Chapter 3.5

Empirical and Empathetic Approaches Taken by Science, Technology and Innovation Coordinators in Southeast Asia

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Abstract

This chapter explores the empirical and empathetic approaches employed by a group of fieldworkers from Japan who collaborated with individuals from different parts of Southeast Asia. Their objective was to address shared societal challenges and mentor the next generation of future talents. Additionally, research administrators at Kyoto University conducted an online survey and organized study group meetings focused on Science, Technology and Innovation (STI) coordination, engaging approximately 700 partners in ASEAN. While formal job guidelines for hiring full-time research administrators are rare in the region, many researchers and government officials in ASEAN recognised the importance of these coordination skills and values in advancing STI projects. Coordinating ASEAN-Japan projects has demonstrated that practical experiences with skilled professionals and strong interpersonal skills aligned with Asian cultural values that prioritize conscience and altruism. As a next step, the region will require appropriate human resource training and assessment programs tailored to local STI needs.

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Introduction

The integration of academic researchers and non-academic participants across disciplines to conceive new practices and theories to achieve a mutually shared goal (Swiss Academies of Arts and Sciences, 2022) has led to an establishment of the transdisciplinary (TDR) centres and departments at academic research institutions around the world (OECD, 2020). Since the late 1990s, Kyoto University in Japan has built several TDR departments and centres (ASAFAS, 2022; CSEAS, 2017; GSES, n.d.; GSHES, n.d.; Saito, 2021) where specialists in humanities as well as science and technology disciplines collaborate to solve shared regional or societal issues that are emerging in the Association of South East Asian Nations (ASEAN) countries. To pursue these international projects, stakeholders from the authors representing academia, government, and local communities are often brought together to promote mutual understanding. To bridge the gap between their knowledge and expertise, a representative from each group has often filled in to explain scientific terms and facilitate understandings and help build consensus among the groups. These professionals have played an important role in the development of ASEAN region, serving as the STI Coordinators.

This chapter introduces the role played by the STI Coordinators, and highlights their efforts to manage multiple large-scale international and TDR projects supported by the public fund. We focus on the case of Kyoto University, which led nine projects under Science and Technology Research Partnership for Sustainable Development (SATREPS[1]), an initiative funded by Japan Science Technology Agency (JST[2]) and Japan International Cooperation Agency (JICA[3]). This initiative succeeded in building 16 core research and education hubs in Asia and Africa as part of the Core to Core Program, which were funded by Japan Science Promotion Society (JSPS[4]) (Kyoto University, n.d.; Saito, 2021). What characterized these TDR projects was their empirical and empathetic approach to partnerships, which will be elaborated in the following sections.

Empirical and Empathetic Approach: Southeast Asian Area Studies at Kyoto University

As a pioneering example of TDR, this chapter begins by discussing the salient characteristics of the Southeast Asian Area Studies led by the Kyoto University faculty. The focus is on the empirical methodology and empathetic approach employed to address societal issues. The authors then introduce initiatives aimed at advancing STI coordination in ASEAN, led by University Research Administrators (URA) at Kyoto University. The regional studies and STI coordination in ASEAN share commonalities in methodology and characteristics, as shown below (Fig. 3.5.1).

[1] SATREPS: https://www.jst.go.jp/global/english/index.html.
[2] JST: https://www.jst.go.jp/EN/index.html.
[3] JICA: https://www.jica.go.jp/english/index.html.
[4] JSPS: https://www.jsps.go.jp/english/.

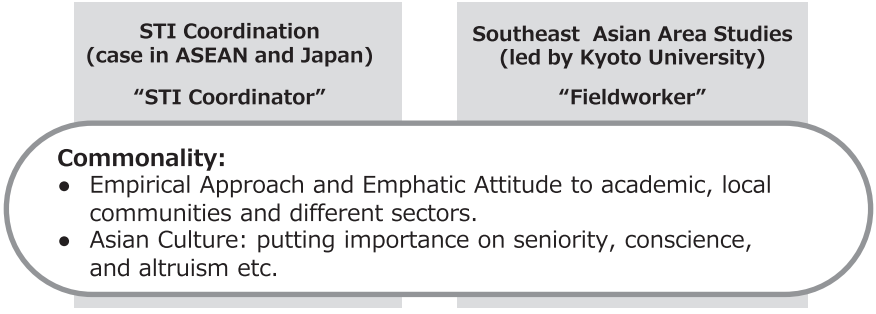


Fig. 3.5.1. Arguments in This Chapter.

