objectives of the online meeting in between ASEAN and Japan (15mins)+ Q&A 5mins**

(2) **Sharing of research administration and research management systems in the world (15mins) + Q&A 5mins**

(3) **Sharing of finding from the questionnaire on the current status of STI coordinators in ASEAN and future prospects of ASEAN and Japan collaboration (15 mins) + Q&A 5mins**

(4) **Introduction of upcoming online meetings among working group members and wrap up (10mins) +Q&A 5mins**

Outline: - Taro Sonobe from researcher to URA



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(1) Background and objectives of the online meeting in between ASEAN and Japan

Point 1: Awareness of developing STI coordinators in ASEAN and Japan

- *What is the profession of STI coordinators?*
- *What is the differences between "Scientist and "STI coordinator" ?*
- *The profession of STI coordinators is attractive, challenging, and synergetic.*

Point 2: Necessary of tailor-made capacity building programs

- ***No need** for an advanced "one fits all" capacity building for ASEAN's diversity*
- ***Need**s for the capacity and cooperation to tailor the appropriate programs*

Point 3: Motivation for developing STI coordinators in ASEAN and Japan

- *Be better research development and research management in Japan and ASEAN*
- *Needs for the well-educated STI coordinators in ASEAN and Japan*

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Point1: Awareness of developing STI coordinators in ASEAN

*What is the profession of **STI coordinators**?*
STI Coordinators called as research administrator, Research managers, etc..

Pre-Award | **Post-Award**

Research Development
Grant information
Application Support
Project Management
Reporting
Public Engagement
Accounting
Compliance
IP Management
Security control

- **International Collaboration**
- **Industry-Academia Collaboration**
- **Science – policy dialogues**
- **Institutional Research**

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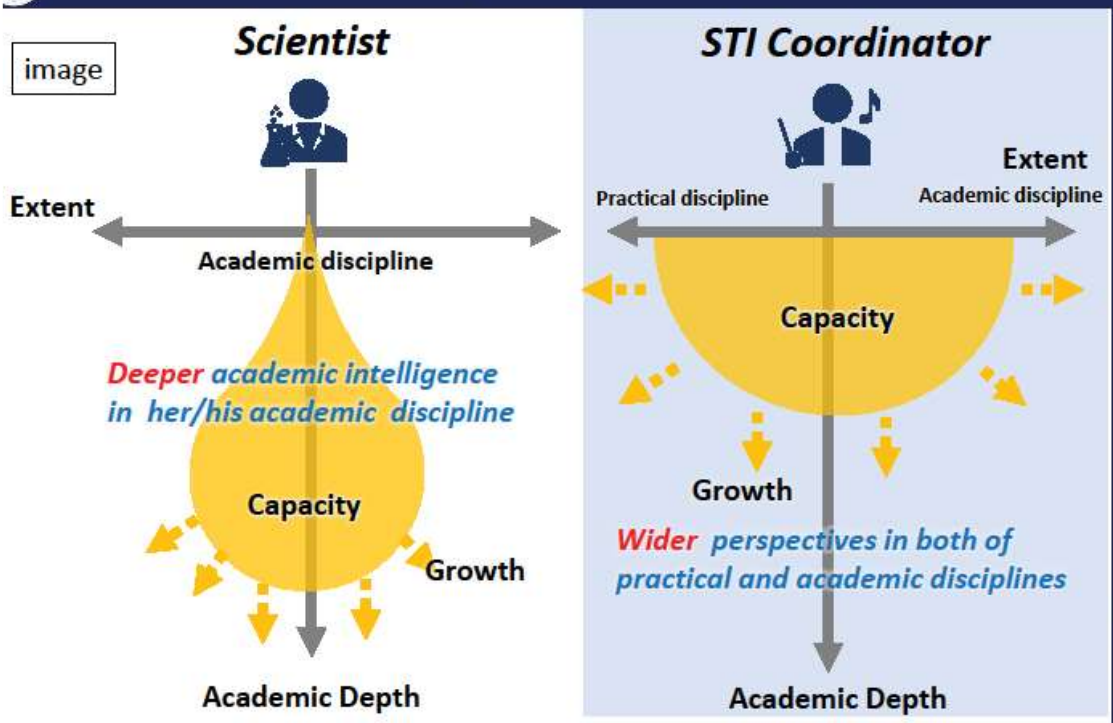
Point1: Awareness of developing STI coordinators in ASEAN

image



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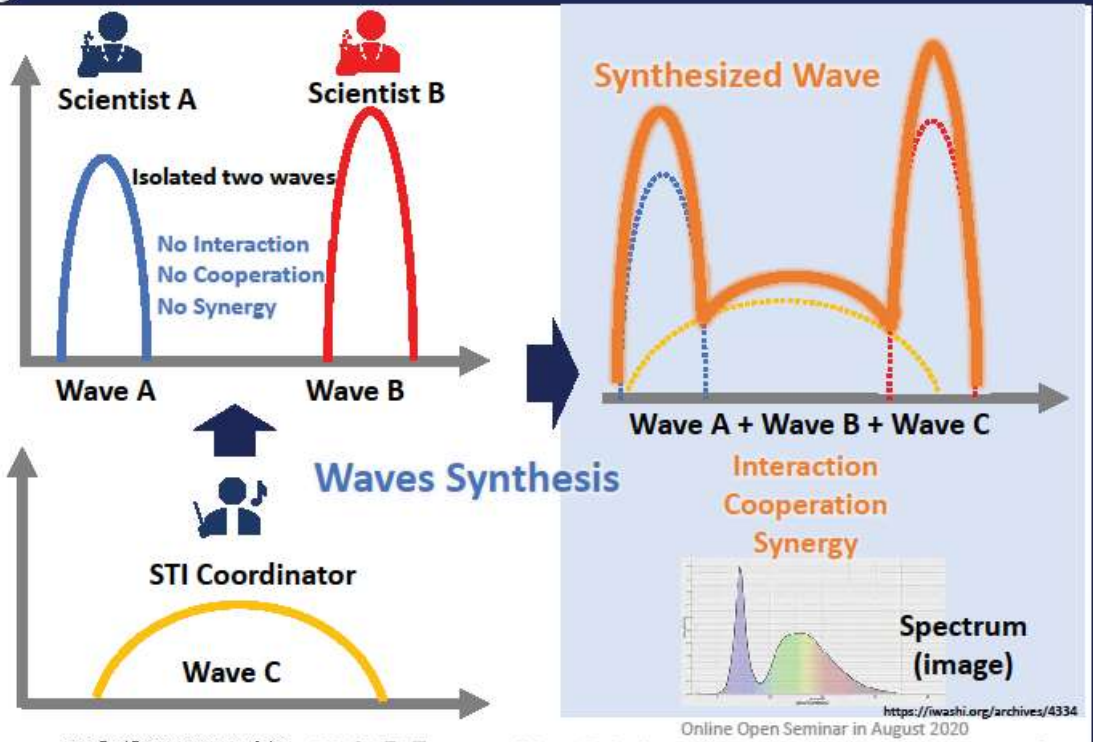
Point1: Awareness of developing STI coordinators in ASEAN



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Point 2: Necessary of tailor-made capacity building programs

Not our target

Imported from outside of ASEAN

ONE SIZE FITS ALL

Our target

Made in ASEAN for ASEAN

MADE TO MEASURE

Source: C++ Guidelines – Made-to-Measure vs One-Size-Fits-All
posted June 6, 2016 by "No Bugs" Hare, translated by Sergey Ignatchenko
http://ithare.com/cpp-guidelines-made-to-measure-s-one-size-fits-all/

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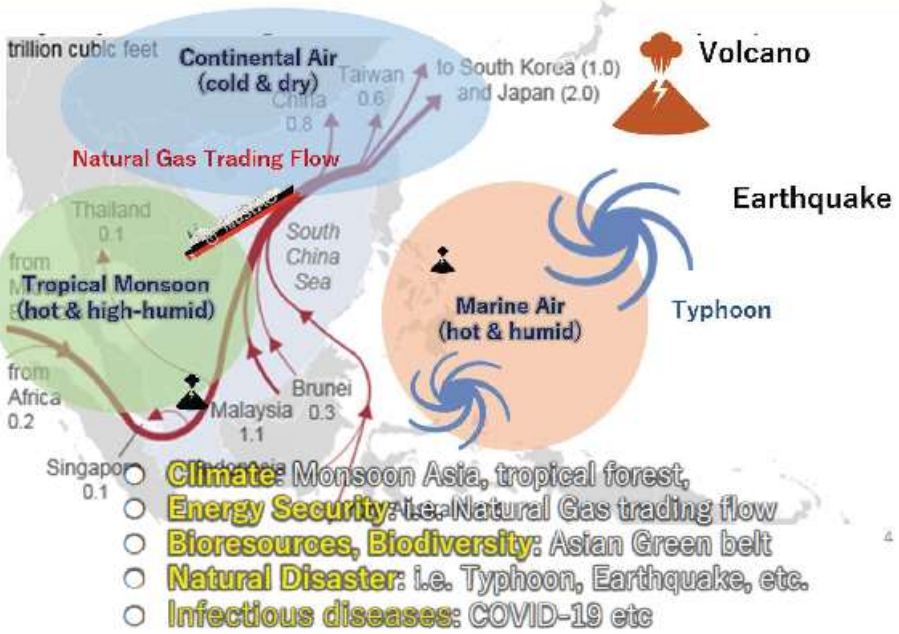
Point 3: Motivation for developing STI coordinators in ASEAN and Japan

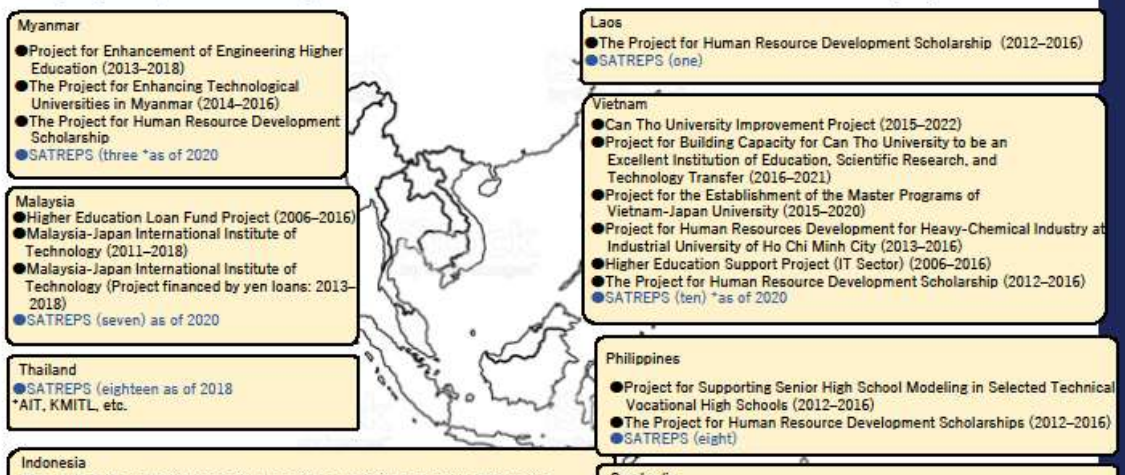


source: U.S. Energy Information Administration, based on IHS EDIN, *BP Statistical Review of World Energy 2017*, and Chinese import statistics from Global Trade Tracker

Point 3: Motivation for developing STI coordinators in ASEAN and Japan

Example: JST-JICA SATREPS:

66 projects; Over 30 Japanese Universities and Research Institutions play as P.I.



Myanmar
- Project for Enhancement of Engineering Higher Education (2013–2018)
- The Project for Enhancing Technological Universities in Myanmar (2014–2016)
- The Project for Human Resource Development Scholarship
- SATREPS (three *as of 2020

Malaysia
- Higher Education Loan Fund Project (2006–2016)
- Malaysia-Japan International Institute of Technology (2011–2018)
- Malaysia-Japan International Institute of Technology (Project financed by yen loans: 2013–2018)
- SATREPS (seven) as of 2020

Thailand
- SATREPS (eighteen as of 2018
*AIT, KMITL, etc.

Indonesia
- Project for the Establishment of Indonesia Accreditation Board for Engineering Education (IABEE) (2014–2019)
- Adviser for Higher Education (2014–2016)
- Technical Cooperation Project for the Development of the Engineering Faculty of the Hasanudin University (UNHAS), South Sulawesi (2007–2016)
- Project for Capacity Building in Engineering, Science and Technology (C-Best) at Hasanudin University in the Eastern Part of Indonesia (2015–2020)
- Development of World Class University at the University of Indonesia (2008–2018)
- Development Pro. of the Institute of Technology in Bandung (2009–2018)
- Professional Human Resource Development (2014–2020)
- SATREPS (eighteen) *as of 2018

Laos
- The Project for Human Resource Development Scholarship (2012–2016)
- SATREPS (one)

Vietnam
- Can Tho University Improvement Project (2015–2022)
- Project for Building Capacity for Can Tho University to be an Excellent Institution of Education, Scientific Research, and Technology Transfer (2016–2021)
- Project for the Establishment of the Master Programs of Vietnam-Japan University (2015–2020)
- Project for Human Resources Development for Heavy-Chemical Industry at Industrial University of Ho Chi Minh City (2013–2016)
- Higher Education Support Project (IT Sector) (2006–2016)
- The Project for Human Resource Development Scholarship (2012–2016)
- SATREPS (ten) *as of 2020

Philippines
- Project for Supporting Senior High School Modeling in Selected Technical Vocational High Schools (2012–2016)
- The Project for Human Resource Development Scholarships (2012–2016)
- SATREPS (eight)

Cambodia
- The Project for Human Resource Development Scholarships (2014–2018)
- SATREPS (two)

Ten Countries in the ASEAN Region
- ASEAN University Network/Southeast Asia Engineering Education Development Network (AUN/SEED-Net) Project Phase 3 (2013–2018)
- Japan-ASEAN Integration Fund (JAIF)

Japan – ASEAN Science, Technology, Innovation Platform (JASTIP)

- Establishing a platform for Japan-ASEAN collaboration of science, technology and innovation
- Promoting transdisciplinary research and enhancing talent mobility including non-academic stakeholders

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Point 3: Motivation for developing STI coordinators in ASEAN and Japan

Roundtable Discussion on "Shaping New Horizons for Japan-ASEAN Science and Technology Cooperation towards the UN SDGs" (16 Jan '18@Kyoto)

Participants

Representatives from
Kyoto University, National Science and Technology Agency (NSTDA) in Thailand, Indonesian Institute of Science (LIPI) in Indonesia, Malaysia-Japan International Institute of Technology (MJIIT) in Malaysia, and MEXT, Japan

New Agenda

- Ensuring the diversity of STI research activities for the SDGs, not only to promote applied researches also enrichment of curiosity-driven basic research.
- Endeavoring to pursue diverse approaches from theory to practice on the ground on STI cooperation.
- Expanding the coverage of regional collaboration.
- Educating the next generation of leaders to promote Japan-ASEAN science and technology cooperation towards the SDGs

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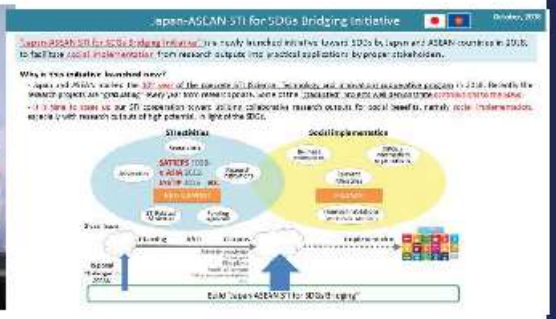
Point 3: Motivation for developing STI coordinators in ASEAN and Japan



11. We reaffirmed our commitment to strengthening cooperation in the area of science and technology and implementation of collaborative research, and welcomed the Japan-ASEAN Science, Technology and Innovation for Sustainable Development Goals (STI for SDGs) Bridging Initiative starting this year with the first multi-stakeholder forum to be held in Thailand in 2019. We also reaffirmed the importance of Intellectual Property (IP) as a vehicle for leveraging innovation in the Fourth Industrial Revolution, and encouraged further cooperation through the ASEAN-Japan Heads of IP Offices Meeting, including the development of patent examination

Point 3: Motivation for developing STI coordinators in ASEAN and Japan

ASEAN - Japan Economic Ministers' Joint Statement on Initiatives on Economic Resilience (22nd April 2020)

METI Ministry of Economy, Trade and Industry

I. Sustaining the close economic ties developed by ASEAN and Japan	II. Mitigating the adverse impact of COVID- 19 on the economy	III. Strengthening economic resilience
• Affirm that ASEAN-Japan worked very closely on various crises in the region • Overcome the economic challenges through continued and close collaboration	• Make utmost efforts to prevent stagnation of economic activities • Provide essential goo the global market. • Encourage the use of technology	• Realize resilient supply

Preparing an "ASEAN-Japan Economi

Explore concrete actions to accompl by mobilizing the collective wisdom c

ASEAN-JAPAN ECONOMIC RESILIENCE ACTION PLAN (July 29, 2020) (Around 50 projects)

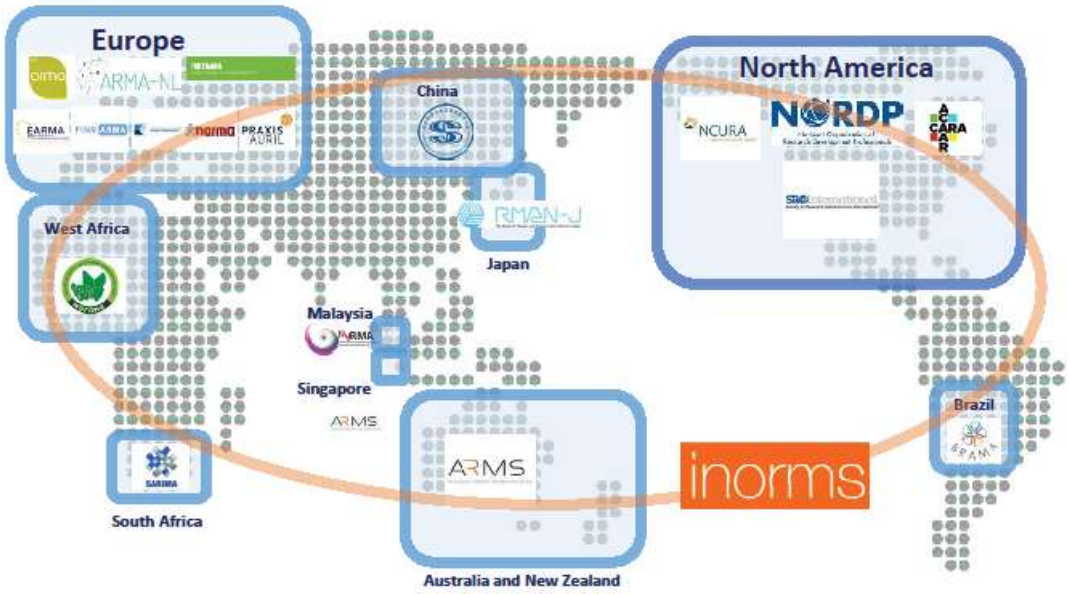
Three objectives in ASEAN Japan Economic Ministers' Joint Statement on Initiatives on Economic Resilience in Response to the Corona Virus Disease Outbreak

Ⅰ. Sustaining the close economic ties developed by ASEAN and Japan	Ⅱ. Mitigating the adverse impact of COVID-19 on the economy	Ⅲ. Strengthening economic resilience
i. Strengthen economic integration and cooperation - Signing of the RCEP in 2020 - Entry into force of the 1st Protocol to amend the AJCEP	i. Promote information exchange and sharing of best practices - Establish consultation support counters, holding webinars	i. Initiate programs to strengthen supply chain resilience in ASEAN Provide financial support program to diversify supply sources - Initiates new cooperative projects on HRD for vehicle related software - Capacity building for a lean and efficient factory management with IoT tech
ii. Refrain from imposing NTM - Simplification and streamlining of NTM (e.g. develop NTM tool kit) - Disseminate information on MRAs through JETRO workshops	ii. Facilitate the smooth flow of essential products - Provide policy recommendations by ERIA - Strengthen political momentum to ensure the continued flow of trade	ii. Formulate a cooperative framework - Enhance public-private sector engagement through the Dialogue
iii Provide capacity-building - Dispatch experts, inviting trainees, hold online training and seminars	iii. Enhance support for business - Provide financial support (e.g. JBIC) and insurance programs(e.g. NEXI)	iii. Facilitate interactions of relevant stakeholders - Launch ASIA Regional Transformation projects (ARX)
iv. Promote trade facilitation - Conduct AMEICC's survey to support the Regional Digital Trade Transformation in ASEAN in coordination with ASEAN-BAC	iv. Promote pioneer businesses with digital technologies - Provide financial support program for strengthening Asia digital transformation - Launch the DX Platforms in AMSs - Hold the ASEAN-Japan 4IR Dialogue	iv. Explore public-private collaboration in strategic sectors - Provide HRD for sustainable energy development - Promote smart cities projects - Facilitate implementation of health-tech

https://www.meti.go.jp/english/press/2020/0729_001.html

(2) Sharing of research administration and research management systems in the world

Maps of Research Administration and Research Management Societies



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(2) Sharing of research administration and research management systems in the world

Case 1: USA (over 60 years history in research administration)

NCURA, founded in 1959, is an organisation of over 7,000 individuals with professional interests in the administration of sponsored programs at colleges, universities, teaching hospitals and independent not for profit research institutes. NCURA's core mission is education and it does this by providing over 40 programmes each year with its training workshops, national conferences, television broadcasts, and on-line tutorials. In addition, NCURA has a robust website that includes virtual communities, designed by topic area, where colleagues may find the latest information and ask questions or provide information to each other.

https://www.ncura.edu/default.aspx

SRAI, (founded in 1967) is a non-profit association dedicated to the education and the professional development of research administrators, as well as the enhancement of public understanding of the importance of research and its administration. The Society's mission reflects the following purposes: The education of research administrators, professionals in related fields, and the public through the exchange of information, individual contacts, professional presentations, formal and informal meetings and publications and the improvement of communications among researchers, host institutions and organizations, the sponsors of research administrators, and the general public.

https://www.srainternational.org/home

Source: https://inorms.net/

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(2) Sharing of research administration and research management systems in the world

Case 1: USA

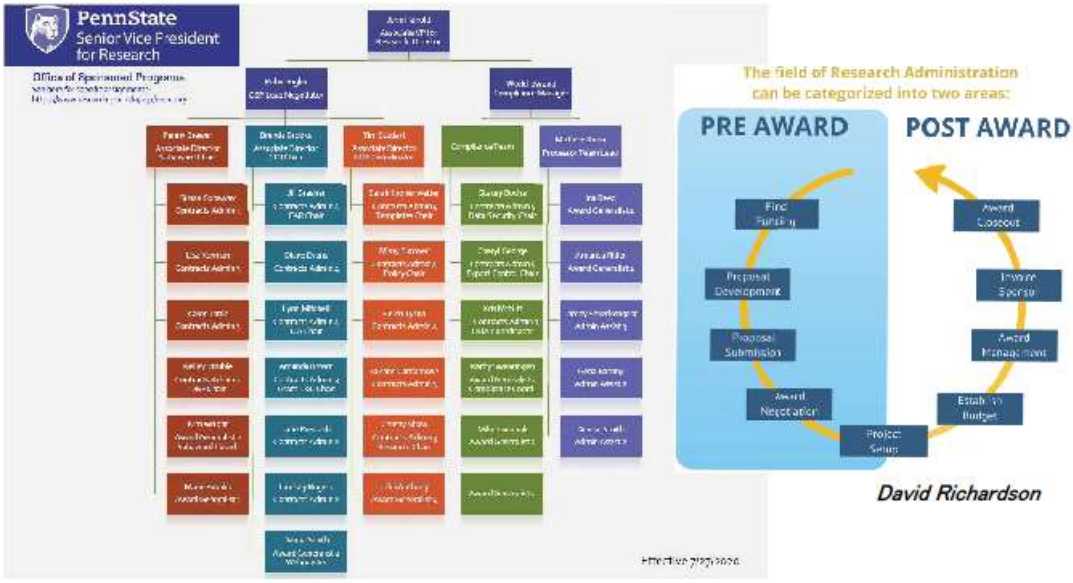
NORDP was established in 2010 as part of a grassroots movement to build a community of Research Development (RD) professionals driven to enhance the research enterprise. Research Development encompasses a set of strategic, catalytic, and capacity-building activities that advance research, especially in higher education. RD professionals build capacity within their institutions thru services and resources that transcend disciplinary, administrative, and institutional barriers and create programs to spur discovery and knowledge creation. RD professionals help researchers and their institutions become more successful planners, communicators, grant writers, and advocates. NORDP supports RD professionals. Over 10 years, NORDP has grown from an informal network and is almost 1000 members strong, representing a diverse set of over 400 universities, independent research institutes, academic medical centers, hospitals, and similar institutions, and including RD professionals from all US states and multiple countries around the globe.tutions and organizations, the sponsors of research administrators, and the general public.

https://www.nordp.org/

Source: https://inorms.net/

(2) Sharing of research administration and research management systems in the world

Example, Penn State https://www.research.psu.edu/OSP



(2) Sharing of research administration and research management systems in the world

Case 2: Europe (UK)

ARMA, formed in 1991, is the professional association for research managers and administrators in the UK, and currently has around 2,700 individual members. The majority of ARMA's members are from UK universities, but the association also includes members from hospitals, research institutes and funders, from the UK and other countries in Europe and Africa.

https://arma.ac.uk/

PraxisAuril was formed in 2010 by merging the Praxis and Unico organisations to become the UK's leading Tech and Knowledge Transfer organisation. PraxisAuril is an educational not-for-profit organisation set up to support innovation and commercialisation of public sector and charity research for social and economic impact.

It encourages innovation and acts as a voice for the research commercialisation profession, facilitating the interaction between the public sector research base, business and government. PraxisAuril provides a forum for best practice exchange, underpinned by first-class training and development programmes.

Source: https://inorms.net/

(2) Sharing of research administration and research management systems in the world

Case 2: Univ. of Oxford, Univ. of Bristol, UK

https://researchsupport.admin.ox.ac.uk/about#collapse391711

University of BRISTOL Research and Enterprise Development

http://www.bristol.ac.uk/red/

(2) Sharing of research administration and research management systems in the world

Case 2: Europe (EU)

EARMA was formed in 1994 and represents the community of Research Managers and Administrators (RM&As) in Europe. EARMA members work in industry, academia, the public and private sectors. We work with the EU Commission, national and international funding agencies. EARMA provides a networking forum, a learning platform, and a place to share experiences and best practice among RM&As throughout EARMA and in the wider RM&A community.

https://www.earma.org/

The Dutch Association for professionals working in the support and advice on European and (inter-)national externally financed research, innovation and education projects. Our mission is to support the professionalization of our members by offering a platform for exchange of expertise, knowledge and experiences and to provide an overview of training opportunities and courses.

https://www.armanl.nl/web/

Source: https://inorms.net/

(2) Sharing of research administration and research management systems in the world

Case 2: Europe (EU)

The network FORTRAMA is an affiliation of professionals working in the fields of research and innovation management at German universities and other German research institutions. The network was founded in 2003, turned into an association 2018 and aims at (1) making available expertise on research management , (2) promoting the professionalization process of research managers , (3) organizing the exchange of experience , (4) intensifying the networking of colleagues. https://www.fortrama.net/ueber-uns/ueber-uns-english/

Finn-ARMA, the Finnish Association of Research Managers and Administrators was founded in 2012 as a network of Finnish universities' research services. Research services support universities' research activities and include services e.g. in research funding, legal and contractual matters, innovation and entrepreneurship and research administration.

http://www.finn-arma.fi/page/english

NARMA was established in 2013 by the Norwegian Association of Higher Education Institutions (UHR). is an arena for professional development, mutual learning and increased inter- national participation of research administration and funding support in Norway. NARMA has approximately 700 individual members, of which 39 higher education institutions are members of UHR.

https://narma.no/

Source: https://inorms.net/

(2) Sharing of research administration and research management systems in the world

Case 3: Australia and New Zealand and Singapore

The Australasian Research Management Society (ARMS) is the professional society for research managers and administrators working throughout Australasia and Singapore.

Since its founding in 1999, the ARMS network has grown to involve more than 2700 members from universities, research agencies and institutes, medical research institutes, R&D corporations, research centres, government departments, funding bodies, industrial R&D teams, service providers, commercialisation bodies and consultancies.

https://www.researchmanagement.org.au/

Source: https://inorms.net/

(2) Sharing of research administration and research management systems in the world

Case 4: Africa

SARIMA, formed in 2002, is a membership organisation of Research and Innovation Managers that operates at an institutional, national and international level, as well as across the value chain, from research through to successful innovation (commercialization). The purpose of the association is to promote research and innovation management for the benefit of southern Africa

https://www.sarima.co.za/

WARIMA was formed in 2007 and has members from across West Africa

Source: https://inorms.net/

(2) Sharing of research administration and research management systems in the world

Case 4: Asia

The Chinese Association for Science of Science and Science &Technology Policy (CASSSP) is a public academic organization and juridical association of scholars engaged in science and technology policy studies in China, a component of the China Association for Science and Technology (CAST). Established on June 9, 1982, CASSSP joined CAST in 1985 and ranks as the top class association in China. CASSSP has a big group of outstanding scholars and experts in the domain of science of science, science management, science and technology policy. The scholars, experts and practitioners have organized activities to develop the Chinese science, technology policy and administration, and promote the scientific and democratic decision-making.

http://english.cast.org.cn/

RMAN-J

RMAN-J is Japan's only nation-wide professional association for those engaged in research management and administration. It aims to promote science, technology, and future innovation from Japan through the enhancement of research capabilities of Japanese universities and research institutes. Since its inception in 2015, RMAN-J has provided networking, dialogue, and training opportunities for research managers and administrators in Japan.

http://www.rman.jp/en/

Source: https://inorms.net/

(2) Sharing of research administration and research management systems in the world

Case 4: Asia

ARMS

Singapore Chapter

Ever since its official launch on 11 March 2013, the Singapore Chapter of ARMS strives hard to provide professional development and networking opportunities to fellow research administrators in Singapore through a series of events and activities including Research Administration Conference, ARMS Accreditation Module delivery, Chapter Members get-togethers, etc. The ARMS Conference 2015 was held in Singapore from 29 September to 2 October 2015.

https://www.researchmanagement.org.au/regional-interest-group/singapore

MyRMA

MyRMA is a national-level association and is open to individuals and organizations interested in or supporting research management objectives, including organizations engaged in research such as Institutions of Higher Education (Public and Private), Institutions and research agencies, and Funders.

The formation of MyRMA signifies our readiness to enhance management and administration of the Malaysian research ecosystem at a professional level, on par with international practices.

MyRMA aims to be a platform for research managers/administrators from the public, private, academic, and research agencies, as well as donors, to interact, exchange ideas, conduct collaborative activities. This is expected to contribute towards enhancing the effectiveness of research management and the quality of the research itself, as well as the return on investment.

http://myrma.org/

(2) Sharing of research administration and research management systems in the world

Signs of "STI Coordinators" in ASEAN

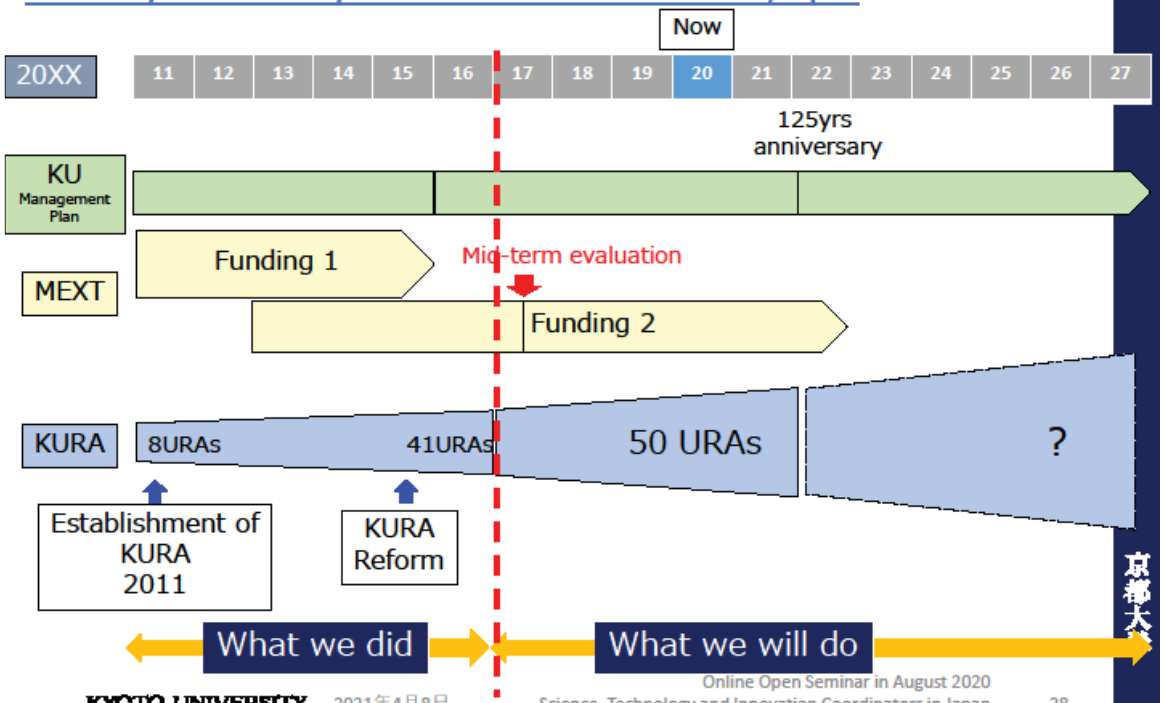
ASEAN Science and Technology Fellowship

- Focused on empowering early-and mid- career scientists and researchers to support evidence-based culture in the ASEAN region.
- Representing member country bridge local issues, priority research areas and policies during their one-year fellowship placement.
- The fellows are exposed to the coordination with governmental officers, overseas researchers and private sectors. Equipped with communication and leadership training, they become leaders with rich practical experience in research coordination.
- The fellows and the alumni come from a different background, but they form a friendly and integrated community.

https://www.aseanfoundation.org/asean_science_and_technology_fellowship

(2) Sharing of research administration and research management systems in the world

Case 4: Kyoto University Research Administration Office, Japan



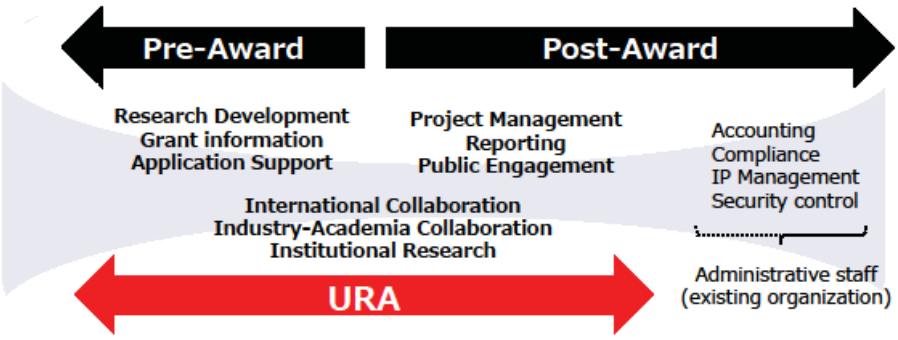
(2) Sharing of research administration and research management systems in the world

Case 4: Kyoto University Research Administration Office, Japan

(2) Sharing of research administration and research management systems in the world

Case 4: Kyoto University Research Administration Office, Japan

General role of URA

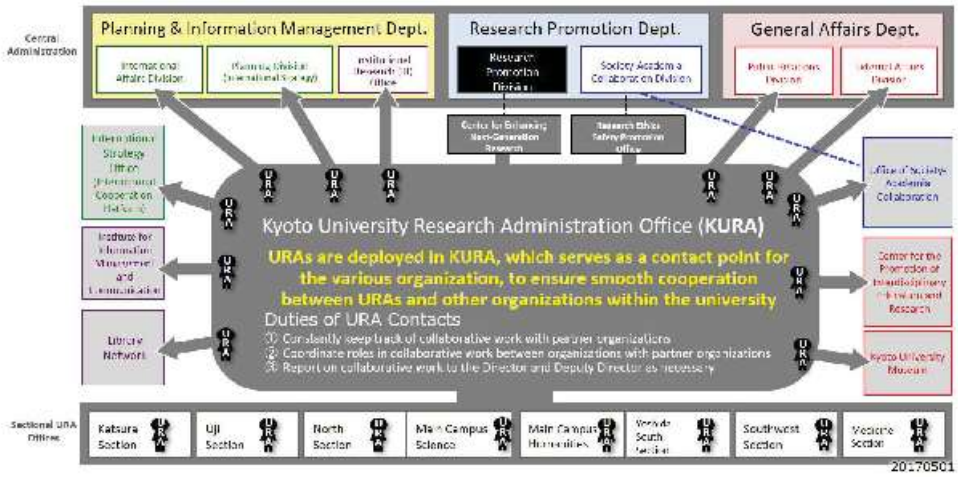


(2) Sharing of research administration and research management systems in the world

Case 4: Kyoto University Research Administration Office, Japan

Collaboration Between URAs and Organizations Within the University

At Kyoto University, there are a lot of research support organizations. However, coordination between these organizations has not always been sufficient. Therefore, the **Kyoto University Research Administration Office (KURA) was established as a hub for all research support organizations at the university**. As a result, through more efficient and effective research support, improvements to the research environment were made possible.



