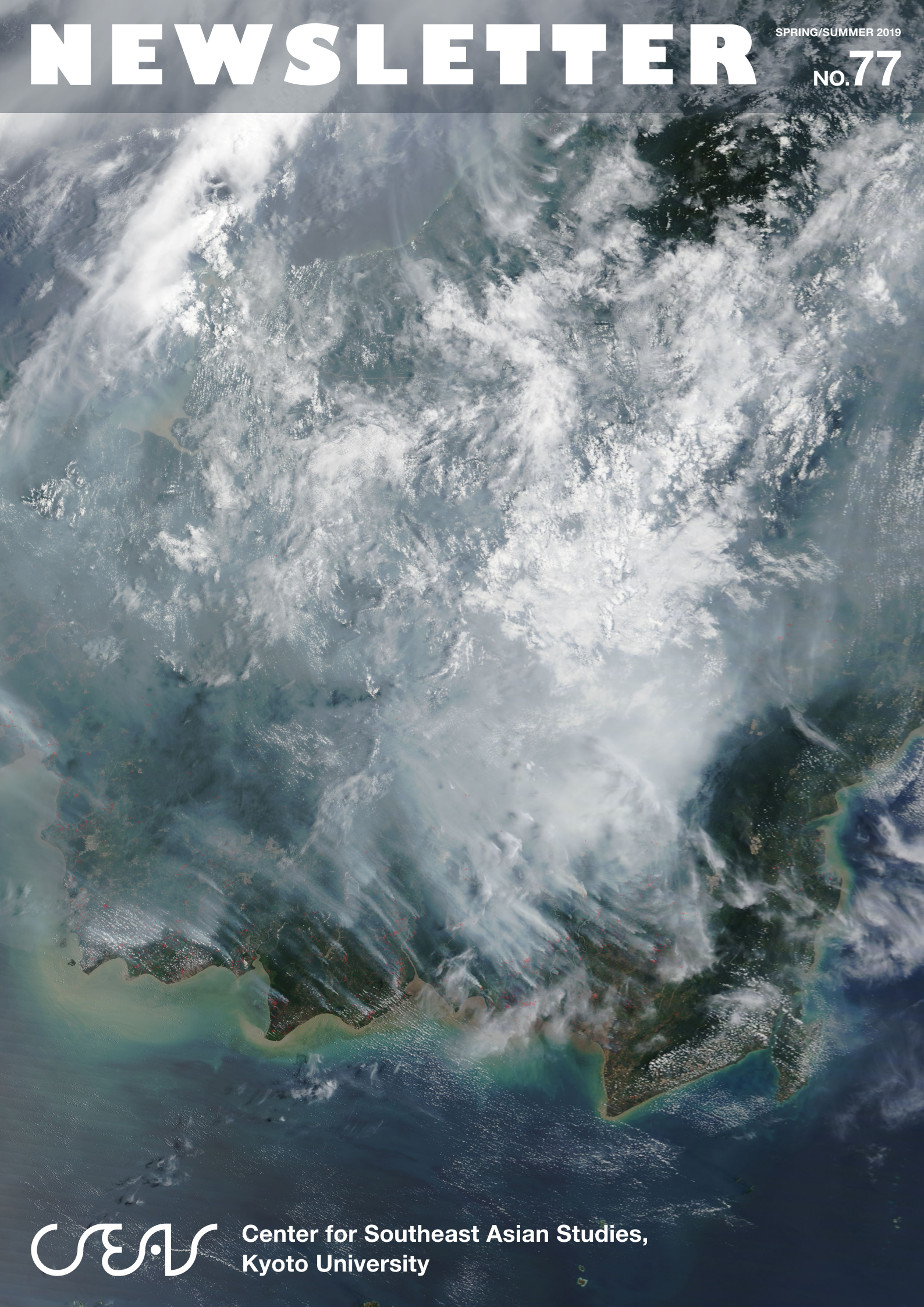


NEWSLETTER

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Editorial

CSEAS mourns the sudden passing of a beloved faculty member, Nishibuchi Mitsuaki, at the age of 65. He was Emeritus Professor and a pioneering faculty member at the Center for Southeast Asian Studies (CSEAS), Kyoto University. As a recognized expert in the field of pathogenic bacteriology, researching *Vibrio parahaemolyticus* and Enterohemorrhagic *Escherichia coli*, he was awarded the Japanese Society of Tropical Medicine Award of Excellence (2011) as well as an honorary PhD degree from the Prince of Songkla University (2016) and an honorary Emeritus fellowship award from the Centre for Environment Fisheries and Aquaculture Science (CEFAS).

Prof. Nishibuchi also had a deep passion for the natural world which spilled over into CSEAS's physical environment. In the CSEAS courtyard there are two Sakura trees which he himself planted and devotedly cultivated over the years. He would ardently 'light up' the trees during the ephemeral cherry blossom period and take countless photos which would grace previous issues of our newsletter. In a final speech that he gave at his leaving ceremony on retirement, he spoke of his 'wadachi' (轍), the track or mark left behind in the ground by a wheel that gradually fades before weathering away. His milestones, legacy and prolific research that he has left behind will not disappear any time soon and his lifetime work will continue to be both inspiration and aspiration for us all. In memory of our colleague in this issue we carry a final interview he gave to associate professor Nakaguchi Yoshitsugu (Ishikawa Prefectural University) for his retirement speech in March 2019.

In this issue, another one of our colleagues, Emeritus professor Mizuno Kosuke retired in March 2019. We carry an interview conducted by Dianto Bachriadi that goes over Prof. Mizuno's life trajectory in Indonesia and Indonesian Studies.

Over the last ten years CSEAS has committed to a number of large-scale projects; a Global COE program titled "in Search of a Sustainable Humansphere in Asia and Africa" (2007–11); "Southeast Asian Studies for Sustainable Humansphere" (2011–16); and currently, the "Japan-ASEAN Platform for Transdisciplinary Studies" (2016–2021). In this issue we carry a special feature that introduces this program, in particular with a focus on some of the younger scholars who have been invited under the post-doctoral program as well as more established members. This program has been set up to advance transdisciplinary research that integrates academic, governmental, and civil societies to create new collaborative research ventures that brings together the expertise of scholars on Southeast Asia, scientists and engineers, and the Japanese and ASEAN political and business communities.

Finally, we carry a number of special reports from our library archive. Emeritus Prof. Nagafuchi Yasuyuki (Nagoya Institute of Technology) provides a detailed overview of large-scale rituals carried out in Bali, Indonesia through materials that were donated to our library collection. Additionally, Moriwaki Yuki (University of Tokyo Graduate School of Economics), also introduces some lesser known, but nonetheless important materials from the Foronda Collection in the CSEAS library.

The Editor
Mario Lopez

Memoir:

The Path Hunter with a Scientific Mind in a Sound Body

Nishibuchi Mitsuaki

Professor, CSEAS

Interviewed by

Nakaguchi Yoshitsugu

Associate Professor, Department of Food Science, Bioresources and Environmental Sciences, Ishikawa Prefectural University

Professor Mitsuaki Nishibuchi's scientific mind developed from an interest in fishing and through various experiences within different research genres. This culminated in a unique research approach merging experiment-based laboratory science and observation-based field investigations in Southeast Asia. This resulted in him being awarded the Japanese Society of Tropical Medicine Award of Excellence (2011). He has attempted to internationally disseminate his unique scientific approach to a younger generation of scholars. His approach has been internationally recognized through honorable awards given to him from academia as well as educational institutions: an honorable Ph.D. degree from Prince of Songkla University in Thailand (2016) and an Honorary Emeritus Fellowship Award (2018) from the Centre for Environment Fisheries and Aquaculture Science, England (CEFAS). Sports and related activities strongly supported the construction of a robust mind and body and strong collaborations with people. It is through this synergy that great science was achieved.

NAKAGUCHI Yoshitsugu (NY): Could I start by asking you to share some of your most impressive memories when looking back over your life so far?

NISHIBUCHI Mitsuaki (NM): I am a very lucky person to be surrounded by warm, understanding and compassionate people, including my own family, who have always let me live my life freely as I wished, so it is hard to choose a few memories out of so many.

Briefly looking back over my life from early childhood, I can recall playing in nature when I was little and I made a lot of friends as a student, through enjoying sports and drinking parties both in Japan and in the U.S. I also came to be interested in machines through bicycles and cars. Since I became a researcher, I have been able to enjoy multidisciplinary international joint studies with researchers from various countries by making use of such experiences. In retrospect, I could say that my childhood experiences had an exceptionally strong influence on shaping my personality, as they provided me the most important basis for my life. Let me explain in a little more detail. What has remained in my memory since then mostly formed as they accumulated upon this basis. Luckily, my major activities are recorded in pictures, taken by a camera I'm proud of, so let me introduce some of them through those images (carried within interview).

NY: To begin with can you share some memories and your circumstances from childhood through to your adolescence?

Birth and memories with my family

NM: As my father was in a construction related business, we had to move a lot: I was born in Hikari City, Yamaguchi Prefecture and a year later, we moved to Yahata Ward, Kitakyushu

City, and then again to Abeno Ward, Osaka City and we lived there from when I was in sixth grade until I graduated from high school. Then, I moved to Hiroshima, my parents' hometown, as I had decided to go to university there. Afterwards, I moved to Fukuyama to join a specialized faculty, studied abroad two times in the U.S. and then obtained a job (as a postdoctoral researcher) there, as well as employment at a Japanese university with an additional two transfers over the course of my career.

The most impressive memories I have with my family, is one with my father. Until I went to study in the U.S., I used to climb a nearby mountain on a day trip with him every year on January 2nd, during the New Year's Holidays (Picture 1). It was at this time when I learned various sayings and useful words that have become a rule of my life. "Hardship makes the man" (*kannan nanji wo tama ni su*) and "when you find yourself at a



Picture 1 Even during my school days, I would return to my hometown of Osaka and climb Mount Kongo and Mount Yamato Katsuragi.

crossroad in life, take the more difficult way” (*Jinsei no kiro ni deatta toki ha, yori muzukashii michi wo erabe*) are the most unforgettable ones. When I boarded for the first time in Hiroshima City, he accompanied me in a double-breasted suit to politely greet the owner of my boarding house. Since then, people from the boarding house would always appraise him, saying he was a “respectable father.” Besides, he understood me quite well and graciously provided financial assistance to buy items that played important roles in my life: a custom-made bicycle, a single-lens reflex camera “Nikon F2A” and a zoom lens set (quite luxurious items in those days).