Southeast Asian Area Studies at Kyoto University

Over the past 60 years, a dedicated group of researchers at Kyoto University have been developing a multidisciplinary, field-based approach to investigate the state of the Southeast Asia. Their focus on the region's societal challenges and environmental issues precedes the official founding of the Center for Southeast Asian Studies (CSEAS) in 1963 (Chua, 2019; CSEAS, 2017; Lopez & Fujieda, 2021; Yasuyuki et al., 2019). CSEAS's founding philosophy as well as its commitment to the region has roots in the approach taken by the researchers who collectively developed an empirical approach with a goal to gain a deep understanding of the local community. This approach requires long-term fieldwork commitment, an adaptable research agenda rooted in the evolving local context, and building of the collaboration with Southeast Asian researchers (Lopez & Fujieda, 2021; Yasuyuki et al., 2019).

Experience as the Best Teacher

Over the last six decades, the empirically based approach to regional studies has played a significant role in shaping the inter- and multidisciplinary scientific research in Southeast Asia (Kono et al., 2019). Scholars, students, and administrators from different academic disciplines at Kyoto University have dedicated themselves to learning local languages and cultures as part of long-term fieldwork in the Southeast Asian countries. They collaboratied closely with local counterparts gaining comprehensive insights into neighbouring villages and regions.

During extended fieldwork, typically spanning several months, these researchers immersed themselves in the customs and traditions of Southeast Asia. They acquire firsthand knowledge of regional values and wisdom, some of which have been passed down through generations to sustain and enrich local communities. What are the signs of a good harvest or a natural disaster? How do we cultivate medical herbs? While this indigenous knowledge may not always align with scientific proof, it has long contributed to the well-being of local residents even in the absence of scientific evidence.

Sharing this indigenous knowledge is typically reserved for individuals deemed trustworthy to the community. Therefore, the fieldworkers from Kyoto University prioritized building a strong personal relationships with local researchers and villagers, fostering a sense of trust. This human-centric and relational approach aligns with Asian values, emphasizing respect for elders and altruistic contributions to society, as articulated by the renowned Japanese philosopher, Tetsuro Watsuji (1934).

Age and Experience Teach Wisdom

The fieldworkers from Kyoto University have been building dynamic personal relationships with local researchers representing different generations and disciplines through large-scale TDR group projects that took place in Southeast Asia. As Lopez and Fujieda visualised, some active senior professors initiated projects as Principal Investigator (PI) and successfully fostered a generation of young researchers by inviting them to serve as Co-Investigators (Lopez & Fujieda, 2021). This enabled the transition of valuable hands-on experience and wisdom gained in the field of research over generations and across regions.

As seen so far, Kyoto University and ASEAN partners have conducted regional studies through an empirical and empathetic approach. This approach has proven highly effective in understanding local situations and gathering both academic and indigenous knowledge to address common issues. Researchers, students, and administrators have attentively observed and listened to the local challenges and conditions during fieldwork. The experience of generations of coordinating personnel in the fieldwork team has facilitated TDR research discussion and enhanced the project's success and sustainability.

Empirical and Empathetic Approaches Taken by URAs at Kyoto University

Research administrators in charge of international affairs at Kyoto University have received training in the empirical and empathetic style under the guidance of Professor Koji Tanaka (the first director of Kyoto University Research Administration Office, serving from 2011 to 2015) and Professor Mamoru Shibayama (the first director of ASEAN Center, serving from 2014 to 2019), who were both experienced fieldworkers in the Southeast Asia. In 2014, the university established its ASEAN Center (the Center, hereinafter) in Bangkok, Thailand (Kyoto University, n.d.) to enhance academic collaborations in the region. Competent university research administrators (URAs) spend several months every year at the Center to facilitate and coordinate activities. They accompany field surveys, seminars, and workshops, working closely with professors and collaborators from various disciplines. This experience equips them with the empirical approach and helps build strong relationships.

The mentorship from diverse field experts has led to the success of projects at Kyoto University. One of the projects, Japan-ASEAN Science, Technology, and Innovation Platform (JASTIP, n.d.), is a large-scale TDR project set under the international strategy of the Ministry of Education, Culture, Sports, Science and Technology (MEXT), Japan. Under JASTIP, many fieldwork-oriented professors from various departments at Kyoto University continue to promote ASEAN-Japan science and technology cooperation in areas such as 'energy and environment', 'biodiversity and bioresources', and 'disaster prevention and risk reduction', working towards the UN Sustainable Development Goals (SDGs) from 2015 to 2025.