(3)Sharing of finding from the questionnaire on the current status of STI coordinators in ASEAN and future prospects of ASEAN and Japan collaboration

Quick Self-Assessment on the status of development of STI Coordinators in the ASEAN Region

- **Conducted** by Kyoto University Research Administration Office (KURA) with advice of ASEAN foundation from October 2019 to February 2020
- **The objective** is to **self-evaluate current status of research administration and required knowledge and skills** as Science, Technology and Innovation (STI) coordinators* in the ASEAN region.

ASEAN FOUNDATION

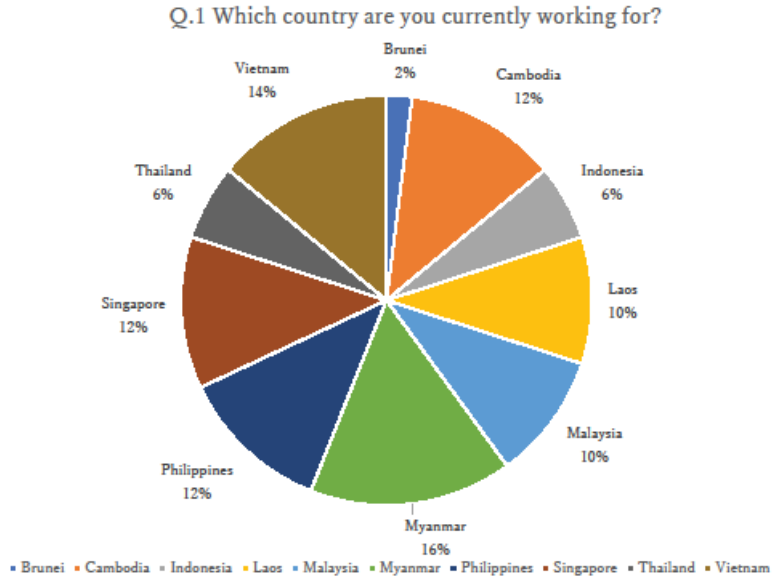
ASSOCIATION OF SOUTHEAST ASIAN NATIONS

ASEAN University Network

ASEAN ST Fellows | ASEAN COSTI | ASEAN University Network

(3)Sharing of finding from the questionnaire on the current status of STI coordinators in ASEAN and future prospects of ASEAN and Japan collaboration

Answer: about 60 answers from 50 institutions from 10 ASEAN Countries



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(3)Sharing of finding from the questionnaire on the current status of STI coordinators in ASEAN and future prospects of ASEAN and Japan collaboration

Key findings from the questionnaire:

(1) Most notably, about **70 percent** of the participants are under **"researcher" positions,** and their coordination duties widely range from negotiation in foreign languages, ethics and compliance, accounting, management of equipment, handling of grant application forms and related information, STI policies, industry-academic collaboration, PR, security and team management.

(2) From the questions on current knowledge and skills that you (**or young talents in the organization**) have now, many pointed out the importance of essential skill set, **but capacity building opportunities to nurture more specialists at the organization level are not enough.**

(3) Additonally there are several voices to **form a collaborative network for transferring individual knowledge and experience, and to share common & diverse problems.**

(4) **5** common area of interests are identified*; A. Pre-award and Post-award, B. Bridging and coordination among different sectors, C. STI Policies and Management, D. Organization and Management, and D. Curriculum and Evaluation.*

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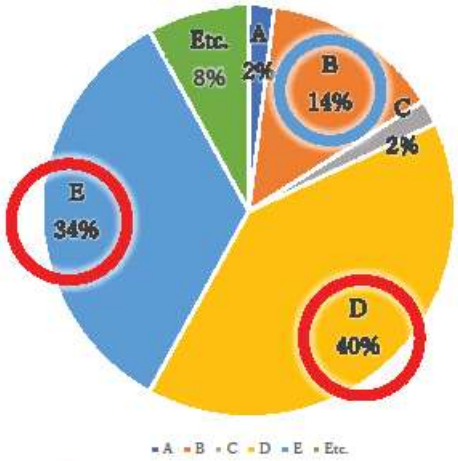
(3)Sharing of finding from the questionnaire on the current status of STI coordinators in ASEAN and future prospects of ASEAN and Japan collaboration

Q2. Which best describes your current position?



A: Multilingual technician or administrator that assists and facilitates international collaboration

B: Research administrator or research manager that operates the Pre-Award and/or Post-Award for international research project (preparing proposals, contracts and reports)

C: Specialist that strategically connects different sectors ranging from academia, ministries and private sectors in between ASEAN and Japan

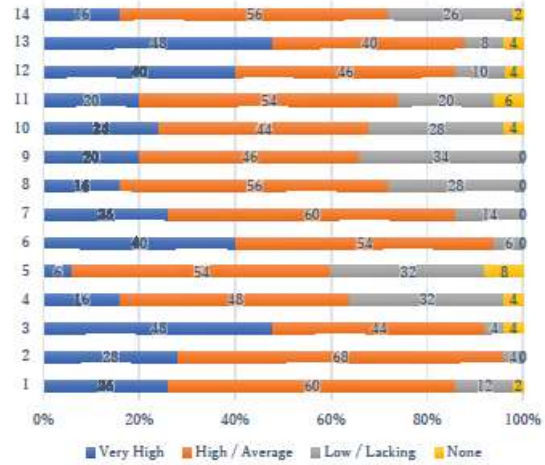
D: Professor or senior-researcher that has rich management experience in research, education or administrative activities abroad

E: Researcher that conducts academic research and educational activities at University or Research Institution

Etc_1. Senior researcher that conducts applied research based on the MSMEs ' needs and research manager for international research projects
Etc_2. Manage research policies and strategies
Etc_3. Researcher focused on local and international collaborations. Currently Specializing in Intellectual Property Rights Applications and Technology Transfer Activities (Technology Licensing, Events Organization, Creation of Information Dissemination materials, Collaborative Research Proposals)

(3)Sharing of finding from the questionnaire on the current status of STI coordinators in ASEAN and future prospects of ASEAN and Japan collaboration

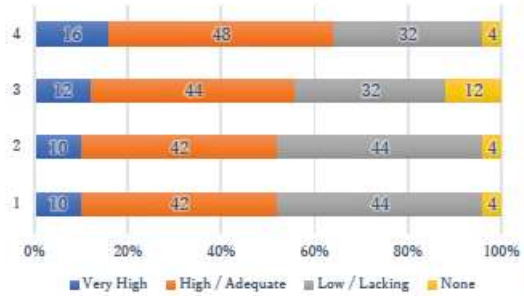
Q3. How much knowledge and skills do you think you have now?



[1. Command of foreign languages and understanding of different cultures]
[2. Interpersonal and negotiation skills to work closely with central and academic departments]
[3. Research ethics / compliance]
[4. Handling of various rules in accounting and procurement]
[5. Management of equipment, poisonous & deleterious substances, and knowledge of material transfer agreement]
[6. Practical skills of reviewing and submitting application forms and reports for research funding on time]
[7. Knowledge of funding systems and programs]
[8. Knowledge of STI policies]
[9. Facilitation skill of society-academia collaboration, intersectoral awareness, and handling of patents and IP]
[10. Promotion of public relations and outreach activities]
[11. Information retrieval, data literacy and analysis]
[12. Initiative to start a new research project]
[13. Organization and management skills of a research project and team]
[14. Risk / security management to solve unexpected challenges]

(3)Sharing of finding from the questionnaire on the current status of STI coordinators in ASEAN and future prospects of ASEAN and Japan collaboration

Q4: To what extent does your organization have professional young talents (30s-50s) to develop academic activities?



[4: Professor or senior researcher that has rich management experience in research, educational or administrative activities abroad]

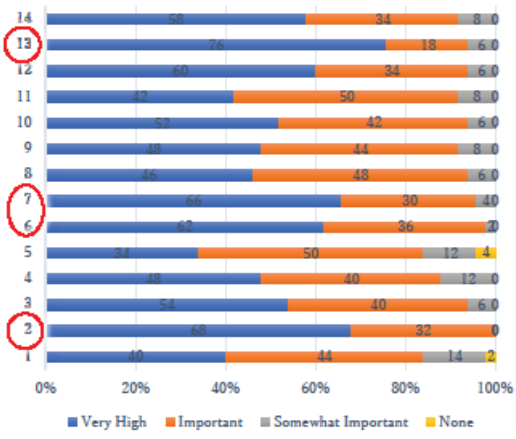
[3: Specialist that connects different sectors ranging from academia, ministries and private sectors in between ASEAN and Japan]

[2: **Research administrator** or **research manager** that operates the Pre-Award and/or Post-Award for international research project (preparing proposals, contracts and reports)]

[1: **Multilingual technic**ian or administrator that assists and facilitates international collaboration]

(3)Sharing of finding from the questionnaire on the current status of STI coordinators in ASEAN and future prospects of ASEAN and Japan collaboration

Q5. Which of the following knowledge and skills do you think is important to develop research administration in your organization?



[1. Command of foreign languages and understanding of different cultures]
[2. Interpersonal and negotiation skills to work closely with central and academic departments]
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[10. Promotion of public relations and outreach activities]
[11. Information retrieval, data literacy and analysis]
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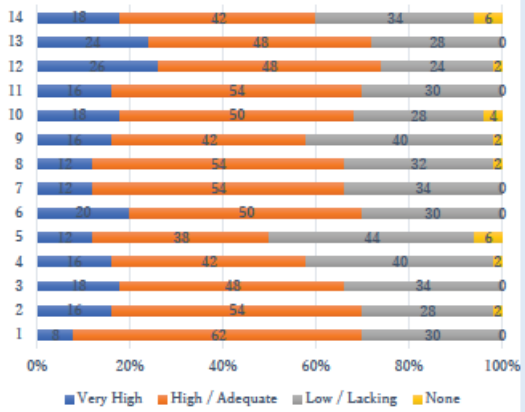
[13. Organization and management skills of a research project and team]
[14. Risk / security management to solve unexpected challenges]

(3)Sharing of finding from the questionnaire on the current status of STI coordinators in ASEAN and future prospects of ASEAN and Japan collaboration

Q6. Please rate your organization's overall knowledge and skills, based on the following categories?



[1. Command of foreign languages and understanding of different cultures]
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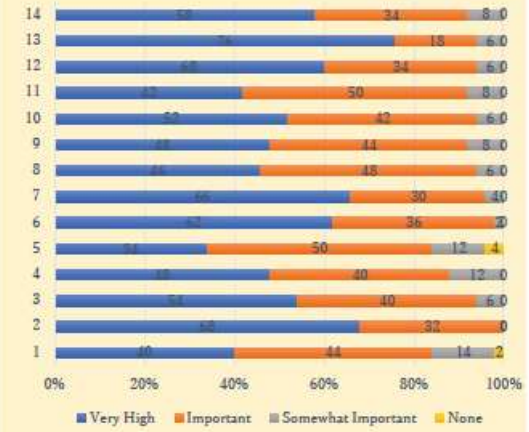
(3)Sharing of finding from the questionnaire on the current status of STI coordinators in ASEAN and future prospects of ASEAN and Japan collaboration

Expectation (or Target)

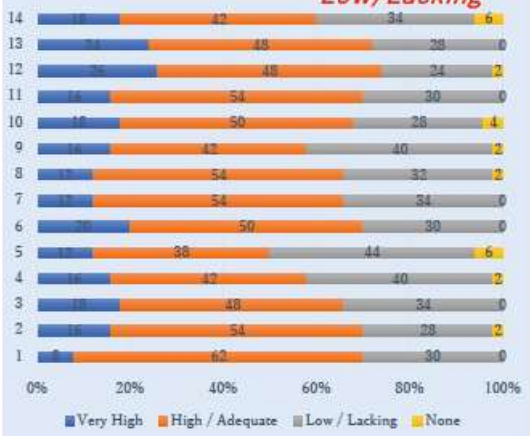
Q5. Which of the following knowledge and skills do you think is important to develop research administration in your organization?



Current Situation

Q6. Please rate your organization's overall knowledge and skills, based on the following categories?

Low/Lacking



From the questions on current knowledge and skills that you (**or young talents in the organization**) have now, many pointed out the importance of essential skill set, <u>but capacity building opportunities to nurture more specialists at the organization level are not enough.</u>

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(3)Sharing of finding from the questionnaire on the current status of STI coordinators in ASEAN and future prospects of ASEAN and Japan collaboration

Q7. Among the items you marked ◎ in the aforementioned Q3 and Q6, please concretely describe some actual good practice.

Individual capacity building and skillset

- international experiences to understand foreign languages and culture of working
- interpersonal and negotiation skills to work closely with central and academic departments
- communications with companies and sponsors
- management skills of a project and team
- evidence-base for policy formulation

Organization level

- hiring a dedicated research manager, passing the skillset to junior staff, then forming a specialized team of administrators or central office.
- mentoring activities to ensure efficient knowledge transfer and succession plan in university
- close collaboration with technology licensing office in patent and IP agreements
- recruitment of own research team based on the skills-complimentary base, ensuring the diversity of institutions and gender
- establishment of research ethics office, where representatives from non-academic people and other sectors are invited
- opening a co-working space for researchers from various departments

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(3)Sharing of finding from the questionnaire on the current status of STI coordinators in ASEAN and future prospects of ASEAN and Japan collaboration

Q8. What is the biggest challenge or problem in your role as STI coordinator?

- lack of quality and motivated human resources to promote STI in the university
- negotiation and facilitation with different stakeholders (e.g. university executives, department, researchers, funding agencies, ministries, and policy makers)
- allocation of time, budget and other resources. **Having no specific unit that focuses on international collaborations**, the activities are assigned per person by the head of the agency.

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(3)Sharing of finding from the questionnaire on the current status of STI coordinators in ASEAN and future prospects of ASEAN and Japan collaboration

Q9. Please share your ideas on how to enhance the coordination of STI in your organization, country, ASEAN region or international scale.

- participation in national, regional and international trainings and multinational projects.
- **common understanding of the scheme, goals and benefits, most particularly the rich ASEAN culture and social-economical aspects**
- **collaborative network for transferring technology, knowledge and experiences**
- improvement of work regulations to collaborate with different sectors and international funds
- **STI should be understood by top management/leader**
- **dedicated body to look over all STI related issues in the organization**
- **solving common problems in the region**
- compact stakeholder mapping
- establishment of funding agencies and call for international research for ASEAN
- independent institution on STI directly under the government, not inside or parallel to ministries

(3)Sharing of finding from the questionnaire on the current status of STI coordinators in ASEAN and future prospects of ASEAN and Japan collaboration

Common Areas of Interests

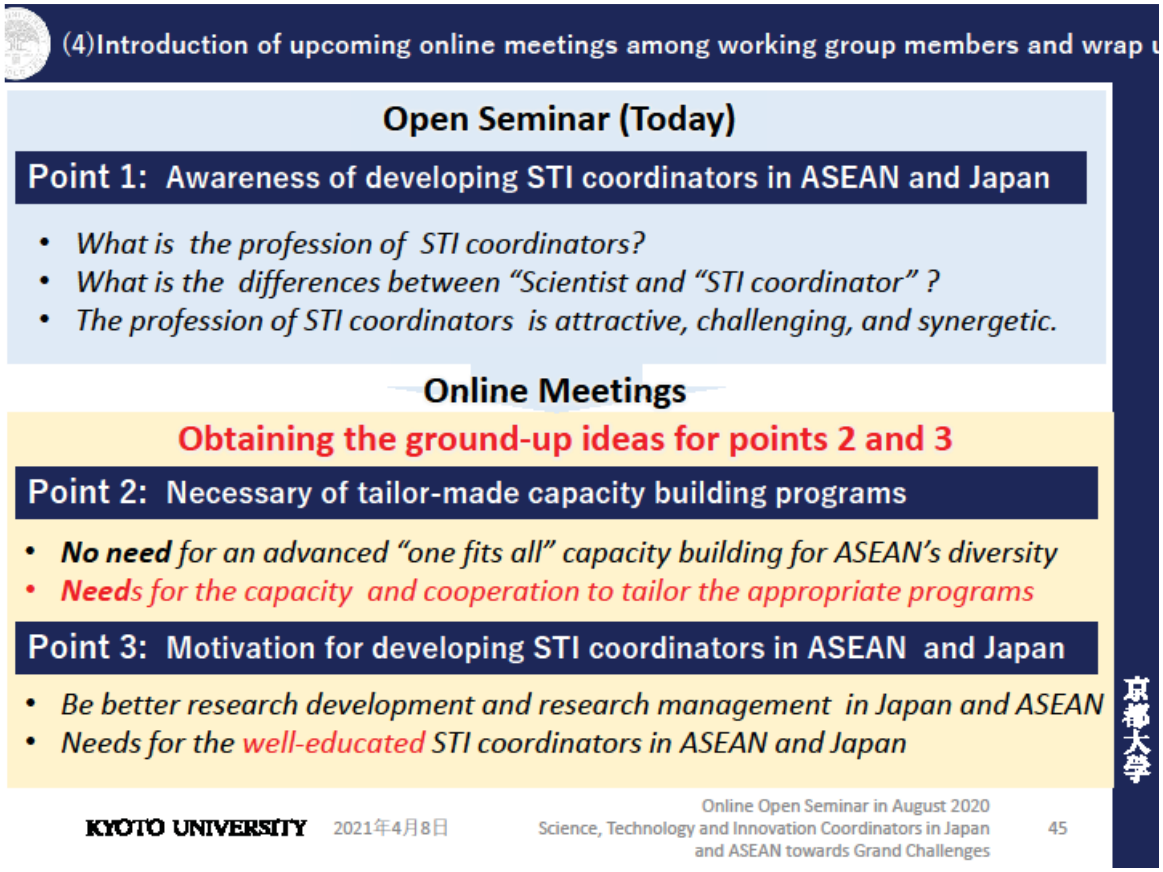
A. Pre-Awards and Post-Awards:
Which skills and roles would be essential when you are involved in applying for and launching a new international project?

B. Bridging and coordination among different sectors:
What are your useful tips or skills to lead negotiation and to set the same objectives, among different stakeholders?

C. STI Policies and Management:
How do you integrate the demands of developing more skilled STI coordinators and managers into formulating evidence-based policies and agenda?

D. Organization and Management:
Please share your experience when you hired a STI coordinator-to-be, trained her/him into a professional, and then developed a bigger management office. How would you allocate the limited time, budget and resource, especially if the STI coordinator has several duties in teaching, research, administration and management, or if there are too few coordinators to handle piles of work?

E. Curriculum and Evaluation:
Please concisely summarize the current status and the prospect of nurturing STI coordinators in your country. Does the system monitor/evaluate whether their professional knowledge has been properly transferred to the young talents in your institution / nation / region ?


(4)Introduction of upcoming online meetings among working group members and wrap u
Open Seminar (Today)
Point 1: Awareness of developing STI coordinators in ASEAN and Japan
What is the profession of STI coordinators?
What is the differences between "Scientist and "STI coordinator" ?
The profession of STI coordinators is attractive, challenging, and synergetic.
Online Meetings
Obtaining the ground-up ideas for points 2 and 3
Point 2: Necessary of tailor-made capacity building programs
No need for an advanced "one fits all" capacity building for ASEAN's diversity
Needs for the capacity and cooperation to tailor the appropriate programs
Point 3: Motivation for developing STI coordinators in ASEAN and Japan
Be better research development and research management in Japan and ASEAN
Needs for the well-educated STI coordinators in ASEAN and Japan
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Online Open Seminar in August 2020
Science, Technology and Innovation Coordinators in Japan
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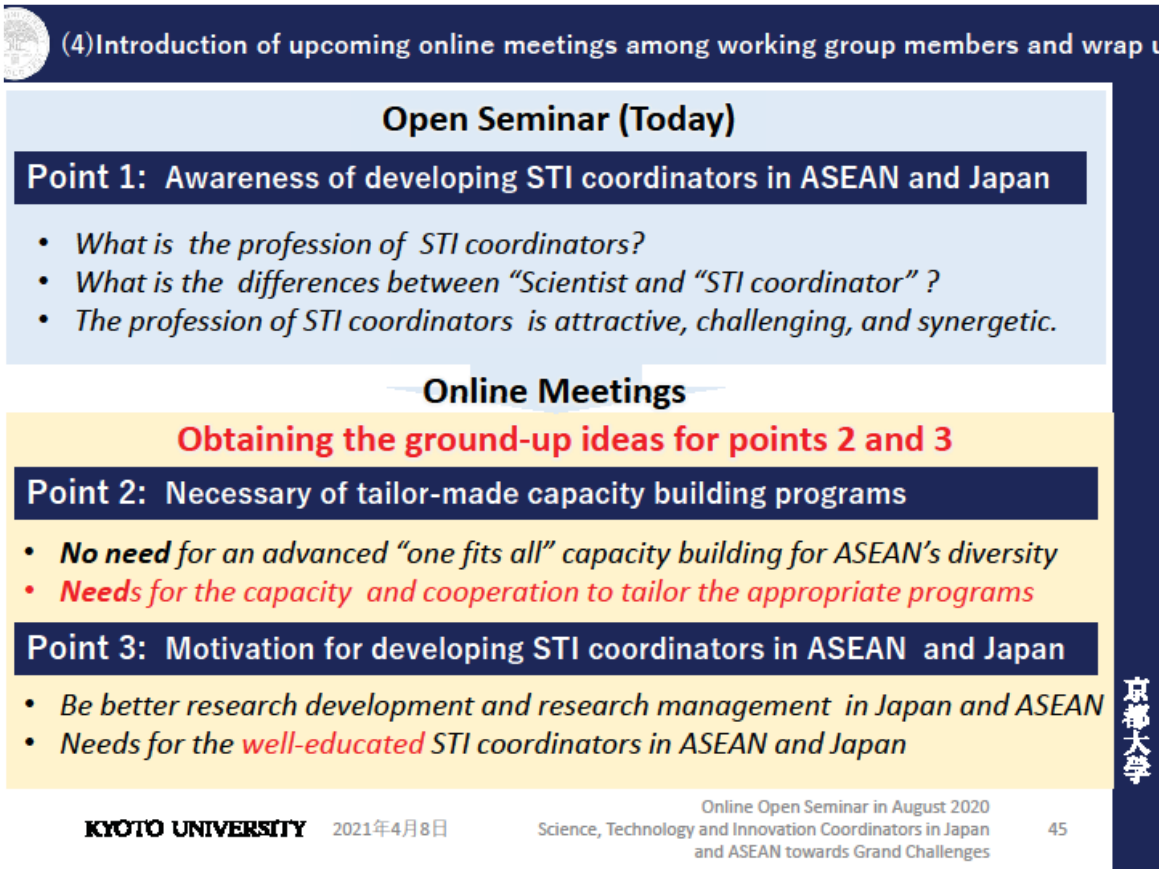
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(4)Introduction of upcoming online meetings among working group members and wrap u

Common Areas of Interests

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(4)Introduction of upcoming online meetings among working group members and wrap u

June – July 2020	Preparation among Organizers KURA, JASTIP, ASEAN Foundation, ASEAN Secretariat
August 2020	Open Seminar: Online Webinar (90 min) • Sharing of research administration and research management systems in the world – US, EU, Japan, ASEAN, Australia • Sharing of finding from questionnaire Target audience: ASEAN COSTI, ASEAN S&T fellows
September 2020	1st Meeting (60 min) • Topic to be determined
October 2020	2nd Meeting (60 min) • Topic to be determined
November 2020	3rd meeting (60 min) • Topic: STI collaboration and international cooperation by a guest speaker from JICA, Japan
December 2020	4th meeting (60 min) • Topic: STI collaboration and international cooperation by a guest speaker from MOFA (Ministry of Foreign Affairs), Japan
January 2021	5th meeting (60 min) • Topic: STI collaboration and international cooperation by a guest speaker from ASEAN
February 2021	6th meeting (60 min): Wrap up
March – April 2021	Report writing
May 2021	INORMS in Hiroshima
June 2021	ASEAN-Japan Cooperation Committee on Science & Technology

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Point 3: Motivation for developing STI coordinators in ASEAN and Japan

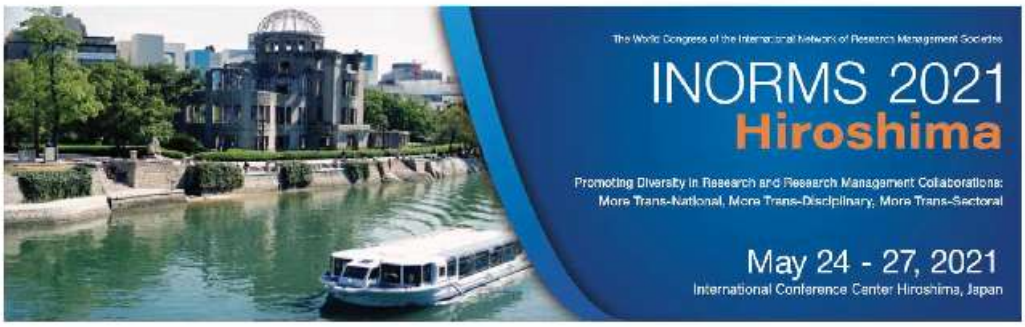
Example: JICA's activities of HRD in ASEAN

66 projects; Over 30 Japanese Universities and Research Institutions play as P.I.

hnology and Innovation Coordinators in Japan and ASEAN towards Grand Challenges

(4)Introduction of upcoming online meetings among working group members and wrap u

Pre-workshop on Science, Technology and Innovation Coordinators in Japan and ASEAN towards Grand Challenges, May 24, 2021

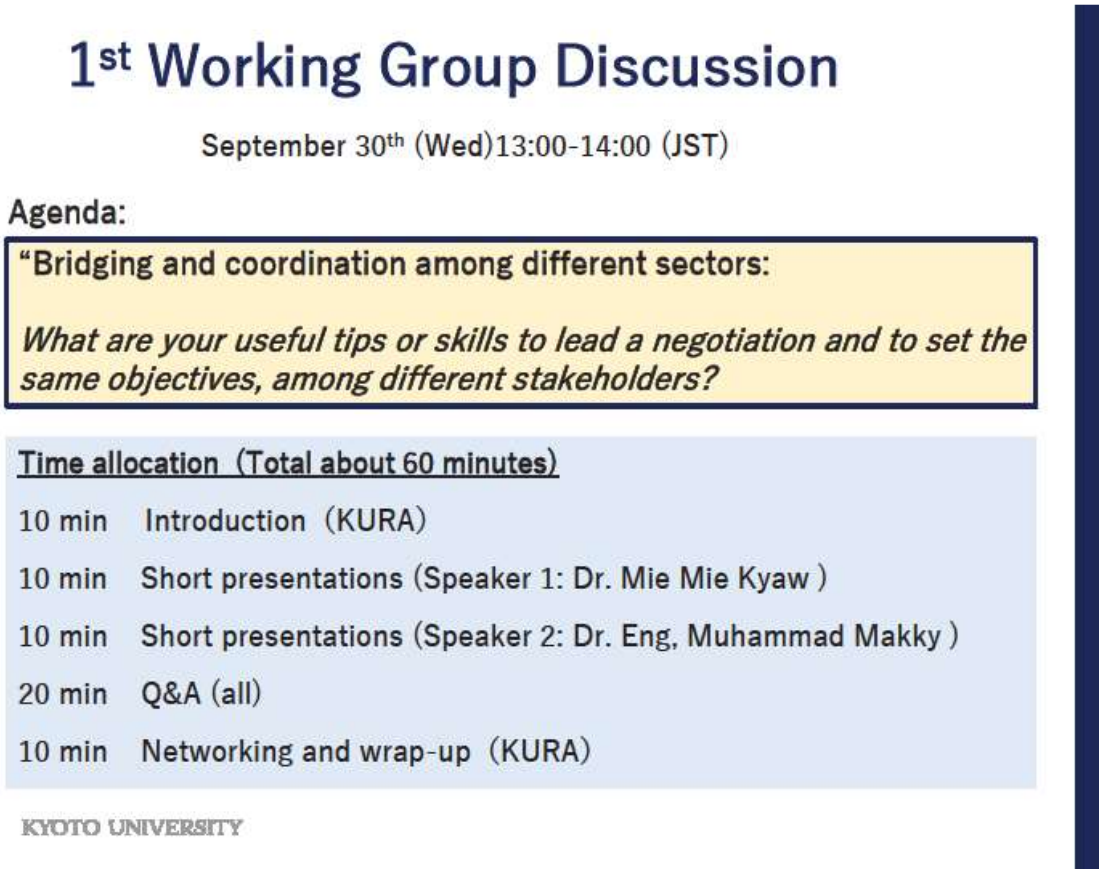


The official website of INORMS 2020 has been updated to INORMS 2021.

https://inorms2021.org/

KYOTO UNIVERSITY 2021年4月8日 Online Open Seminar in August 2020
Science, Technology and Innovation Coordinators in Japan and ASEAN towards Grand Challenges 50


INCRMS 2021
KURA
ASEAN FOUNDATION
ASSOCIATION OF SOUTHEAST ASIAN NATIONS
JASTIP
1ST WORKING GROUP DISCUSSION
"BRIDGING AND COORDINATION AMONG DIFFERENT SECTORS: SCIENCE, TECHNOLOGY AND INNOVATION COORDINATORS IN JAPAN AND ASEAN TOWARDS GRAND CHALLENGES"
September 30th (Wednesday)
13:00 - 14:00 (Japan Standard Time: GMT+9)
11:00 - 12:00 (Jakarta/Bangkok/Hanoi)
The WG will be held in zoom.
To receive the zoom link,
please scan QR code for registration.
*The WG members would be on invitation basis and required to have at least 5 years of working experience in STI coordination in universities or research institutes, so that they would contribute to active discussion.
The online event starts with presentations to introduce good practices by two alumni of ASEAN ST fellowship. Titled as "bridging and coordination among different sectors", this WG aims to exploreuseful tips and skills to lead negotiation and to work towards the common goals, among various stakeholders.
Presenters
DR. MIE MIE KYAW
SENIOR LECTURER AND RESEARCHER, DEPARTMENT OF ZOOLOGY, UNIVERSITY OF MANDALAY, MYANMAR
DR. ENG, MUHAMMAD MAKKY
SECRETARY OF INSTITUTE FOR RESEARCH AND COMMUNITY SERVICES, ANDALAS UNIVERSITY, INDONESIA


1st Working Group Discussion
September 30th (Wed)13:00-14:00 (JST)
Agenda:
"Bridging and coordination among different sectors:
What are your useful tips or skills to lead a negotiation and to set the same objectives, among different stakeholders?
Time allocation (Total about 60 minutes)
10 min Introduction (KURA)
10 min Short presentations (Speaker 1: Dr. Mie Mie Kyaw)
10 min Short presentations (Speaker 2: Dr. Eng, Muhammad Makky)
20 min Q&A (all)
10 min Networking and wrap-up (KURA)
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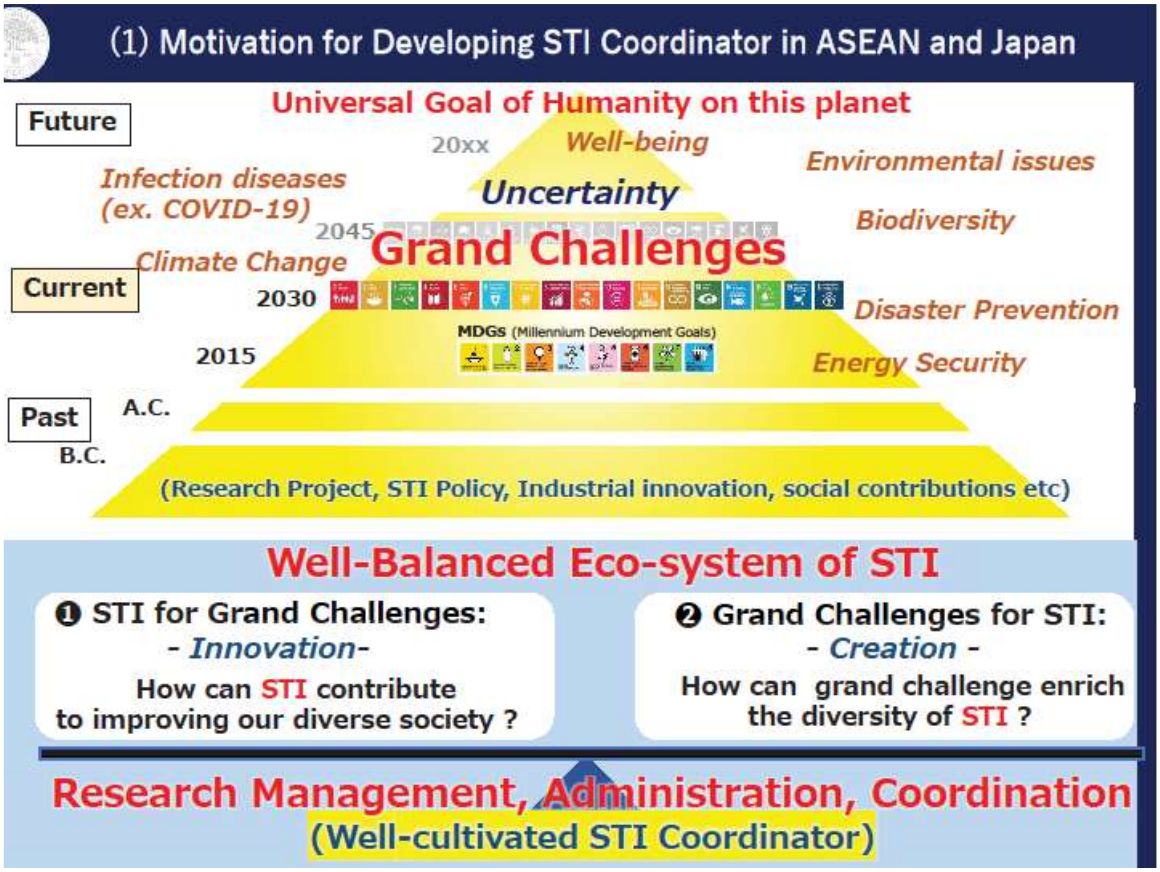
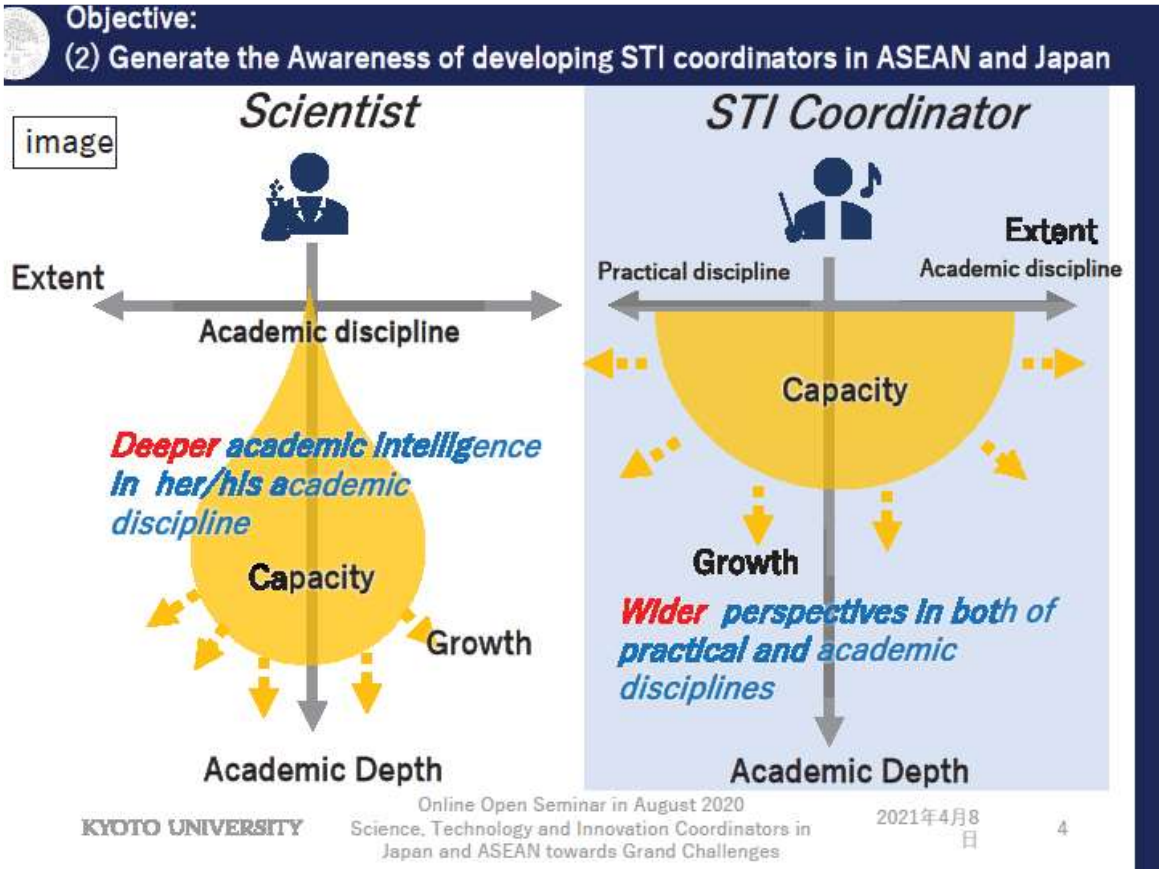