Interests from early childhood

NM: When I was a child, there was nothing like video games to play indoors, so I mostly played outside, and as such I particularly looked forward to the summers. The vicinity of my elementary school in Yahata Ward, Kitakyushu City, was a naturally rich environment with wooded areas and I used to run around them with a butterfly net and insect cage in my hand till dusk, in search of insects like cicadas, grasshoppers, beetles, and stag beetles. What is still vivid in my memory is the death of a grasshopper I caught, as I pulled it too strong by the body, while it was biting on my shirt. It taught me a lesson about how transient and precious life is.

During summer vacations, I very much looked forward to visiting my parent’s hometowns. One was in the mountain areas of Hiroshima Prefecture. What I was interested in more than insects were the various fishes that resided in the middle reaches of the river or in upper mountain streams. As the day of returning home drew nearer, the scenery of the river as well as figures and moving images of fish there would start appearing in my dreams, leading me to make frequent visits to a fishing equipment shop.

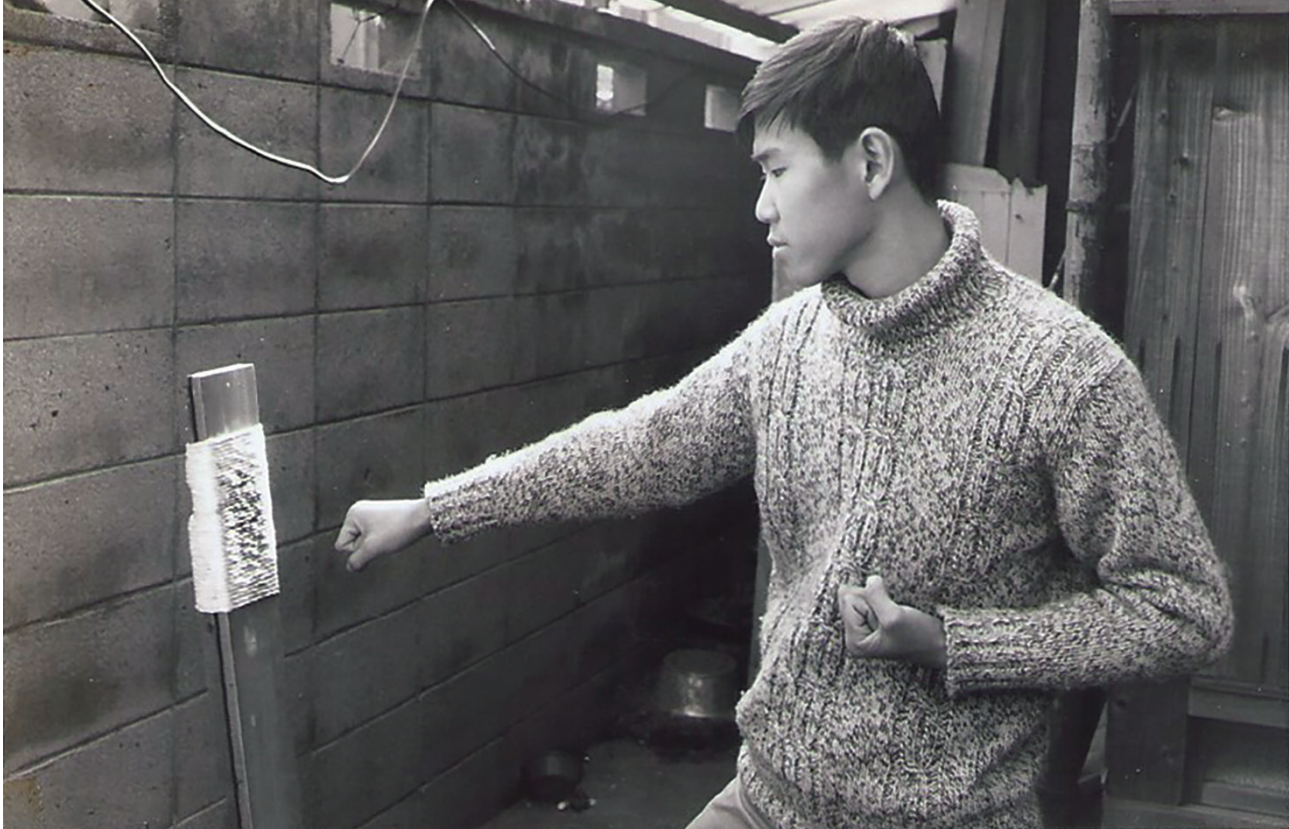
My mother was originally from Kimita-son, a village in the piedmont region of Hiroshima, and her house, somewhat looked like a log-house, was built facing a gravel road where few buses passed by during the day. Spring water from the hillside served as our drinking water and irrigation canals on the roadsides provided us with water for bathing and washing. We could get food supplies at a country store at a walking distance of around 30 minutes for a child. Villagers were growing rice on terraced paddy fields and looking forward to the harvest festival in the autumn. There was a mountain stream, right at the back of our house and often in my dreams, I was communicating with the big game, such as the unseen *Gogi* (a head-spotted char/ a kind of Iwana char (*Salvelinus leucomaenis imbricus*)) in the depths of the river through a float. The water in the shallow part of the river was incredibly clear, and I could spend hours without realizing it, lying on my stomach on a bridge, struggling to catch fish, such as a school of *Oikawa* (freshwater minnow *Opsariichthys platypus*) or *Kawamutsu* (dark chub *Candidia temminckii*), that could be seen under the bridge. As I put grains of steamed rice on a hook at the end of the fishing line, I would send them right in front of the eyes of fish, mumbling “eat it, eat it!” while being amazed through observing their movements: keen and efficient, fighting over the grains of rice. I had no idea that it would be a help for me to learn later, from my uncle, the secret techniques of *Myakuduri* (a fishing method without using a float) to catch *Oikawa*.

My father was originally from Miyoshi City, where three large rivers merge and at that time, it was an area with an abundant catch of fish, such as *Ayu* (sweetfish *Plecoglossus altivelis altivelis*) and *Ugui* (Japanese dace *Tribolodon hakonensis*) that could only be found in clean streams, or large fish-like carps. Since I was a child, I was wondering why there were plenty of fish like that. I clearly remember the night I caught sight of people discarding a bucket full of food scraps into the river from a bridge and that I heard the splashing sound of the fish munching in the dark down the stream. Later, when I learned the proverb, “Clear water does not breed fish” (*Mizu ki yokereba, uo sumazu*), it sprang back to my mind. And again, as I was in a higher grade (at 16 years of age) and obtained a soft fishing rod (drum reel-type) for surf fishing to catch surface water fish, I recalled the night one more time. It also overlapped with the impressive image of a movie, shown by a children’s association back in my childhood, about traditional drift fishing using pupas as bait to catch black sea breams in the Yaizu fishing harbor. Then, it had set off intense sparks in my head, trying to connect multiple neurons, old and new. Thus, I named a style of fishing, “Nishibuchi-style drift and float *Ugui* fishing,” which used the reel-type soft fishing rod for surf fishing, standing in the middle of a stream, putting small pieces of bread to each of the approximately 10 branched fish hooks drifting on the surface of the river. I know it’s just self-congratulatory, but it was even more exciting than fishing *Ayu*, to struggle in the middle of the river, trying to catch a group of *Ugui*, nearly 40cm in size. As contenders who were driven competitively and



Picture 2 A print of a large fish caught using the “Nishibuchi-style drift and float *Ugui* fishing.” The dirt around the mouth was the result of bait which flowed back up from the stomach at the time I was making the rubbing. It now decorates my office.

tended to forget to be alert, they could normally be caught simultaneously on multiple hooks. “Face the moment, face the site, learn from it” (*Toki ni nozonde, ba ni nozonde, kore wo manabu*). I believe that learning from history and the field is important for both invention and area studies. In order not to forget this spirit, I display a fish rubbing (*Gyotaku*, a fish print) of the *Ugui* I caught back then in my office (Picture 2).



Picture 3 Intense Karate training. As I couldn't go to the Dojo during long vacations when I returned home, I would strengthen my fists by hitting a 'Makiwara' (a padded striking post used for training in Karate).

Development of interests and their relation to study

NM: My passion for fishing was derived from my interest in the biology of fish. When I was a junior high-school student, I went fishing once or twice a month on Sundays. I started to develop a desire to see fish every day, and finally came to grow ornamental fish, such as goldfish and carps in aquariums laid out in my yard. The variety of fish I was growing had gradually shifted to specialize in fancy goldfish, such as *Ranchu* (roundfish), appraised for their beautiful appearance in fairs. Besides, their existence started to appeal to a sense of beauty I had begun to develop in my youth. By that time, my expertise in raising fish had reached a certain technical level, hatching eggs laid by adult fish, sorting out juvenile fish, and so on. Shortly however, I was to face a big problem: if I was not careful enough, fish could often catch diseases. Though I tried my best through consulting some books and trying to cure them through medicine, they usually ended up meeting a sad fate. I submitted my records of raising goldfish, including such struggles of mine, as a summer vacation research project to junior high school. Since it caught attention of a teacher of modern Japanese, it appeared in a schoolwide newspaper. I thought the proper way to understand this event was to take it as if I had gone through a great conflict and that I had gained enough power to strongly appeal to a third party.

During my high-school days, my interest in fishing and raising goldfish never abated. Rather, since I was the chairperson of a library committee, I was often stationed in the library and as such, outdoor activities had helped me maintain a balance between the mind and the body. Yet, I couldn't find a solution to the problem of my fish catching diseases and it left me with pangs of sadness.

NY: Which was the field that interested you and led to your decision to go on to graduate school?

NM: After graduating from university, I had the vague desire to work for or conduct research for the sake of those in need. Therefore, despite the fact that I was interested in pollution problems in oceanic environments that had been much-talked-about in those days, the issue of fish disease was personally, a more important matter for me. I came to learn there was a laboratory for such studies at the Faculty of Fisheries and Animal Husbandry, Hiroshima University. Going to the university there meant living away from my parents. Fortunately, however, Hiroshima was my parents' home town and as it also made me feel easy, I decided on my career path.