As part of JASTIP, URAs at the Center organised a roundtable discussion in 2018, involving executives from top research institutes in ASEAN and Kyoto. The discussion emphasized the importance of region-based research collaboration and human resource training to maximize STI contributions to the SDGs (Kyoto University, 2018).

At that time, research administration and coordination were not fully recognised in the ASEAN region. Only a few countries employed full-time university research administrators (for more details, see Fig. 3.5.3). URAs at Kyoto University took the initiative to raise awareness and understanding of research administration in Japan and ASEAN, leveraging the university's empirical and empathetic approaches that have been cultivated over the years to build trust and consensus among diverse groups.

Case Study of STI Coordination to Bridge ASEAN and Japan

INORMS Promotion, Survey and Discussion in ASEAN

URAs from Japan initially worked on increasing participation from the ASEAN region at the 2022 International Network of Research Management Societies Congress (INORMS, 2020), which was scheduled to take place in Hiroshima, Japan. It was the first time that the INORMS Congress was going to be hosted in Asia since the inaugural 2006 event. As representatives of the host country, the URAs at Kyoto University leveraged its network in ASEAN (where INORMS organisers had never been able to reach effectively before) to encourage members from the region to attend. This effort resulted in 33 participants from 10 ASEAN member states out of a total of 509 attendees.

The URAs actively promoted and prepared for the Congress. They attended more than 10 onsite conferences and symposiums related to STI in ASEAN and Japan between 2018 and 2019 (Table 3.5.1). They conducted online self-assessments to assess the status and future direction of research management and administration in ASEAN. After the face-to-face interactions, the URAs sent out an online questionnaire in 2019 to coordinators in ASEAN partner organisations including universities, research institutes, and ASEAN University Network (AUN). It should be noted that this questionnaire was carefully designed with ASEAN's regional characteristics in mind to facilitate self-evaluation of knowledge and skills required for research management and administration in their region (Sonobe & Saito, 2021a).

Table 3.5.1. Initial Activities by URAs at Kyoto University.

Period	Activities
2018	INORMS 2020 Promotion in ASEAN started
2019	Online self-assessment on the status of research management and administration in ASEAN
2020.8	1st round of ASEAN - Japan Joint Project on STI coordination between ASEAN and Japan toward Grand Challenge (online study group meeting) started
2020.9	Invited talk at the monthly seminar of Royal University of Phnom Penh (RUPP), Cambodia
2020.12	Invited talk at ASEAN Symposium on ASEAN Socio-Cultural community Blue Print 2025
2021.3	1st round of ASEAN – Japan Joint Project on STI coordination between ASEAN and Japan toward Grand Challenge (online study group meeting) ended (6 times)
2021.5	INORMS 2021 – Hiroshima, Japan

The survey, which received around 60 responses from 50 institutions across 10 ASEAN member states in March 2020, indicated that some organisations have developed competent researchers with coordination skills to some extent. However, the full-fledged development of professional coordinators with a comprehensive skill set was still a work in progress in most cases. Furthermore, job titles for these specialised professionals varied from place to place making it difficult to get a full grasp of this emerging profession. They can be scholars leading international or public-private collaborations, or full-time coordinators with titles like research administrators or research managers (Fig. 3.5.2).

These emerging professionals have been collectively named STI coordinators by the relevant communities within the ASEAN and at Kyoto University. This designation is more of a conceptual label than a specific job title, encompassing a wide range of professionals. The survey revealed that knowledge and skills required for these coordinators vary widely based on their country and organization. This includes proficiency in foreign languages, understanding research ethics and compliance, familiarity with accounting and procurement rules, equipment management, impact assessment, proposals and funding application review, STI policies, academic-industry collaboration, public relations, team management, risk assessment, and the ability to understand cutting-edge scientific results, among other things (Fig. 3.5.3) (Sonobe & Saito, 2021a). The survey also highlighted a strong desire for a shared understanding of the STI scheme and the formation of a collaborative network among these professionals to exchange knowledge and experiences.