(1) Motivation for Developing STI Coordinator in ASEAN and Japan
Future
Universal Goal of Humanity on this planet
20xx
Well-being
Environmental issues
Infection diseases
(ex. COVID-19)
Uncertainty
2045
Biodiversity
Grand Challenges
Climate Change
Current
2030
Disaster Prevention
MDGs (Millennium Development Goals)
2015
Energy Security
Past
A.C.
B.C.
(Research Project, STI Policy, Industrial innovation, social contributions etc)
Well-Balanced Eco-system of STI
❶ STI for Grand Challenges:
- Innovation-
How can STI contribute
to improving our diverse society ?
❷ Grand Challenges for STI:
- Creation -
How can grand challenge enrich
the diversity of STI ?
Research Management, Administration, Coordination
(Well-cultivated STI Coordinator)


Objective:
(2) Generate the Awareness of developing STI coordinators in ASEAN and Japan
image
Scientist
Extent
Academic discipline
Deeper academic intelligence in her/his academic discipline
Capacity
Growth
Academic Depth
STI Coordinator
Extent
Practical discipline
Academic discipline
Capacity
Growth
Wider perspectives in both of practical and academic disciplines
Academic Depth
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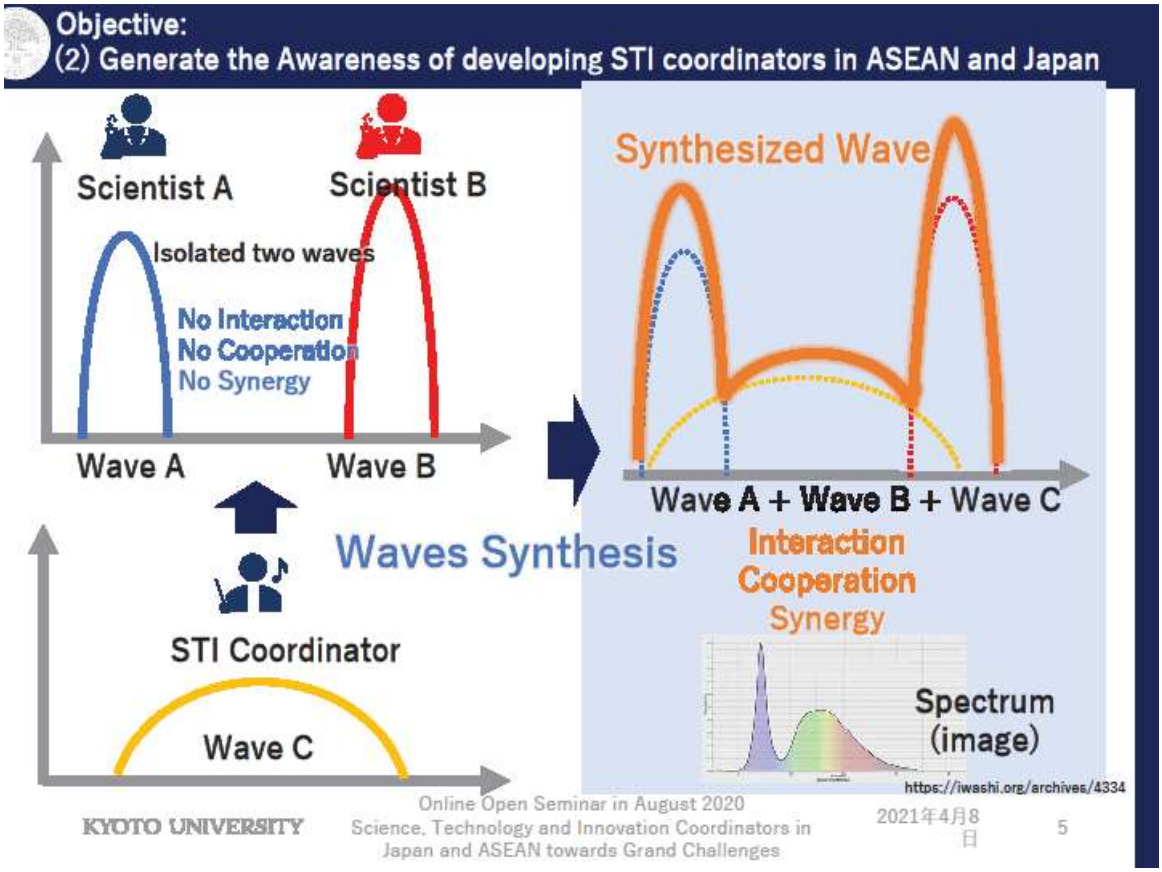
Online Open Seminar in August 2020
Science, Technology and Innovation Coordinators in Japan and ASEAN towards Grand Challenges
2021年4月8日
4


Objective:
(2) Generate the Awareness of developing STI coordinators in ASEAN and Japan
Scientist A
Scientist B
Isolated two waves
No Interaction
No Cooperation
No Synergy
Wave A
Wave B
Synthesized Wave
Wave A + Wave B + Wave C
Interaction
Cooperation
Synergy
Waves Synthesis
STI Coordinator
Wave C
Spectrum
(image)
https://iwashi.org/archives/4334
KYOTO UNIVERSITY
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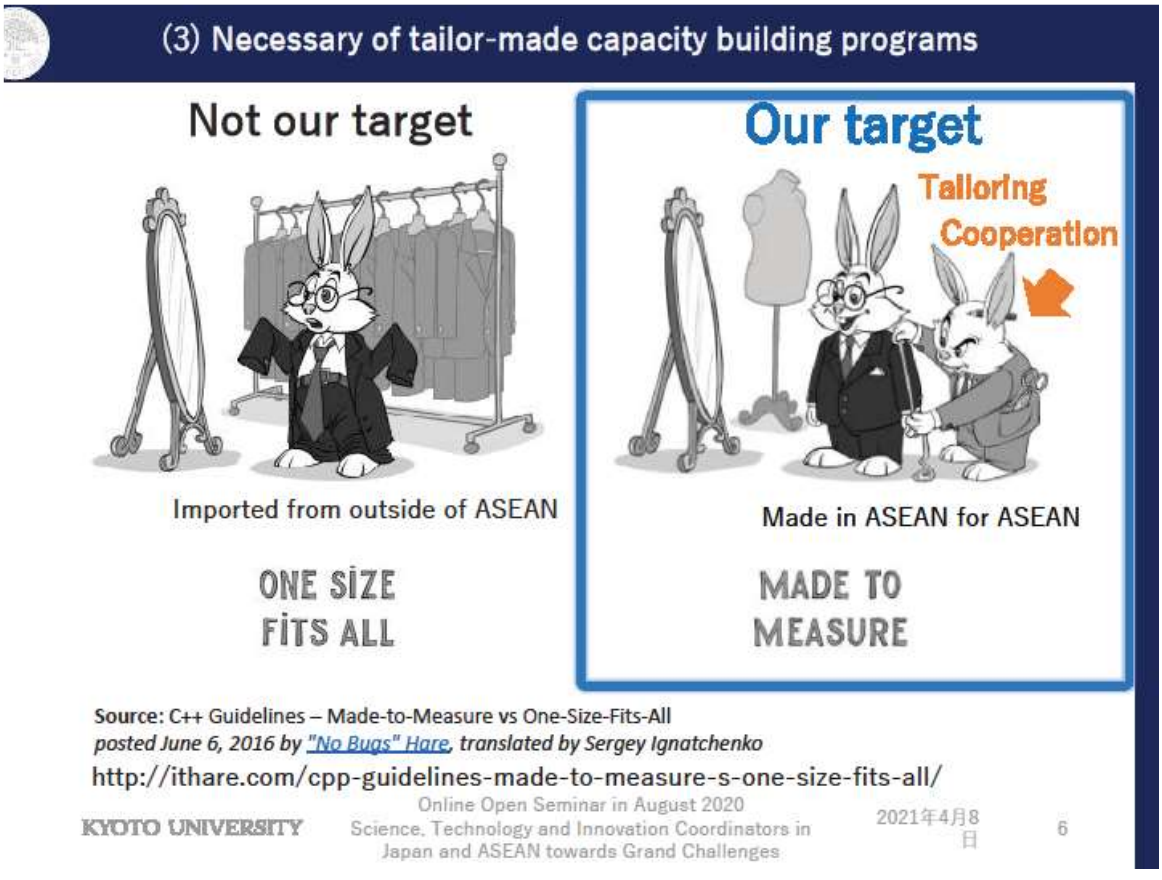
Science, Technology and Innovation Coordinators in
Japan and ASEAN towards Grand Challenges
2021年4月8日
5


(3) Necessary of tailor-made capacity building programs
Not our target
Imported from outside of ASEAN
ONE SIZE
FITS ALL
Our target
Tailoring
Cooperation
Made in ASEAN for ASEAN
MADE TO
MEASURE
Source: C++ Guidelines – Made-to-Measure vs One-Size-Fits-All
posted June 6, 2016 by "No Bugs" Hare, translated by Sergey Ignatchenko
http://ithare.com/cpp-guidelines-made-to-measure-s-one-size-fits-all/
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Summary Report for all

Contents

1. Executive Summary:
2. Background and rationale
3. Online seminar "Science, Technology, and Innovation Coordinators in Japan and ASEAN towards Grand Challenges"
4. **Working group meetings**
5. **Recommendation**

Appendix

Topic:
Date:
Participants:
Presentation Titles and speakers:
(1) Current status of STI Coordinators for the topic in ASEAN and Japan
(2) Current issues and challenges on the topic in ASEAN and Japan
(3) Good practices and unique activities for the topic in ASEAN
(4) Recommendation for the future collaboration between ASEAN and Japan on this topic

To be shared among STI coordinators in ASEAN and Japan (ASEAN COSTI, ASEAN Foundation, JASTIP, etc..)

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Questionnaire for enrichment of the summary report

https://forms.gle/AgVMJAW3M3UqaAzc9

2nd Working Group Discussion

October 28th (Wed)13:00-14:00 (JST)

Speakers

1. **Dr. Puvadol Doydee**
   (KU-WEF Nexus coordinator/Assistant Professor, Department of Agriculture and Resources, Faculty of Natural Resources and Agro-Industry, Kasetsart University, Thailand)
2. **Dr. Takuya Sato**
   (Researcher, Business-Academia Cooperation Office, Ministry of Agriculture, Forestry and Fisheries Country, Japan)

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The 1st online working group discussion

"Bridging and Coordination - among Different Sectors: Science, Technology and Innovation Coordinators in Japan and ASEAN towards Grand Challenges"

Mie Mie Kyaw (Myanmar)

Venue: via Zoom
(30 -9- 2020)

Mie Mie Kyaw, Ph.D

1. ASEAN - U.S. Science and Technology Fellow (2014),
2. Research Fellow; DAAD program (Germany) , Kiel University (2015),
3. ASEAN Science Diplomat (2017),
4. Participant of Water, Land and Ecosystem (WLE) Mekong project MK22 (2017),
5. Participant of Nature-Culture Linkages in Heritage Conservation in Asia and the Pacific Region (2017),
6. Co-Principal Investigator (Co-PI) of PEER 6 – 435 Project, (USAID + Mekong 5 countries) (2017-2020)
7. Research Fellow; The Matsumae International Foundation (MIF) Japan (2018)
8. Project Investigator (PI); JASTIP-Net 2018, Japan- ASEAN Science, Technology and Innovation Platform, Kyoto University, Japan, (2018-2019)
9. Co-Project Investigator (Co-PI); JASTIP-Net 2019, Japan- ASEAN Science, Technology and Innovation Platform, Kyoto University, Japan, (2019-2020)
10. Project coordinator and Lead partner; Sustainable Eco hydrological water management under global change in Myanmar (SEWAMM); Subject-Related Partnerships with Institutions of Higher Education in Developing Countries" (2020); Kiel University (Germany) + DAAD program (Germany) + University of Mandalay (Myanmar)
11. Lecturer & Researcher, Department of Zoology, University of Mandalay, Myanmar

Contents

1. Current status of Science, Technology and Innovation (STI) coordinators

2. Current issues and challenges

3. Good practice and unique activities

4. Recommendation for the future collaboration

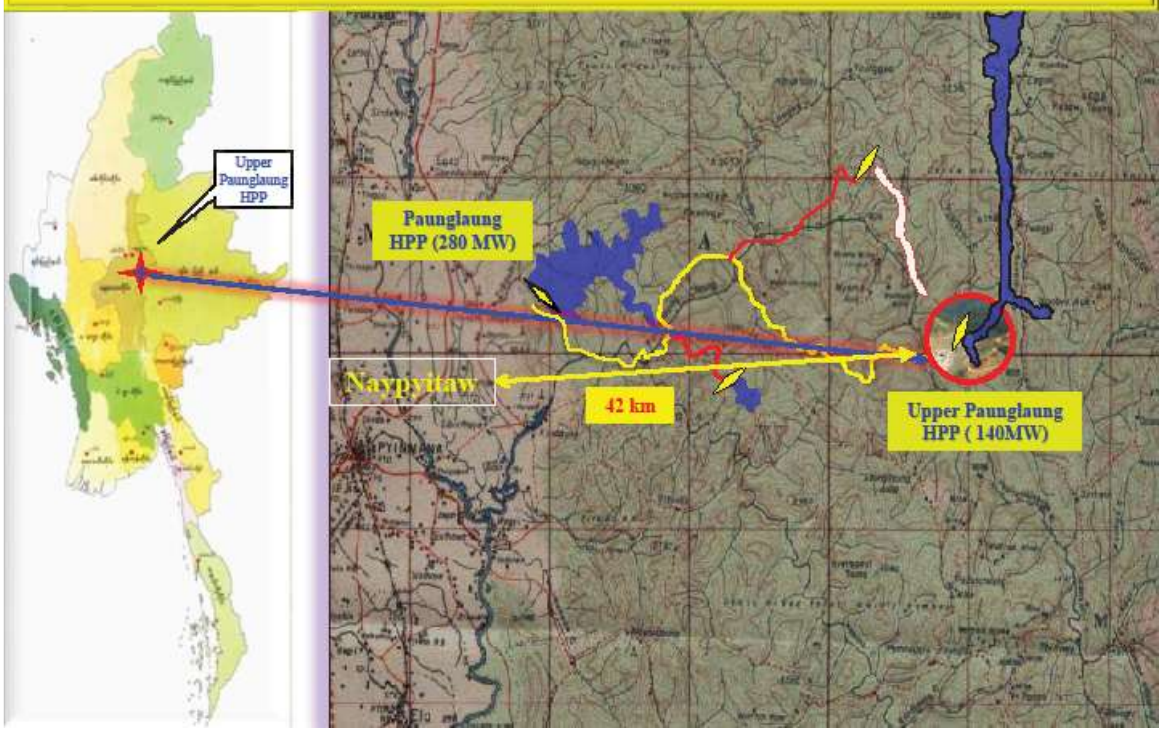
1. Current status of Science, Technology and Innovation (STI) coordinators

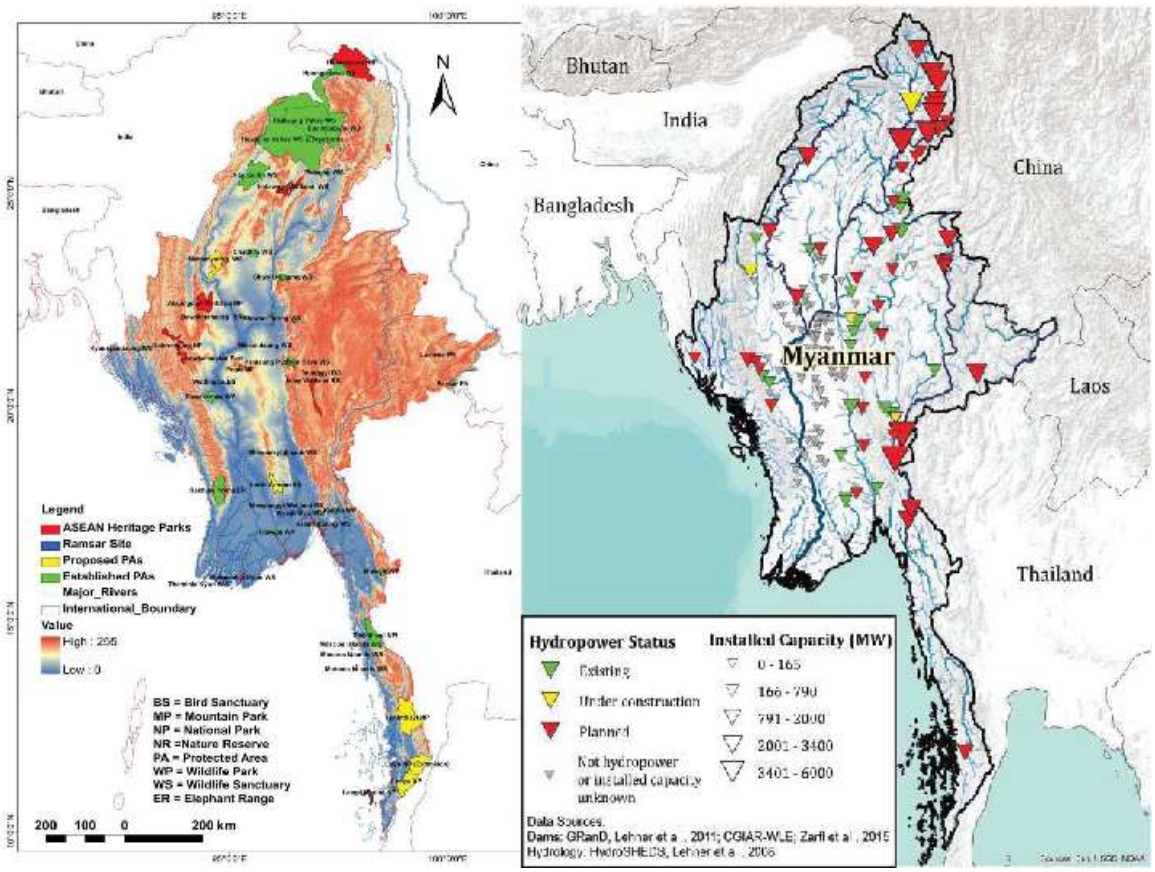
- Researchers
- Scientists
- Science, Technology and Innovation (STI) coordinators
- Decision makers
- Policy makers
- Local communities
- Indigenous groups

2. Current issues and challenges

- Conservation(environmental/ecological/socioeconomic) issues
- Gaps between decision makers and local communities (e.g., hydropower engineer groups & local indigenous groups, decision makers & local fishermen communities)
- Environmental & Ecological review procedures (research tasks & monitoring)
- Safeguard on Environmental affairs (infrastructure, guarantee)
- Unclear rules and regulations (public awareness)
- Weak stakeholder mapping (strengthen network)
- New Policies on some environmental issues (transparency & accountability)

Upper Paunglaung Hydropower Project




N
Legend
ASEAN Heritage Parks
Ramsar Site
Proposed PAs
Established PAs
Major_Rivers
International_Boundary
Value
High : 255
Low : 0
BS = Bird Sanctuary
MP = Mountain Park
NP = National Park
NR =Nature Reserve
PA = Protected Area
WP = Wildlife Park
WS = Wildlife Sanctuary
ER = Elephant Range
200 100 0 200 km
Bhutan
India
Bangladesh
China
Myanmar
Laos
Thailand
Hydropower Status
Existing
Under construction
Planned
Not hydropower or installed capacity unknown
Installed Capacity (MW)
0 - 165
166 - 790
791 - 2000
2001 - 3400
3401 - 6000
Data Sources:
Dams: GRanD, Lehner et a., 2011; CGIAR-WLE; Zarfl et al., 2015
Hydrology: HydroSHEDS, Lehner et a., 2006

3. Good practice and unique activities

- Having interpersonal and negotiation skills
- Understanding risk and security management to solve unexpected challenges
- Promoting public relations and outreach activities
- Informing, educating, networking, linking, implementing the research tasks & negotiation between / among the stakeholders from different sectors

4. Recommendation for the future collaboration

- Improve interpersonal and negotiation skills
- Handle rules and regulations in accounting and procurement
- Enhance knowledge of STI policies
- Promote public relations and outreach activities
- Understand risk and security management to solve unexpected challenges
- Circulate information retrieval and data analysis
- Stakeholder mapping from different sectors for community development

Sustainable Development Goals (SDGs) (2015-2030)

Reference: UNITED NATIONS SUSTAINABLE DEVELOPMENT SUMMIT 2015 25-27 SEPTEMBER

Stakeholder mapping

- Researchers
- Scientists
- Science, Technology and Innovation (STI) coordinators
- Decision makers
- Policy makers
- Local communities
- Indigenous groups

***Integrated Actions*:** Agreement between main and clients with commitment & capacity enhancement

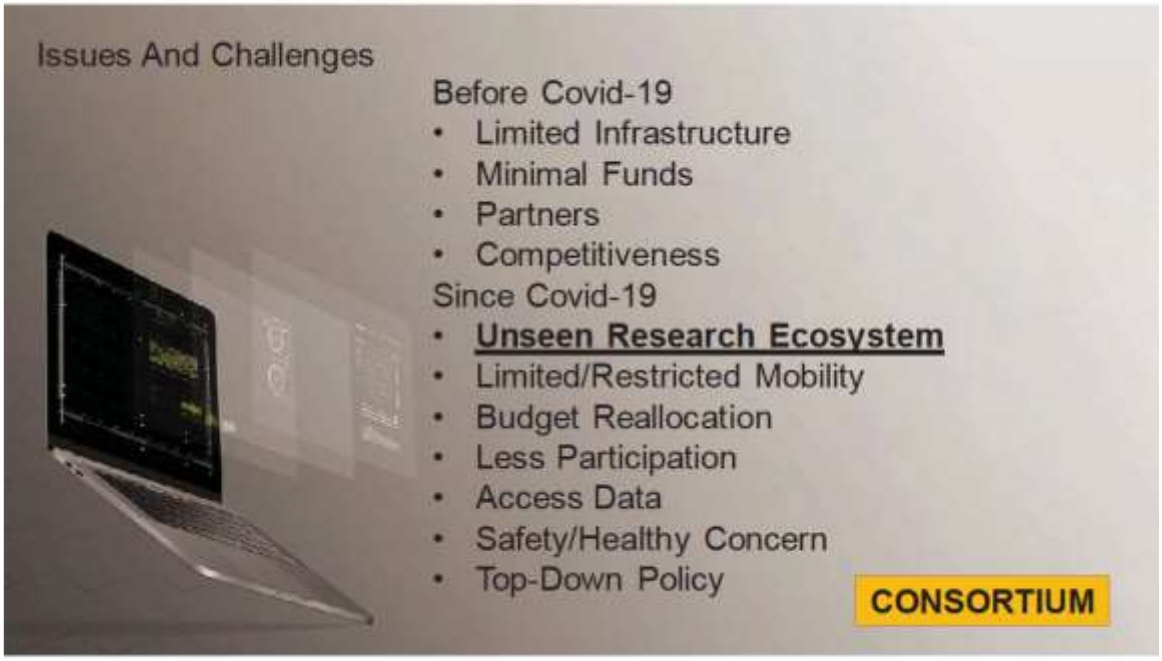
Acknowledgements

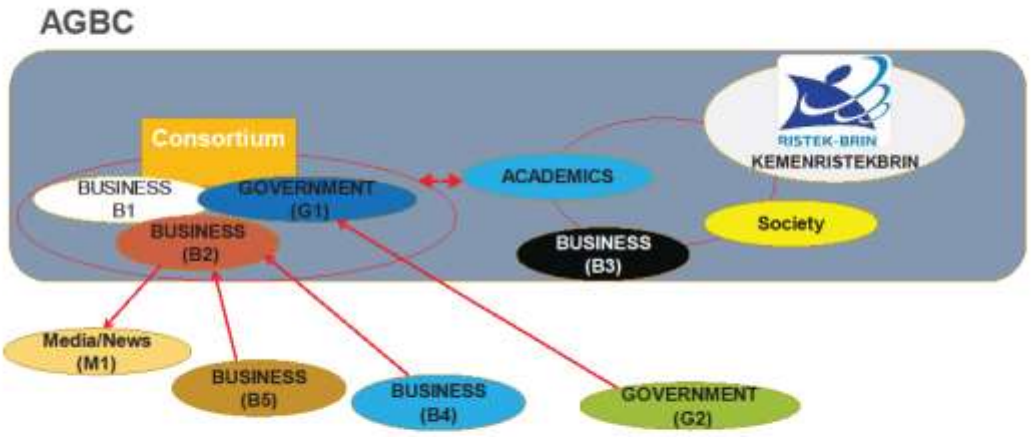
- **Kyoto University Research Administration Office, Japan**
- **ASEAN Foundation**
- **Japan - ASEAN Science, Technology and Innovation Platform (JASTIP), Kyoto University, Japan**
- **The ASEAN Secretariat**
- **University of Mandalay, Myanmar**
- **Stakeholders**

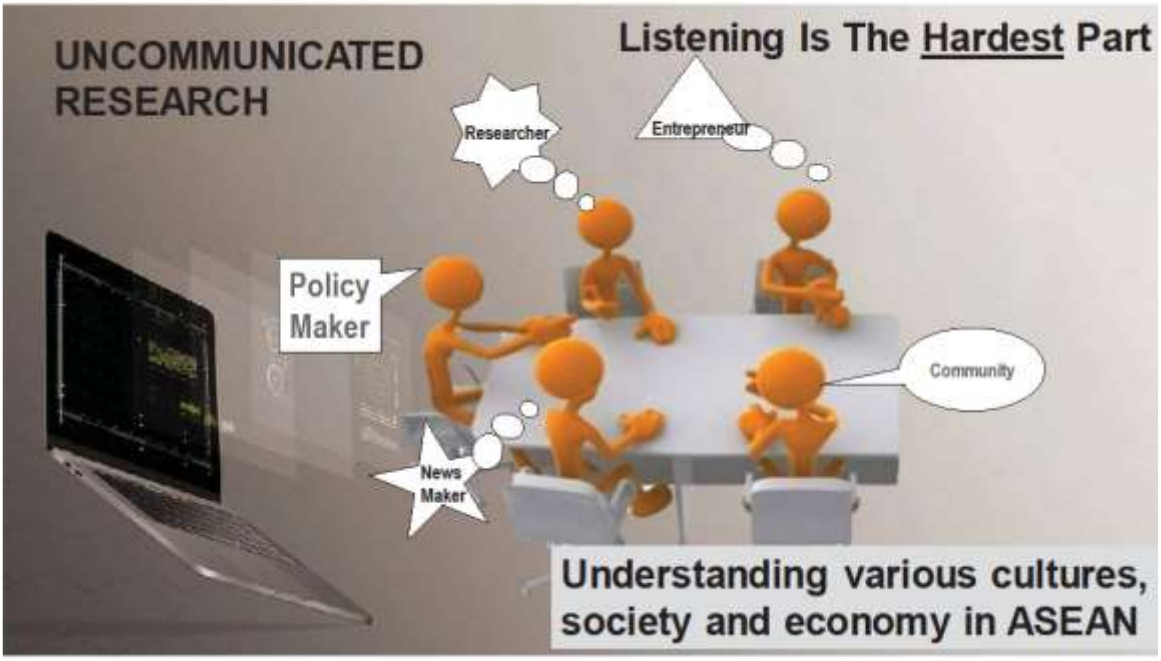
E-mail: mmkama74@gmail.com
Skype: Mie Mie Kyaw

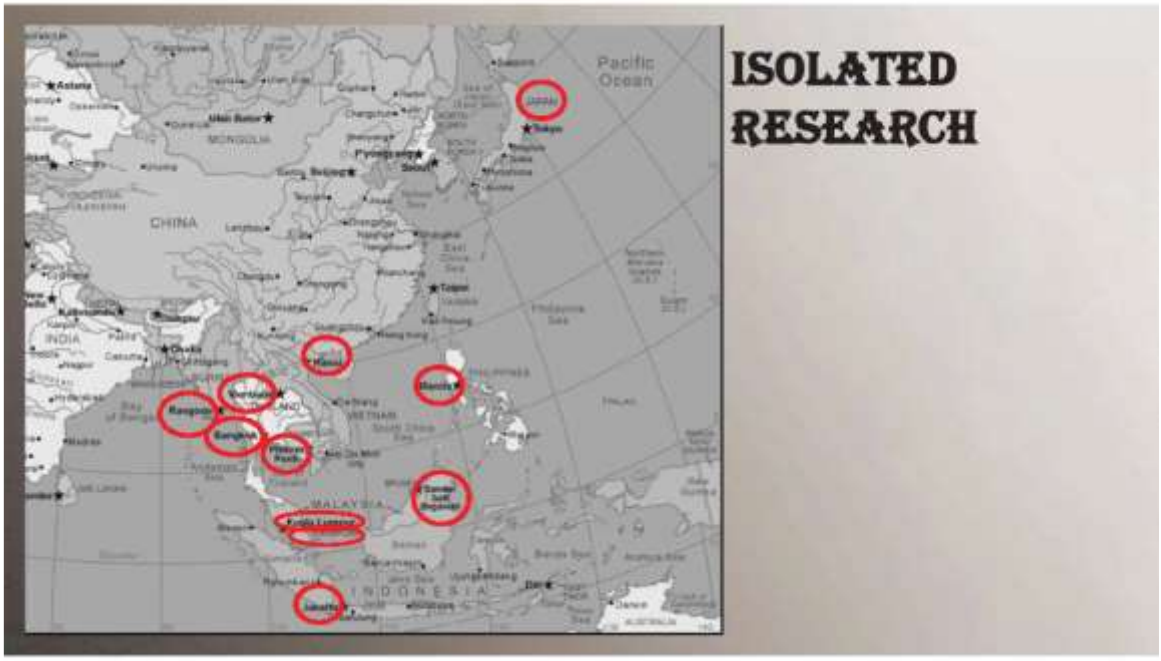

Background
2005
Andalas University
2007
Start academic Collaboration
Oil Palm Industry
Provincial Government
Community (SME)
2011
Collaboration with Major
Oil Palm Company
2013
Post-Doc (Greece)
Start Intl' Collaboration
2015-2019
Visiting Prof./Scholar
(Netherlands, Greece, Japan, China, Guatemala)
Multi Intl' Collaboration
2018
Prestigious Award from Indonesian Gov.
Internationally Collaborative Publications
2018
ASEAN-US S&T Fellow
Afro-Eurasian Scientific Network
Indonesian Oil Palm Research Award
2019
Indonesian Oil Palm Masterpiece Award
Sakura Science Plan
The Lancet: Countdown on Health and Climate Change
2020
University's Management


STI coordination in Indonesia
COSTI Coordinator Indonesia
RISTEK-BRIN
TUT WURI HANDAYANI
Higher Education Regional Service
Universities /Higher Education Institution
Industry
Government
Community
Institution
Researche r(s)


Issues And Challenges
Before Covid-19
• Limited Infrastructure
• Minimal Funds
• Partners
• Competitiveness
Since Covid-19
• Unseen Research Ecosystem
• Limited/Restricted Mobility
• Budget Reallocation
• Less Participation
• Access Data
• Safety/Healthy Concern
• Top-Down Policy
CONSORTIUM

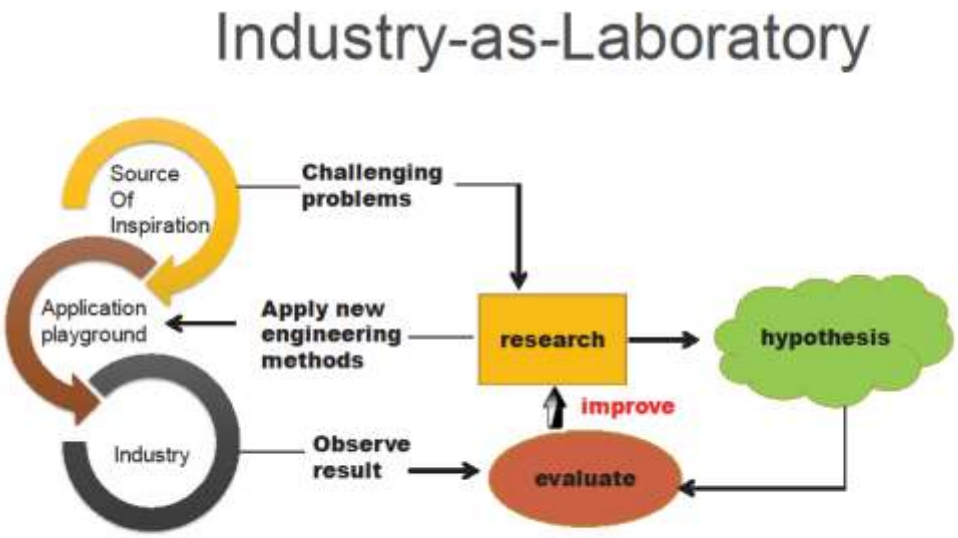

AGBC
Consortium
BUSINESS B1
GOVERNMENT (G1)
BUSINESS (B2)
ACADEMICS
RISTEK-BRIN
KEMENRISTEKBRIN
Society
BUSINESS (B3)
Media/News (M1)
BUSINESS (B5)
BUSINESS (B4)
GOVERNMENT (G2)

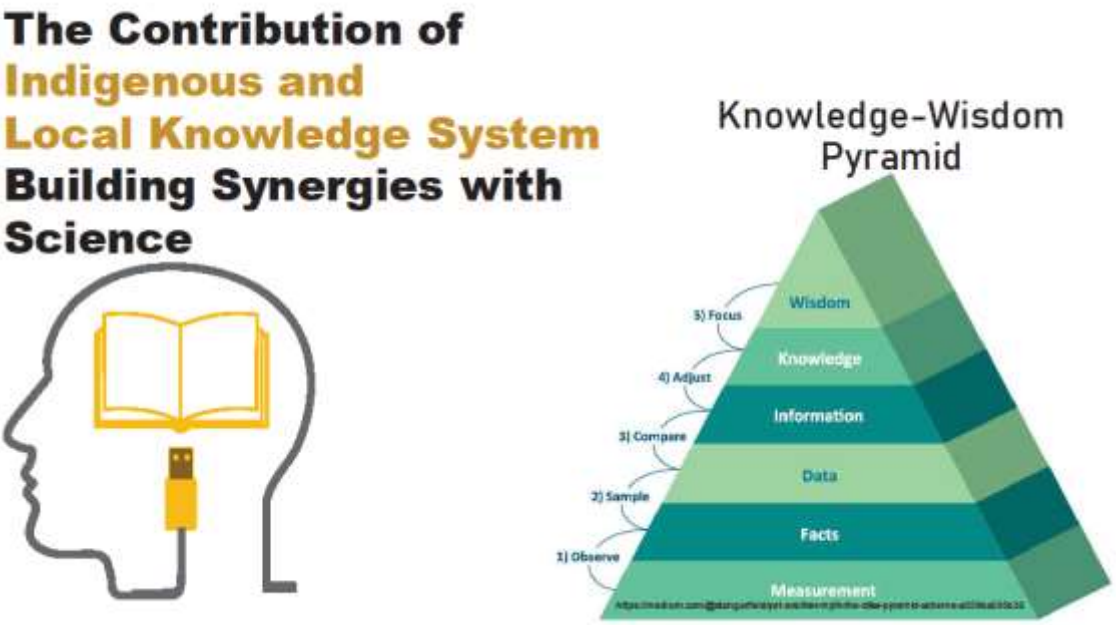

UNCOMMUNICATED
RESEARCH
Listening Is The Hardest Part
Researcher
Entrepreneur
Policy
Maker
Community
News
Maker
Understanding various cultures,
society and economy in ASEAN


ISOLATED
RESEARCH
Pacific
Ocean
CHINA
INDIA
MALAYSIA


Pacific Ocean
CHINA
MONGOLIA
INDIA
MALAYSIA
ASEAN-HUB MODEL…
…VS…


Pacific Ocean
CHINA
MONGOLIA
INDIA
… A More Direct Engagement


Industry-as-Laboratory
Source Of Inspiration
Challenging problems
Application playground
Apply new engineering methods
research
hypothesis
improve
Industry
Observe result
evaluate


The Contribution of
Indigenous and
Local Knowledge System
Building Synergies with
Science
Knowledge-Wisdom Pyramid
Wisdom
Knowledge
Information
Data
Facts
Measurement
5) Focus
4) Adjust
3) Compare
2) Sample
1) Observe

Local Wisdom Strategy

1) Local wisdom or Indigenous Knowledge (IK) can be categorized in several ways, and these categories cover "technology" and "belief systems". The letter can be intangible and linked to local culture, tradition, social systems, beliefs, faith, trust, and so forth

1) Local wisdom strategy comprise knowledge transfer, leadership, community partnership, and government support


Seamless Connectivity in Researches
= Excellent Science
Tap Expert To connect
VISIBILITY
Connect to Fund/Donor
Connect to Projects


SUSTANAIBLE
SCIENCE
Translating Complex
tasks into Simple &
Tangible Missions
$N_\lambda(a,b) := \frac{1}{2\pi i}\int_{-\infty}^{\infty} dt\ \log\left(1-\frac{\lambda}{b+\frac{1}{2}+it}\right)\frac{d}{dt}\log\left(1-\frac{\lambda}{a+\frac{1}{2}-it}\right)$
Y=a+b+c+…+i


Post Covid19: Perpetual System for Research Management
shutterstock
Standalone/Autopilot Less Disruptive by management/ personnel alteration
CONTINUITY


THANK YOU
Muhammad Makky
muhmakky@ae.unand.ac.id

2nd Working Group Discussion

October 28th (Wed)13:00-14:00 (JST)

Agenda:

"Bridging and coordination among different sectors:

What are your useful tips or skills to lead a negotiation and to set the same objectives, among different stakeholders?