NY: As you continued your study at the faculty of the university, what did you wish to further enrich?

NM: I started to study science of fisheries in general at the Department of Fisheries, Faculty of Fisheries and Animal Husbandry, however what I realized at the welcome party for new students was that this academic discipline was quite feudalistic and required robust physical and mental strength, aside from the matter of scholarship. After passing the exam, I took it easy and was a bit slow in looking for my boarding house, so I boarded in the area called Kusatsu, on the West coast, quite a distance from the city center. I took my long-distance of commuting for good and decided to train my physical strength by commuting on a bicycle. For that reason, I bought a bicycle for serious cycling (and that was my encounter with the bicycle). Besides, as there was a Dojo (training center) named Shobukan (尚武館) near my boarding house, there I practiced Wado-ryu Karate (和道流空手道), trying hard to concentrate on training my physical and mental strength. Thanks to great instructors, including the director of the Dojo and Shihandai (assistant instructor), I felt I was steadily growing toward my objective (Picture 3). Most of all, I was able to obtain vigorous mental strength and I felt as if I had nothing to be afraid of in this world. Furthermore, what was memorable were the incred-



4-2



4-1

Pictures 4 The University Fishing Club President (4-1). Even though it may seem that fishing is a carefree hobby, there is an incredible amount of planning, making contact, material preparation, and accounting. (4-2) At open fishing competitions, we would show off our surf casting to other general participants.

ible lectures given before the training sessions. Among them, phrases such as “*Shin soku tai*” 心即体 : Mind is nothing but the body (generally known as “*Shin soku ri*”: Mind is nothing but the law) or “*Gi shin ni iru*” (技神に入る : to be divinely skilled, explained in such lectures, were so versatile, that they would just pop out of my mouth in various situations of my life later, but at the same time were considerably rich. In order to enjoy my student life with more friends, I joined a fishing club in university. As I had a long experience and prominent skills in regards to fishing, they immediately made me captain of the club. Thanks to this, I was also able to gain some experience in organizational operations in the “mini” society (Pictures 4).

After learning basic science for a year and a half at the Hiroshima campus, I spent the rest of my undergraduate years at the Fukuyama campus to study my speciality, the science of fisheries. During this period, I served as captain of the fishing club at the Fukuyama branch, while joining the cycling club of the Fukuyama branch. I was also assigned the post of sub-manager to pursue the full-blown art of cycling (Pictures 5).

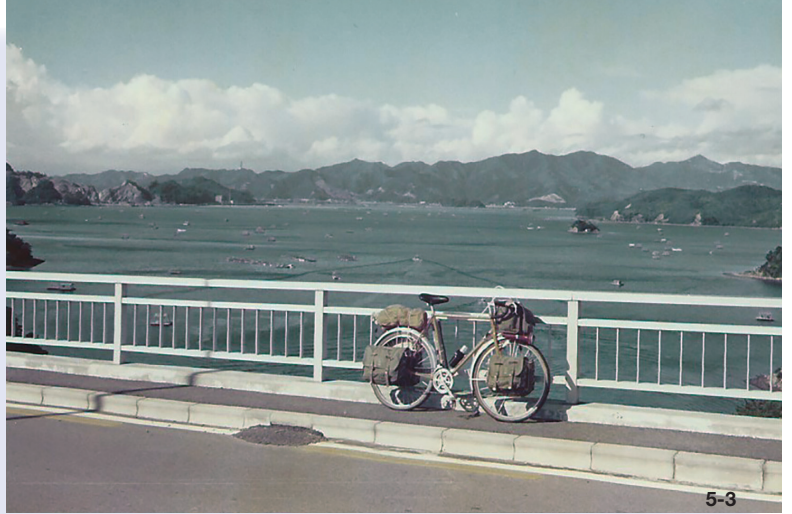
In my fourth-year at the faculty, when we had to work on my graduation thesis, I was assigned according to my wish, to the laboratory of Professor Kiyokuni Muroga, who had specialized in fish diseases. Communication skills I had cultivated over my student life through sports and drinking sessions helped me carry out smooth activities in the laboratory, as well as allow me to concentrate on academic research (Pictures 6).

NY: Can you share how you entered the graduate school for the master’s program and came to visit the United States as an exchange student?

NM: While in the laboratory, I was really able to fully study fish pathology, however, the more I studied, the more I was made aware of the issue that Japan lagged considerably behind the



5-1

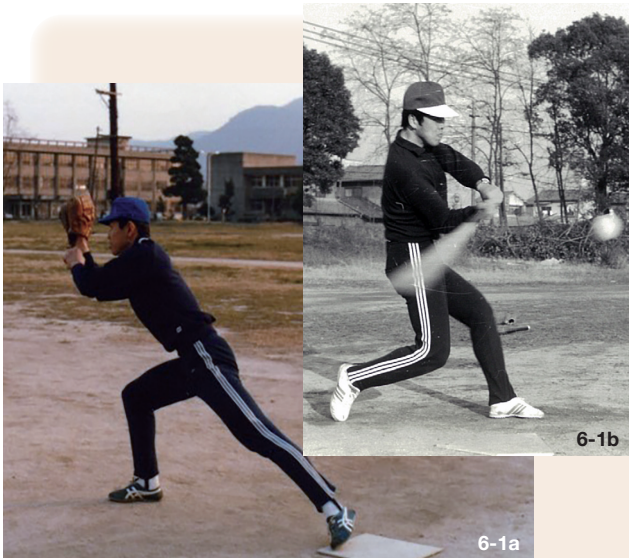


5-3



5-2

Pictures 5 The deputy head of the University cycling club: (5-1) As this was the second challenge, after having made it to the top peak of Shikoku island's famous mount Kenzan or Tsurugi-san alongside three juniors who had been selected, it was fun to make the descent [Nishibuchi: to the left]. (5-2) Touring on my own in the Chugoku and Kinki regions. Due to carrying much equipment the pace was slow. I visited a relative's house to take a rest. (5-3) Touring on my own in the Kinki and Shikoku regions. Only the scenery and my beloved bicycle are in the photo because I had to push the shutter button.



6-1a

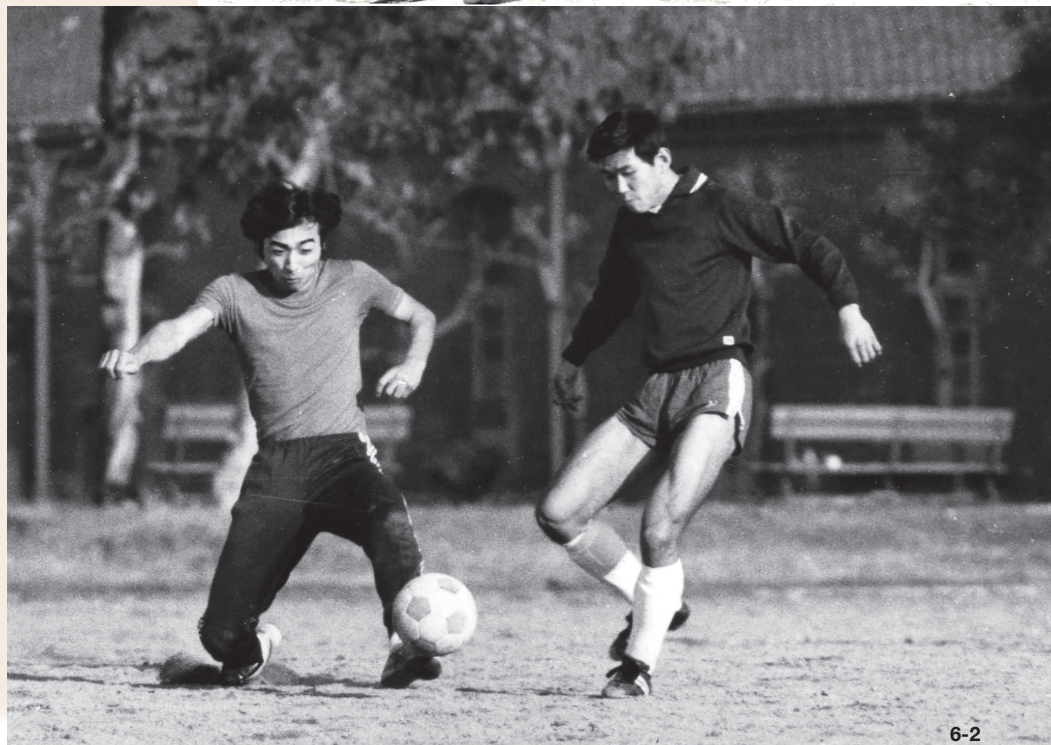
6-1b



6-1c

6

Pictures 6 Sports and drinking (in Japanese *Nomyunikeshon* [communicating through drinking]) in my department and research laboratory. At the time when I was at the Muroga research laboratory, participation in softball was a must (6-1c) [Nishibuchi: the left of the middle line]. I was fourth on the plate (6-1b) and a defensive first (6-1a). My professor told me I was an ace with alcohol beating the mold. (6-2) That I formed a fishery department team at the faculty soccer competition, destroyed the faculty of education high school physical education team and drank sake from the trophy cup, remains memorable.



6-2



7-1



7-2

Pictures 7 At my study destination in the U.S. I enjoyed socializing with many friends through sports and *Nomyunikeshon*. (7-1) Softball was popular in my laboratory [Nishibuchi: fourth from left of the bottom line]. (7-2) Soccer matches were a staple of campus competitions. I was a member of an international team known as the squirrels (this was the name of the sponsor's watering hole; [Nishibuchi: fifth from the right in the bottom line]) and we enjoyed games and beer.



7-6



7-3



7-5



7-4



7-7

(7-3) Drinking Style A* (Formal and the start of the first overseas beer club in Japan [Nishibuchi: to the left]).

(7-4) Drinking Style B (A little serious, at the strategy meeting at the sponsor's watering hole [Nishibuchi: to the left] in the front).

(7-5) Drinking Style C (Slightly relaxed and still interested in food [Nishibuchi: to the left])

(7-6) Drinking style D (Quite relaxed and the eyes say it all. [Nishibuchi: to the right in the front])

(7-7) Drinking Style E (Very relaxed and close to graduate's condition on a Friday night [Photographer: Nishibuchi]).

* This are all subjectively ranked according to Prof. Nishibuchi.