Based on the survey results and the requests from the ASEAN community, and with the advice and support from the ASEAN Foundation and the Science and Technology Division of the ASEAN Secretariat, URAs at Kyoto University initiated a collaborative project. Since August 2020, they have held online study group meetings aimed at raising awareness towards STI coordinators as an emerging profession in ASEAN and Japan. Rather than a 'one size fits all' program, this collaboration acknowledges the diversity within the ASEAN region and places special emphasis on underrepresented cultures. It encourages capacity building within these groups to address their unique challenges and priorities (Sonobe & Saito, 2021b). Through a series of study group meetings (Sonobe & Saito, 2021b; STI Coordinator, 2022), the participants have identified essential roles and skills for STI coordinators, managing

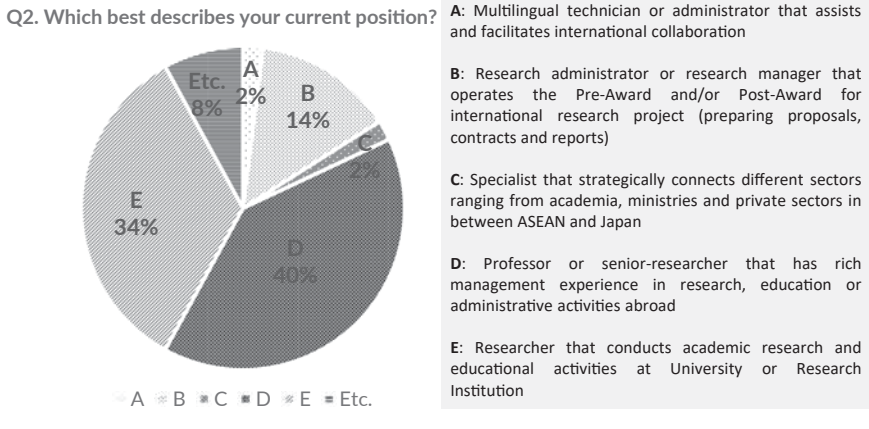
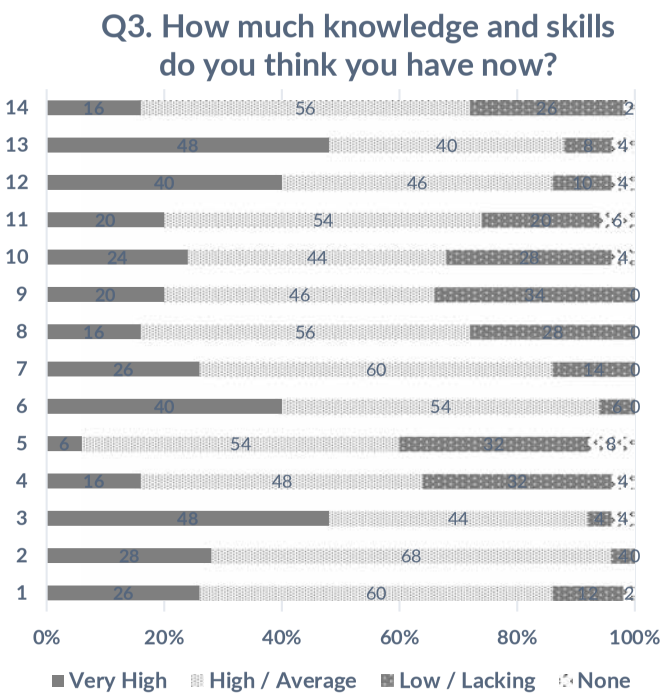


Fig. 3.5.2. Responses to 'Which Best Describes Your Current Positions?'



[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]

Fig. 3.5.3. Responses to 'How Much Knowledge And Skills Do You Think You Have Now?'