Time allocation (Total about 60 minutes)

10 min	Introduction (KURA)
10 min	Short presentations (Speaker 1: Dr. Puvadol Doydee)
10 min	Short presentations (Speaker 2: Dr. Takuya Sato)
20 min	Q&A (all)
10 min	Networking and wrap-up (KURA)

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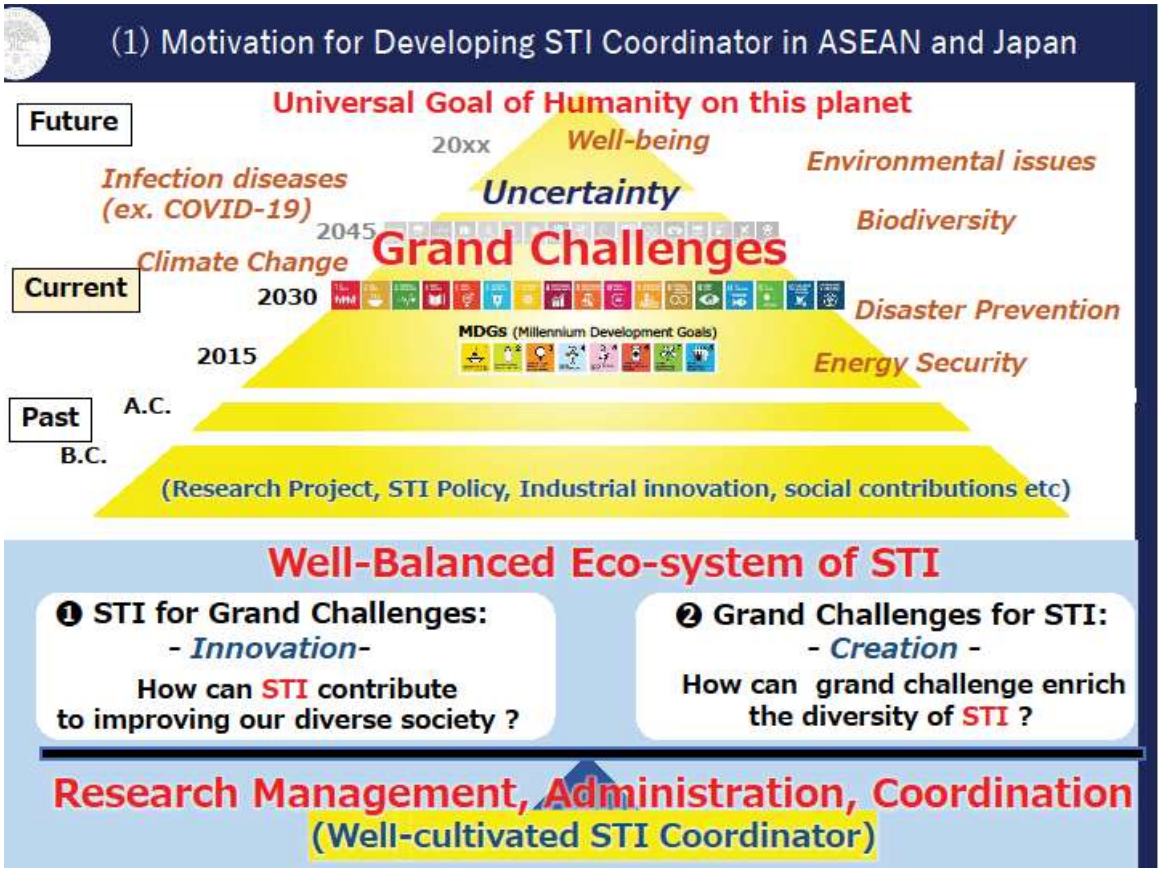
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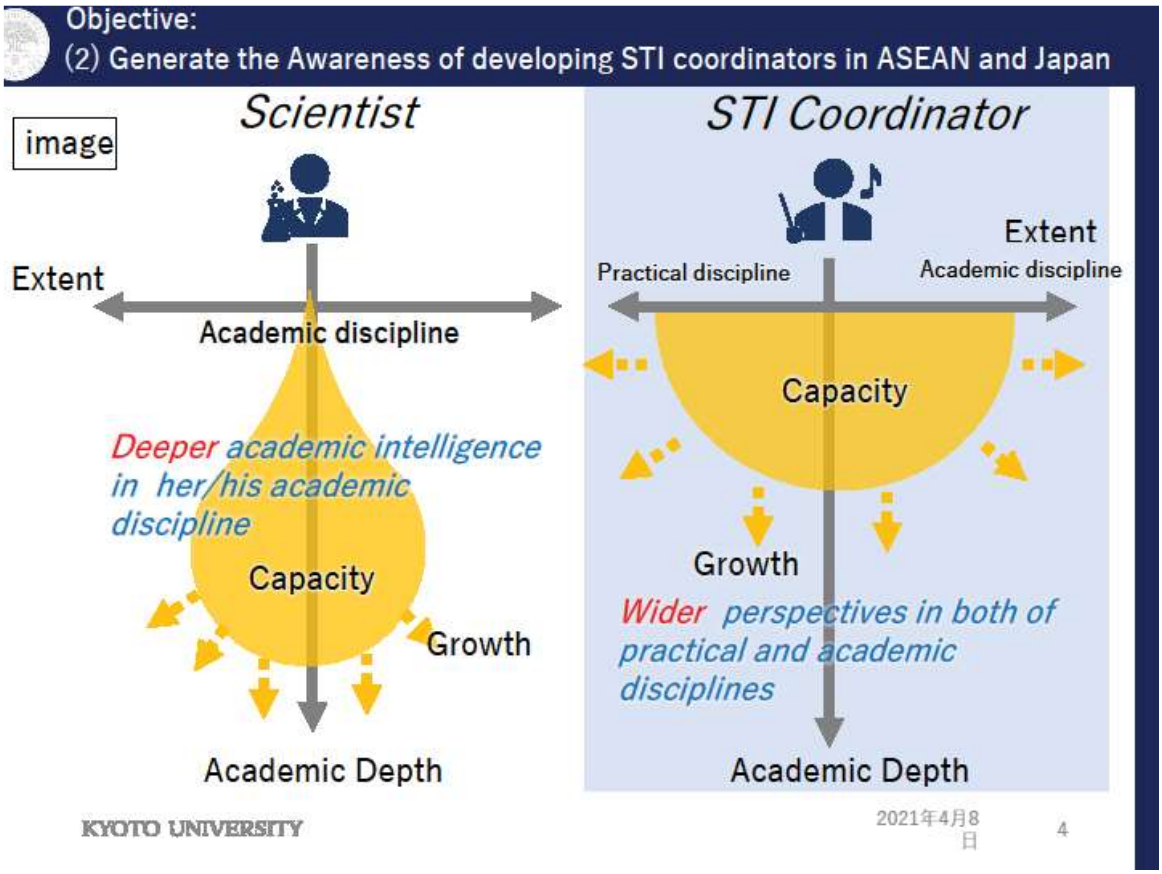
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Academic discipline
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in her/his academic
discipline
Capacity
Growth
Academic Depth
STI Coordinator
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Practical discipline
Academic discipline
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Growth
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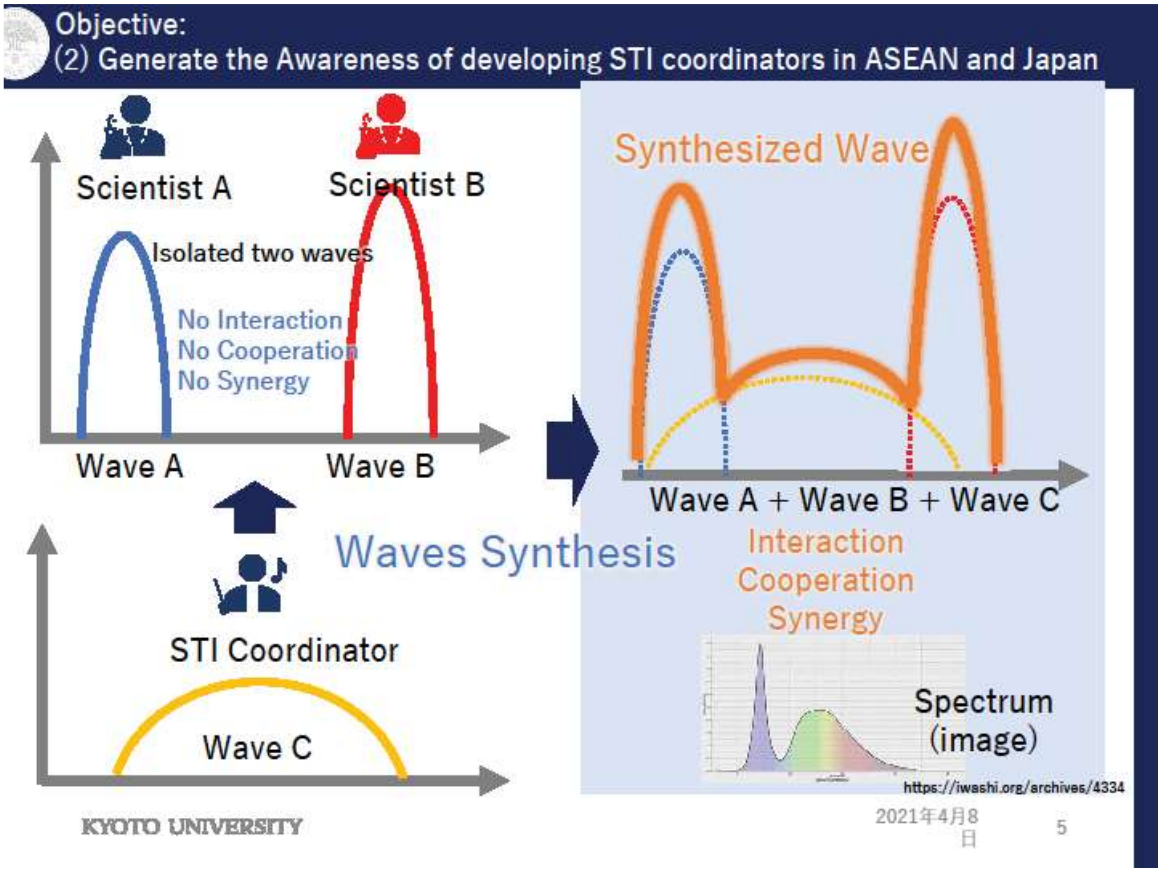
practical and academic
disciplines
Academic Depth
KYOTO UNIVERSITY
2021年4月8日
4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Synergy
Waves Synthesis
STI Coordinator
Wave C
Spectrum
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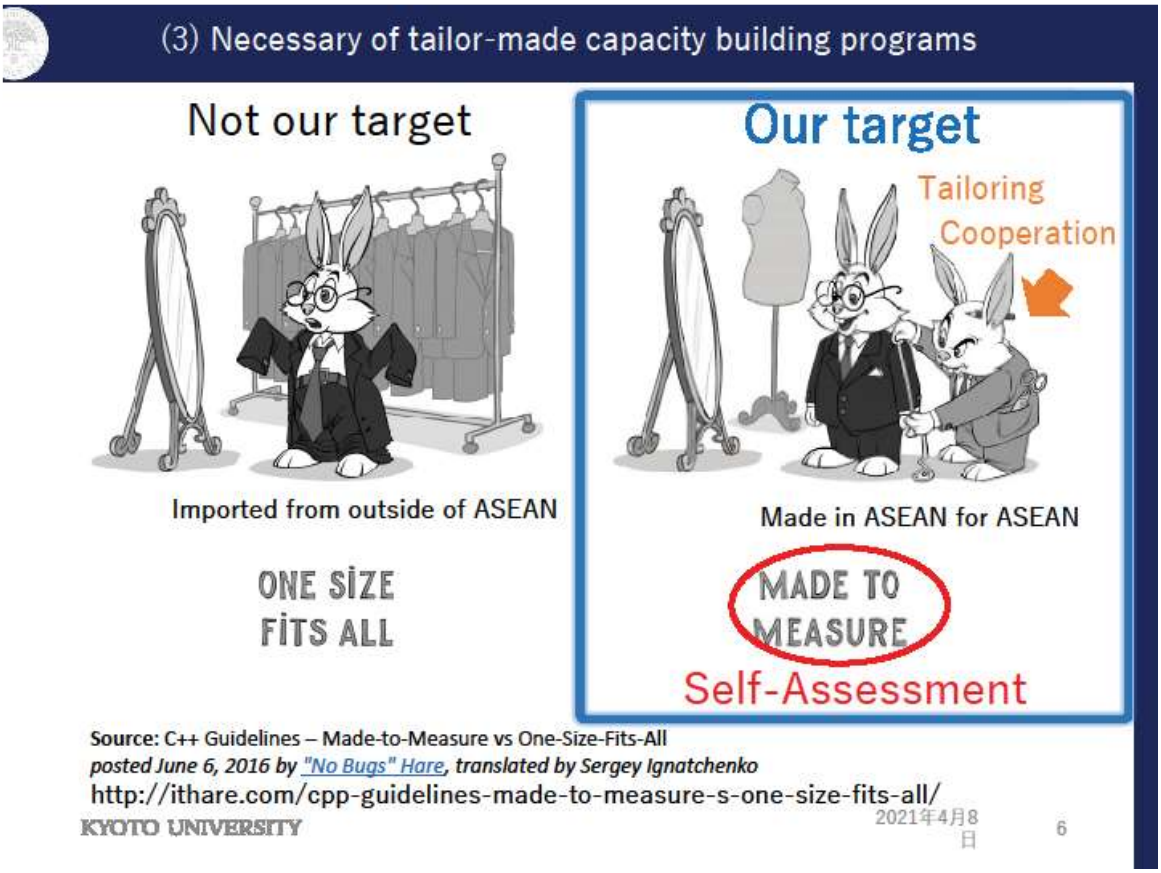
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Self-Assessment
Source: C++ Guidelines – Made-to-Measure vs One-Size-Fits-All
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Appendix

Topic:
Date:
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To be shared among STI coordinators in ASEAN and Japan (ASEAN COSTI, ASEAN Foundation, JASTIP, etc..)

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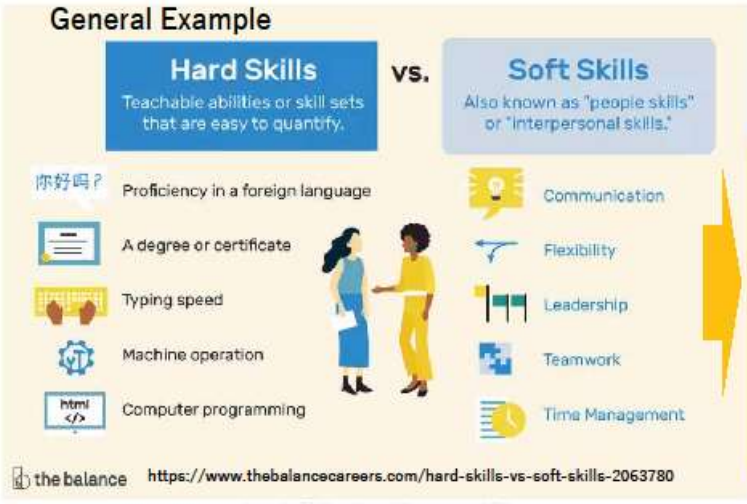
1st WG Summary Report (recommendation)

Collaboration in **human resource development with wide range of skillsets for STI coordinator is needed in ASEAN and Japan**, especially the improvement of interpersonal and negotiation skills are underlined for bridging and coordination among different sectors.

General Example



BY ALISON DOYLE | Updated January 20, 2020

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Q. What is appropriate and effective program ?

Capacity development program for STI Coordinators

Need your Wisdoms!

MADE TO MEASURE

Please share your wisdoms In the chat box !

Questionnaire for enrichment of the summary report

https://forms.gle/P9ZgRuzKgsjFe8DK7

3rd Working Group Discussion

Topic: Pre-Awards and Post-Awards:

November 26th (Thursday)11:30-12:30 (JST)

Speakers

1. Dr. Nguyen Thi Hoang Lien
Associate Professor / Senior Lecturer, Faculty of Environmental Science, VNU University of Science, Vietnam National University, Hanoi, Vietnam

2. Dr. Mohd Amran Mohd Radzi
Associate Professor /Deputy Dean (Research and Innovation)
Faculty of Engineering, University Putra Malaysia (UPM), Malaysia

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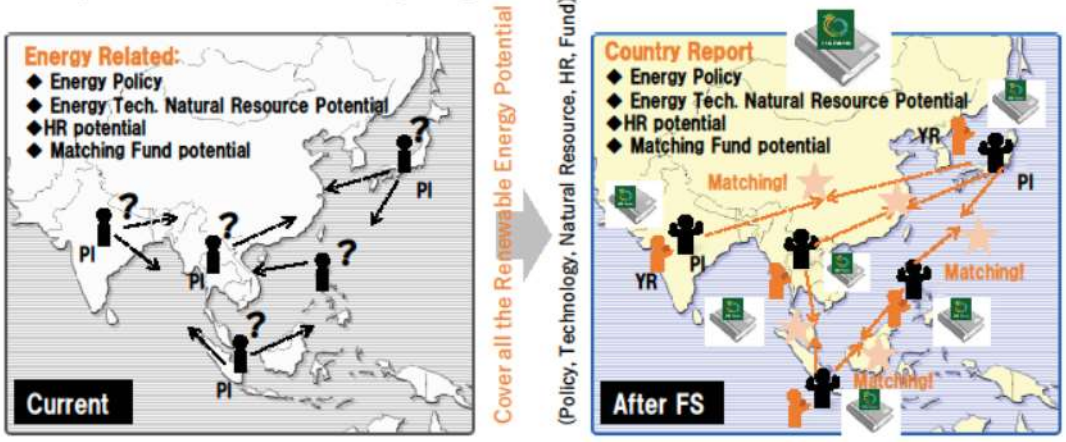
10 years ago

FEASIBILITY STUDY ON RENEWABLE ENERGY POTENTIAL IN ASIA (funded by JST in 2011)

1. Objective

The objective is to publish the comprehensive "Country Report" of renewable energy potential in Asia for emerging a new concept of research proposal by gathering information on energy policy, technologies, natural and human resources, and availability of funding pertaining to renewable energy from policy makers, government institutions, research institutions, universities, commercial sectors (and other RE stakeholders) through the cooperation of multilateral young researchers under SEE Forum.



Project Members

WIPO

VIRTUAL MEETING

WIPO/IP/CE/CE/20/INF/1 PROV.
ORIGINAL: ENGLISH
DATE: OCTOBER 25, 2020

Conference on Technology Scouting and Deployment for Sustainable Development

Theme: "Scaling Up Technology Deployment: Harnessing Technology in the Age of Covid and Beyond, for the Sustainable Development Goals for Asia"

organized by
the World Intellectual Property Organization (WIPO)

in cooperation with

Global Solutions Summit

and

ASEAN Committee on Science, Technology and Innovation

Virtual Meeting, November 10 and 12, 2020

Tuesday, November 10, 2020 Day 1

Thursday, November 12, 2020 - Day 2

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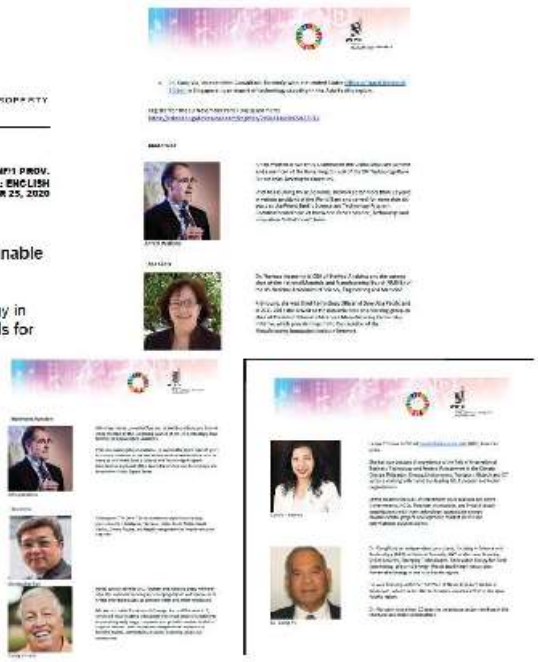


For more details: please find from here
https://www.dropbox.com/s/1b6ug0lw80g5h5j/Tech%20Scout%20Deploy_10%20%26%2012%20Nov2020.pdf?dl=0

Bridging and coordination among different sectors

Puvadol Doydee

Kasetsart University, Thailand
E-mail: puvadol.d@ku.th

KU KASETSART UNIVERSITY

2nd Online Working Group Discussion

23-Oct-20

(1) STI coordinator- roles and services

- KU-WEF nexus coordinator (2019-2023)
- Asst. Prof., Kasetsart University, Thailand (2015)
- ASEAN–U.S. Science and Technology Fellow (2016)
- ASEAN Science Diplomat (2017)
- Mentor, MyCoE/SERVIER, AAG (2014)
- Life member, Gama Sigma Delta (2008)
- DAAD–SEARCA Scholar, UP Los Baños, (2005)
- SEMEO–SEARCA Scholar, Bogor, Indonesia (2000)

KU

23-Oct-20

STI coordinator and CO-PI (2019)

International meeting on ***"Japan-ASEAN Science, Technology and Innovation Platform (JASTIP)"***
Myanmar, 9-11 March 2019

23-Oct-20

STI and KU-WEF nexus coordinator (2018)

International meeting on ***"Land Cover/Land Use Changes and Water Energy Food (WEF) Nexus in Southeast Asia"*** in Vientiane, Laos, from August 11-17, 2018.

23-Oct-20

STI coordinator-Host (2018)

International FAO-KU workshop on ***"Climate Smart, Innovative Food Preservation and Processing Technologies Applied by Women in Rural Environments"*** in Sakon Nakhon, Thailand July 2-3, 2018

23-Oct-20

(2) Current issues and challenges

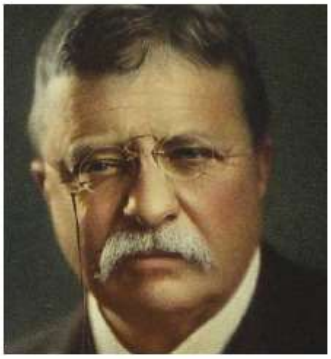
- Behavior & cultural practices,
- Problem with our communication,
- Technical knowledge issue,
- Government policies-b/w evidence and action,
- Financial & resources.

23-Oct-20

(2) Trust among different sectors

"People don't care how much you know until they know how much you care"

— Theodore Roosevelt



23-Oct-20

(3) Good practices and unique activities

- Understanding, approaching and developing,
- Research translation,
- Hand-on experiences,
- Government sector involvement, and
- Partnership co-financial and resources sharing.

23-Oct-20

(3) Understanding, approaching, developing

"Understanding, Approaching and Developing"--
Royal Initiative of His Majesty the King Bhumibol Adulyade, help creates knowledge and good practices for bridging and coordination among different stakeholders.

23-Oct-20

(4) Recommendation for the future collaboration between ASEAN and Japan

- Joint program for STI, Exchange program/expertise,
- Increasing research impact: research translation,
- Learning from & field visits to other countries' success cases,
- Technology and resource sharing, and
- Beyond professional- field excursion for cultural perspective!

23-Oct-20

When you join another village, follow the rules

23-Oct-20

Thank you for you attention

23-Oct-20

Bridging and Coordination among Different Sectors

2nd Online Working Group Discussion

28th-October-2020

Takuya Sato, Ph.D.
Business-Academia Cooperation Office (BCO)
Ministry of Agriculture, Forestry and Fisheries(MAFF), JAPAN

Profile

2008-2013
Manager, Kikkoman USA Lab (Madison, WI)
Collaborator: UW-Madison, Monell Chemical Senses Center

2014-2019
Director, Kikkoman Singapore Lab
Collaborator: A*STAR (SG), NSTDA (TH)

2015-2019
Adjunct Asst. Prof., National University of Singapore
Dept. Food Sci. & Tech.

2019-
Ministry of Agriculture, Forestry and Fisheries of JAPAN

Industry Perspective

Why Kikkoman collaborated with A*STAR(SG) and NSTDA(TH)?

- Resources

  Natural product library

  160,000 plant, fungal and bacterial specimens (A*STAR)

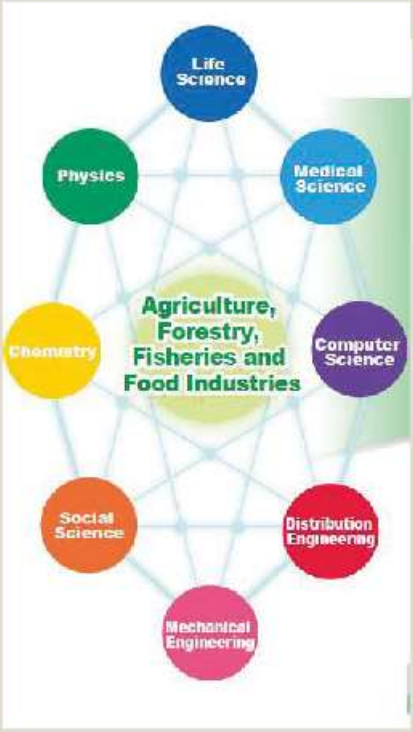
  80,000 microorganism (NSTDA)

Screening functional compound/novel enzyme for commercial use

Government Perspective

How BCO@MAFF coordinates international collaboration

Open Innovation Program led by MAFF



Field for Knowledge Integration and Innovation (FKII)

- Since 2016
- 3,500 members
- 170 Research Groups
- 100 Research Projects

Embassies in Tokyo joined FKII

- Singapore
- Thailand
- Indonesia
- Philippines
- India
- Timor-Leste, etc.

FKII's Activities

Phase I (2016-2021)

FKII Lanched in 2016

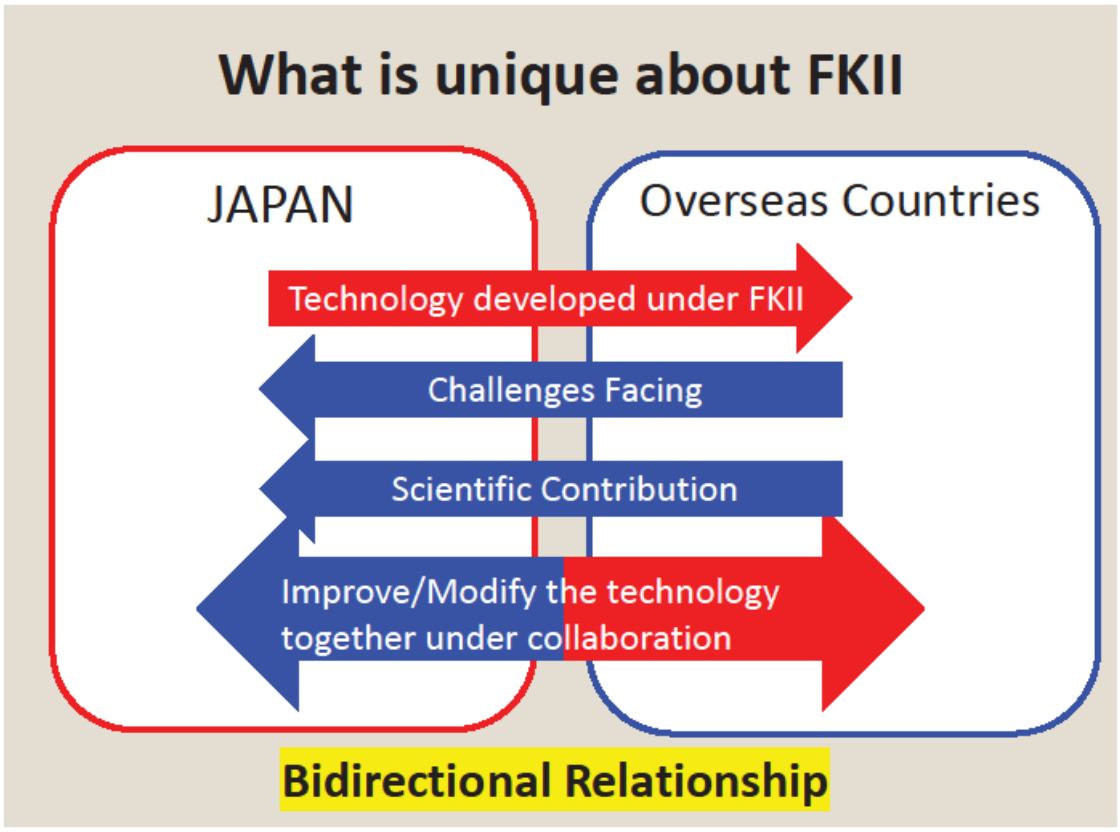
1) Organized new Research Groups
2) Conducted Research Project

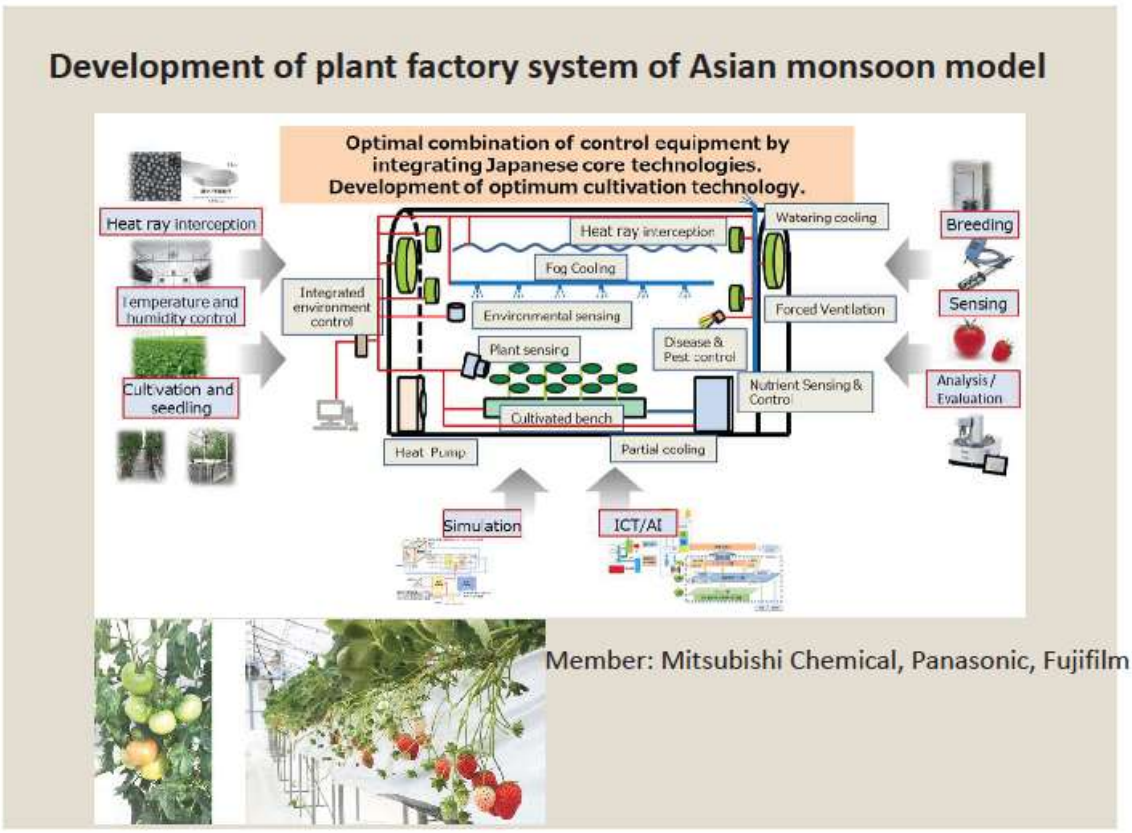
Research Outcomes
Technologies developed

Phase II (2021-2026)

FKII will focus on

1) Industrialization
2) Commercialization
3) International Activities


What is unique about FKII
JAPAN
Overseas Countries
Technology developed under FKII
Challenges Facing
Scientific Contribution
Improve/Modify the technology
together under collaboration
Bidirectional Relationship


Development of plant factory system of Asian monsoon model
Optimal combination of control equipment by integrating Japanese core technologies. Development of optimum cultivation technology.
Heat ray interception
Temperature and humidity control
Cultivation and seedling
Integrated environment control
Heat ray interception
Fog Cooling
Environmental sensing
Plant sensing
Cultivated bench
Heat Pump
Partial cooling
Watering cooling
Forced Ventilation
Disease & Pest control
Nutrient Sensing & Control
Breeding
Sensing
Analysis / Evaluation
Simulation
ICT/AI
Member: Mitsubishi Chemical, Panasonic, Fujifilm

Government Perspective

Discussing possible international collaboration under FKII

1) University

Holding Joint Matching Event

- Provide the opportunities to discuss possible future collaboration between two countries.
- Research groups from Japan (FKII) and target countries in related research field have presentation.
- On-site Meeting preferred.

SG: Postponed because of COVID19
TH: To be Scheduled

Flyer: NUS-MAFF Joint Matching Seminar

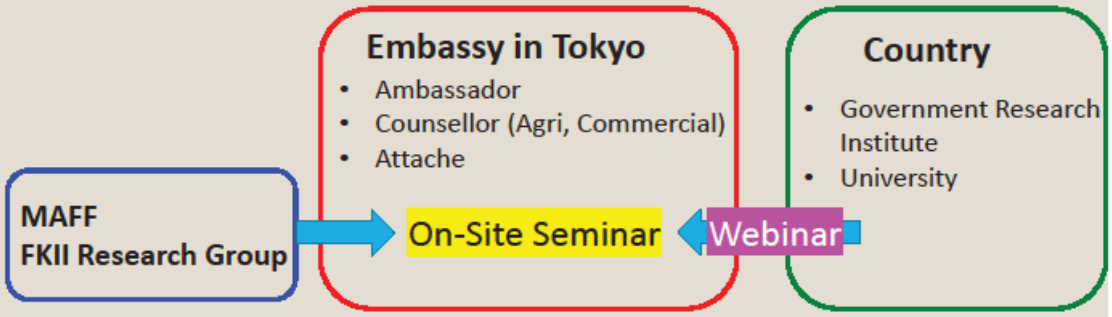
Government Perspective

Discussing possible international collaboration under FKII

2) Embassy

Good resources/channels to introduce our technologies

- On-site Seminar series held at the Embassy
  Embassy invites research institute in their country



Government Perspective

Ambassador visits to research site developed under FKII

His Excellency the Ambassador of Timor-Leste to Japan paid his visit to the plant factory developed under FKII

Involving "high-levels" accelerates the process towards future possible collaboration

Key Player and Resource in International Collaboration

- Diplomat
- Ministry
- University
- Industry
- Gov. Institution
- Technology
- Student/Scientist
- Sample
- Friend
- Challenge/Difficulty

INQUIRIES/FKII MEMBERSHIP

takuya_sato500@maff.go.jp

FKII Website
https://www.knowledge.maff.go.jp/en/fkii.html

3rd Working Group Discussion

November 26th (Thu)11:30-12:30 (JST)

Agenda:

"Pre-Awards and Post-Awards:

Which skills and roles would be essential when you are involved in applying for and launching a new international project?