7



8-1

8-2

Pictures 8 Midnight friends from my day's in Oregon: John Baros (8-1) used most of the autoclaves in the microbial building as culture devices for bacteria to culture high temperature bacteria found near submarine volcanos. I intensively carried out experiments at night and didn't have to wait in line for the experiment equipment. (8-2) A shot with one of the cleaning staff. She worked the night shift and I met her at midnight. One time when she got trapped in an elevator and called out our names we had to go and help her out.

United States and therefore, I had gradually developed a desire to study in the U.S. Above all, a research team led by Professor John L. Fryer of Oregon State University was publishing wonderful research results, based on a solid microbiology and taking the approach of incorporating fisheries, so I came to admire their existence as something akin to the “Godfather” of fish pathology.

At that time, the Ministry of Education, Science, Sports and Culture (MEXT) had been implementing a program to dispatch exchange students (100 students per year) for the undergraduate and graduate students of national universities, so I studied English and after passing the exam, I was given a chance to study abroad for one year (in the middle of my master’s program) from September 1977 at Professor Fryer’s laboratory.

NY: Can I ask you about your life in the United States, for example about your research activities and other things?

NM: I was quite wild. I did what I had to, but at the same time, socialized with many friends through sports, as well as over drinks, absorbed in study and fully enjoying the freedom I had (Pictures 7). I conducted research (experiments) intensively and effectively during the nights, when there was no waiting time for using equipment (Pictures 8).

Moreover, thanks to Professor Fryer, I was able to accumulate a variety of experiences that it made that one year feel very long. Not only was I able to develop my own research I had been working on in Japan, but I could also take important classes related to microbiology, take part in other activities in relation to fish disease (such as helping out with a project for salmon farming business by Oregon State Fisheries & Wildlife), and enjoy my own hobby of fishing as well (fishing specific to that area, such as rainbow trout in a stream and salmon on a shore) (Picture 9). It was especially meaningful for me and I was highly impressed by Professor Fryer’s class. He had received the Loyd F. Carter Award, which was bestowed to excellent educators (only one recipient a year) and his method would go on to influence the class I was to be in charge of later on in Japan.

Returning to Japan after completing the master’s program, and going on to university in the U.S for a doctoral degree

NM: When I was preparing to return to Japan, as I finished a year of study abroad, Professor Fryer suggested me to take up the challenge of a Ph.D. under his supervision, once I had finished the master’s program in Japan (and that with an assurance for a research assistantship). As I came back to Japan, I had a chance of going on to a domestic university for a doctoral program, but I finally decided to make a career choice of returning to the U.S. again. Back then, as it was deemed difficult to make such overseas studies successful without considerable efforts, I needed to prepare myself mentally to some degree. Before leaving Japan, I declared to my junior fellows at the laboratory and to my parents that I had no intention to come back to Japan again.

Doctoral research in the U.S.

When I returned to Oregon in September 1979, the first thing waiting for me was a drinking competition with my bad old friends from the laboratory, over shot glasses of whiskey at a western bar downtown. It turned out to be a good start. Thus, thanks to the support of my friends from my previous stay and the research assistantship, I could enjoy, once again, wild and meaningful days, education and research for three and a half years until I obtained a Ph.D. in microbiology (though, there was a big change within myself). In order to solve problems of my research on fish disease (the new bacterial species of pathogenic vibrio that could trigger canker for cultured eels) as well as of those commissioned from Japan, I asked Professor Ramon J. Seidler, a specialist of microbial taxonomy, based on environmental microbiology and molecular (genetics) studies (whose laboratory was located three floors below Professor Fryer’s), to carry out collaborative research. The result was a great achievement and we were able to bring up the issue of pathogenic vibrio which Japanese fisheries science and fish pathology had had. Later, Professor Seidler took on sharing the research with a National Sea Grant on pathogenic vibrio in the oceanic environment and I was singled out, as he needed a specialist, who could conduct research on this. Taking the offer meant that I had to change laboratories I had been assigned to, the contents of my doctoral thesis, as well as my doctoral advisers. With the doctoral thesis, I would have to start it from scratch. As I consulted Professor Fryer, he shared his opinion with me: “I would agree on this for your future: if a chance is offered when you are young, it is good to accumulate as many experiences as possible.” His words did not just encourage my transfer to the laboratory of Professor Seidler, but have served as a basis for me since then: not to refuse those who would knock on the door of my office as an applicant to graduate school or as a young researcher. Personally, leaving the fish pathology project even for a while, went against my will, despite the fact that it had not been carried out on a full scale yet. However, by that time, I was able to understand that even with different themes, research of this kind could basically proceed in the same way. As I presumed it to be meritorious from a long-term perspective, to participate in a major project when a chance was there and to be able to absorb a large amount of knowledge and skills on sites, as well as to expand human networks, I decided to follow the precious advice of my senior.



Picture 9 Through a chartered boat, we could easily enjoy trawling for coastal salmon for a daily rental fee of \$30.



Picture 10 I received the “Sea Grant Association National Student Research Award (1981)” from Washington D.C. in Oregon.

After the transfer, studies in my doctoral years went smoothly and I published a lot of papers. Among all, I was honored to receive “The Sea Grant Association National Student Research Award (1981)” and “N. L. Tarter Research Award (1982)” for my research on “Development of new animal model for enteric infectious bacteria test” (Picture 10). It was known throughout the university and when there was an outbreak of *E. coli* (the so-called O-157) infectious disease in Oregon and Michigan for the first time in the world in 1982, I was to help with the investigation into the cause in the state of Oregon. In other words, I was the first Japanese researcher, who engaged in the investigation of the O-157 incident.

Life in the U.S. as a postdoctoral researcher

NM: After obtaining a Ph.D. at Oregon State University, I was introduced by professor Seidler to Dr. James B. Kaper, who was in the Department of Bacterial Genetics at the Center for Vaccine Development, University of Maryland School of Medicine in Baltimore and started my academic life as his first postdoctoral researcher in February 1983. The first message from Dr. Kaper was to turn up in Baltimore soon and to start working on the research. Following his instruction, I accomplished a lone cross-country drive in the middle of a snowstorm in February, driving my precious car (1974 Ford LTD, Picture 11) on Route 80-N from Oregon to Maryland in six and half days. The theme of the research project was a genetic analysis of pathogenic factors of *Vibrio Parahaemolyticus*. It was just around this time, when the U.S. was taking the global lead in genetic engineering techniques, including gene cloning, and these were being developed and published one after another. I made up my mind and devoted myself to the research (though I was still a late-night person) for three years, and as a result, I acquired the latest genetic engineering techniques. As those were the early days for experiments of molecular genetics without sufficient experimental kits, it was necessary for us to follow the basic procedures of experiments faithfully and it required immense time and work every day. Again, what had supported me mentally and physically during such a tough life as a researcher was sports (swimming and football) (Picture 12). When I was leaving Baltimore, as I had completed the mission, Dr. Kaper said to me for the last time; “enjoy it while you can.” I’m trying to give the same words to my graduates in my laboratory.

NY: What were your reasons for deciding to return to Japan?

NM: The U.S.-Japan joint conference (annual assembly) of the Cholera Panel of the U.S.-Japan Cooperative Medical Sciences Program has been held biennially in Japan and in the U.S. Since I had started working as a postdoctoral researcher, I attended the conference as a member of the U.S. side, and it seemed it did not take much time for the Japanese side to find it out. When I was a guest speaker at a symposium in Japan, I made a presentation on the results of analysis on pathogenic factors of *Vibrio parahaemolyticus*, employing the latest methodology of molecular genetic studies, which was welcomed by fairly good responses and later, I was offered a job opportunity in Japan. I was made aware that the gap between the levels of scholarly progress in the U.S. and Japan could not be found just in fish pathology, but also in other fields. Whatever the field, if it was possible to reduce the gap, it would surely affect related fields and I wondered if pathogenic bacteriology and fish pathology could make good examples of this. I believed that, as soon as possible, what I had obtained in the U.S. would reflect back on academic disciplines and ultimately bring benefits to the world, so I decided to return to Japan.

A little before then, I had received an envelope from my father. Inside the envelope was a whole Japanese newspaper of a certain day. It featured a victory of the Hanshin Tigers, which was quite unusual in those days, and referred to the excited local fans jumping into the Dotonbori River one after another out of joy. I was wondering why my father, who had been an enthusiastic fan of the Hiroshima Toyo Carps, had sent me such a paper. Since then, I had occasionally received newspaper articles, covering major incidents and episodes that had been taking place in Japan and finally realized that it was the first indirect message from my family, trying to encourage me to pay attention to Japan. It would be a lie to say that it had not, in the slightest, affected my decision to return to Japan.

NY: Once you were back in a Japanese research environment, did you recognize any differences from those in the U.S.?

NM: In the U.S., they put emphasis on fundamental education in extensive fields during the period of graduate education up to Ph.D. level and they provide an educational sys-



Picture 11 My beloved 1971 Ford. It came equipped with the biggest engine that Ford had produced for a passenger car at the time (cylinders at 439 cu inch [=7 ltr]). I always looked forward to tuning the engine myself in spring and autumn.

tem that enables students to understand the philosophy behind each of the several fields, at least those relevant to their specialties. They also have a system with a certain level of freedom for postdoctoral researchers, allowing them to take up the challenge according to their bold ideas, but at the same time, making sure that they would be responsible for the whole project and make it a “success” in the end. On the other hand, it seems to me that the research environment in Japan generally tends to make a young researchers “mature early” as a specialist of a certain field at an early stage.

NY: Tell us about your research during the time you were at the Faculty of Medicine, Kyoto University.

NM: Before the end of my postdoctoral contract in the U.S., I had unofficially been promised a job by a certain research institution in Japan, however, I also got an offer from the Research Institute for Microbial Diseases, Osaka University and I was finally hired as an assistant by the latter for a period of one year and nine months from April 1986. After that, I had the opportunity to work as a lecturer and assistant professor for a course on microbiology at the Faculty of Medicine, Kyoto University. During those days, what I was particularly trying to do with regard to aspects of research, was to work with young Japanese researchers (postdoctoral researchers and graduate students), who had been engaged in pathogenic microbiology and to convey to them what I had learned in the U.S. (such as a vision for tackling research and the latest technology), as well as the fact that when the principle of “the three arrows (three pillars of stability)” would work, they could expect far greater results than research done by any individual. The romanticism (ideal) that I have as an academic is to conduct research that would bring about something beneficial for many. Personally, I am content with what I achieved during this period. According to internet information, my thesis to

date, has been quoted in other papers more than 11,700 times. Among them, those ranking on the top two (quoted more than 500 times) have been published during this period.