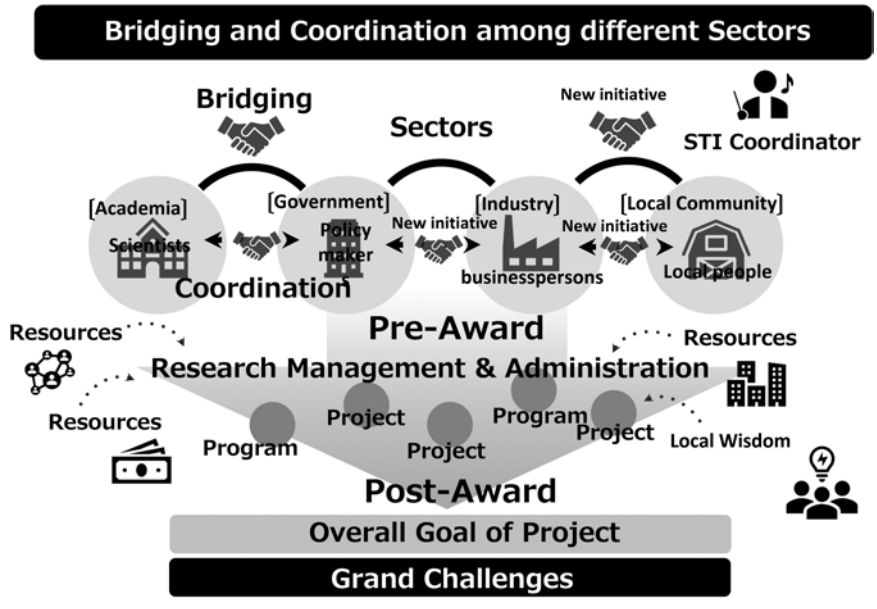


Fig. 3.5.4. Visualisation of STI Coordinating Roles.

pre-awards and post-awards, and contributing to the overall goal of research project, as drawn in Fig. 3.5.4.

Empirical and Empathetic Approaches

The online meetings invited a wide range of speakers from Japan and ASEAN, who shared their hands-on experiences in coordinating STI projects. Most notably, Dr. Mie Mie Kyaw (University of Mandalay, Myanmar), Dr. Puvadol Doydee (Kasetsart University, Thailand), and Dr. Keophousone Phonhalath (National University of Laos, Lao PDR) shared their own fieldwork spent in mud and water and stressed that working alongside with local indigenous people is very important to understand the real problem on the targeted site. The researchers and students regularly visit the rivers, inspect the water quality and aquaculture, and discuss together with the fishermen, villagers, local authorities, and people working for related ministries. To unite people from different sectors under the shared vision and work with the same priorities, their empirical approaches turned out to be very effective for STI coordination. One of the essential techniques and skills of STI coordinators is to explain the problem in an accessible manner, while using cutting-edge scientific findings to communicate with others from diverse backgrounds. Their task is to propose evidence-based solutions for the well-being of all stakeholders in ASEAN and Japan (Sonobe & Saito, 2021b; STI Coordinator, 2022).

Drs. Nguyen Thi Hoang Lien from Vietnam National University (Hanoi, Vietnam) and Mohd Amran Mohd Radzi from University Putra Malaysia (Malaysia) talked about continuous mentorships they received from the supervisors and peers. They have joined a common international academic network of Sustainable Energy and Environment Forum (SEE Forum) since 2010 and obtained coordination skills in project development through mentorship from domestic and internationally experienced

professors. The early-career researchers formed a friendly and inspiring network with other researchers from the Asian region, called 'SEE Forum Young Researchers', and coordinated both bilateral and multilateral international projects for the community of SEE Forum (ASEAN, 2022; Sonobe & Saito, 2021b).

After sharing the case studies at the interim wrap-up meeting in March 2021, about 30 representatives from ASEAN and Kyoto University, mostly middle-career level, have drawn a conclusion that STI coordinators should be aware of the fundamental morals and ethics that are found commonly in the Asian region. For example, in many Asian cultures, it is important to teach younger generations to pay respect to the expertise of the experienced seniors or learn from the lessons from the past. Coordinators are sometimes recognised for acting altruistically for the community or family, rather than pursuing individual interests. The Japan-ASEAN members named this kind of STI coordination 'Conscience-driven STI', in opposition to the 'Economic growth-driven STI', which puts greater emphasis on seeking financial profits from their collaboration. The URAs at Kyoto University placed special emphasis on including fundamental research based on researchers' curiosity or humanities and social sciences based on long-term fieldwork with locals, as oppose to academic results or economic gain achievable in the short term.

The discussion members have identified the following as important elements to balance STI activities: (1) STI-Driven Grand Challenge, (2) Grand Challenge-Driven STI, (3) Economic Growth-Driven STI and (4) Conscience-Driven STI.

STI-Driven Grand Challenges: The coordinators consider how STIs can contribute to improving our diverse society and solve common challenges. This is often led by governmental or organisational 'top-down' approaches on priority issues, aiming to promote innovation.