Time allocation (Total about 60 minutes)

10 min Introduction (KURA)

10 min Short presentations (Speaker 1: Dr. Nguyen Thi Hoang Lien)

10 min Short presentations (Speaker 2: Dr. Mohd Amran Mohd Radzi)

20 min Q&A (all)

10 min Networking and wrap-up (KURA)

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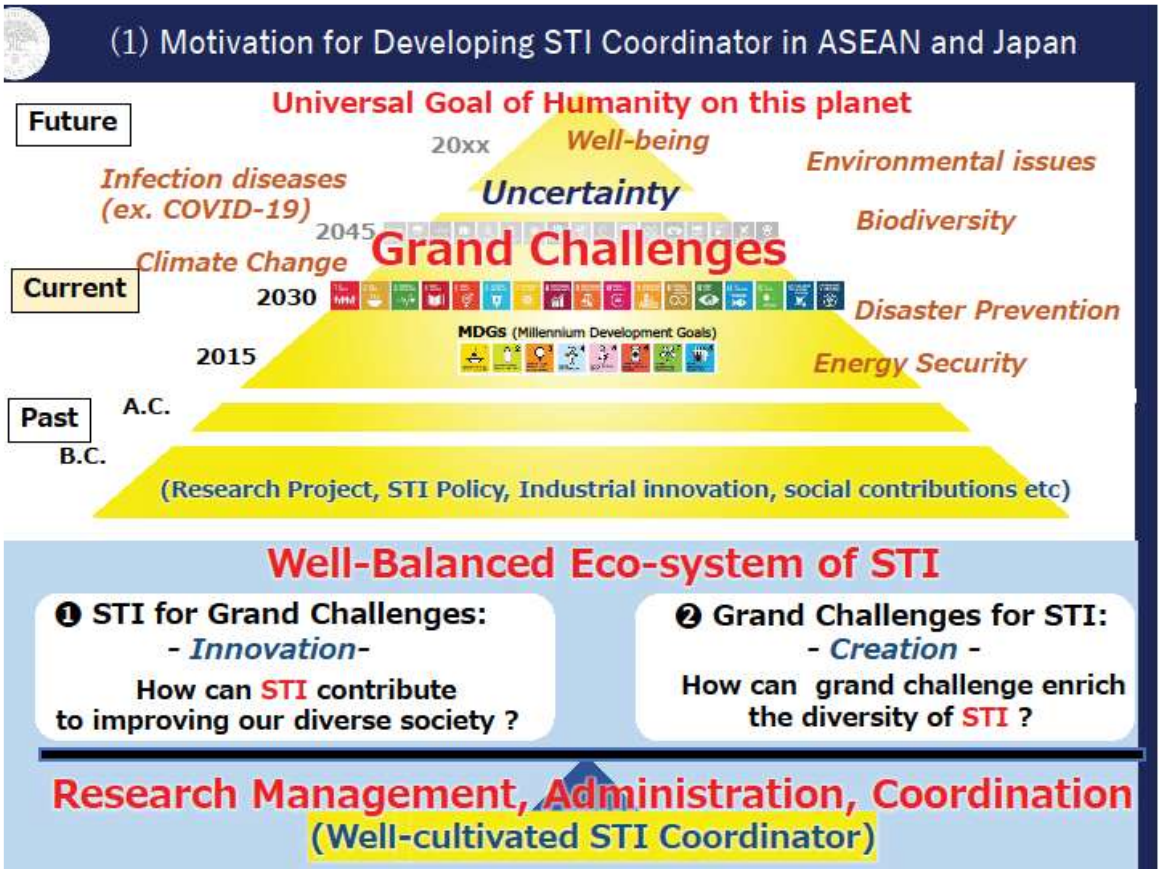

(2) Generate the Awareness of developing STI coordinators in ASEAN and Japan

1st and 2nd Working Group Discussions

Bridging and Coordination among different Sectors

Overall Goal of Project/Program

(3) Necessary of tailor-made capacity building programs for Pre/Post Awards

〔Asian traditional Mentoring System : *Senior and Junior*〕

- Learn from the experiences and wisdoms of senior and established persons around you
- Succeed their human networks and trusts for future creation

(1) Remora Strategy

(2) Ghost Writer Strategy

Capacity Development of juniors

- Knowledge and technical transfer to develop the project
- Succeeding the human networks of senior researcher, officer etc.
- Successful experience to receive a grant at earlier stage

http://ithare.com/cpp-guidelines-made-to-measure-s-one-size-fits-all/
https://tamaninikk.exblog.jp/22675443/
https://www.pinterest.jp/pin/566257353148215858/


Presentation based on their practical experiences
〔Asian traditional Mentoring System under SEE Forum〕
SEE Forum Young Researchers
(1) Remora Strategy
(2) Ghost Writer Strategy
Mentoring
SEE Forum Meetings
(Senior level)
Draft proposal
Meeting Arrangement
Network coordination
proposal
2nd AJCCST (2010)
Multilateral Joint Research
in Energy and Environment
2010
• Post-doc researcher
• Lecturer
• Assistant Professor
2020
• Deputy-Dean
• Head of Department
• Assoc Prof/ Professor
• Executive Director(ACE)
Seed for JASTIP (2015)
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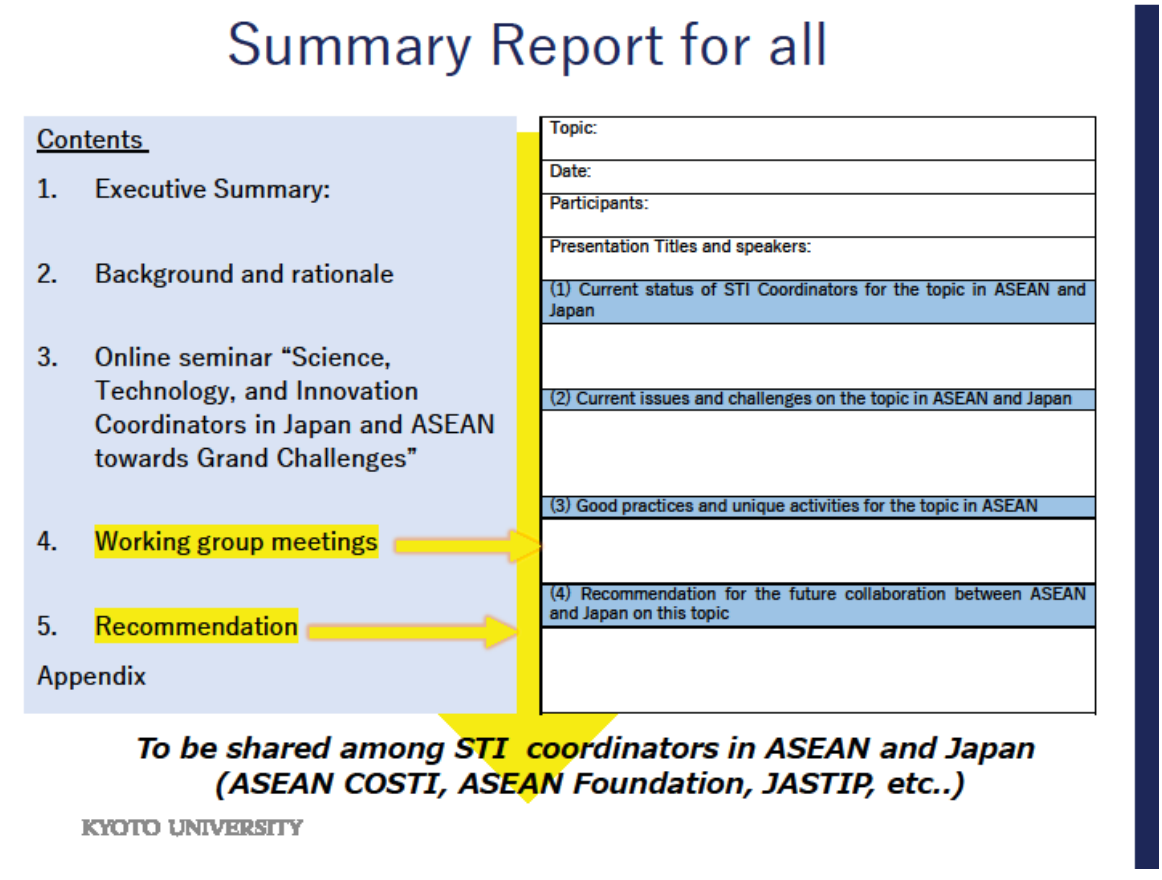
Summary Report for all
Contents
1. Executive Summary:
2. Background and rationale
3. Online seminar "Science, Technology, and Innovation Coordinators in Japan and ASEAN towards Grand Challenges"
4. Working group meetings
5. Recommendation
Appendix
Topic:
Date:
Participants:
Presentation Titles and speakers:
(1) Current status of STI Coordinators for the topic in ASEAN and Japan
(2) Current issues and challenges on the topic in ASEAN and Japan
(3) Good practices and unique activities for the topic in ASEAN
(4) Recommendation for the future collaboration between ASEAN and Japan on this topic
To be shared among STI coordinators in ASEAN and Japan
(ASEAN COSTI, ASEAN Foundation, JASTIP, etc..)
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Questionnaire for enrichment of the summary report

https://forms.gle/M3a5k1wn8THVV4gg8

4th Working Group Discussion

Topic: Pre-Awards and Post-Awards:

December 17th (Thursday)13:00-14:00 (JST)

Speakers

1. Dr. Keophousone PHONHALATH
(Head of Water Supply and Waste Engineering Division, Department of Environment Engineering, Faculty of Engineering, National University of Laos, Lao PDR)

2. Mr. Kazuma INOUE
(Deputy Director, Technical and Higher Education Team, Human Development Department Japan International Cooperation Agency (JICA), Japan)

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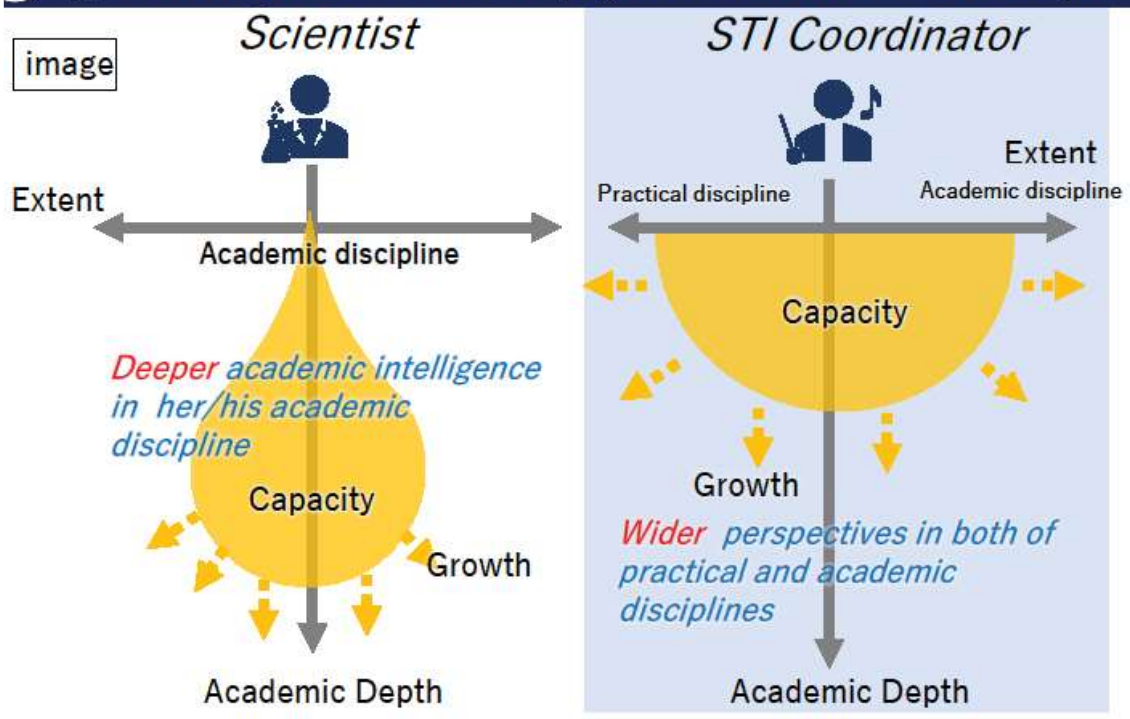
10 years ago

Objective:
(2) Generate the Awareness of developing STI coordinators in ASEAN and Japan



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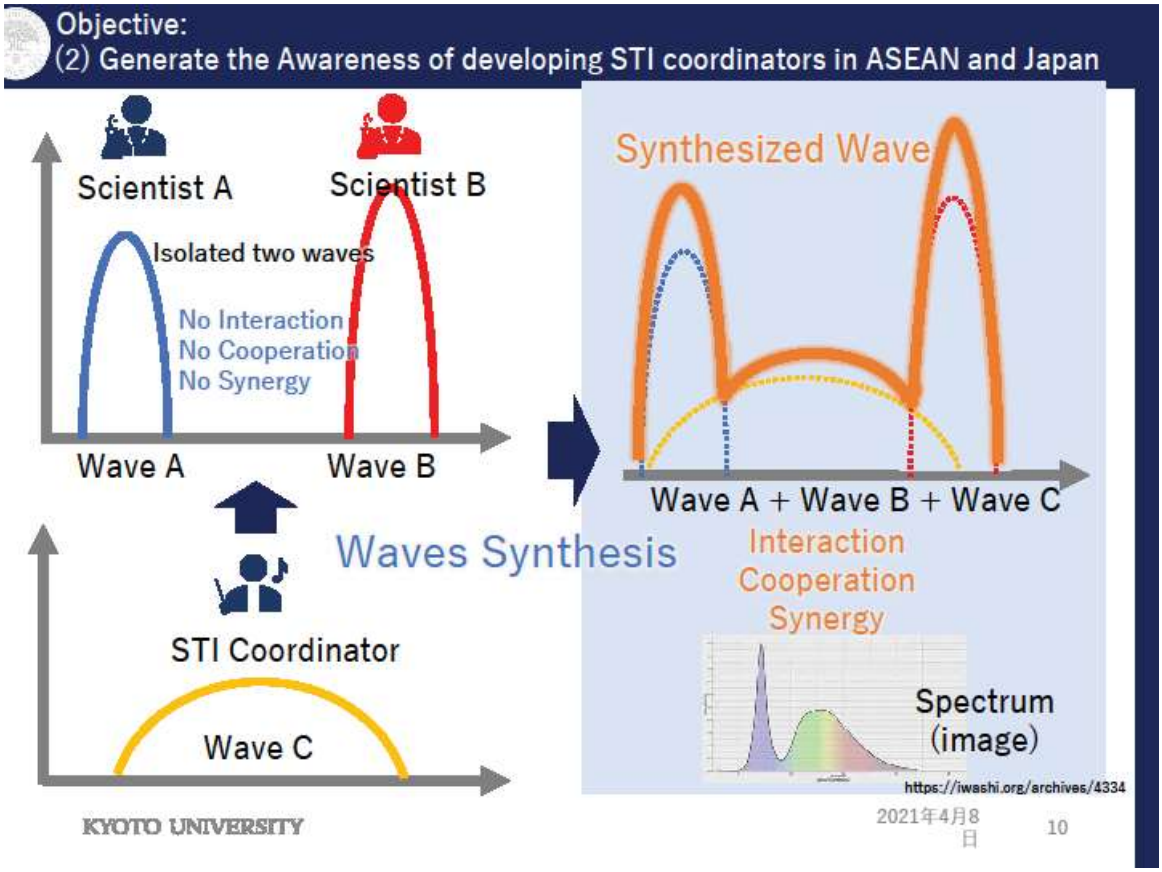
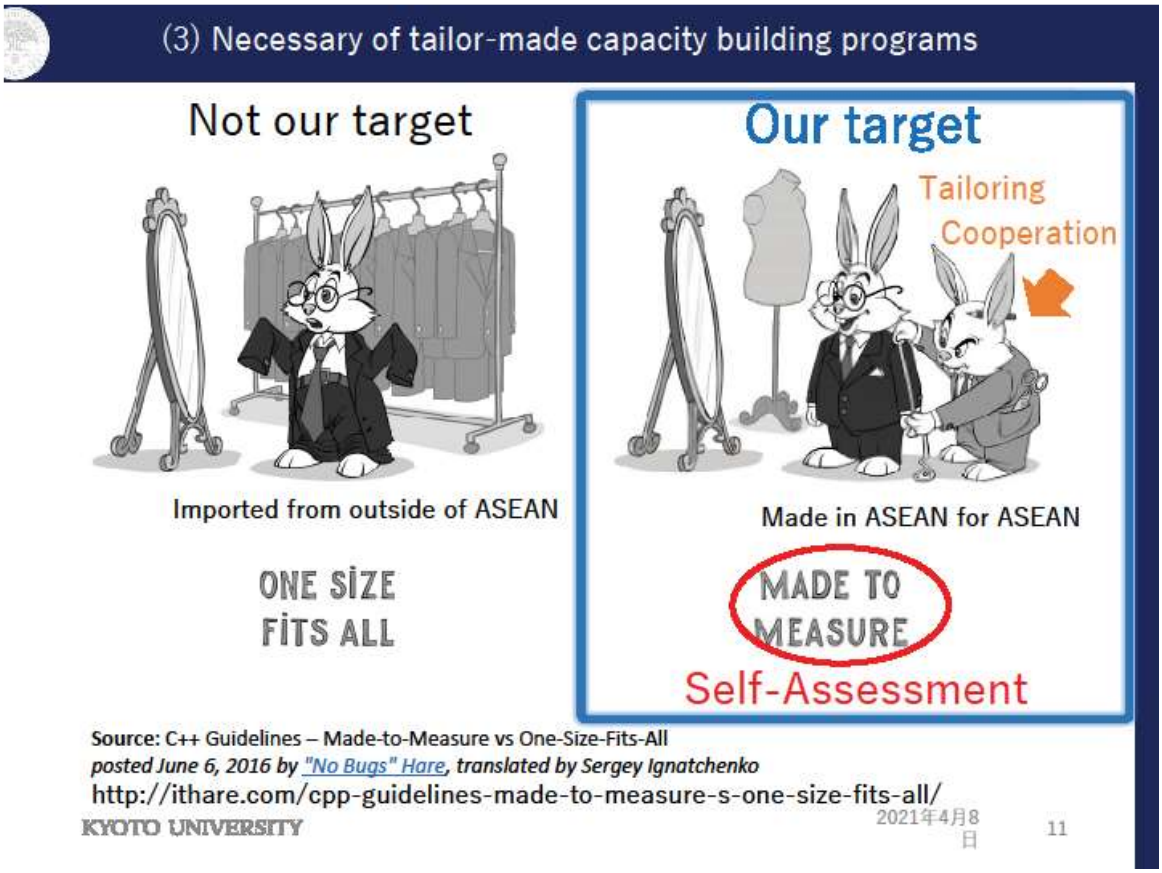
2021年4月8日 9


Objective:
(2) Generate the Awareness of developing STI coordinators in ASEAN and Japan
Scientist A
Scientist B
Isolated two waves
No Interaction
No Cooperation
No Synergy
Wave A
Wave B
Synthesized Wave
Wave A + Wave B + Wave C
Interaction
Cooperation
Synergy
Waves Synthesis
STI Coordinator
Wave C
Spectrum
(image)
https://iwashi.org/archives/4334
KYOTO UNIVERSITY
2021年4月8日
10


(3) Necessary of tailor-made capacity building programs
Not our target
Imported from outside of ASEAN
ONE SIZE
FITS ALL
Our target
Tailoring
Cooperation
Made in ASEAN for ASEAN
MADE TO
MEASURE
Self-Assessment
Source: C++ Guidelines – Made-to-Measure vs One-Size-Fits-All
posted June 6, 2016 by "No Bugs" Hare, translated by Sergey Ignatchenko
http://ithare.com/cpp-guidelines-made-to-measure-s-one-size-fits-all/
KYOTO UNIVERSITY
2021年4月8日
11

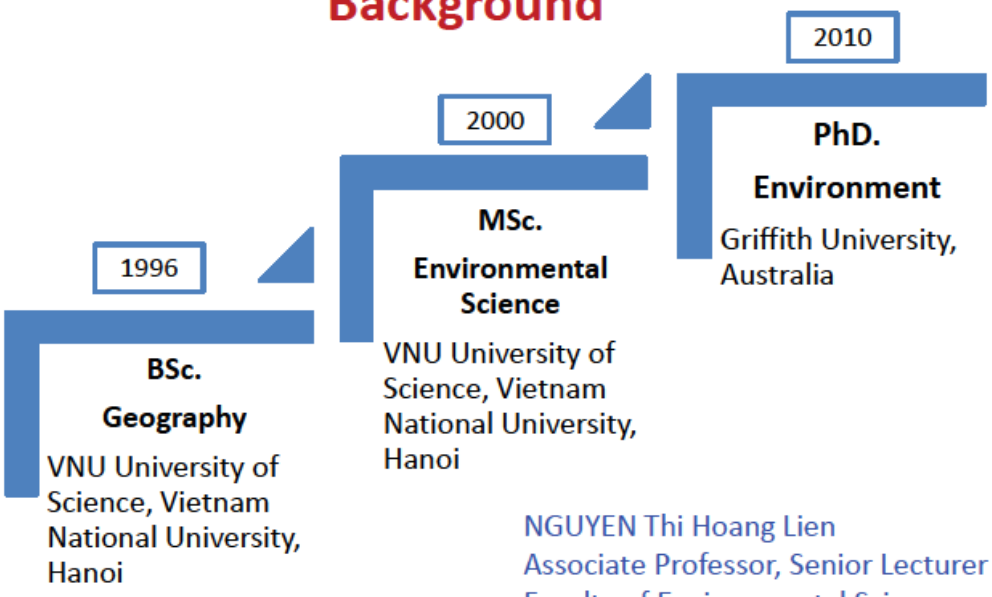
PRE-AWARDS AND POST-AWARDS

Which skills and roles would be essentials when you are involved in applying for and launching a new international project?

#Howmuchyouhavechangedchallenge

1

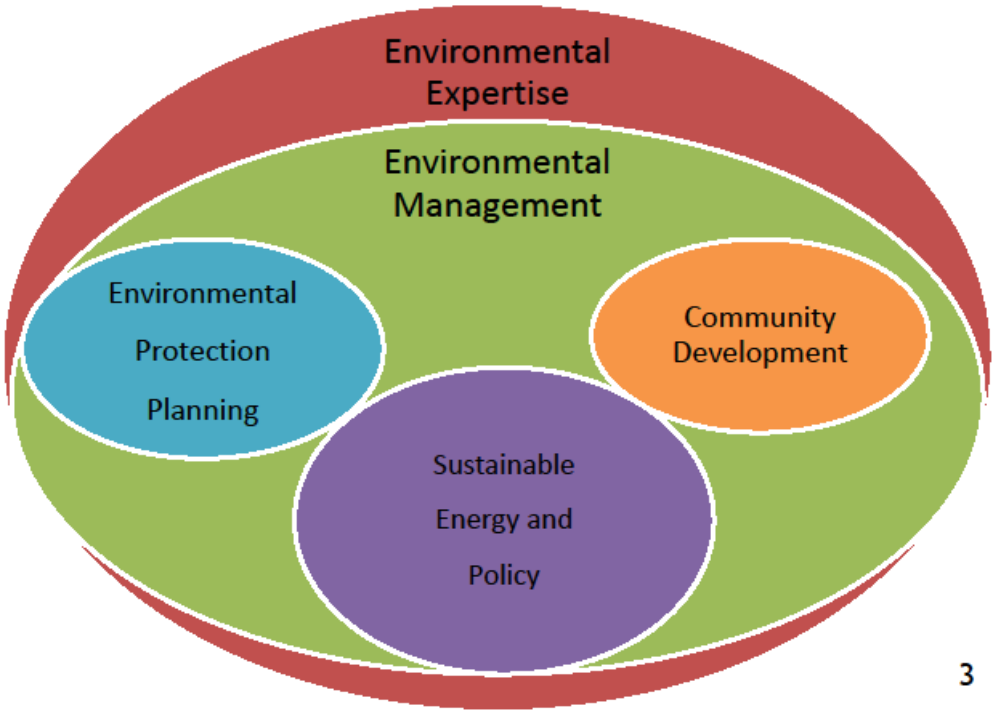
Background



NGUYEN Thi Hoang Lien
Associate Professor, Senior Lecturer
Faculty of Environmental Science
Vietnam National University, Hanoi

2

Research Interests



3

Sustainable Energy and Environment (SEE) FORUM

The 7th SEE Forum was held on 20-23 September 2010 in Viet Nam

Young Researcher

4

Feasibility Study on Renewable Energy Potential in Asia (JST funded project) 2010-2011



Technical Workshop toward s a Sustainable Energy and Environment Network: Progress Report 1

11th June 2010

SEE Forum Young Researchers



Research Member

5

ODA-UNESCO Project:

Energy Science Education Activities for Sustainable Development in Asia



- Vietnam (2011-2012) http://www.iae.kyoto-u.ac.jp/quantum/ODA-UNESCO/vietnamintroduction.html
- Laos PDR (2012-2013) http://www.iae.kyoto-u.ac.jp/quantum/ODA-UNESCO/laosintroduction.html
- Cambodia (2013-2014) http://www.iae.kyoto-u.ac.jp/quantum/ODA-UNESCO/cambodiaintroduction.html
- Myanmar (2014-2015) http://www.iae.kyoto-u.ac.jp/quantum/ODA-UNESCO/myanmarintroduction.html

Research Member

6

REVIEW OF RENEWABLE ENERGY PRACTICES IN THE PHILIPPINES AND VIETNAM


The home-made cooking stove designed by members of the community to effectively use the charcoal briquettes (Philippines)


(a) The SHS charge controller with radio feature, and (b) the 12V, 1.2 W LED bulb that came with the SHS (Philippines)


Household scale biogas (Vietnam)


Micro hydropower plant (Vietnam)

To develop renewable energy introduction metrics in rural communities

The Toyota Foundation 2014 International Grant Program

Lead Researcher (joint project)

7

COMMUNITY GARDENING:

Co-benefits of Protection of Natural Forest and Preservation of Herbal Medicine Profession of the Dao Ethnic Minority Community in Vietnam (Pilot in Ba Vi)

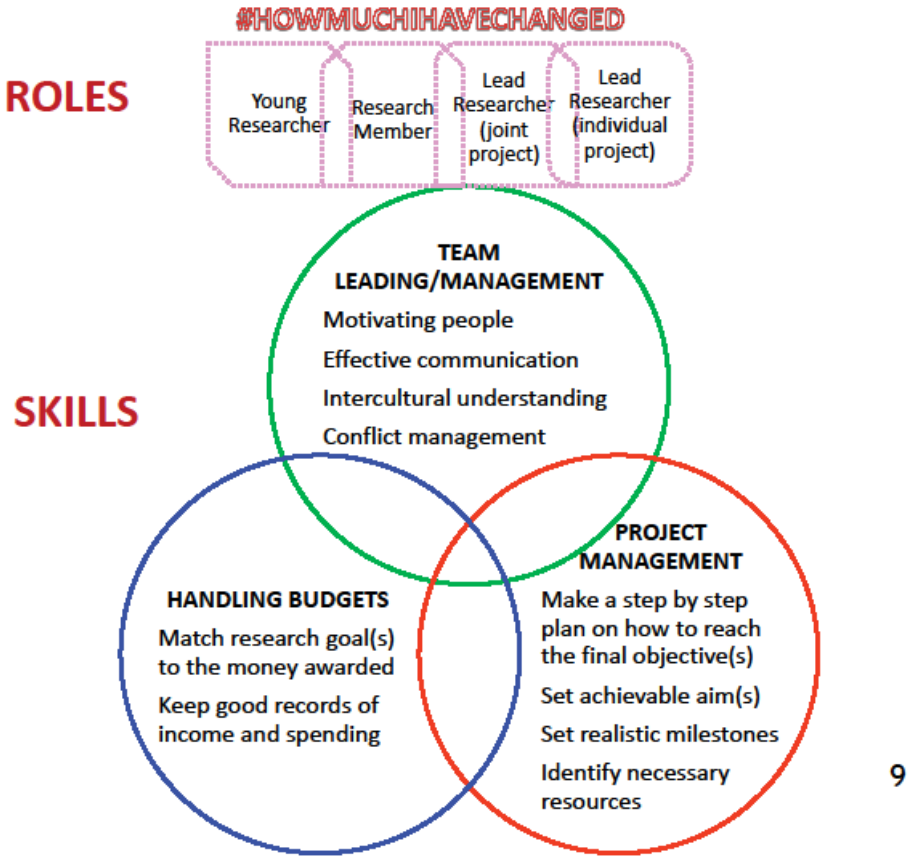

2019 **2020**

Lead Researcher (individual project)

To develop renewable energy introduction metrics in rural communities

Japan-ASEAN Science, Technology and Innovation Platform (JASTIP) funded project

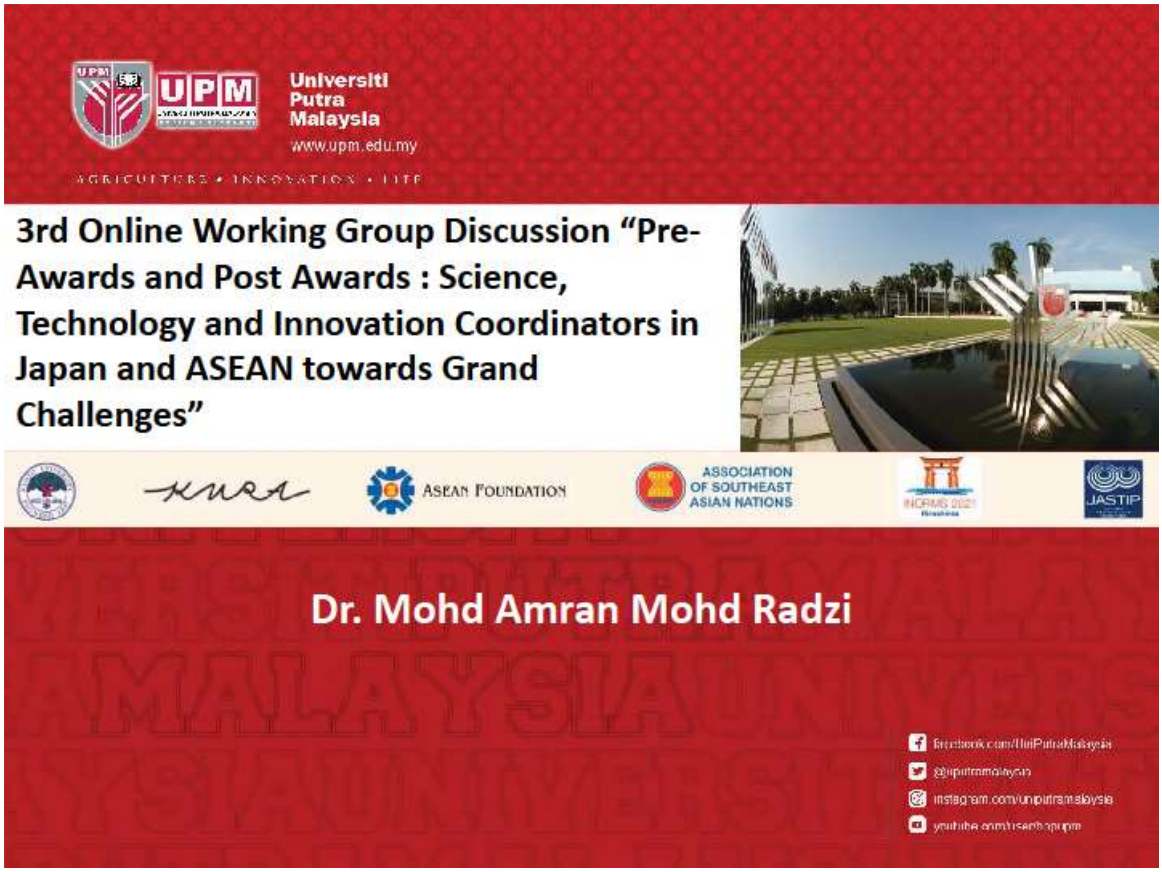
3



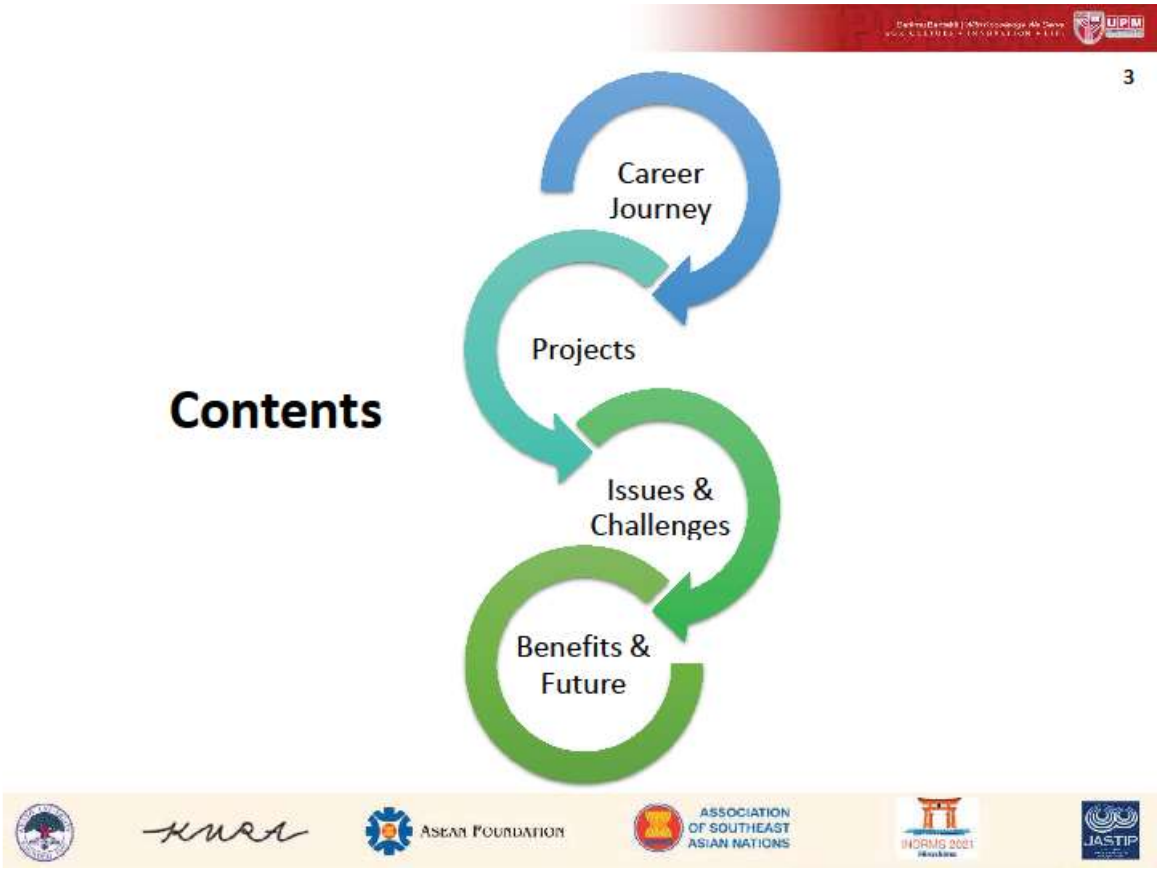
THANK YOU VERY MUCH FOR YOUR ATTENTION!