NY: Could you tell us about the development of your research after you took office at the Center for Southeast Asian Studies (CSEAS), Kyoto University, and about the conflict you faced doing so?

The resolve to expand research into Southeast Asia

NM: In the graduate school of Medicine, I was conducting basic research, based on some analyses of experimental data from the laboratory, with the aim to reveal such things as the mechanism of bacterial pathogenicity. There was a request from CSEAS to recommend an academic and I was told that the Faculty of Medicine was willing to recommend me for the position of professor, so I made an application hoping that it would make it possible for me to develop my research to serve many who were actually suffering from illnesses in Southeast Asia. As a result, I was able to take up the post of professor in April 1996. Since then, I have been under their patronage and this is my 24th year at CSEAS. Though before then, I had been with different laboratories and learnt various issues every few years, with the longest record of nine years at the Faculty of Medicine for the course on microbiology, I had never seriously thought about transferring since I took office at CSEAS. Southeast Asian studies was such a fascination for me. Still, around the time I assumed the post, I had to go through more than a few struggles as I was not so familiar with the new environment. Among professors at CSEAS at that time, there were those who would frequently raise the question “what is area studies?” or those who had stereotypical ideas about those from the Faculty of Medicine and that they were all “shaking test tubes in a laboratory” as



Picture 12 In Baltimore, I participated in the city league team and enjoyed Soccer [Nishibuchi in the left of the upper line].

well as those who had declared in the interview before my acceptance that “once you take office at this institution you should not conduct any useful research.” Those were the people I can never forget. Later, as somebody told me that there was no one who would know the answer to the question of “what is...” and with an opportunity of a two-month investigation in Indonesia (Picture 13), including the experience of joining the research of three so-called prominent area studies professors, and through taking other comments as negative examples to learn from, I was able to make up my mind to develop my own way of research in Southeast Asia.

New studies bridging the fields of medicine and area studies

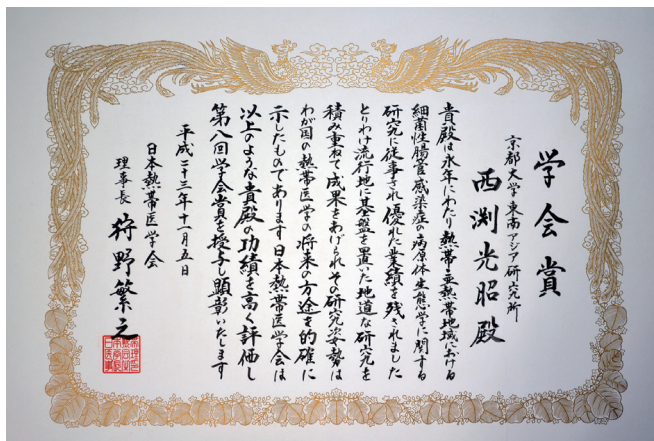
NM: When I was transferred to CSEAS, a professor from the Faculty of Medicine gave me advice that I should try to cover activities that would reinforce the deficiencies of each department. My own initial understanding was that the Faculty of Medicine had lacked tropical studies, while CSEAS had lacked useful and practical studies. Nowadays, however, the latter considers cross-over studies between field research and laboratory experiments that fit the conditions of being suitable for both fields of Medicine and Area Studies to be more appropriate. One of the successful examples of this could be the result of cooperation between the members of various departments of CSEAS as well as collaborative researchers from respective Southeast Asian countries, namely, through a Grant-in-Aid for Scientific Research (S) “Infectious Diseases Spreading Across International Borders in Southeast Asia: The Elucidation of Area-Specific Features Based on Multifactorial Analysis (2007-2011)”. For this contribution, the Japanese Society of Tropical Medicine Award of Excellence (2011) was awarded for the first time in Kyoto University, and the certificate contained a comment that my study clearly demonstrates how future studies of Japanese tropical medicine should be directed (Picture 14).

Colleagues I met in the fields of Southeast Asia

NM: Over the last 24 years, there are innumerable colleagues I have met in the field (oversea venues of research). Moreover, at present, there is no more framework for different regions and the whole world has become our field. I would like to introduce some of the representatives of the major groups that have offered enthusiastic cooperation for holding research collaborations and workshops, as well as for the promotion of interactions among researchers on the ground (Table 1). Organizations of affiliation listed to the right and are indicated by names from the time of collaboration. In addition, respective groups include a lot of members who we became familiar with on each other’s sites, such as graduate students and technicians. Currently, active interactions are mostly taking place among the next generations of respective groups. My commitment to the enlightenment and education of colleagues of similar ages as well as a younger generation of scholars in various parts of the world resulted in international recognition exemplified



Picture 13 With Profs. Yoshihiro Tsubouchi, Tsuyoshi Kato and Koji Tanaka who accompanied me on a research fieldtrip to Ternate, in the Halmahera region of Indonesia [Photo credit Nishibuchi: 1996].



Picture 14 The Japanese Society of Tropical Medicine Award of Excellence Certificate (2011).

Table 1 Representatives of major groups that had offered enthusiastic cooperation for holding research collaborations and workshops, as well as for promotion of interactions among researchers

Name	Country	Affiliation
Son Radu	Malaysia	National Food Safety Research Centre, Faculty of Food Science and Technology, University Putra Malaysia
Varaporn Uddhakul	Thailand	Department of Microbiology, Faculty of Science, Prince of Songkla University
Abdul Aziz Djamal	Indonesia	Faculty of Medicine, Andalas University
Firdausi Qadri	Bangladesh	International Centre for Diarrheal Diseases, Bangladesh
G. Balakrish Nair	India	National Institute of Cholera & Enteric Diseases, Kolkata
Ng Lee-Ching	Singapore	Environmental Health Institute, National Environment Agency
H.-C. Wong	Taiwan	Department of Microbiology, Soochow University
Yung Bu Kim	South Korea	Department of Microbiology, College of Medicine, Pusan National University
Chengchu Liu	China	Shanghai Ocean University
Oscar Roberto Escalante Maldonado	Peru	National Center of Public Health, National Institute of Health
Nasreldin Elhadi	Saudi Arabia	College of Applied Medical Sciences, University of Dammam
Rachel E Rangdale	United Kingdom	CEFAS Weymouth Laboratory
James B. Kaper	United States	University of Maryland School of Medicine



Picture 15 Prof. Mitsuaki Nishibuchi received a degree in “Doctor of Science (Microbiology), Honoris Causa” from the Prince of Songkla University (PSU) in Thailand. The diploma was handed to him directly by Princess Chulabhorn of Thailand (2016).

through an Honorable Ph.D. degree from Prince of Songkla University in Thailand (2016) and the CEFAS Honorary Emeritus Fellowship Award (2018) (Picture 15).

NY: Would you be able to share your feelings toward your family?

NM: Needless to say, thanks to an understanding family, I was able to be absorbed in and continue my study, as I wished. Research is challenging the unknown, and progress does not always go as expected, and many times, it requires great self-sacrifice both in terms of time and money. I had already received approval from my family on this point when I was assigned as professor, yet still I deeply appreciate their patience up to my compulsory retirement.

NY: What is your message for future researchers?

NM: It is often said that “what one likes, one will do well” and looking back over my research so far, I realize that while I ardently pursued my passion, I naturally passed the threshold of research and have been able to obtain a considerable depth of exploration. However, I did not just cling to one thing but maintained a degree of flexibility, so that it was possible for me to decide, when needed or requested by affiliated fields, to redirect my career path or to start working on international research collaborations without hesitation. As a result, my study has significantly expanded. In regards to the selection of a counterpart for collaborative works, I would recommend choosing someone of almost the same generation that one can communicate well with, rather than setting up a highly renowned scholar. A lot of such counterparts are included in the list on the table 1. In addition to your own interests, if there was an ultimate goal for one’s study, concrete and lifelong, such as “research

that is useful for many,” it should be backed up by passion and improve our motivation for study.

So long as the above conditions are met, with increased motivation and where the possibility to challenge something exists, I would like to put my hands to different kinds of research. Among the list of my favorite things to do is handcrafting; It is a hobby spun off from my penchant for machines, such as fiddling with bicycles and automobiles. I would like to introduce an example here. Since there was a demand for safe and reliable food from small- and medium-sized enterprises in the Kansai region and as I was proud of myself for being the first Japanese researcher to have participated in the investigation of the E.coli O157 incident, as well as being consistent with the ultimate goal of my research (useful for many), I felt a strong motivation that resulted in my involvement in the development of new sterilization methods that could realize the supply of inexpensive “Yukhoe” beef to be eaten raw. It was not just about the process of sterilizing lumps of meat, but about analyzing the characteristics of multiple handling processes, starting from the stage of slaughtering cows to that of them being eating, in order to devise new processing methods appropriate to respective stages. By taking advantages of such a synergistic effect of combining those with newly developed sanitizers and handmade washing equipment, I was able to achieve this goal. This intellectual production (a product of alliances between industry and academia) was introduced as one of the representative inventions of Kyoto University in an intellectual property-related event (see back cover). I am currently trying to further develop research on this invention. My path hunting will continue. I hope it will be considered a useful study for others.

Translation: Chiharu Yoshida
Editing: Mario Lopez



轍 (*Wadachi*) literally means the track of a wheel or a mark in the ground that usually fades away through weathering before anyone notices its presence. However, it has a special meaning for me. I have tried to live a day-to-day life so that my “wadachi” is distinct from others as it were a flash of light or the special odor of sweat resulting from intelligent and physical hard work that wove into my “wadachi.” This may serve as a small milestone for others who may follow and overwrite it before it disappears. As such, I would be very happy if my “wadachi” can serve such a function. Mitsuaki Nishibuchi

Picture on this page

“Walk.” I used to serve as an academic advisor for WHO/FAO while affiliated with CSEAS. Upon completion of each specific mission in Geneva, advisors were allowed to take a short holidays. I took up the challenge to hike the trails around the Matterhorn and surrounding high mountains.