Grand Challenge-Driven STI: The coordinators promote and enrich the diversity of STI, based on researchers' academic interests and original, liberal ideas in multi-disciplinary fields including humanities. This is to facilitate 'bottom-up research' or 'curiosity-driven research'.

Economic Growth-Driven STI: The coordinations are primarily driven by an incentive for economic growth or profits derived from STI activities. This can be called 'utilitarian' and is often seen in industrial, business sectors rather than public academic sectors.

Conscience-Driven STI: The coordination of STI activities is mainly driven by a moral sense of right and wrong, focusing on public interest and social responsibility rather than personal profits and self-interest.

The discussion and conclusion are in line with the official STI objectives in ASEAN and Japan. As stated under Thrust 1 of ASEAN Plan of Action for Science, Technology and Innovation (ASEAN Secretariat, 2022) 2016–2025, ASEAN Member States are expected to strengthen strategic collaboration among academia, research institutions, networks of centre of excellence, and the private sector to create an effective ecosystem for capability development, technology transfer and commercialisation (ASEAN Secretariat, 2022). Concurrently, Japan began to formulate new regional policies in ASEAN for the strategic promotion of the international deployment of science and technology under Japan's 6th Science, Technology and Innovation Basic Plan (2021–2025). In this regard, the human resource development of specialised professionals to coordinate an international collaborative framework aligns with one of the priorities of the future direction of STI policy, both in ASEAN and Japan.

As clarified by the authors' survey and online talks with ASEAN partners, coordination in STI activities is in high demand in ASEAN countries. Many cultures in

this region, despite its diversity, put importance on seniority, conscience and altruism. Those values and role played by such coordinating personnels appear very similar to those of fieldworkers in area studies from Kyoto University. Kyoto University's empirical and empathetic approach is quite successful in promoting many collaborative projects and activities in ASEAN and Japan.

Results and Future Perspectives

The online study group meetings (up to 11 times) to develop STI coordinators in ASEAN were conducted from August 2020 until June 2022 with a goal to equip the region for grand challenges. In total, about 700 people have joined from all 10 ASEAN countries including Japan, South Korea, India, Australia, Belgium and the UK. A larger proportion of participants from the ASEAN region are women than men (Sonobe & Saito, 2021a; STI Coordinator, 2022). The lively group discussion confirmed that professional talents are in high demand in the science and technology community in ASEAN and Japan to solve complex contemporary issues. It is worth noting that the activities are 'bottom-up' and 'human-centric', involving both early-career, mid-career researchers and top executives in the region.

Awareness of STI coordinators has increased through the study group meetings, seminars, workshops and symposiums within ASEAN countries (Table 3.5.2). From 2020 to 2022, URAs from Kyoto University were invited to meetings in the ASEAN region and gave several presentations on the topic of their initiatives to cultivate STI coordinators. In particular, their progress was reported at the 79th ASEAN Committee of Science, Technology, and Innovation (COSTI) undersecretary-level meeting in June 2021 and the official joint media statement of the 11th informal ASEAN Ministerial Meeting on Science, Technology and Innovation (IAMMSTI) explicitly said that 'ASEAN COSTI further welcomed the efforts to improve the research ecosystem in ASEAN by completing the study on research administration, research management system and the need for professional STI coordinators in ASEAN' (IAMMSTI, 2021). This accelerated these joint activities to develop STI coordinators and to develop well-cultivated STI ecosystems region-wide.

As such, ASEAN COSTI officially continues to support STI coordination events led by Kyoto University. Endorsed by ASEAN COSTI, URAs at Kyoto University organised the JASTIP Symposium 2021 entitled 'Co-creative mechanism in STI coordination between Japan and ASEAN-Spice up our scientific projects with STI coordinators' in December 2021 (JASTIP, 2021).

Throughout the symposium, all speakers from ASEAN and Japan reaffirmed that the role of STI coordinators is essential for a well-balanced STI community to promote the ASEAN-Japan cooperation in addressing common grand challenges and societal issues such as climate changes, natural disasters and pandemics. Most importantly, STI coordinators are expected to have strong communication skills to build person-to-person trust as well as to publicise academic results under international collaborative research projects. The coordinating function the speakers expect in each organisation is still very widely defined and not yet explicitly written in the official job descriptions.

What We Learned So Far

During the JASTIP symposium, many participants from executive, mid-career and young researchers and governmental officers argued that a human-centric approach based on mutual trust and respect is at the heart of STI coordination.