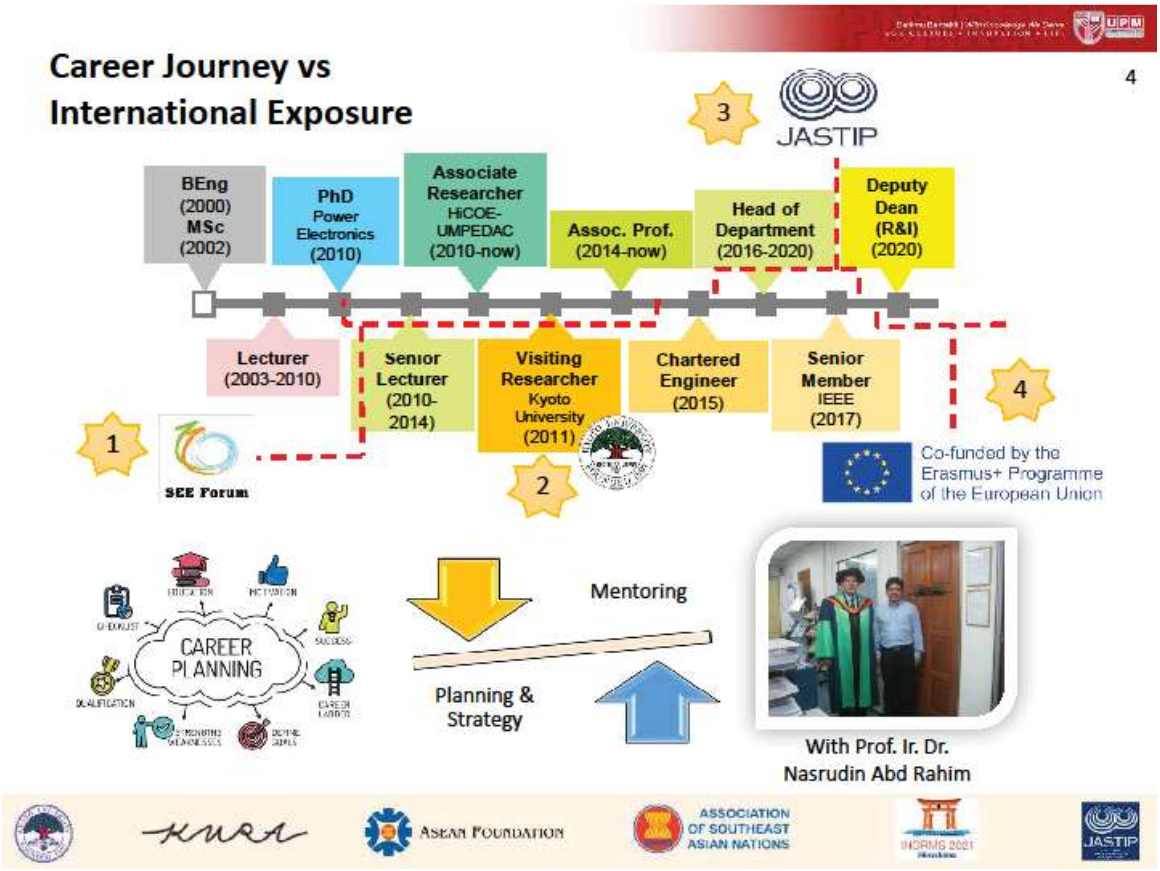
Contact: nguyenthihoanglien@vnu.edu.vn or nguyenthihoanglien@hus.edu.vn

10


Universiti
Putra
Malaysia
www.upm.edu.my
AGRICULTURE • INNOVATION • LIFE
3rd Online Working Group Discussion "Pre-Awards and Post Awards : Science, Technology and Innovation Coordinators in Japan and ASEAN towards Grand Challenges"
ASEAN FOUNDATION
ASSOCIATION OF SOUTHEAST ASIAN NATIONS
JASTIP
Dr. Mohd Amran Mohd Radzi

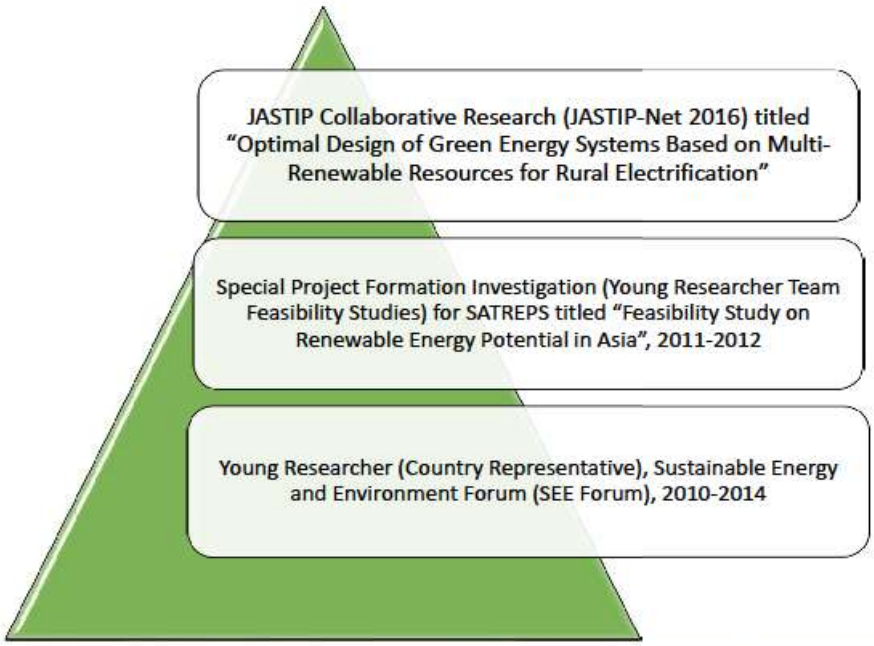

Dr. Mohd Amran Mohd Radzi
2
Deputy Dean (Research and Innovation)
Faculty of Engineering, Universiti Putra Malaysia
Associate Professor
Department of Electrical and Electronic Engineering
Researcher
Advanced Lightning, Power and Energy Research (ALPER) Centre
amranmr@upm.edu.my
Power Electronics
Power Quality
Renewable Energy
ASEAN FOUNDATION
ASSOCIATION OF SOUTHEAST ASIAN NATIONS
JASTIP


3
Contents
Career Journey
Projects
Issues & Challenges
Benefits & Future
ASEAN FOUNDATION
ASSOCIATION OF SOUTHEAST ASIAN NATIONS
JASTIP


Career Journey vs International Exposure
4
3
JASTIP
BEng (2000) MSc (2002)
PhD Power Electronics (2010)
Associate Researcher HiCOE-UMPEDAC (2010-now)
Assoc. Prof. (2014-now)
Head of Department (2016-2020)
Deputy Dean (R&I) (2020)
Lecturer (2003-2010)
Senior Lecturer (2010-2014)
Visiting Researcher Kyoto University (2011)
Chartered Engineer (2015)
Senior Member IEEE (2017)
1
2
4
SEE Forum
Co-funded by the Erasmus+ Programme of the European Union
CAREER PLANNING
Mentoring
Planning & Strategy
With Prof. Ir. Dr. Nasrudin Abd Rahim
ASEAN FOUNDATION
ASSOCIATION OF SOUTHEAST ASIAN NATIONS
JASTIP

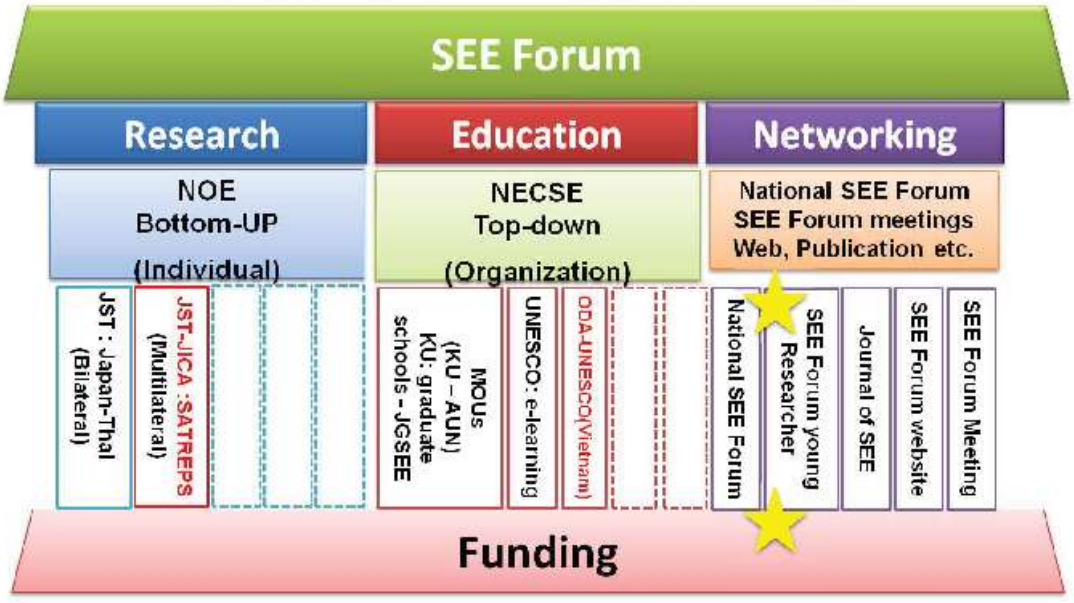
5

Key Roles/Projects with Japan and ASEAN



6

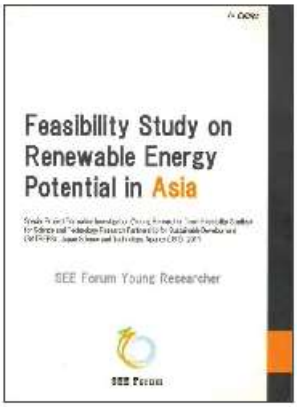
Young Researcher, Sustainable Energy and Environment Forum (SEE Forum)



7

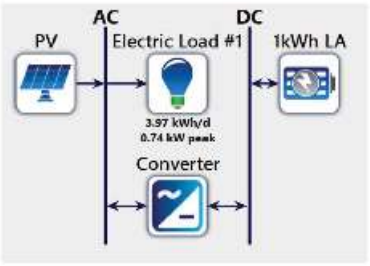
Special Project Formation Investigation (Young Researcher Team Feasibility Studies) for SATREPS titled "Feasibility Study on Renewable Energy Potential in Asia"

The objective is to publish the comprehensive Country Report on renewable energy potential in Asia for emerging a new concept of research proposal by gathering information on energy policy, technologies, natural and human resources, and availability of funding pertaining to renewable energy from policy makers, government institutions, research institutions, universities, commercial sectors (and other RE stakeholders) through **the cooperation of multilateral young researchers under SEE Forum**.



8

JASTIP Collaborative Research (JASTIP-Net 2016) titled "Optimal Design of Green Energy Systems Based on Multi-Renewable Resources for Rural Electrification"



Configuration in HOMER

Third JASTIP Symposium
ASEAN-Japan STI Collaboration for SDGs
February 5, 2017, Bangkok, Thailand

M.A.M. Radzi, N.A. Rahim, H.S. Che, H. Ohgaki, H. Farzaneh, W.S.H. Wong, and L.C. Hung, "Optimal solar powered system for long houses in Sarawak by using Homer tool," *ASEAN Engineering Journal*, vol. 9, no. 1, pp. 1-14, 2019.

9

Issues and Challenges

Multi countries	• Developed vs developing countries • Different cultures and areas
Less experience	• Career just started • Fundamental research - papers
Limited interaction	• New joint venture • No physical visit

10

Facing the Challenges...

Understand each other with same interest
- Personal & family
- Culture & Tradition
- Politics
- Working culture

Somehow, to initiate our collaborative work, we started with understanding POLICY and POTENTIAL of each country!

Japan + ASEAN + India → Common Targets

POLICIES & POTENTIAL!

11

Facing the Challenges...

Plan and propose

Execution

Ghostwriter!!!

*Not really, part of learning

Successful + Fail = Great Experience!

12

Obtained Benefits from Personal View

Networking Expansion

Learned from the best!

Prof Ohgaki

International mentoring

http://skybelt.eu/

Skybelt

Europe & China

Japan, ASEAN & India

National – HiCOE UMPEDAC

Collaborative research – joint SV

Industrial partnership/ advisory

13

Obtained Benefits from Personal View

Upgrading Skills /Characters

- Management
- Planning
- Negotiation
- Open minded
- Teamwork
- Presentation

#The good leader is also the good follower

14

Future Challenges

Elements Required:

1. Knowledge
2. Leadership
3. Communication + social media
4. IT + Big Data + Machine Learning
5. Creative & Innovative

Jakarta 2010

Japan 2011

THANK YOU

Bangkok 2012

Reunion 2019

4th Working Group Discussion

December 17th (Thu) 13:00-14:00 (JST)

Agenda:

"Pre-Awards and Post-Awards:

Which skills and roles would be essential when you are involved in applying for and launching a new international project?

Time allocation (Total about 60 minutes)

10 min Introduction (KURA)

10 min Short presentations (Speaker 1: Dr. Keophousone PHONHALATH)

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20 min Q&A (all)

10 min Networking and wrap-up (KURA)

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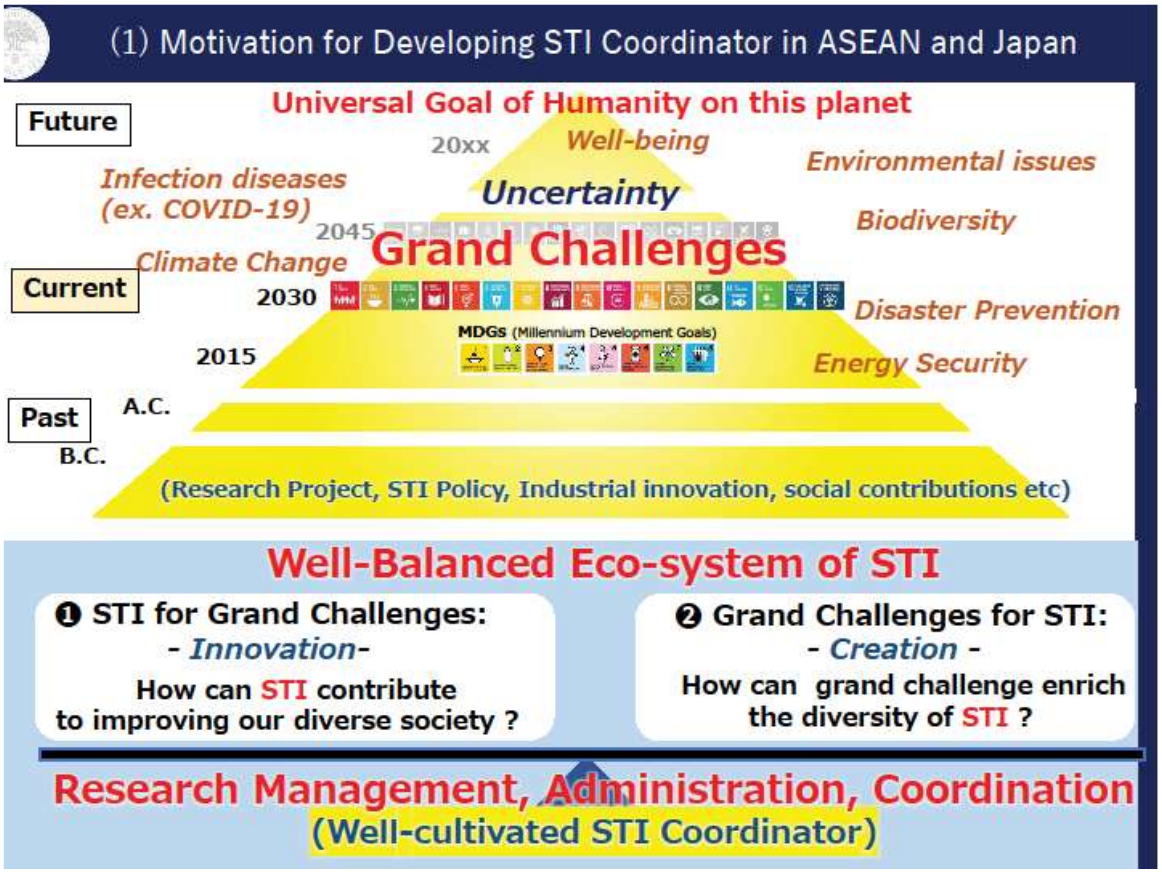
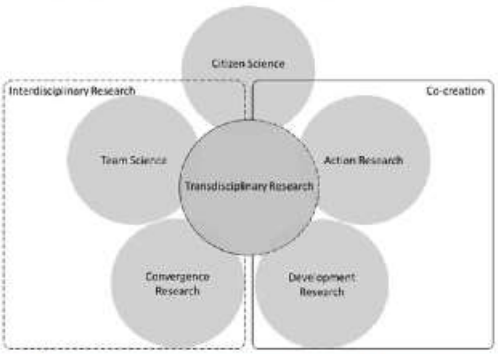


Grand Challenge for STI ≒ Transdisciplinary Research (TDR)

Figure 3. Transdisciplinary research and related modes of research



Transdisciplinarity (TD) is defined by the integration of academic researchers from different disciplines with non-academic participants in co-creating new knowledge and theory to achieve a common goal (Swiss Academies of arts and sciences, n.d.[1]).

TDR is increasingly cited as a means for addressing complex societal challenges, such as those encompassed by the United Nations Sustainable Development Goals (SDGs)

OECD Science, Technology, and Industry: Policy Paper June 2020 No. 88

Grand Challenge for STI ≒ Transdisciplinary Research (TDR)

14. Japan-ASEAN Science, Technology and Innovation Platform (CHIRP/JASTIP)/ Collaboration Hubs for International Research Programme

Lessons learned:

• Successful TDR projects are supported by University Research Administrators and have dedicated coordinators who help to bridge among different disciplines and to ensure long term commitment from non-academic participants.

OECD Science, Technology, and Industry: Policy Paper June 2020 No. 88 pp. 54

ASCC Blueprint 2025

- ASCC (ASEAN Socio-Cultural Community) is the best community for TDR in the world
- STI coordinator can contribute for cross-sectoral and cross-pillar coordination

ASEAN Symposium on ASEAN Socio-Cultural Community Blueprint 2025
Date : December 10, 2020

(2) Generate the Awareness of developing STI coordinators in ASEAN and Japan

1st and 2nd Working Group Discussions

Bridging and Coordination among different Sectors

Overall Goal of Project/Program

(3) Necessary of tailor-made capacity building programs for Pre/Post Awards

The skills in pre-award and post-awards for handling domestic and international funding projects is one of the central pillars for STI coordinators;

Key findings

While participating in the project and receiving guidance from mentors, young researchers and STI coordinators could obtain valuable experiences and networks at their early career stage.

http://ithare.com/cpp-guidelines-made-to-measure-s-one-size-fits-all/
https://tamaninikk.exblog.jp/22675443/
https://www.pinterest.jp/pin/566257353148215858/

(4) Recommendations for tailoring capacity development program

1. To design a mentoring program for young researchers and STI coordinators so that they could initiate a collaborative project (ex. International mentoring program)
2. More domestic or international internship opportunity at universities, private companies, and government office could also enhance the capacity of STI coordinator to understand the different sectors as well as expand the collaborative network (ex. Short-term internship programs at the embassy in a foreign country)
3. To set-up a special grant or internal seed-funds targeted for young researchers to initiate a new project (ex. Partnership grant so called as JASTIP-Net targeted to ASEAN and Japan STI communities)
4. Sharing technology and resources on an existing collaborative platforms such as young scientist association, JASTIP, FKII etc.

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Summary Report for all

Contents

1. Executive Summary:
2. Background and rationale
3. Online seminar "Science, Technology, and Innovation Coordinators in Japan and ASEAN towards Grand Challenges"
4. Working group meetings
5. Recommendation

Appendix

Topic:
Date:
Participants:
Presentation Titles and speakers:
(1) Current status of STI Coordinators for the topic in ASEAN and Japan
(2) Current issues and challenges on the topic in ASEAN and Japan
(3) Good practices and unique activities for the topic in ASEAN
(4) Recommendation for the future collaboration between ASEAN and Japan on this topic

To be shared among STI coordinators in ASEAN and Japan (ASEAN COSTI, ASEAN Foundation, JASTIP, etc..)

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Questionnaire for enrichment of the summary report

https://forms.gle/ZqqYfy3JnyXg96AZ6

5th Working Group Discussion

Topic: *"how to tailor-made a capacity development program for young talents"*

January 26th (Thursday)17:00-18:00 (JST)

Speakers

1. **Dr. Fidero Kuok**
(Director General, National Institute of Science, Technology and Innovation, Cambodia)

2. **Dr. Norbert Norris Bonifacio Z Falguera**
(Assistant Professor, University of the Philippines, Philippines)

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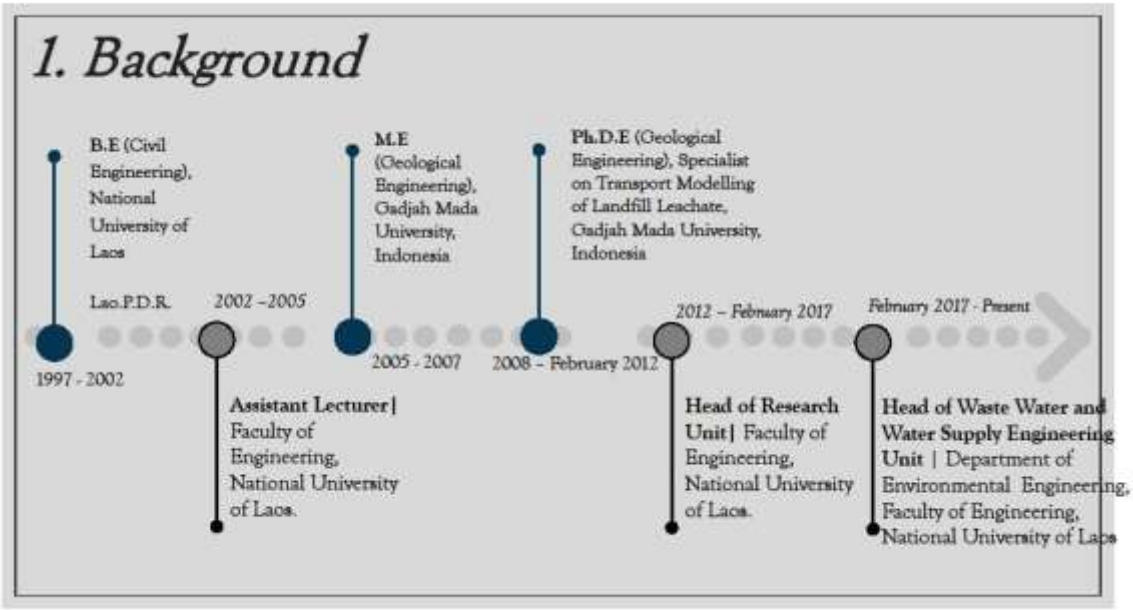


Research Experiences

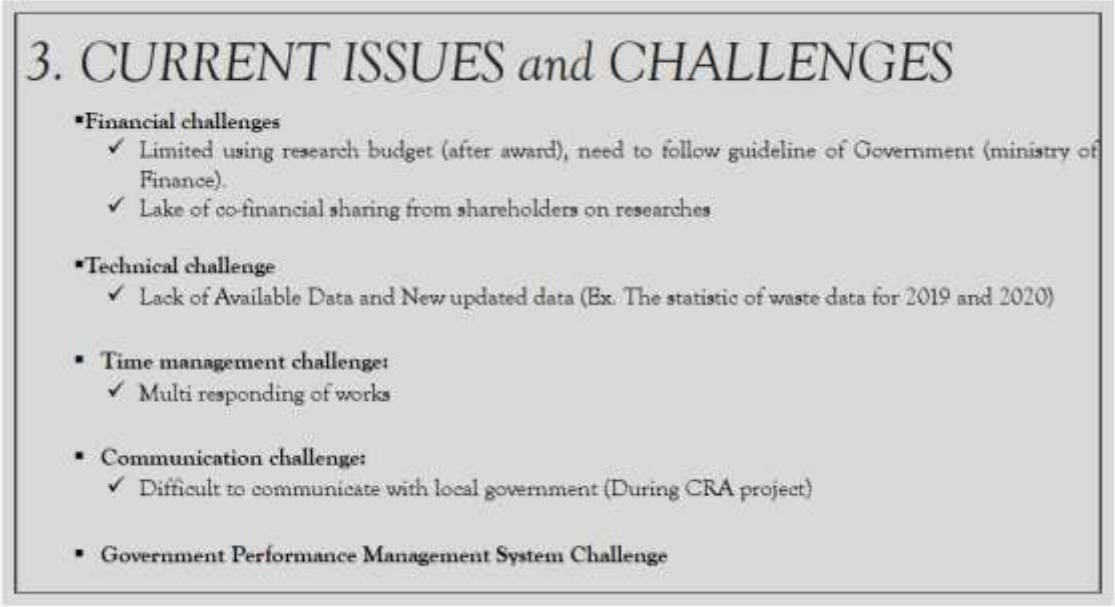
1. Supported to the Project of Ban Phonsaad Development, Phieng District, Xayabouli Province, as designer of Rural and Sanitation System Design, Boreholes Drilling Planner, Groundwater Engineer, in March, 2012.
2. Done on Research for Alumni (RA) of AUN/SEED-Net program, "Groundwater Quality Analysis in Nonkhilek Village, Vientiane Capital City, Lao.P.D.R", 2012.
3. Done research on "Assessment of Nitrate Loading Potential in Groundwater from Landfill Leachate, Case Study KM32 Landfill, Vientiane Capital", 2015.
4. Done on Research for Alumni (CRA, 2016) of AUN/SEED-Net program, "Mobilization and Transport of Arsenic in Groundwater of Khied Ngong Village, Pathoumphone District, Champasak Province, Lao PDR", 2016
5. Done research on "Study on Two Dimensional Vertical Groundwater Flow Modeling, Case Study: Nam Samoy Small Hydropower Project, Kasi District, Vientiane Province", 2019

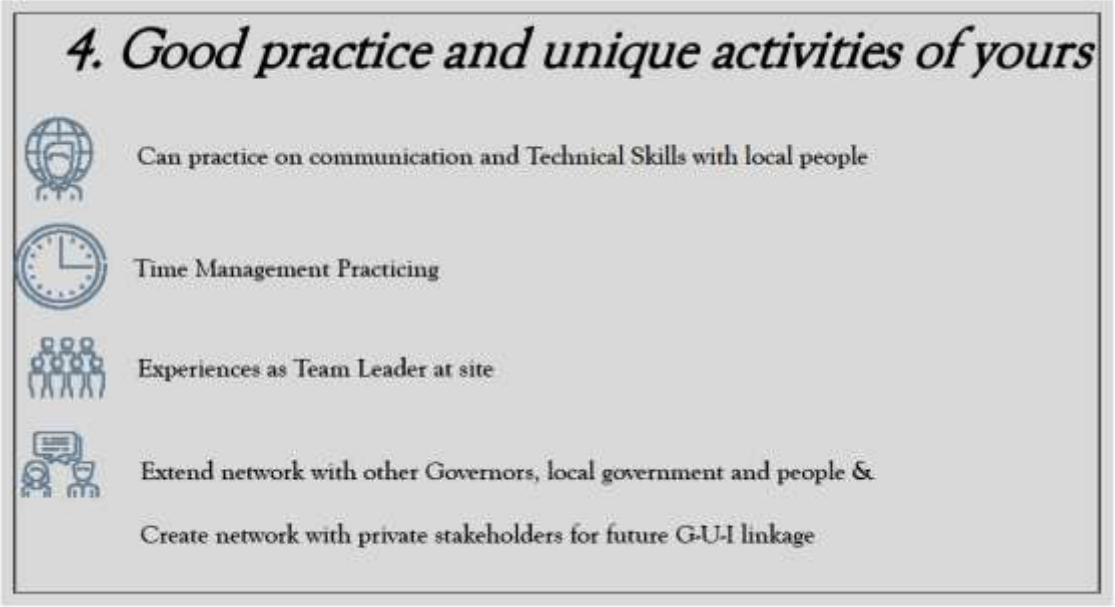
Work Experiences

1. Involved in the activities of TECHNO *project II, a research staff/coordinator by the European Commission in 2012.*
2. AUN/SEED-Net program's co-coordinator at NUOL, 2012-2013.
3. Done working as coordinator of SUCCEED project (Sustainable Climate Change and Energy Education Development Project), Finland Future Research Centre, 2013-2015.
4. Done working as coordinator of DEEM project (DEVELOPMENT OF ENERGY EDUCATION IN THE MEKONG REGION), Finland Future Research Centre, Erasmus+ supporting, 2016-2019.
5. ASEAN Science and Technology (S&T) 2019-2020: Policy Recommendation on Science Technology and Innovation of Municipal Solid Waste Management.

2. Current status of STI coordinators around:

- Research and Academic Service office, NUOL.
- COSTI coordination of Laos, Ministry of Science and Technology.
- Finland Future Research Center, Finland.
- ASEAN FOUNDATION: ASEAN Science and Technology (S&T) 2019-2020


3. CURRENT ISSUES and CHALLENGES
•Financial challenges
✓ Limited using research budget (after award), need to follow guideline of Government (ministry of Finance).
✓ Lake of co-financial sharing from shareholders on researches
•Technical challenge
✓ Lack of Available Data and New updated data (Ex. The statistic of waste data for 2019 and 2020)
• Time management challenge:
✓ Multi responding of works
• Communication challenge:
✓ Difficult to communicate with local government (During CRA project)
• Government Performance Management System Challenge


4. Good practice and unique activities of yours
Can practice on communication and Technical Skills with local people
Time Management Practicing
Experiences as Team Leader at site
Extend network with other Governors, local government and people &
Create network with private stakeholders for future G-U-I linkage


SUCCEED Project
DEEM Project


CRA project
AUN/SEED-Net
ASEAN Science and Technology
(S&T) 2019-2020
and COSTI Laos


Groundwater Management Project
with Ministry of Natural Resources


Other activities
Jointed Soft Skill workshop
Visit Water Quality & Safety
research Center
Water Supply Treatment Plant
at Kwater
Social Impact Survey from Phoukham
Mining
Supported field work for University of Tokyo at
Huanhinboun Hydropower Project
Topic: Gender Equality
Biodiversity Survey
along Nam Et river,
Huaphan province
Work as Consultant for better Environmental
Management for Projects (Academic service)

5. Recommendation for Future collaboration

- Need more collaboration to do the workshop of Soft skill, such as communication skill with local government and local people to understand their needs from STI to improve their better lives.
- Extend more research with Host Ministry (Ministry of Science and Technology) together with Ministry of Natural Resources and Environment, Ministry of Energy and Mine.
- Need more collaborative research between ASEAN and JAPAN, together with other regions to promote young scientists for future researches.

THANKS!

Do you have any questions?

keophontahu@gmail.com
+856 20 91565208
Environmental Engineering Department
Faculty of Engineering
National University of Laos

4th Online Working Group Discussion

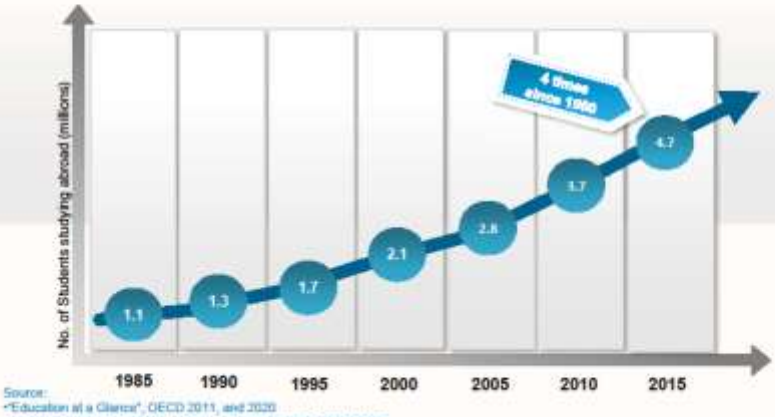
PRE-AWARDS AND POST-AWARDS:

SCIENCE, TECHNOLOGY AND INNOVATION COORDINATORS IN JAPAN AND ASEAN TOWARDS GRAND CHALLENGES

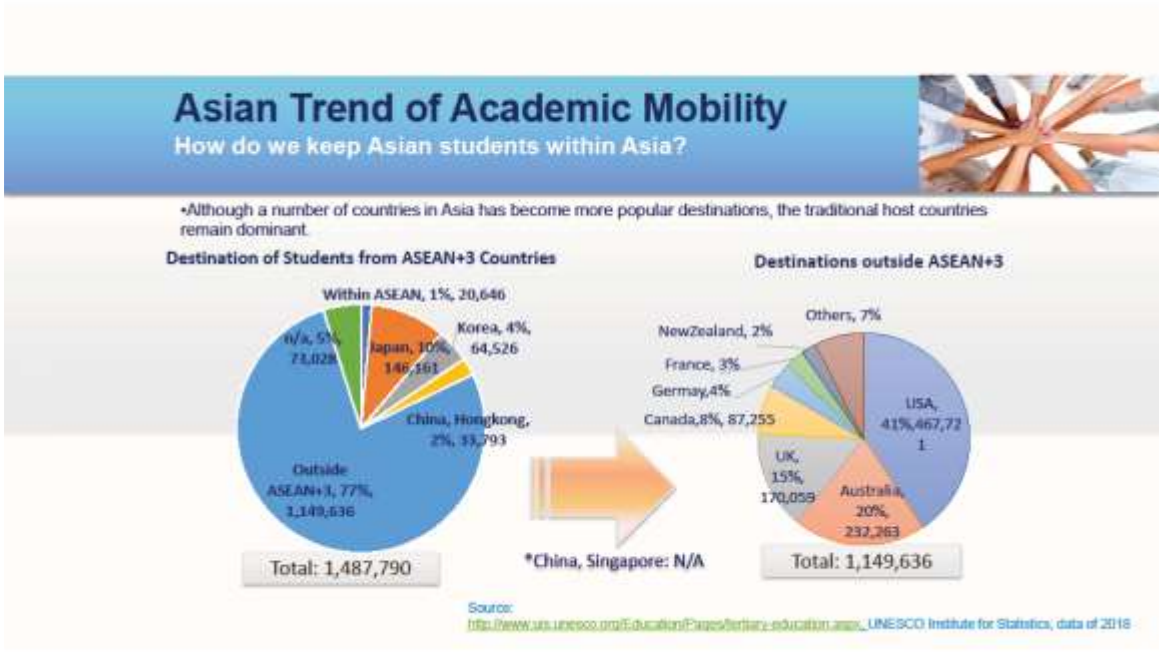
INOUE Kazuma
Technical and Higher Education Team
Human Development Department
JICA
December 17, 2020

Global Trend of Academic Mobility

Rapid Growth of Cross- Border Higher Education

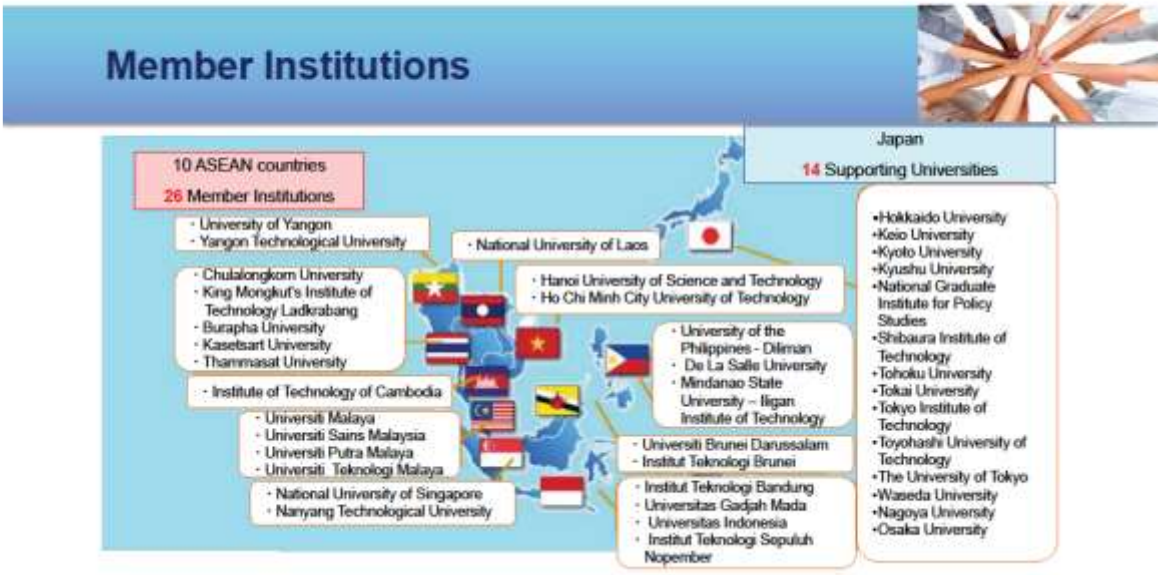


Source:
•"Education at a Glance", OECD 2011, and 2020
•"Higher Education To 2030 – Volume 2: Globalization", OECD 2009