A Lifelong Quest to Learn From the Indonesian People:

An Interview with Prof. Kosuke Mizuno

Mizuno, Kosuke (Professor CSEAS)

Dianto Bachriadi (Guest Scholar CSEAS)

Okamoto, Masaaki (Professor CSEAS)



Professor Mizuno is an economist who has devoted 24 years to the Center for Southeast Asian Studies (CSEAS) where he started as an assistant professor (1996) and rose to the position of director for four years (2007-2011). This directorship was an embryonic period for internationalizing CSEAS and resulted in the successful launch of a global Center of Excellence (COE) program (2007-11). His research has been a long-term commitment to transforming academic paradigms from the perspective of temperate areas of the Western countries and Japan to those more attuned to the Asian tropics and African realities.

As a teacher he has inspired students inside and outside of Japan to study Southeast Asia. Over the years, he has served as a visiting scholar at the Bogor Agricultural University (IPB) and Bandung Institute of Technology (ITB) and contributed to forging strong academic networks with universities in Indonesia. Utilizing not only the Indonesian language, but also Sundanese and Dutch, he has published numerous and meticulous fieldwork-based work on the importance of the non-agricultural sector in rural villages in Java, history-dependent complex issues on land certificates in rural societies, and urban labor issues. He has led a team of researchers from different academic backgrounds to research societies living in peat areas in Riau, Indonesia, and the results were published as a book on peat fire issues, both in Japanese and English. In this interview, conducted by Dianto Bachriadi and Okamoto Masaaki, he reflects on his life as a researcher. The interview was conducted in Bahasa Indonesian.

Dianto Bachriadi (DB): Prof. Mizuno thank you for your time and willingness to be interviewed today...

Kosuke Mizuno (KM): Yes, I'm also thankful...

DB: Let's have brief overview of your observations of more than 30 years of conducting research on Indonesia, and what we might be able to conclude from these long experiences. I remember that around the 1980s, you started with a study on small industries in Majalaya, West Java. You then also studied labor and land affairs in great detail. Your most recent study is even more interesting, dealing with the environment

relating to land affairs, specifically peatland restoration.

KM: Yes, I have also been interested in the macro economy.

DB: First, based on your 30 years of observation, what do you think can be concluded about small- and medium-scale industrial development in Indonesia—especially in the context of economic transformation in rural areas?

KM: Small- and medium-sized industries in Indonesia possess power, especially family businesses. This strength lies in the ability to develop many kinds of initiatives in order

to overcome various problems. The major hurdle that small- and medium-sized industries always face is marketing or competition from big industry. But in Indonesia, small business owners are always searching for countermeasures. One of their major efforts is that they often double up as sellers, so that they can obtain more profit. This means that business then stabilizes. Furthermore, they are also creative in diversifying their methods and products. They try a lot of new things until they find a business pattern that can provide family stability and allow their business to grow. However, this does not necessarily mean that business growth goes from small to medium and then medium to large. Growth here can also mean that business stays small (i.e. micro) but also diversifies.

In villages, small business or industry is always combined with agricultural activity. So, once again, its survival is very strong. Many small businesses are those in the informal sector; this may be informal trade or services, which are, in reality, the economic power of the people in Indonesia. It isn't big industries which form the pillar of Indonesian economy, but small and more often than not informal businesses, whose resiliency is strong. This is a huge contribution to Indonesia's economy.

Important economic transformation in villages is not just a shift from a farm-based economy to an industrial one. It would be more accurate to say that development is from a farm-based economy to a non-farm form. And the latter here refers more to the manufacturing industry. The growing non-farm-based sector is for services, trading, home-based industries, and of a micro- to medium-sized scale.

Furthermore, this change does not induce the village to city migration that depopulates villages. Many villagers remain in their villages, and although there are many who work in the city, many regularly return home to their villages. Families—especially extended ones—are still prevalent in villages. However, people staying in cities in order to earn a living also reside in an environment that is similar to the village, something akin to a city-village.

Therefore, the various micro-contributions to the economy, be they in the village or in

the city, are large. This is not just contribution to GDP, but also from labor intake. This micro sector, with all its dynamics, can be called an independent economic sector. It is not just an overflow caused by shifts from farming to industry. Even initiatives within this sector are staggering. Although not many of them are able to compete in the global market, they do fulfill domestic consumption needs. This is actually one aspect of Indonesia's economic power which is often overlooked. Some policies regarding trading made by the Government end up beating the micro economy instead. However, it is amazing that this sector has survived.

DB: Let me switch the topic to something that focuses on one of your academic concerns, and is connected with our discussion above, labor. Does this remarkable informal sector development mean that the labor movement in Indonesia is not so strong? Many labor unions only organize in the formal industry sector, which is mainly part of the industrial manufacturing sector. Meanwhile many laborers working in the informal sector are not represented. Even the post-1965 labor movement in Indonesia was no longer able to reach out to laborers in rural areas, especially farm laborers.

KM: This is how it is... But, we shouldn't say that the labor movement in Indonesia is not strong. At present, it is very strong. The movement that exists now is quite significant in fighting for labor rights, especially those that have joined unions. Labor union contributions at present deal with a raise in the minimum wage which is also very significant. The conception of the BPJS Kesehatan (*Badan Penyelenggara Jaminan Sosial Kesehatan/Social Insurance Administration Organization*)¹ also received many contributions from laborers.

DB: If you will allow me to interject. The labor movement in Indonesia was unable, or better said, not successful in fighting for labor wages in the farming and plantation sectors. Labor wages in these sectors are very low. Even problems for freelance and daily workers who neither have payment nor work safety assurance, have never been considered to be a major problem within

1. Indonesia's National Healthcare Insurance System



the labor movement in Indonesia after 1965.

KM: Yes, I agree here. The labor movement's contribution to worker rights fulfillment in the farming and plantation sectors is not yet significant. However, if we look at some general trends, a rise in farm and plantation laborer's wages does exist. In fact, this issue should be the concern of unions.

As such, Indonesian laborers are not weak. If somebody says that their power to organize is mainly in the manufacturing industry sector, and lately is only developing in the services sector in cities, then I agree. Here we can see a gap and I agree with you. For example, in the recently growing palm (palm oil) agro-industry, labor organization is supposedly also strong. But it turns out it is not. The one that does exist is organizing palm farmers. It is true that a great deal of labor organization is concentrated in the manufacturing industry in central areas such as Bekasi, Karawang, Tangerang, Batam, Medan, and around Surabaya, Malang, and Semarang. In Riau, which has become one of the main palm oil industrial centers in Indonesia, labor organization is quite weak.

DB: This is interesting as you start talking about farmers and their unions which you said are also quite strong in Indonesia. In rural areas, small businesses and the informal

sector have grown as access to land and natural resources become more restricted. Many farmers are "*petani gurem*" (poor smallholders)...

KM: Yes, correct, *petani gurem*.

DB: Meanwhile many of the people who are known as farmers in Indonesia are actually farm workers. Many of these and *petani gurem* are doing double work as informal workers in the rural areas. They are not organized in farming unions or labor unions.

KM: That is right, they are not organized.

DB: Many labor unions located in the city or urban areas are only concerned with the rights of their members. It is the same with existing farmer unions, many of which only organize land owning farmers and are only concerned with the rights of their members. This phenomenon demonstrates two failures. Firstly, that these labor unions are way too divided and trapped in movement formalization per sector. Whereas as you have explained, many laborers or farmers are doing several jobs. Secondly, in general, these unions only think about their members. In other words, existing unions do not perceive that many proletarians in urban or rural areas are not organized.

KM: They cannot be equal in that way. Let's take an example from the FSPMI (*Federasi Serikat Pekerja Metal Indonesia*/Federation of Indonesian Metal Workers Union) led by

Said Iqbal that grows because they pay attention to outsourced and contracted labor. They are also concerned with minimum wages, not only for factory and organized factory labor. The effect of this minimum wage demand spread everywhere. There is also the BPJS, whose contribution was quite strong. This is not just with the FSPMI, but also other labor unions. With the founding of the BPJS, or the present day national social security system, laborers from the formal sector are not the only ones receiving help. Those who work in the informal sector, be that in urban or rural areas, have received great benefits from this social security. This large transformation did not just come from intellectuals or NGOs, but from laborers themselves.

This movement came from every sector and every group was concerned with the fate of others. Laborers, for example were not only concerned with the fate of their group. The effect of their concerns and movement spread everywhere, to both the non-manufacturing and non-labor sector. It spread everywhere in spite of a lack of communication between them as a whole. Yet, if we take a look at when there is land condemnation, there must be communication locally. Thus, social movements in Indonesia have always existed, in regards to land rights, labor itself, women, or students. They have communicated with each other, although this communication was probably not so intense.

DB: Please let me shift the questions to land ownership. As we know, Indonesia has *Undang-Undang Agraria*¹, the Basic Agrarian LAW 1960 (BAL) which is quite popular. This is a law that dignifies farmers, wanting to provide them with a strong foundation.

KM: Yes, it is a very positive law.

DB: However, we also know that currently, the Gini index of land ownership is very high. If we only input households that own land as a denominating factor in the calculation, the Gini ratio is 0.56. That is already a substantially large number. If we input landless peasants into the calculation, the number becomes 0.7, even larger. This means that BAL 1960 is not being implemented. The

interesting thing is the fact that this immense inequality that can be found everywhere and doesn't create a widening social anxiety even though that could induce a more transformative change, especially in rural areas. I would like to connect this phenomenon back to the problem of social movements organization that you raised, and also to the small and medium business sectors including the informal jobs sector.

KM: With BAL 1960, it was generally positive. That is, local customs, which become the basis of land ownership rights in Indonesia, are very revolutionary. There is also a rule about land distribution. Why is the principle of land ownership rights of the state so strongly stated in BAL 1960? It is due to its objective of distributing state land and correcting the heavily unequal land-owning structure. State owned land and land that was largely owned were redistributed during the Soekarno era. Unfortunately, the program failed. It even became one of the reasons for political backlash which ended in violence and mass murder in rural areas. The violence, terror, and mass murder left deep trauma among people. Thus, in many places, even now in rural areas, it is difficult to talk about land reform, as well as movements organization with the objective of land reform.