Table 3.5.2. Development of Activities by URAs at Kyoto University.

Period	Activities
2021.6	79th ASEAN COSTI
2021.12	JASTIP Symposium : "Co-creative Mechanism in STI coordination between Japan and ASEAN" – Spice-up our scientific projects with STI coordinators
2022.1	2nd round of ASEAN – Japan Joint Project on STI coordination between ASEAN and Japan toward Grand Challenge (online study group meeting) started
2022.3	Invited talk at Webinar: Research Management - International Perspectives - by MyRMA (Malaysia Association of Research Managers and Administrators)
2022.6	2nd round of ASEAN – Japan Joint Project on STI coordination between ASEAN and Japan toward Grand Challenge (online study group meeting) ended (5 times)
2022.8	Invited talk at Seminar on "Successful Application of Japan Sponsored Grant: TIPs and Challenges", Malaysia Alumni of AUN/SEED-Net (ASEAN University Network/ Southeast Asia Engineering Education Development Network)
2022.9	Cambodia – Japan Co-creative Corridor Workshop

Empathetic attitudes of STI coordinators will attract peers standing on equal partnership, as opposed to one-way mentorship. In order to sustainably develop this community that preceded the STI coordinators' community, mentorship and coaching of the next generation are top priorities. Young scientists and talents are often keen to share new ideas and seeds with their friends/colleagues, governmental officers and senior mentors. In return, senior mentors should give the juniors advice, experience and confidence to cultivate a mutual relationship. This type of coaching, based on mentoring relationships and derived from the Asian morals and ethics, will develop a more altruistic approach, where an improvement of the overall society is considered more important than individual gains emphasised in a market-oriented approach.

As we have observed before (Figs. 3.5.3 and 3.5.4), even though many researchers or staff serve as a coordinator in ministries, universities and research institutes in ASEAN, their job titles are not 'STI coordinators' nor their main duties and responsibility are solely research administration. Sometimes research administration and coordination are voluntary and unpaid; however, they are necessary elements in conducting a collaborative project in harmony.

Difference Between RMAs and STI Coordinators

Research managers and administrators (RMAs) have traditionally been used as the professional job title at the universities and research institutions in most European countries and North America. For the past few decades, RMA responsibilities have become more specialised and divided into pre-award, post-award, research ethics and compliance, among others (Yamano, 2016). In contrast, our definition of STI coordinators in the ASEAN region does not refer to a specific job title, but rather to a generic

term covering a range of professional talents. As shown in Fig. 3.5.3, some 'STI coordinators' are researchers with teaching obligations, coordination and other duties part-time, while others are governmental officers, and a few are full-time administrators in an institution in ASEAN (Sonobe & Saito, 2021a). Also, it is important to note that in many ASEAN countries, personal exchange between academia and ministries is now relatively active and researchers and governmental officers promptly push forward STI agenda and pilot projects, as a whole.

Kyoto University's activities to raise awareness of STI coordinators are not aiming to define or establish these roles as new independent positions in ASEAN, because STI coordinators' responsibilities and duties can be distinct from those of RMAs in the Western context. In the context of the UK, Whitchurch has categorised research administrators into three: bounded professionals, cross-boundary professionals and unbounded professionals, but the interviewees were basically employees at higher education organisations (Whitchurch, 2007a). What we mean by STI coordinator in ASEAN is not a pre-defined job position, but one naturally merges in the collaborative team, which is often cross-sectoral by nature. Over the 60-year history of the international projects between Kyoto University and the ASEAN organisations, there have been numerous researchers, students or administrators, who dedicated themselves to STI coordination on a voluntary basis, regardless of their job titles being that of an administrator, researcher or governmental officer. Coordinating duties, although not explicitly written into job descriptions or contracts, were entrusted by the team members and stakeholders to ensure smooth operations of the organisation or project as a whole.

The series of activities led by research administrators of Kyoto University to raise awareness of STI coordination in ASEAN and Japan (Tables 3.5.1 and 3.5.2) focuses on the actual 'function and significance' of coordination in the STI community in the region. The URAs' questionnaire and online study group meetings have contributed to shape common skill sets in fieldwork, communication and trust building, whose methodology and approach are similar to those of area studies. The URAs and their collaborators in ASEAN went on to propose four elements to balance STI coordination; top-down, bottom-up, conscience-driven or economic growth-driven motives listed in the previous section.