Asian Trend of Academic Mobility
How do we keep Asian students within Asia?
•Although a number of countries in Asia has become more popular destinations, the traditional host countries remain dominant.
Destination of Students from ASEAN+3 Countries
Within ASEAN, 1%, 20,646
n/a, 5%, 73,028
Japan, 10%, 146,161
Korea, 4%, 64,526
China, Hongkong, 2%, 33,793
Outside ASEAN+3, 77%, 1,149,636
Total: 1,487,790
*China, Singapore: N/A
Destinations outside ASEAN+3
Others, 7%
NewZealand, 2%
France, 3%
Germay,4%
Canada,8%, 87,255
USA, 41%,467,721
UK, 15%, 170,059
Australia, 20%, 232,263
Total: 1,149,636
Source:
http://www.uis.unesco.org/Education/Pages/tertiary-education.aspx, UNESCO Institute for Statistics, data of 2018

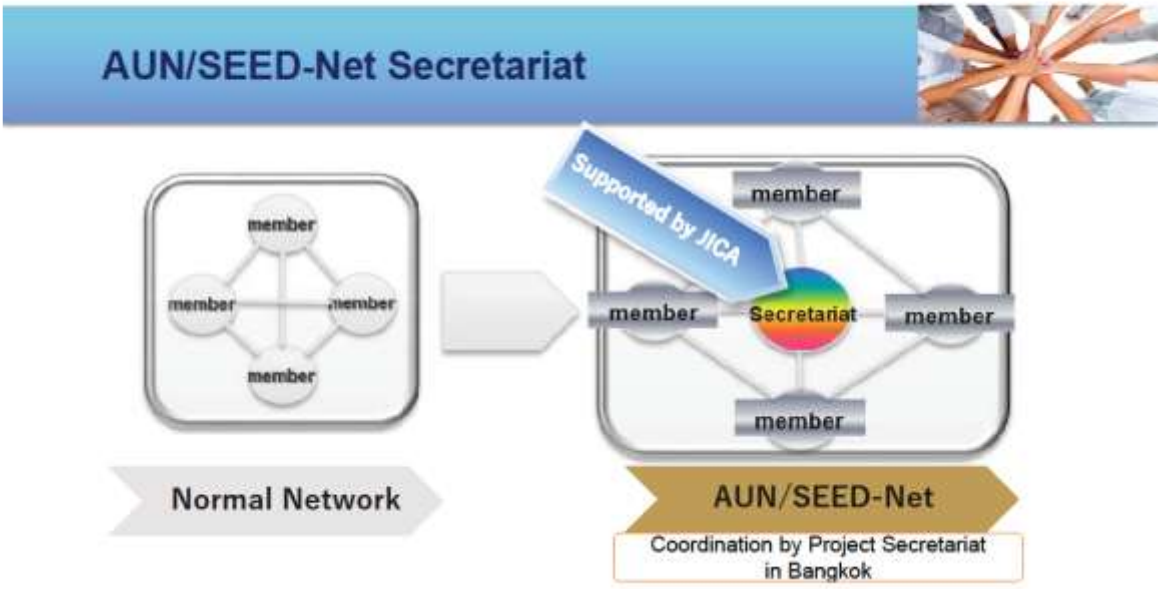

Vision and Mission of AUN/SEED-Net
Contribution to ASEAN Community
Enhancement of economic integration and competitiveness of ASEAN
ASEAN Economic Community
ASEAN Socio-Cultural Community
ASEAN Political-Security Community
Enhancement of well-being and livelihood of ASEAN people
Enhancement of rules and governance for ASEAN
AUN/SEED-Net
Vision:
Sustainable social and economic development in ASEAN and Japan is promoted through innovative and highly qualified engineering human resources
Missions:
1 To nurture competitiveness of personnel in engineering institutions
2 To promote collaboration and solidarity among academics and professionals in the region

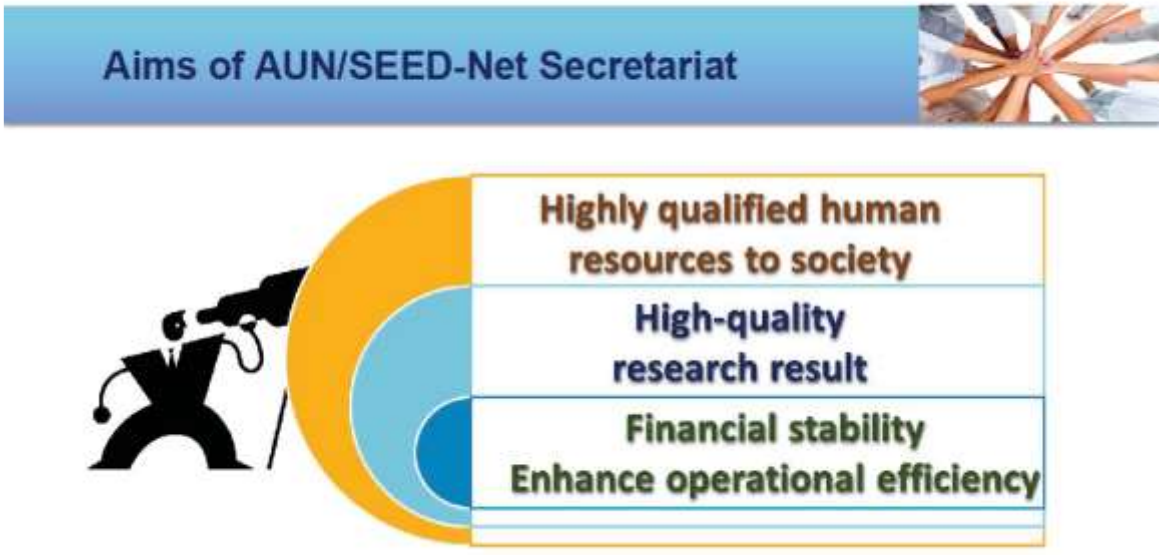

Achievements
Quality Improvement of Research
700 Collaborative Researches + 1000 Papers published
Quality Improvement of Academic Staff
Post graduate scholarships to 1,400 academic staff
Establishment of Network
400 ASEAN nationals + 200 Japanese Professors


Member Institutions
10 ASEAN countries
26 Member Institutions
· University of Yangon
· Yangon Technological University
· National University of Laos
· Chulalongkorn University
· King Mongkut's Institute of Technology Ladkrabang
· Burapha University
· Kasetsart University
· Thammasat University
· Hanoi University of Science and Technology
· Ho Chi Minh City University of Technology
· Institute of Technology of Cambodia
· Universiti Malaya
· Universiti Sains Malaysia
· Universiti Putra Malaya
· Universiti Teknologi Malaya
· University of the Philippines - Diliman
· De La Salle University
· Mindanao State University – Iligan Institute of Technology
· Universiti Brunei Darussalam
· Institut Teknologi Brunei
· National University of Singapore
· Nanyang Technological University
· Institut Teknologi Bandung
· Universitas Gadjah Mada
· Universitas Indonesia
· Institut Teknologi Sepuluh Nopember
Japan
14 Supporting Universities
•Hokkaido University
•Keio University
•Kyoto University
•Kyushu University
•National Graduate Institute for Policy Studies
•Shibaura Institute of Technology
•Tohoku University
•Tokai University
•Tokyo Institute of Technology
•Toyohashi University of Technology
•The University of Tokyo
•Waseda University
•Nagoya University
•Osaka University


AUN/SEED-Net
JICA
Signing Ceremony of Cooperative Framework of AUN/SEED-Net Phase III
29 November 2012, Grand Millennium Sukhumvit, Bangkok, Thailand


Capacity Development for Faculty Members
Degree Programs
Other Programs
University-Industry Linkage
Regional Academic Conference
ASEAN Engineering Journal
Collaborative Education
Collaborative Research
- Alumni
- Common Regional Issues
- Industry
- Research Fellowship
Master's Scholarship
PhD Scholarship
- Research Fund for Student
Short-term Visits
- ASEAN
- Japan
Student
Faculty Member


AUN/SEED-Net Secretariat
member
member
member
member
Supported by JICA
member
member
Secretariat
member
member
Normal Network
AUN/SEED-Net
Coordination by Project Secretariat
in Bangkok


Aims of AUN/SEED-Net Secretariat
Highly qualified human
resources to society
High-quality
research result
Financial stability
Enhance operational efficiency

Role & Responsibility

Who	Ownership			
AUN/SEED-Net Secretariat	x	x		
University & Principal Investigator & Coordinator			x	x

Case of collaborative research program

- A set of financial report is required to each Principal Investigator.
- University is responsible for verifying, certifying and submitting to AUN/SEED-Net Secretariat
- Coordinator is appointed to assist communication, information dissemination, follow-up and documentation

Thank you for your kind attention !!

5th Working Group Discussion

January 26th (Tue) 17:00-18:00 (JST)

Agenda:

"How to Tailor-Make a Capacity Development Program for Young Talents"

Time allocation (Total about 60 minutes)

10 min Introduction (KURA)

10 min Short presentations (Speaker 1: Dr. Kuok Fidero)

10 min Short presentations (Speaker 2: Dr. Norbert Norris Bonifacio Z Falguera)

20 min Q&A (all)

10 min Networking and wrap-up (KURA)

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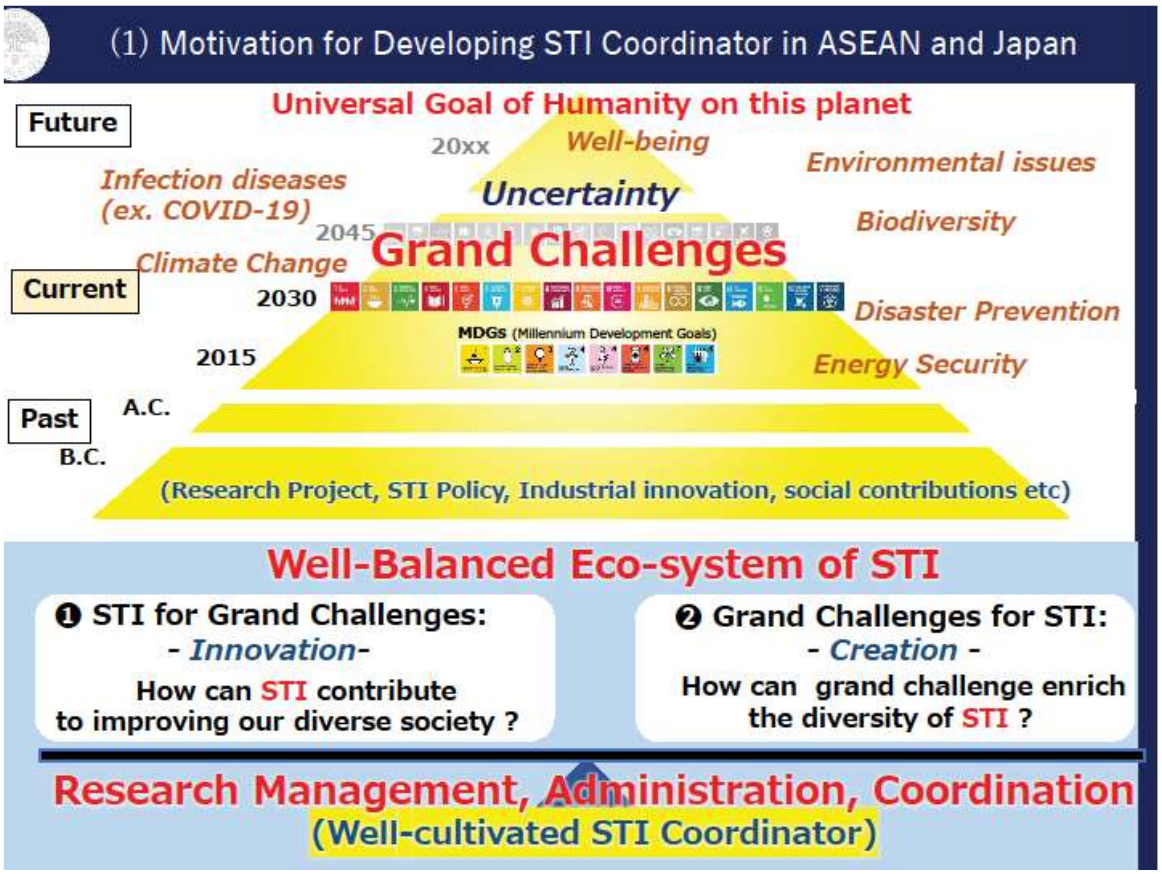
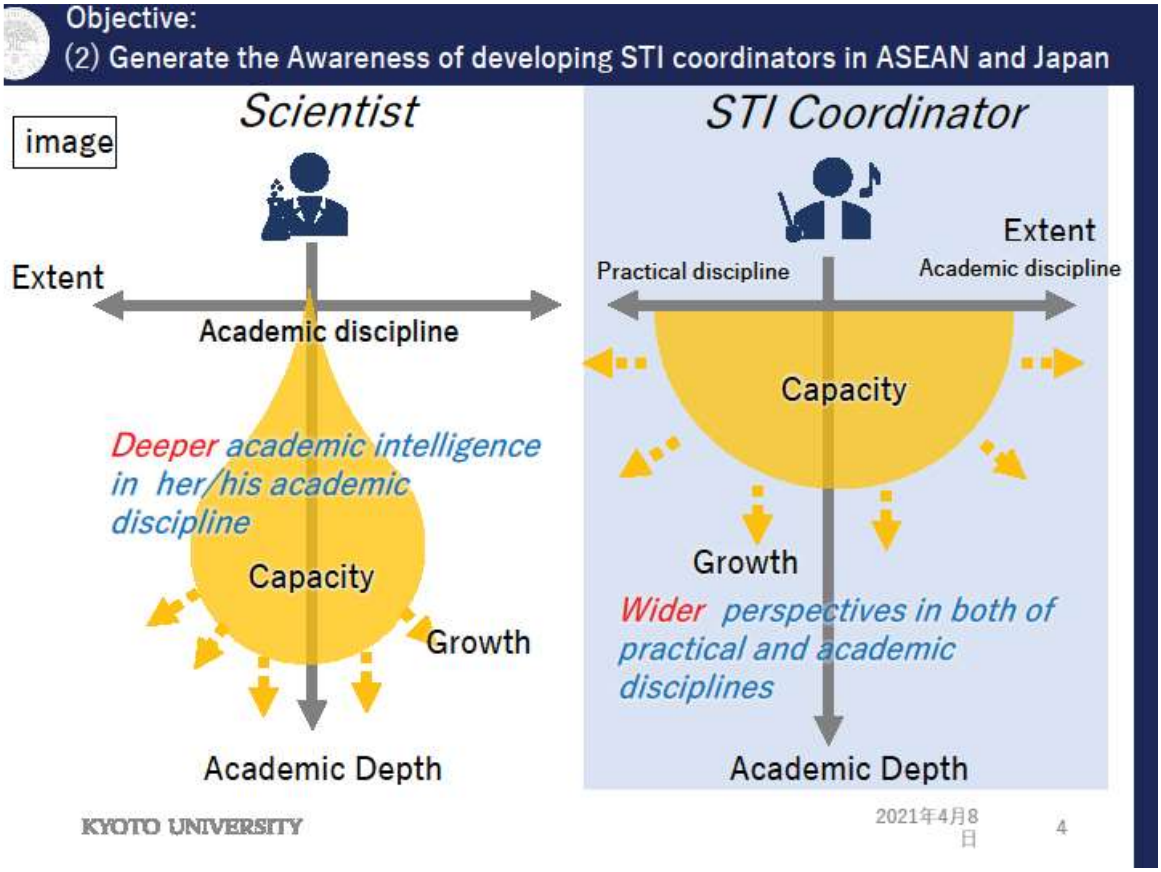
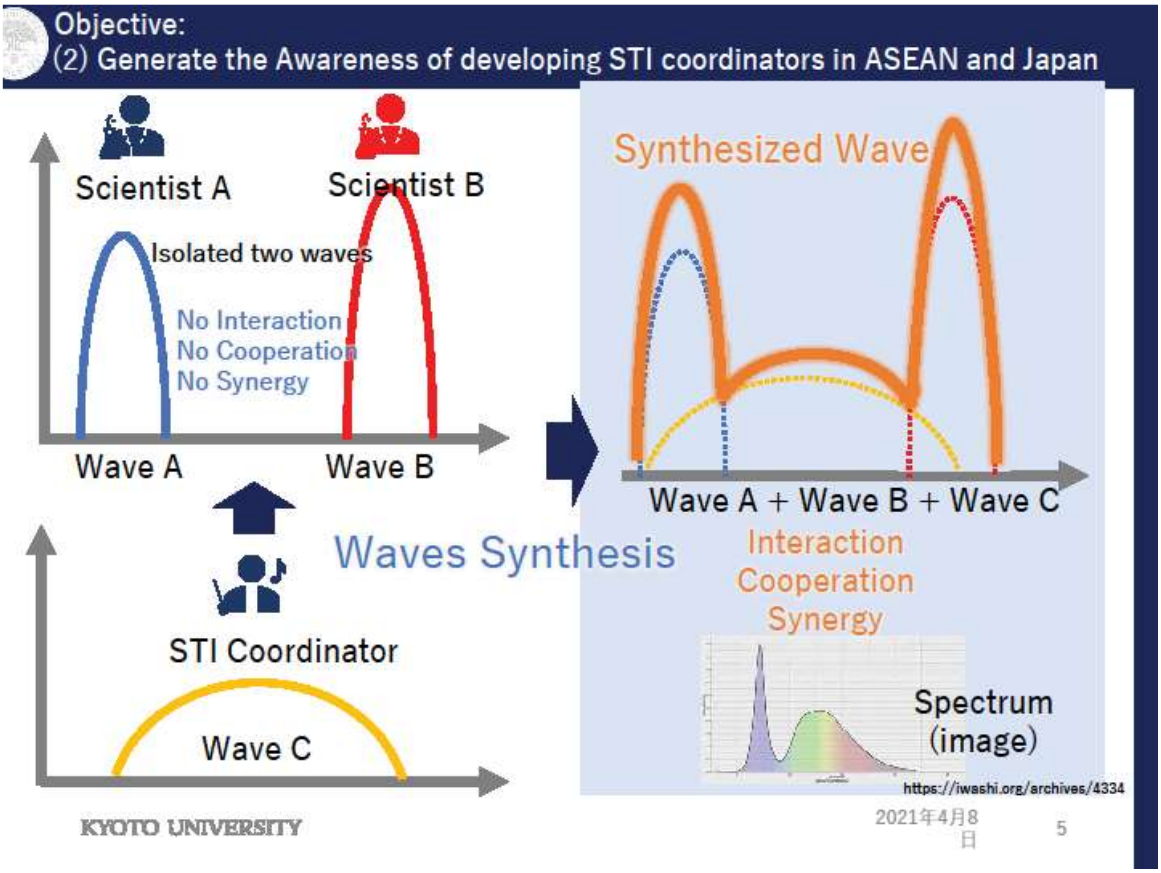



Objective:
(2) Generate the Awareness of developing STI coordinators in ASEAN and Japan
image
Scientist
Extent
Academic discipline
Deeper academic intelligence in her/his academic discipline
Capacity
Growth
Academic Depth
STI Coordinator
Extent
Practical discipline
Academic discipline
Capacity
Growth
Wider perspectives in both of practical and academic disciplines
Academic Depth
KYOTO UNIVERSITY
2021年4月8日
4


Objective:
(2) Generate the Awareness of developing STI coordinators in ASEAN and Japan
Scientist A
Scientist B
Isolated two waves
No Interaction
No Cooperation
No Synergy
Wave A
Wave B
STI Coordinator
Wave C
Waves Synthesis
Synthesized Wave
Wave A + Wave B + Wave C
Interaction
Cooperation
Synergy
Spectrum (image)
https://iwashi.org/archives/4334
KYOTO UNIVERSITY
2021年4月8日
5

(3) Necessary of tailor-made capacity building programs

Not our target

Imported from outside of ASEAN

ONE SIZE
FITS ALL

Our target

Made in ASEAN for ASEAN

MADE TO
MEASURE

Self-Assessment

Source: C++ Guidelines – Made-to-Measure vs One-Size-Fits-All
posted June 6, 2016 by "No Bugs" Hare, translated by Sergey Ignatchenko
http://ithare.com/cpp-guidelines-made-to-measure-s-one-size-fits-all/

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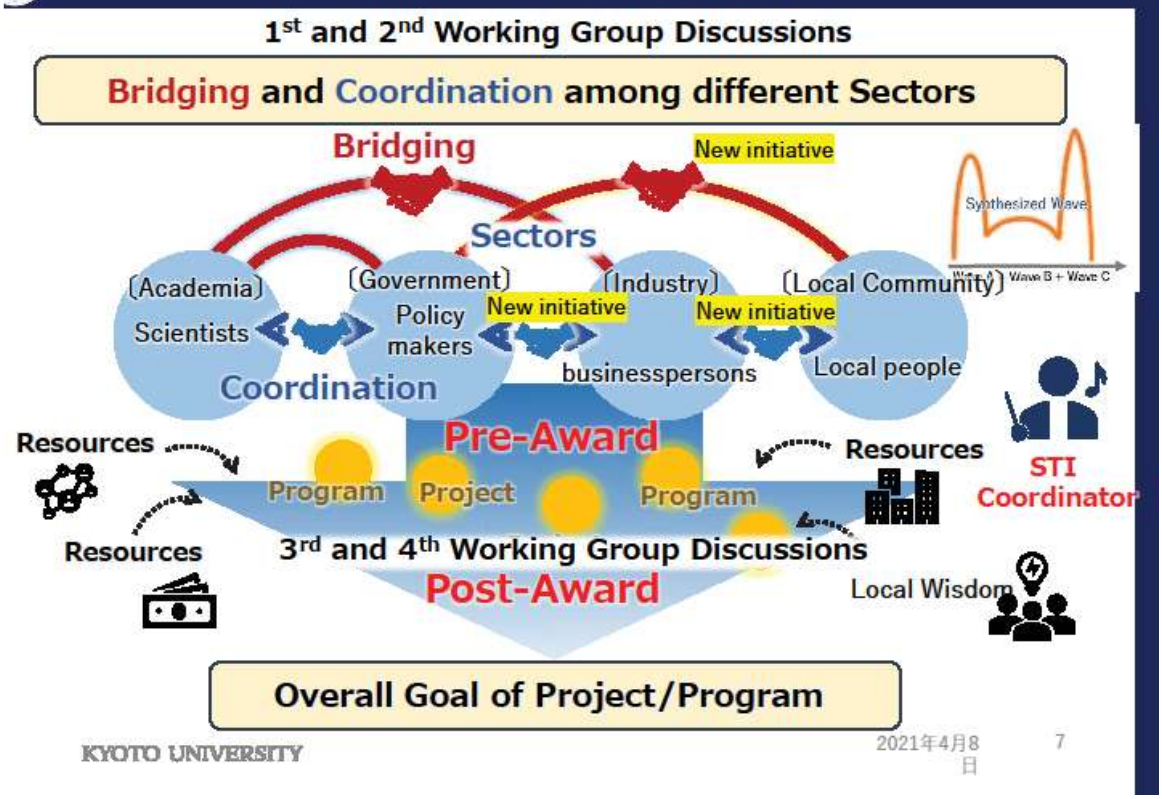
(4) Short Summary of the 1st, 2nd , 3rd, and 4th Working Group Discussion



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(5) Key recommendations from the working group discussions (tentative)

(1) Sharing good practices and lessons learnt among ASEAN and Japan STI Community is the one of the best ways to build capacity of STI Coordinator at each organization:

Keywords: Communication and Interaction platform, multilateral active network among ASEAN and Japan, formal working group and network of STI coordinator, open communication, meeting and join paper, etc.

Existing resources: JASTIP, ASEAN ST Fellows, ASEAN Young researcher network, FK II, JICA/AUN-SEED-Net, Journal of Research Management & Governance , etc.

(2) Collaborative Training Program:

Keywords: Mentorship program, Practical experiences of try and errors for pre/post awards, on the job training (OJT), international internship program, training for soft skills, interpersonal skills, etc.

(3) Partnership Grant / Seed-funding program:

Keywords: JASTIP_Net program, special seed-funds for young researchers to initiate new project, etc.

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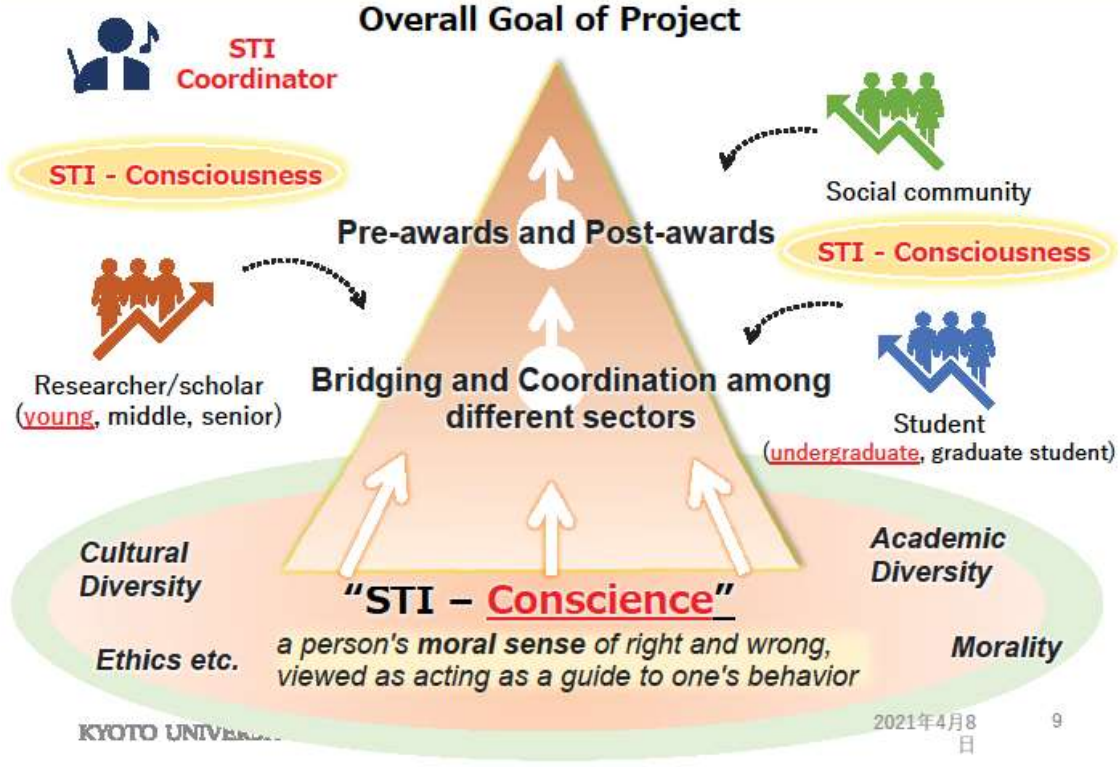
(6) Awareness , Consciousness, and Conscience of STI



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Summary Report for all

Contents

1. Executive Summary:
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Appendix

Topic:
Date:
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Presentation Titles and speakers:
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(2) Current issues and challenges on the topic in ASEAN and Japan
(3) Good practices and unique activities for the topic in ASEAN
(4) Recommendation for the future collaboration between ASEAN and Japan on this topic

To be shared among STI coordinators in ASEAN and Japan (ASEAN COSTI, ASEAN Foundation, JASTIP, etc..)

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Wrap-up questionnaire for online working discussion on "Science, Technology and Innovation Coordinators in Japan and ASEAN towards Grand Challenges"

https://forms.gle/GTMu5Nj5ecrpSLSa7

Q. Do you know any activities or facilities to raise consciousness about science, technology, and innovation (e.g. outreach or training programs, science museum etc)? *

Q. Do you have any networks to learn and share good practices on STI coordination (e.g. academic community or society, journals and etc)?

Q. Which training programs can be useful for you to develop skills in STI coordination, when you apply for or conduct research project? Please check all programs that you think useful?

Q. Do you know any seed-funding or partnership programs in ASEAN to initiate and support new STI related projects?

Q. Do you want to participate in the 6th working group discussion to wrap-up how to tailor-make a capacity development program for STI coordinators in ASEAN and Japan?

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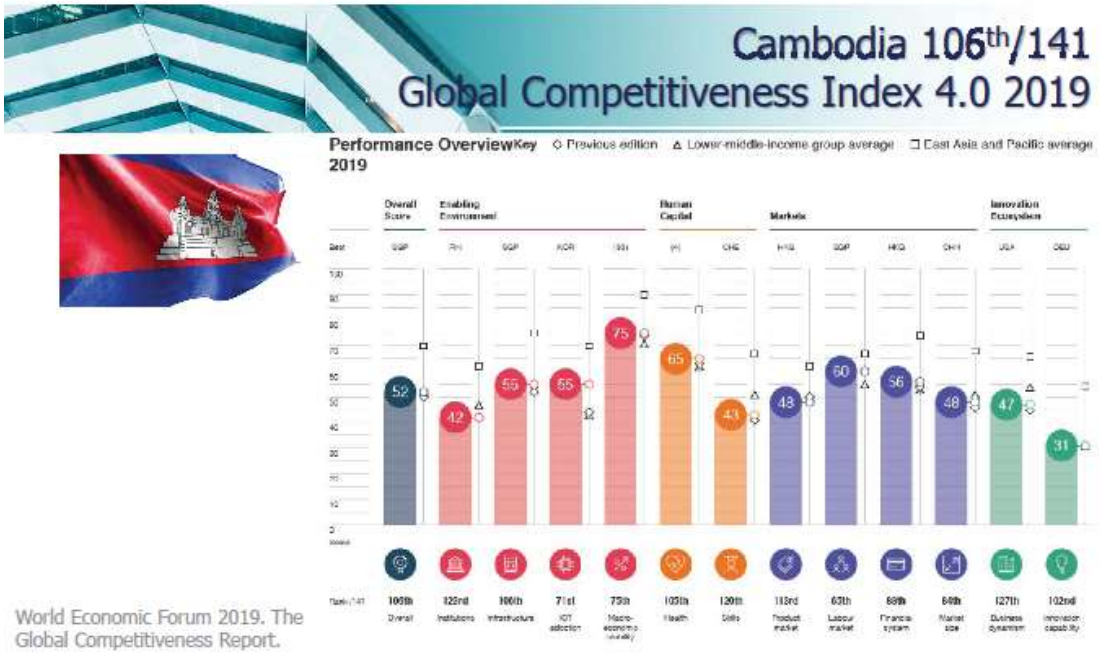
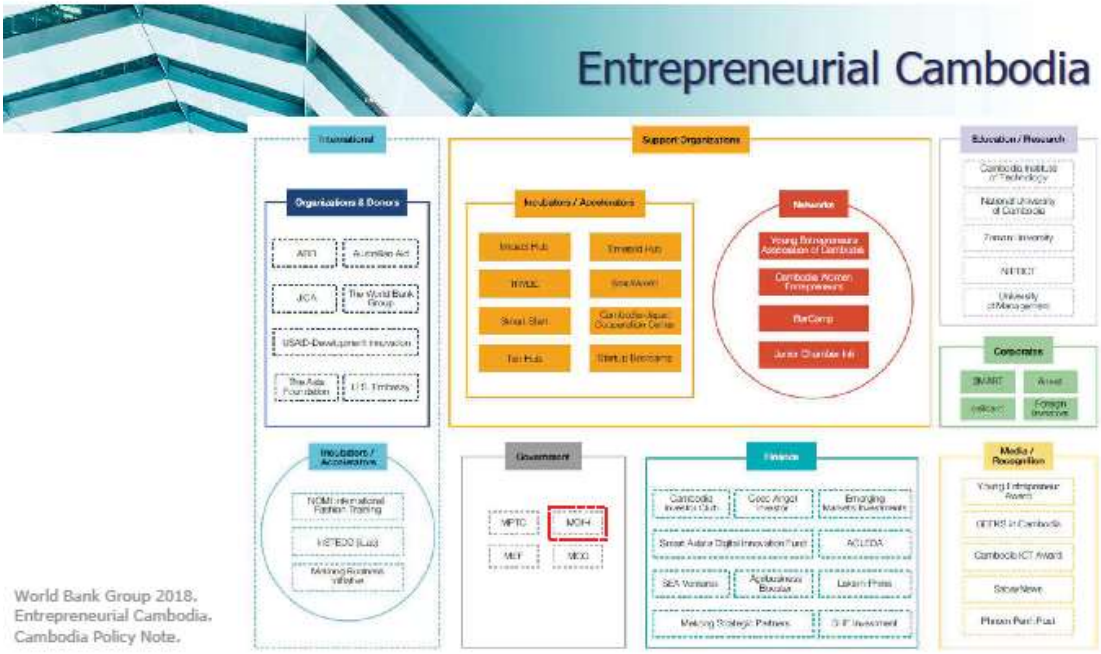
Creation & Nurture of STI Talent Pool

Fidero KUOK, Ph.D.
Director General
National Institute of Science, Technology & Innovation

Fidero KUOK, Ph.D.
Director General
National Institute of Science, Technology & Innovation
Ministry of Industry, Science, Technology & Innovation
CAMBODIA



World Economic Forum 2019. The Global Competitiveness Report.



World Bank Group 2018. Entrepreneurial Cambodia. Cambodia Policy Note.

Mismatch between Supply & Demand in Cambodia

Major Occupational Categories (ISCO-08)	Overeducated	Undereducated
1: Managers	0.0	36.5
2: Professionals	0.0	55.9
3: Technicians and associate professionals	0.0	50.7
4: Clerical support workers	26.7	16.4
5: Service and sales workers	3.2	31.9
6: Skilled agricultural and fishery workers	0.2	52.4
7: Craft and related trades workers	1.1	52.3
8: Plant and machine operators and assemblers	0.0	54.4
9: Elementary occupations	14.2	15.1
Share in total nonstudent youth employment	3.2	42.5

Source: Adapted from Kanol, I I, K. Khemarin, and S. Elder. 2013. Labour Market Transitions of Young Women and Men in Cambodia. Work4Youth Publication Series. No. 3. Table 37. Geneva: International Labour Organization.

Asian Development Bank (ADB), International Labour Organization (ILO) 2015. Cambodia Addressing The Skills Gap Employment Diagnostic Study.

The Talent Challenge: Demand-Supply Gap

RISING DEMAND

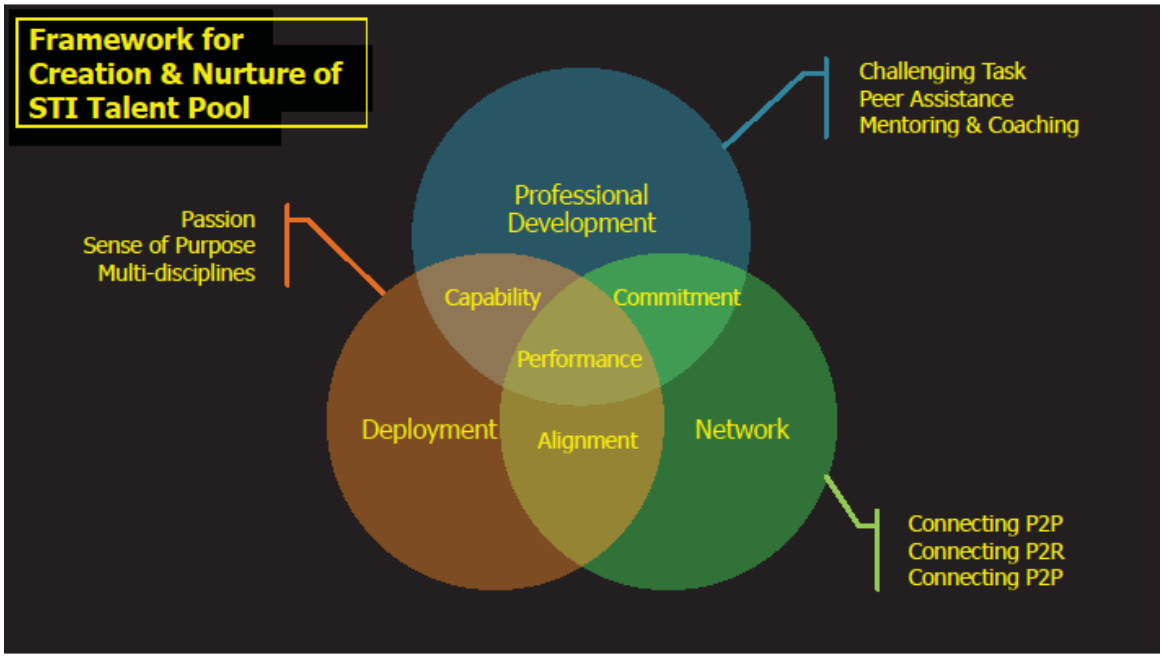
- Business growth (e.g., Infosys from $121 million to $1,062 billion in 5 years)
- Business transformation (e.g., from manufacturing-driven to service-driven)
- Investment in new core businesses (e.g., internet)
- Globalization (e.g., global standards while remaining locally responsive)
- New forms of partnership (e.g., with governments to reform health care)
- Pressure to hire new skills at all levels (e.g., in order to restructure quickly)

DECLINING SUPPLY

- Demographic trends (e.g., retiring baby boomers)
- More restrictive labor markets (e.g., tighter immigration policies to reduce dependence on foreign workers)
- Drastically increased job mobility (e.g., the rise of "boundaryless" careers)
- Reduced "switching costs" (e.g., due to shift from traditional pension plans to defined contribution plans)
- A pickier workforce (e.g., seeking better work-life balance)

1. **Do we have the right numbers of talented people?**
2. **Do we have the right quality of talent?**

Stahl et al., 2012. Six principles of effective global talent management. Sloan Management Review, 53 (2). pp. 25-42.