There are also problems between author-



1. Agrarian Legislation

ities and the people in the matter of land ownership, especially state land. These problems should have been resolved by now. The rights of those in extensive state land should be distributed or simply be given to the people. Land is often worked by the people, yet, to date there exists no formal proof of right. Authorities should not take land which has been taken or worked by the people, and then give HGU (*Hak Guna Usaha/Cultivation Rights*) or the concession for HTI (*Hutan Tanaman Industri/Industrial Forests*).

We also have to think about other strategies due to the appearance of patterns of de-agrarianism and de-peasantization. As I have stated, the economic shift in Indonesia's rural areas from farming to non-farming does occur. Yet, it is not in the context of shifting from rural to urban areas; instead we see a proliferation of non-farming activity and this is substantial. In the '80s, for example, the difference between the poor and rich in rural areas was clearly related to land ownership. The ones who possess large tracts of land will have much income including that from non-farming. The ones with little or no land, their non-farming in-

come is also small. That was the pattern of the last two decades. Now this has changed somewhat. Farming labor, or people who own small amounts of land can obtain a bigger income from non-farming activity. They can even make a larger amount compared to farmers who own land but are completely dependent upon income from farming.

Therefore, what is interesting in Indonesia is that such inequality is not corrected through structural approaches, such as equalizing land ownership. What grows in rural areas is the informal sector driven by local initiatives. 'Informal' itself does not always mean poor, small or in decline.

Aid from the government is very limited. In the context of the people's economy in Indonesia, they have been struggling on their own for a long time. The government pays them little attention. This has given more to big industries. There is also much land which the state has given to companies that has actually been worked by the people.

They cannot just chase away the people who have been working the land. Yet, neither has the government given the land





to these people. This has always been a source of trouble. People become anxious, because there is no certainty over land rights. This is a colonial legacy which Indonesia has to finish. But the reality shows that ‘resolutions’ are more often than not brought about by the people. Where is the government?

Meanwhile industrialization that has long supported large companies is not developing as well as expected. Even Indonesia is still dependent upon providing raw industrial materials to other nations. There is no significant value added, and even natural resources are increasingly destroyed as they have been exploited greatly. Take Japan for example, it’s economy develops through industrialization and many of its materials originate from Indonesia. So what is this phenomenon? If it is said that there is industrialization and economic development, the truth is one-sided—economic development is “represented” by Japan, yet in the background rests Indonesia. But it is not only Japan that depends on Indonesia’s “support” in the sense of taking Indonesia’s natural resources. Other industrial countries are the same. However, in the context of unequal economic relations like these, what is interesting is that the people’s economy is able survive and even

show slow growth.

DB: This conclusion is interesting. Yes, colonialism left a legacy of inequality. For the more than 30 years of the New Order, plus two decades after the reformation bringing us to the present, inequality still continues for *wong cilik* (peasants). Yet, the people always resist.

KM: So, if we want to continue the line of thinking here, the idea of an Indonesia that depends on being a raw materials provider is wrong. The richness of natural resources in Indonesia should have been used to develop its economy. Actually, if we scrutinize this, the conception of industrialization and economic development that occurred in Japan is also incorrect. Due to the dependency on raw material from overseas, Japan’s farming sector is now stagnant. Nobody wants to do farming. Villages stagnate and only the elderly remain behind in rural areas. Industrialization in Japan also depends heavily on energy supplies from other countries, such as coal from Indonesia. Meanwhile Indonesia is busy providing raw materials for export, ‘forgetting’ its own domestic needs, which are large. The exploitation of raw materials leads to environmental destruction and the de-industrialization in Indonesia. As such, both industrialization in Japan and dependence



on raw material export in Indonesia are not the ideal patterns of development.

DB: So, we have started talking about the Indonesia-Japan relationship. Your explanation is very interesting. Just a few weeks ago we held a large meeting here¹, for researchers and observers of Indonesia in Japan. As a Japanese researcher who has been intensely observing Indonesia, what is lacking in Japanese researchers' perspective on Indonesia as a research subject?

KM: I wouldn't say lacking... but there needs to be attention, especially for junior researchers, on the historical relationship between Japan and Indonesia. Japan invaded Indonesia and committed many "crimes." Things like this must be acknowledged. But we also need to remember that the Japan-Indonesia relationship is very close in many respects. Development in Indonesia has many connections with Japan. Researchers in Japan should think about making concrete contributions to the solution of the many complicated problems that Indonesia faces. Don't just observe. It is more

meaningful if both nations think of solutions together. So, there must have been many Indonesian students studying in Japan at the presentations and discussions in the meeting you just mentioned. I would suggest that we should have discussions and presentations done in Indonesian as well, and not only Japanese and English. In that way, we can build a relationship together to solve problems in both countries simultaneously. But I was very thankful that the meeting happened.

Another thing is that Japanese researchers should give more attention to Indonesia... sometimes research is not deep enough. This is because they only discuss things with fellow Japanese. We should start to develop a deeper discussion with Indonesians. Hopefully this will develop more later on, and not only at CSEAS. We have many relations with Indonesia, so it should be easy to do this. In other regions, however, it is not so easy.

DB: For more than 30 years you have worked together with and worked on Indonesia. We all understand deeply that Indonesia is your second home. Over these years what has been the most impressive and what

1. Conference of the Association of Indonesian Scholars in Japan held 16 December, 2018. <http://kapal-indonesia-jepang.blogspot.com>

was the most challenging aspects of your work in Indonesia?

KM: The most impressive... In the New Order era I needed to be really careful as we were not free to talk and go everywhere. We were always under observation, be it in Indonesia or in here Japan. We could not have open discussions freely. It is my wish that Indonesia will never return to that era...

Conducting research in villages too, must be done carefully, so that the people continue to be friendly. The challenge of doing research in Indonesia is that you need to be close to the people. When you are, they will cooperate with you a lot. For example, we did research in a village and needed to ask about very sensitive matters. We wouldn't directly ask how large is your wage? How many hectares of land do you own? (laughter). We never asked like that. They would be very troubled by such questions. But because we participated in their daily lives and we were then accepted, we were able to ask in detail about all the things we wanted to know. They even helped us to obtain more information. I was really thankful.

DB: If you could take another decade or two, what would you like to do in Japan or Indonesia?

KM: If I were to continue actively, I would still want to be closer—so that I am completely involved—with Indonesia. Closer to the people, closer to the economy, closer to its problems. I want to be with them, I want to be together with the local Indonesian people and search for a way out of those problems together.

You see... My job of understanding Indonesia for more than 30 years has strengthened my faith in the power of local people. As proof, this whole time, developing initiatives came from the people, especially local people. The power is in them. When I began to realize the importance of local people, I started to think about my own people. I am from Seto city, where there is a ceramic industry. Actually, I'm a descendant of ceramic industry businessmen. But from junior high school through to high school until university, my activity and attention strayed further from Seto City... (laughter), although my Seto-ness is still strong. When I was in high school, people laughed at me because



I still spoke the Seto dialect, which is different from how people in Nagoya speak. So, if we go back to local power, I can imagine and understand the world from a Seto person's perspective. However, now I am quite old. If I go back to Seto and try to develop the city, surely there are many things to be done, but my friends from elementary and junior high school days have already taken care of that. So I don't really think I need to go back there. Yes, I would like to do what I can do together with Indonesian locals instead.

Okamoto Masaaki picks up the Interview here to question Prof. Mizuno on his time at CSEAS.

Okamoto Masaaki (OM): I would like to change the topic somewhat. Before, we were talking about research that has been conducted for over 30 years. Now I would like to talk about CSEAS itself. I also would like to ask, why are you interested in Indonesia?

KM: That is not hard to answer (smile). When I entered the undergraduate program at Kyoto University in 1974, there was already a condition in Japan that urged students to go abroad. For example, there was advertisement "travel to Bombay for 36,000 yen" and so on. Also, the school of "dependency theory" and movements against it were growing at that time. In January 1974, there was an anti-Japan riot in Indonesia. I was still an undergraduate at that time. Before that, there was also a riot when Prime Minister Tanaka visited Thailand. There were Anti-Japan sympathies everywhere. Then I

thought, if there is “dependency” and you want to cut it off, what should you do? So, I was so interested in understanding this. In my opinion, this was of great interest compared to understanding things that were developing in the Western world, such as in Europe, England, Germany, and France. These things were not interesting for me. You must go to Asia or Africa. So, I wanted to go to India and also to Africa. Yet, for my first step, I went to Malaysia. By coincidence my father was working in the country at that time. Then when I was taking a walk in Kuala Lumpur, I heard a lot of The Carpenters and The Beatles’ songs. They were very popular, yes... I thought, ah, this is just the same as Tokyo! I was a bit disappointed. After that there was my first experience drinking coconut water in Kuala Lumpur. I was impressed. “Ah, this is coconut, it’s special. Different.” Also by coincidence, my father was sent to do some work in Indonesia. We went together to Indonesia. It was around the end of July 1974, I was still an undergraduate student. By the time we went to Indonesia, in Jakarta, hooo... for me, it was remarkable...

I searched for a chance to explore the city by myself. Salemba Street was trammed with *becak* and full of *kaki lima*. Hoooo... Then Pasar Baru in Bandung, it was like a market that floated upon trash... (laughter). The smell of chili and *terasi* and rotten vegetables was pungent, yes... (more laughter).

The songs I heard were very different... Perhaps it was *dangdut*¹. Kuala Lumpur was not interesting. But Jakarta and Bandung were remarkable. There were a lot of hawkers. If you want to call it poor, yes, you can call it that. If you want to say it was a hectic place, it was... But when I observed, deeply, there were something extraordinary in that “poverty” and “hectic-ness.” It seemed like there was always hope. At that time, I thought this is very interesting. I thought at the time—since I did not know much yet—there must be only a few people working on all of this. After that I went back to Kyoto.

OM: How long was the visit?

KM: Only ten days, but it left an impression on me. A very, very big impression. After returning to Japan, I became seriously interested in Indonesia. I canceled my initial plan of going to India and then Africa. I was stopped in Indonesia, because it was way too impressive. In November of that year (1974), Prof. Akira Nagazumi (1929-87) gave a class on the history of Indonesia.

OM: Here, in Kyoto?

KM: Yes, in Kyoto University. There was a system in which the students were able to make proposals for extraordinary lecturers. So Yasuo Uemura, a graduate student at that time, proposed to the Faculty of Letters to invite Prof. Nagazumi from Tokyo University. So, I listened to Prof. Nagazumi’s lecture. Of course, it was very interesting. But Prof. Nagazumi stated that the “*tanam paksa*² system is a good system, the objective was good, but the method was wrong”. Waah... How come...? I thought, are all university professors like this, so *cold*? (laughter from all present)

OM: So, you were disappointed?