Concluding Remarks

The combination of top-down and bottom-up approaches to promote STI coordination turned out to be characteristics of Kyoto University in working in the ASEAN region. As for a 'top-down approach', the URAs at Kyoto University ASEAN Center reached out to high-ranking executives in the region and organised a roundtable discussion, symposiums and attended official COSTI meetings, gaining consensus in developing coordination skills. This led both early-career researchers and governmental officers to relate individual projects and activities to national or regional agenda, such as the Bio Circular Green (BCG) economy initiated by Thailand and Cambodia Innovation Roadmap.

Concurrently, The URAs found out that a 'bottom-up approach' to extend STI coordination skills turned out to be also beneficial and effective. The second round of online meetings from January to June 2022 (Table 3.5.2) related to STI coordinators involved various early-career and mid-career researchers and staff. The URAs prepared some homework and assignments for the participants and exposed them for practical exercise in mentorship, flash talk, consensus building and polity making in a probable situation. Sometimes they are asked to write up a sample proposal, attend

mock interviews, and practice 'pitching-talk' for 90 seconds to convince a possible funder of a project. They then received feedback from senior experienced coordinators from Japan and ASEAN (STI Coordinator, 2022). In September 2022, the URAs held an onsite workshop in Phnom Penh, Cambodia (see the following Column about a workshop). These grass-root activities and discussions have extended a person-to-person network among those who are interested in STI coordination.

Due to the rapid expansion of globalisation and economic growth-driven motives in the past few decades, altruism or filial piety (Low & Aug, 2012), once embedded in various Asian cultures, might be fading away. Voluntary coordination, which is often time and energy consuming, can be underestimated in a performance-driven evaluation. Even though the importance and benefit of coordination are gradually being recognised by STI communities in ASEAN, it is still difficult to assess one's coordination performance quantitatively, because its methodology and index remain specific to each workplace. The career development of STI coordinators should be considered further. Is it appropriate for a researcher or governmental officials to hold a coordinating position or should we develop full-time professional STI coordinators in ASEAN?

As a next step, the ASEAN-Japan STI community should materialise human resource development programmes for STI coordinators that would suit local needs in each institution and context. What kind of program or curriculum is effective in systematically and strategically training STI coordinators? What role should each sector play in ASEAN and Japan? The answers to those questions remain unsolved. Ideally, whenever a coordinator balances national agenda, academic interests and other factors under the common goals among the stakeholders, the coordinator's individual contribution to the team should be duly evaluated for her/his personal career development. This personal development will ultimately lead to the further development of the institution, nation and region based on 'human-centric' and relational approach.

For further extension of coordination skills, the URAs at Kyoto University and partners in ASEAN will continue a mutual learning of different coordination styles and priorities among ASEAN and Japan, which they believe to be utmost importance in adapting to the unforeseeable future.

Cambodia-Japan Co-creative Corridor Workshop

This column presents the first on-site training opportunity for the STI coordinators' community in ASEAN and Japan, after the series of online study group meetings. On 8th and 9th of September 2022, Ministry of Industry, Science, Technology & Innovation (MISTI) in Cambodia and URAs at Kyoto University Research Administration Office/ASEAN Center co-organised 'Cambodia-Japan Co-creative Corridor Workshop' in Phnom Penh, to brush up STI coordination skills for the next generation. About 30 participants from different sectors (university, ministry and private company) in Cambodia came to join the onsite workshop.

After an opening speech by H.E. Dr. Heng Sokung (Secretary of State), there were presentations on Cambodia's national policy roadmap to be achieved by 2030, and the introduction of research funds and programs in Japan. Dr. Taro Sonobe explained a logic model to propose and assess a project, using a metaphor of four spices (sugar, vinegar, chilli powder and fish sauce) to season Asian soup noodles for your own plate. Some like it 'sweet', others like it 'spicy and hot', so every coordinator should find out an original combination of each spice that suits to the individual taste in the local

context (Photo 1). On the second day, the participants were divided into several groups and invited to plan a concrete project in line with the Cambodian roadmap (Photo 2). Professor Hideaki Ohgaki (Institute of Advanced Energy, Kyoto University), who is an experienced coordinator in ASEAN himself, reviewed the group presentations and gave an award to the best project proposal.

Photo 1. (left): Dr. Taro Sonobe, Representing a Chef to Mix Different Spices for a Project.

Photo 2. (right): Group Discussion.

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