Focusing on the Wider World

What is the role of STI Coordinator in creating and nurturing talent pool?

Thank You!

SCIENCE AND TECHNOLOGY COORDINATORS

SCIENCE AND TECHNOLOGY CONSCIOUSNESS AMONG THE YOUTH

About Myself

Norbert Norris Bonifacio Z Falguera

- Assistant Professor, University of the Philippines Los Banos
- Teaches: STS (Science, Technology, and Society), Politics, Development (In the future: I plan to teach Research Methodology, Public Finance)
- International Christian University, Mitaka, Tokyo, Japan, PhD in Public Administration, 2005, (Monbusho)
- International University of Japan, Niigata, Japan, MA in International Relations, 1998 (Monbusho)
- Osaka University, Osaka, Japan, Certificate in Japanese Language, 1996 (Monbusho)
- University of the Philippines, MA in Communication, 1994
- University of the Philippines, BA in Philosophy, 1986

Science and Technology Consciousness in the Philippines

I though about this presentation as I recall comparing what it is like to explain or expound on something in Japan and in the Philippines.

Here (Philippines), when I ask for direction, the consistent answer is "there," "walk over there," ["doon, doon," "lumakad ka lang doon"].

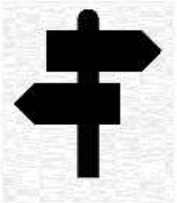
In Japan, the common answer is more specific: "Turn left at the third corner," "Go straight, it is on the right side," etc.

The same happens when expounding or explaining concepts.

In the Philippines, concepts are explained more subjectively.

In Japan, they explain or expound concepts more detailed and objectively.

I also hypothesize that people here have more difficulty explaining technical concepts



Science and Technology Consciousness in the Philippines

Later, I came across these data:

PH Grade 4 students worst in math and science proficiency: study

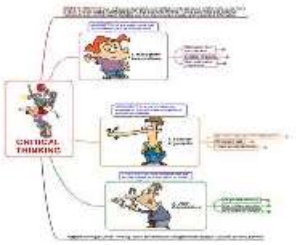
National Science Consortium: Demographics
as of 20 October 2010

PH lowest among 58 countries in math, science – global assessment

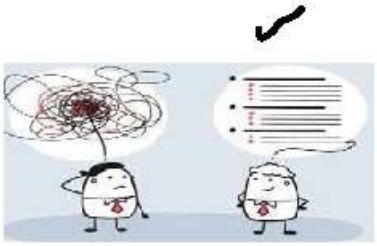
Science and Technology Consciousness in the Philippines

Science Consciousness (or S&T Consciousness) = Thinking Scientifically:

- Think/Conceptualize: More structure
- Think/Conceptualize: More detailed and specific
- Think/Conceptualize: More prone to use data (i.e. numbers) in explaining and/or conceptualizing
- Think/Conceptualize: More objective (Less subjective)



But in the Philippines, I find people in the streets explaining things and/or concepts less structured, very broadly, more subjectively, less quantitatively, and less prone to cite data



In short, less Science Conscious

Science and Technology Consciousness in the Philippines

My Hypothesis: If we get students to think

- More structured
- More detailed and specific
- More prone to use data (i.e. numbers) in explaining and/or conceptualizing
- More objective (Less subjective)

Perhaps they will want learn more, or perhaps they will study more.

So this is the challenge.

Science and Technology Consciousness in the Philippines

So how can we get students to think in terms of S&T Consciousness

- More structure
- More detailed and specific
- More prone to use data (i.e. numbers) in explaining and/or conceptualizing
- More objective (Less subjective)

Regardless of field of study (i.e. one may in the arts or humanities, but how to get him/her to think in terms of S&T Consciousness)

Science and Technology Consciousness in the Philippines

As a professor of STS (Science, Technology, and Society), this is what I did:

- Make them strong on S&T concepts and terms
- Make them realize more on the role of Science and Technology in their daily lives
- Let them know first about the backgrounds of Science and Technology (from being separate from each other to being joined and interconnected with each other)
- Projects/research papers be in groups

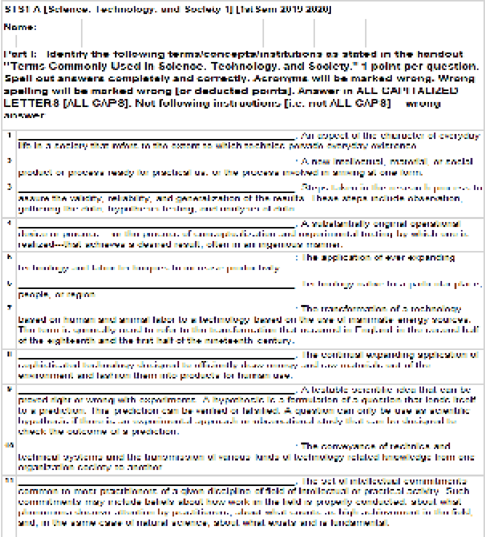
(Feedback and ideas from the group is most welcome here)

Science and Technology Consciousness in the Philippines

Making them strong on S&T concepts or terms

- In exams/quizzes, are S&T terms and concepts that they have to memorize
- Show sample exam

(Feedback and ideas from the group is most welcome here)


STS1 A [Science, Technology, and Society 1] [1st Sem 2019 2020]

Name:

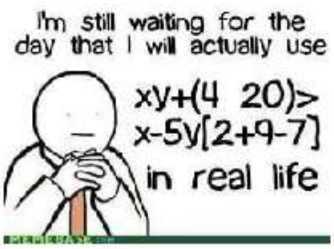
Part I: Identify the following terms/concepts/institutions as stated in the handout "Terms Commonly Used in Science, Technology, and Society." 1 point per question. Spell out answers completely and correctly. Acronyms will be marked wrong. Wrong spelling will be marked wrong [or deducted points]. Answer in ALL CAPITALIZED LETTERS [ALL CAPS]. Not following instructions [i.e. not ALL CAPS] wrong answer

Science and Technology Consciousness in the Philippines

Making them realize more on the role of Science and Technology in their daily lives

- In class discussion, I do my best to mention was is happening in their everyday lives to cite examples
- In projects/research papers, I make it a point to relate these with their everyday lives

(Feedback and ideas from the group is most welcome here)



Science and Technology Consciousness in the Philippines

Let them know first about the backgrounds of Science and Technology (from being separate from each other to being joined and interconnected with each other)

- In ancient times, Science (as research) is separate from Technology
- Science and Technology started to be interconnected only in the late 18th Century
- And this interconnection led to the very fast growth of Science and Technology (i.e. from landline telephone in 1980s to smart phones today)
- Show copy of lecture

(Feedback and ideas from the group is most welcome here)

Science and Technology Consciousness in the Philippines

Projects/research papers be in groups

- Make them learn from each other
- Show sample video

(Feedback and ideas from the group is most welcome here)

Scope of Wrap-up meeting (March 10, 2021)

1.Project: From the Concept note endorsed by COSTI

"Science, Technology and Innovation Coordinators in Japan and ASEAN towards Grand Challenges"

Period: monthly from August 2020 to April 2021
Organizers: KURA Office, ASEAN Foundation, JASTIP, and the ASEAN Secretariat
Endorsed by ASEAN COSTI, in August 2020.

2. Objective:

To generate awareness of research administration and the need for professional STI coordinators in ASEAN

3. Output:

A. Online webinar (1 time in August): *completed*
B. Online meetings (6 times between September 2020 and March 2021): *To be completed*
C. An integrated Summary Report of the questionnaire and discussion to be reported to; i.e. INORMS 2021 in Hiroshima, ASEAN COSTI and Mission to Japan to ASEAN etc.

4. Brainstorming and wrap-up meeting:

Scope of an integrated summary report	Beyond an integrated summary report
• Facts and results obtained through the project • Some recommendations for future cooperation and action etc.	• Potential plan of actions and further needs for cooperation etc. • Long term vision and ideas for STI coordinators etc.

example

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Agenda for Wrap-up meeting (March 10, 2021)

1. Basic roles and skills of STI coordinators in the STI eco-system between ASEAN and Japan : *Balance factors of STI coordination*
2. Framework for Creation & Nurture of STI talent pool
3. Conceptual map of the roles and skills of STI coordinators
4. Overview of plan of actions
5. How to tailor-make capacity development programs

60 mins

30 mins

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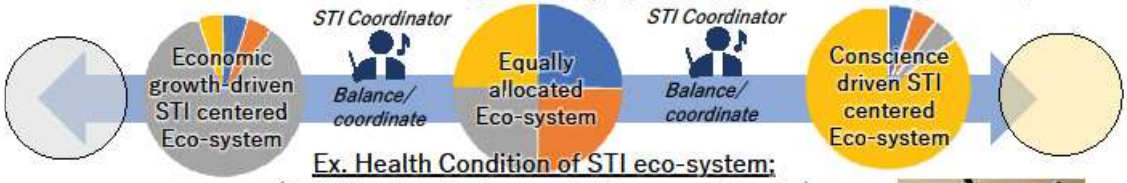
Agenda 1: Basic roles and skills of STI coordinators in the STI eco-system between ASEAN and Japan : Balance factors of STI coordination

1. Balancing four factors of STI coordination shall be the basic roles and skills of STI coordinators in the STI eco-system between ASEAN and Japan

Balance factors	Definition-tentative
STI driven Grand Challenges	How can STI contribute to improving our diverse society and solving grand challenges and issues ? – (innovation)
Grand Challenges driven STI	How can grand challenge enrich the diversity of STI? - (creation)
Economic growth driven STI	STI driven by incentive of profit and economic growth; and STI for earning money and increasing one's profit
Conscience driven STI	STI driven by a person's moral sense of right and wrong; and STI for public interest and social contribution

2. How to allocate four factors for your project and organization etc., appropriately according to the different condition and strategy of each project, organization, country, and region.



Ex. Health Condition of STI eco-system;
(individual, project, organization, country, etc.)

- How to measure and evaluate?
- Need a check list
- What is the ideal condition? How is the current condition?
- Differ from country by country,

recommendation

Agenda 1: Basic roles and skills of STI coordinators in the STI eco-system between ASEAN and Japan : Balance factors of STI coordination

Comment from Dr. Mie Mie Kyaw (Myanmar)

Any comments and questions:
Equally allocated looks healthy in balancing factors of STI coordinator but sometimes it can adapt a little according to situations.

How to measure and evaluate
The degree of efforts STI coordinators
The degree of progress for target community
The degree of coordination of stakeholders from various sectors

Need a check list
Check list that is needed for allocation of balance factors.

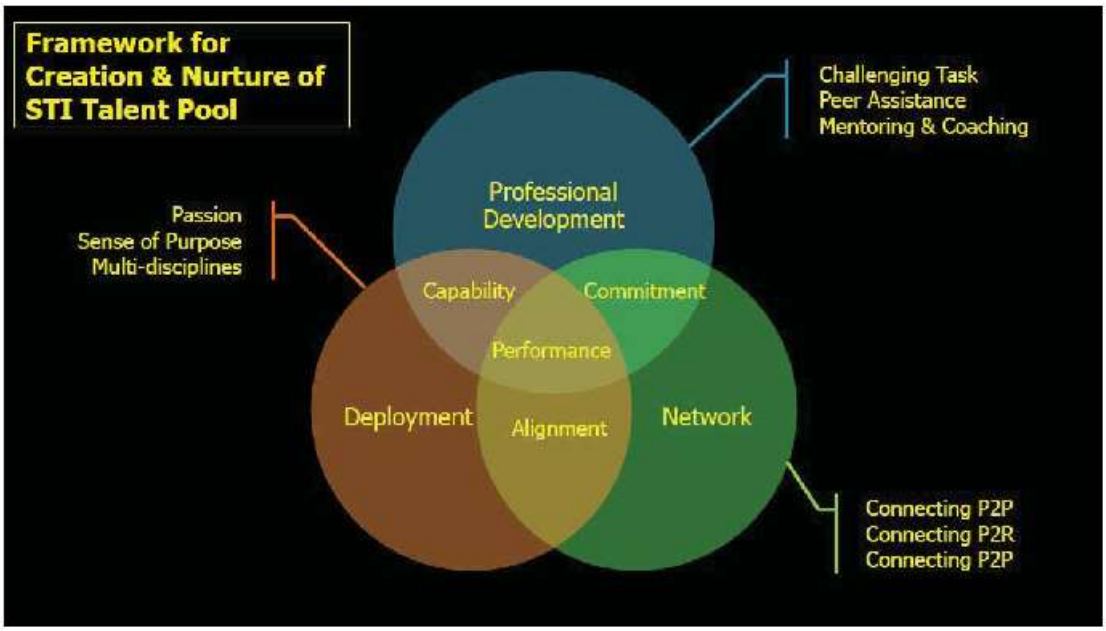
Difference from country to country
Depending on traditional culture and ethics, it may be differ with few variations in coordination of STI eco-system.

Questions
1. How to update the quality of basic roles and skills of STI coordinators in the STI eco-system between ASEAN and Japan.
2. How to uplift the quality of balance factors?
3. How to overcome grand challenges?
4.How to enhance the skills of coordination?
5. How to evaluate the quality of STI coordinators to be more brilliant?

Comment from Dr. Kampanart (Thailand)

My first comment is on Agenda 1. I really like the idea that the STI coordinators need to balance among the four factors: STI-driven grand challenges, grand challenges-driven STI, money-driven STI, and conscience-driven STI. However, when it comes to budget allocation, I am not sure whether it is healthy or not to have the same amount of budget allocated for the four factors. Especially for a number of low to middle-income countries in ASEAN, the academia and the research institutes will still need to focus a certain portion of their investment on the money-driven STI otherwise they (we) would not be able to drive the economic growth. In short, it would be good for the STI coordinator to equally realize the four factors, but not to try to allocate the same amount of money/resources to each of them.

Agenda 2: Framework for Creation & Nurture of STI talent pool (proposed by Dr. Fidero)



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Agenda 2: Framework for Creation & Nurture of STI talent pool (proposed by Dr. Fidero)

Comment from Dr. Mie Mie Kyaw (Myanmar)

Any comments and questions:

Core performance is common interdisciplinary approaches of capability, commitment, and alignment as server and clients.

Questions

1. What kinds of stakeholders are involving in this network?
2. How to solve challenging tasks?
3. What are the criteria of passion?
4. What are the indicators of sense of purpose?
5. How to enhance to have multidisciplinary approaches?

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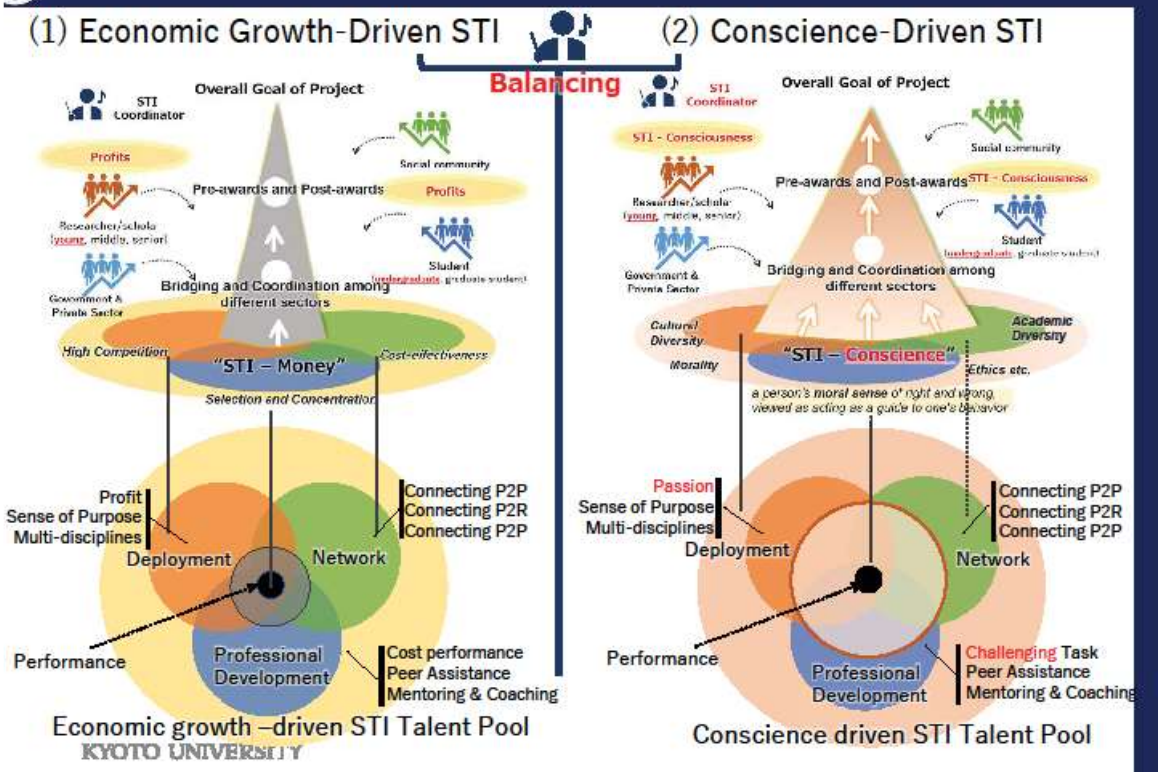
Agenda 3 Conceptual map of the roles and skills of STI coordinators (tentative)



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Agenda 3 Conceptual map of the roles and skills of STI coordinators

Comment from Dr. Mie Mie Kyaw (Myanmar)

Any comments and questions:

STI coordinators enhance to improve persons' moral sense of right and wrong by viewing behaviors, mindset, and actions by stakeholders.

Questions

1. For STI coordinators; how to balance / engage between (1) Money –Driven STI and (2) Conscience – Driven STI?
2. How to balance these two groups, which is the most effective way to steady balance?
3. After balancing; it is wonder to know the progress for the target communities?

Comment from Dr. Kampanart (Thailand)

My second comment is a general comment for both Agenda 2 and Agenda 3. I believe the picture in Agenda 2 captures key important things that the STI coordinators need to have: professional development, network, and deployment. In the same way, the two pictures in Agenda 3 also reflect the mechanism of achieving money-driven STI and conscience-driven STI. However, the interpretation of the figures can be very different depending on the way we explain them. For example, for Agenda 3, if we say that both figures need equal weight, it will really align well with Agenda 1. But if it is explained that we need to shift from money-driven STI to conscience-driven STI, the story will be very different. Therefore, I would like to encourage the team to include at least a brief explanation for each slide.

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Agenda 4 Overview of plan of actions

Actions	2021	2022	2023	2024	2025	2026
1. Reporting			● ASEAN – Japan 50 years anniversary			
1-1 INORMS 2021 in Hiroshima 1-2 ASEAN COSTI 1-3 Mission of Japan to ASEAN	● INORMS 2021		○ INORMS 2023			
2. Capacity Development Program for STI coordinators						
2-1 Generating the awareness of STI coordinator 2-2 Mapping and sharing available resources 2-3 Partnership gran and seed funding program 2-4 Training Program 2-5 STI coordinator Award	● Agenda 5					
3. JASTIP-Net × STI coordinator						
3-1 JASTIP-Net Program 3-2 Project development and coordination	● JASTIP Symposium					

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Agenda 4 Overview of plan of actions

Comment from Dr. Mie Mie Kyaw (Myanmar)

Any comments and questions:

The tasks for all categories (key words)

1. Science based approaches
2. Having actual practice
3. Narrowing gaps of knowledge and awareness
4. Developing individual capacity
5. Having interpersonal and negotiation skills
6. Building firm trust
7. Establishment of communications among STI / stakeholders
8. Overcoming barriers to reduce knowledge gaps
9. Promoting human resource development
10. Exchanging best practice in research management and stakeholders engagement
11. Driving capacity development program for STI coordinators
12. Sharing research and technical knowledge
13. Building up the collaborative teams
14. Promoting original academic activities
15. Enhancing adaption skills
16. Enhancing interpersonal and communication skills
17. Understanding social, cultural, scientific and ecological diversity
18. Learning good practice and trying hard for good outcomes
19. Upgrading project management skills
20. Having compact team leading skills
21. Enhancing the capacity of STI coordinators
22. Understanding different sectors
23. Expanding collaborative research networks
24. Setting up research based policy making recommendation and initiation of policy implementations
25. Sharing good practice and lessons learnt
26. Having common research interests
27. Maintaining / balancing eco-system of STI
28. Raising STI awareness with research ethics
29. Improving communication skills
30. Compact stakeholder mapping

Agenda 4 Overview of plan of actions

Comment from Dr. Sasi (Thailand)

as a part of Thai Young Scientists Academy, it would be great if we can introduce an involvement of the young academies (in Japan, ASEAN and worldwide) in promoting roles and skills of STI coordinators. If we could make it clear and tangible on WHAT mechanisms and WHEN in the plan of actions that the academies can contribute to the Capacity Development Program, that will provide a better understanding across academies and other similar bodies.

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Agenda 5: How to tailor-make capacity development programs

No	Training Program
1	Mentoring program by senior-staff or researchers
2	Online seminar/workshop designed for STI coordinator (e.g. proposal writing, IP, research ethics etc)
3	On the Job training (OJT) at Kyoto University Research Administration Office (KURA) in assisting the operation of online working group discussion
4	Short-term training camp to develop a joint research proposal
5	Short-term internship program at a research administration/management office
6	Short-term internship program at an embassy or international organization abroad

Any comments and questions:

1. Online seminar/workshop designed for STI coordinator (e.g. proposal writing, IP, research ethics, capacity building, etc)
2. On the Job training (OJT)is very good opportunity for STI coordinators

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Agenda 5: How to tailor-make capacity development programs

(1) More generating the awareness of STI coordinators in various stakeholders

- Online seminar and workshop designed for STI coordinator (proposal writing, etc.) -> **JASTIP Symposium 2021**
- Sharing know-how, online-WS format and experiences
- Sharing the latest information and hot-topics related to STI activity
- Publishing and reporting paper (ex. **Journal of Research Management & Governance (JRMG)**
- Fostering human resources who can organize the online events for STI coordinator at each organization, country and region, etc.

Comment from Dr. Mie Mie Kyaw (Myanmar)

Any comments and questions:

1. online seminar and workshop designed for STI coordinator (proposal writing, capacity building, empowerment of research skills, enhancement of innovation, creation, and implementations etc.)
2. Sharing know-how , online-WS format and experiences and sharing the latest information and hot-topics related to STI activity are important solving challenges together to reduce the gap.
3. Publishing and reporting paper (ex. Journal of Research Management & Governance (JRMG) are vital importance initiation of policy procedure and policy making progress.
4. Uplifting human resources is also vital for the sake of communities.

Comment from Dr. Fidero Kuok (Cambodia)

The credibility & visibility of ASEAN-Japan mobilization for this STI Coordination could be realized by co-authors for papers 'publication, as the PowerPoint already listed. Maybe Taro-Sensei can lead this call for co-authors?

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Agenda 5: How to tailor-make capacity development programs

(2) Mapping and sharing available resources , platforms and networks

- STI related platforms (ex. JASTIP, FK II, ASEAN ST fellow networks, Young scientist network, JICA/AUN SEED-net, INORMS, etc.)
- ARMS Singapore Chapter ?
- Journal for STI coordinators (ex. JRMG, etc.)

Comment from Dr. Mie Mie Kyaw (Myanmar)

Any comments and questions:

1. It tis better to have regular activities concerning mapping and sharing available resources, platforms, and networks.
2. It is better to have a roadmap (with roles and responsibilities if possible) for community.

Questions

1. How can measure the capacity and indicator of this?

Comment from Dr. Fidero Kuok (Cambodia)

What contribution could be made from my side, i.e., National Institute of Science, Technology & Innovation?

1. We are establishing a magazine to promote STI in which STI-Coordination could share a section or article contribution.
2. My colleagues at Institute could support the organization of Webinar & Awarding if needed.

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Agenda 5: How to tailor-make capacity development programs

(3) Partnership grant and seed funding program

- JASTIP_Net, LPDB, LPDP, BPDP, Kemendes PTT, BI fund, Asia-Pacific Telecommunity (APT) Grants, Merdeka Award (Malaysia); Malaysia Grand Challenge, JSPS Grant, etc.

Comment from Dr. Mie Mie Kyaw (Myanmar)

Any comments and questions:

1. Having research teams with research partnerships in the related field of study areas.
2. Need to discuss how to prepare proposal and apply for application.
3. Enhancing interdisciplinary approaches with science based research works.

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Agenda 5: How to tailor-make capacity development programs

(4) STI Coordinator Awards

Awarding the outstanding STI coordinators in ASEAN and Japan to increase their international recognitions to achieve their career developments (ex. JASTIP Awards/Prize, ASEAN COSTI Awards/Prize, whatever etc.)

Image and example

Comment from Dr. Mie Mie Kyaw (Myanmar)

Any comments and questions:
Excellent program that can surely motivate STI coordinators as well as all stakeholders to implement more efficient tasks in the respectively fields of study for the sake of target communities in the region of ASEAN- Japan.

Comment from Dr. Fidero Kuok (Cambodia)

It is practical to introduce the theory of change through awards.

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Additional comments for slide 16

In slide number 16; I think that

Past, present events, and future investigation should include in this category with important issues for all eras (10 years demarcation)

Concerning well – balancing Eco-system of STI; it is better as followings

(1) STI for Grand challenges (Innovation)

(2) Grand challenges for STI (Creation)

(3) STI with Grand challenges (Implementation)

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Draft plan for JASTIP Symposium 2021 (Online)

Related to JASTIP_Net as seed funding as well as online training program for the proposal writing and coordination, Kyoto University plans to organise an event to nurture more STI coordinators bridging researchers and various stakeholders and to launch new projects to achieve SDGs by 2030.

Comparison between conventional scientific symposium and JASTIP Symposium

Items	Conventional Scientific Symposium	JASTIP Symposium
Speaker	Scientist and Researcher	STI Coordinator
Eligible Speaker	Accepted research paper/abstract by the symposium committee	For example, past recipients or applicants of JASTIP_Net (seed funding program)
Style of symposium	- Scientific research paper - Scientific/research discussion	- Project Proposal - Mock interview(sample screening criteria of funding)
Session Arrangement	- Scientific disciplines and fields	- Funding types - Top-down project type - Bottom-up project type
Session chair	- Scientist and professor	- JASTIP Steering Committee (Researcher, policy maker, etc)
Audience	- Research community	- JASTIP, COSTI, private enterprise, other governmental organization in the world, etc
Expected outcome	- Increasing the visibility of their research works and getting new knowledge etc.	- Initiating new research collaboration and research project - Matching with investors, FA etc
Award	- Best presentation based on	- Best STI Coordination

Draft plan for JASTIP Symposium 2021 (Online)

Draft Image of Program

	Program – Tentative Image	
Day 1 90 mins	General Session: Opening and Plenary Presentation	
Day 2 AM 120 mins	Session 1: Top-down (A) 30 mins X 4 (Selected abstract only)	Session 2: Bottom-up(A) 30 mins X 4 (Selected abstract only)
Day 2 -3? PM 120 mins	Session 3: Top-down(B) 30 mins X 4 (Selected abstract only)	Session 4: Bottom-up(B) 30 mins X 4 (Selected abstract only)
	Pitching Talk Session : providing opportunity for SIT coordinator as much as possible.	

In addition to the symposium applicants, KURA would like to recruit co-organizers to design sample call for proposals, screening criteria and STI coordinator award.

Any volunteers?

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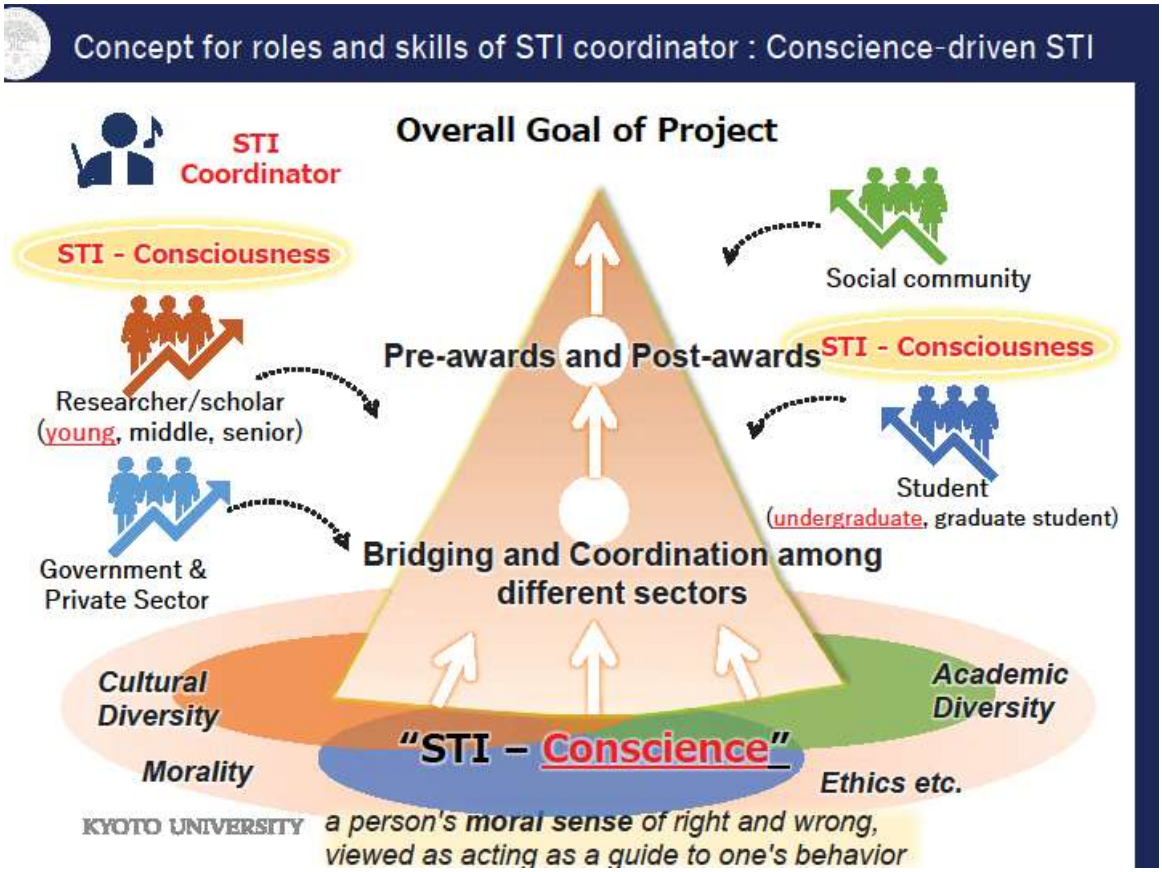
Motivation for Developing STI Coordinator in ASEAN and Japan

Well-Balanced Eco-system of STI

❶ STI for Grand Challenges:
- *Innovation*-
How can STI contribute to improving our diverse society ?

❷ Grand Challenges for STI:
- *Creation* -
How can grand challenge enrich the diversity of STI ?

Research Management, Administration, Coordination
(Well-cultivated STI Coordinator)


Concept for roles and skills of STI coordinator : Conscience-driven STI
Overall Goal of Project
STI Coordinator
STI - Consciousness
Researcher/scholar (young, middle, senior)
Government & Private Sector
Social community
STI - Consciousness
Student (undergraduate, graduate student)
Pre-awards and Post-awards
Bridging and Coordination among different sectors
Cultural Diversity
Academic Diversity
Morality
"STI – Conscience"
Ethics etc.
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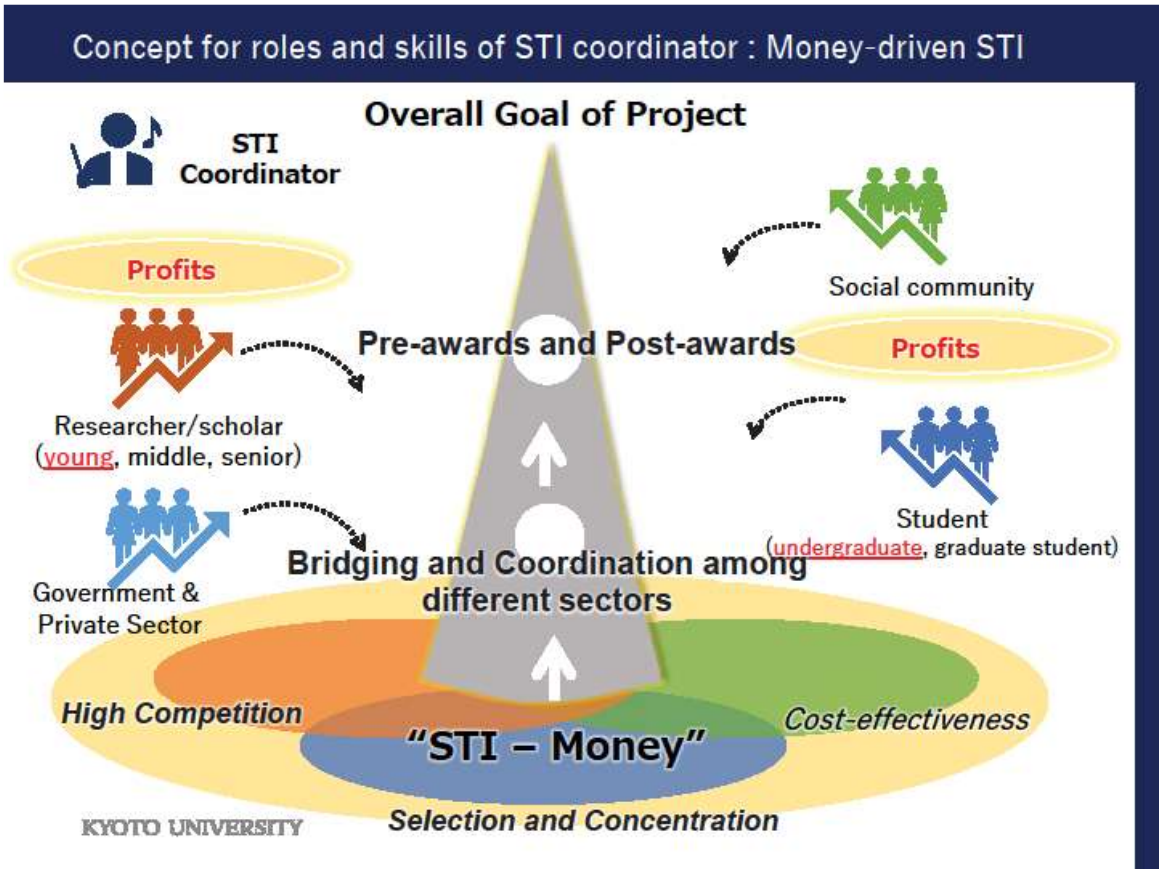
a person's moral sense of right and wrong, viewed as acting as a guide to one's behavior


Concept for roles and skills of STI coordinator : Money-driven STI
Overall Goal of Project
STI Coordinator
Profits
Researcher/scholar (young, middle, senior)
Government & Private Sector
Social community
Profits
Student (undergraduate, graduate student)
Pre-awards and Post-awards
Bridging and Coordination among different sectors
High Competition
Cost-effectiveness
"STI – Money"
Selection and Concentration
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Kyoto University Research Administration Office

Science, Technology and Innovation (STI) Coordinators in Japan and ASEAN towards Grand Challenges

(2020-2021)

Summary Report

If interested, please contact Kyoto University JASTIP team and check out more details of the discussion about STI coordinators in Japan and ASEAN. We welcome your feedback and collaboration.

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