1. A genre of Indonesian folk/traditional music

2. Enforced planting

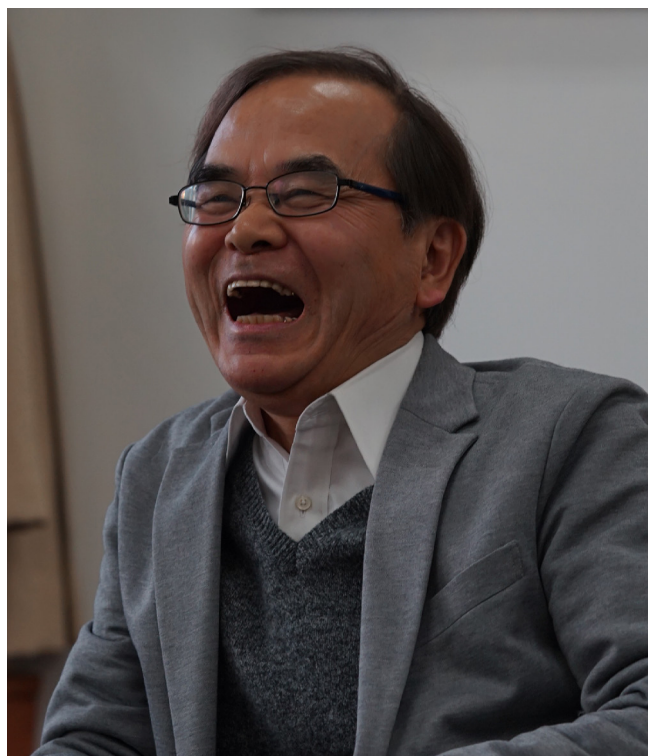


KM: Not disappointed... But, even a very famous professor had his flaws. It strengthened my will to conduct research in Indonesia. Indonesia became even more interesting to me. Then I started to learn the Indonesian language. But, it was hard to find books. I bought a book titled *Indonesia-go Yonshuukan* (Learn Indonesian in four weeks). It was very basic... So, I took private lessons. I also memorized Indonesian words on the train. In March of my third year as an undergraduate, I went to Indonesia after I had saved some money. I traveled in Indonesia. Then I joined a lecture in UI (University of Indonesia). It was a lecture from an economics professor. There was an uproar, because a foreigner entered the class in UI Salemba¹. I traveled to villages. I did many things. I also tried riding a bus from Grogol, Jakarta to Medan (Northern Sumatera). At that time there were no bridges between the four big rivers in Sumatera. Vehicles crossed the river using rafts. I became more interested in doing research on Indonesia.

I started to think about researching the economy of Indonesia. So, I had to enter the faculty of economics in Kyoto University. I needed to understand theories. When I joined lectures in the faculty of economics in UI, I was exposed to modern economics or neoclassical theory. Actually, I learned Karl Marx's theories. In the faculty of economics in Kyoto University, both schools existed. I chose the Marxist economy. But I realized that my knowledge of Marxist economy was "less useful" in Indonesia, because I could not discuss it with Indonesians. I thought it was "less useful" if I could not interact with researchers or economists from Indonesia. So, I changed, I studied and mastered neoclassical economic theory. It turned out that neoclassical economics had a lot of mathematics in it. So when I came back from Indonesia, I ended up not having time to learn about Indonesia. I used all my time learning about neoclassical economic theories.

When I took the master's course exam in Kyoto University, I did not pass because

1. Referring to Salemba Campus. In the present UI has two campus, one in Salemba (Jakarta) and one in Depok (West Java). But considering the time Prof. Mizuno was there, it was the period when UI only had one campus.



of the lack of my preparation. But coincidentally there was an exam to become a member of staff at the Institute of Development Studies (IDE), and I passed that exam. In April 1978, I began working as a researcher there. In IDE, I made the acquaintance of Prof. Hiroyoshi Kano and others. Only then I found out that there were many great people in IDE: Indonesian experts.

OM: Please allow me one more question. You were director of CSEAS for four years between 2006 until 2010. What was the main challenge that you experienced?

KM: There were a lot of challenges. At the time, when I joined CSEAS (1996), the faculty meeting was attended by only male members. Yet in IDE at this time, there were a lot of women. So, when I became Director, I started to increase female research staff.

CSEAS was also authoritarian. There were many classes; those of professors, associate professors, *joshu* (assistant professors), and all very different. I thought, I should try to eradicate these while I held the position of director. Also, there was a huge gap in positions between professors and junior researchers. CSEAS has

many junior researchers and also postdoctoral researchers, but it was as if they were not actually working for the Center. Their position was unclear. So, I introduced the *tokunin kenkyuin* (affiliate researcher system).

This was actually the idea of Professor Ando Kazuo, but I directly applied it. As a result of this, CSEAS saw an increase in many unwaged junior researchers, however they were recognized as affiliated CSEAS staff. Now everybody is on the staff list. To date, this system is still in operation. That was my first big reform.

OM: Yes, I also asked Hayami Yoko (current director of CSEAS) what she thought your achievement as director was. She said that the atmosphere has been more flexible since you were the director (laughter from all).

DB: I sense a strong spirit of egalitarianism, attention paid to all, to all those who are at CSEAS.

KM: I myself did not really know how apparent the change was. But thinking with locals – as when doing research, and with all the groups here, that should be emphasized.

OM: You probably already have plans for the future. After retiring from CSEAS, what kind of research





plans do you have?

KM: The matter of land, labor, and capital is the main topic in Marxist economics, but I am actually more interested in institutional economics. If we can explain the three and their relations clearly, only then can we explain Indonesia's economy. So, I want to write a book about labor and land. And also something about capital or a comprehensive overview of the Indonesian economy. This must be done.

OM: Do you have any wishes for Indonesia? At present, the social-economic gap is widening, Islamic issues are also problematic and ideology politics are being played up greatly, especially in the run up to the coming elections. What is your wish for Indonesia?

KM: My wish for Indonesia? Indonesia has good traditions. Populist ideas are still strong among the people. The *bhinneka tunggal ika* (unity in diversity) spirit is also strong. The popularism tradition that is *bhinneka tunggal ika* and *musyawarah*

(consensual decision making) is actually rooted in Indonesia. An Islam that places stresses on *bhinneka tunggal ika* is actually growing in Indonesia. It is true that the political discourse nowadays has started to destroy it all. The politics of fighting for resources between the elites is developing more than the thinking to improve the people's economy. But again, that is the challenge. A challenge to which we have to search for a solution together. Let us not forget that the economy of Indonesia is quite developed, although it has many challenges. The people's economy is surviving. If those challenges can be solved and overcome, Indonesia will develop even more.

OM: Insya Allah...Thank you for your time today.

Translated from Indonesian by Cahaya Putri
Editing: Mario Lopez, Okamoto Masaaki

Japan-ASEAN Platform for Transdisciplinary Studies

Since the mid-2000s, the Center for Southeast Asian Studies (CSEAS) has initiated a series of large-scale projects that have been funded by the Japanese Ministry of Education, Culture, Sports, Science and Technology (MEXT). Between 2007-11, CSEAS hosted a Global COE program titled “in Search of a Sustainable Humanosphere in Asia and Africa” which aimed at developing an integrated multidisciplinary approach to the ‘humanosphere’ (in Japanese Seizon Kiban 生存基盤 or literally translated as the foundations for survival). This term refers to both the temporal and spatial dimensions that incorporate the entirety of material and energy circulation of the earth and systems of governance toward its sustainability. The above program was a key turning point in the mid-2000s in comparatively researching the geosphere, biosphere and human societies in tropical regions and tackle both regional and global issues. Leading on from this CSEAS received additional funding for a subsequent initiative, “Southeast Asian Studies for Sustainable Humanosphere” (2011-16) which further refined inquiries as to what could constitute a sustainable humanosphere through context specific knowledge in Southeast Asian societies and theorize through empirically driven research from the ground up.

From 2016, CSEAS has continued its push to explore multidisciplinary dialogues within and beyond

academia with the “Japan-ASEAN Platform for Transdisciplinary Studies” (2016-2021). This program has been set up to advance transdisciplinary research that integrates academic, governmental, and civil societies initiatives and create new collaborative research ventures that bring together the expertise of scholars on Southeast Asia, scientists and engineers, and Japanese and ASEAN political and business communities.

In particular this platform emphasizes the establishment of new relationships, especially between Japan and Southeast Asia and to develop project-based or problem-solving “wisdom” from local realities through empirically grounded research. One of the features of this approach has been to prioritize local realities and focus on the production of new knowledge through synergistic research with local researchers and practitioners on the basis of an equal partnership.

One of the defining features of all these projects has been to set up a post-doctoral system and invite in young up-coming scholars who are carrying out cutting edge research who often work closely in collaboration with both faculty and local researchers. In this special feature, we introduce a number of the younger scholars and project members who are currently working on different projects within the current Japan-ASEAN platform initiative.



Experiencing Transport in Kota Medan, Indonesia

Soo Chen Kwan

Post Doctoral Fellow, CSEAS

Introduction

Medan (Fig. 1) is the third largest city in Indonesia after Jakarta, and Surabaya. It is the capital city of the North Sumatra province, with a population of 2.5 million. Compared to other big cities in Indonesia, Medan has the second highest vehicle ownership per person which consists mainly of motorcycles (73%) (Joewondo et al. 2007). Out of all vehicles in Medan, only one percent is public transport vehicles (Project Pipeline 2018). Due to this it is no wonder that traffic congestion is no longer restricted to peak hours but at all times in the city, along with air pollution and traffic noise (Surbakti et al. 2011). This article

describes my experience of Medan transportation during a recent field trip.

Medan is only one hour flight from Kuala Lumpur, which means it is nearer to Malaysia than to another city, like Jakarta in Indonesia which takes about two hours. At the airport, travelers can be seen waiting to catch the shared taxi to Parapat, where the famous Lake Toba (the largest supervolcanic lake in the world) lies. Connecting Kualanamu airport to Medan's city center is the Airport Raillink Service, which is proudly the first airport train service in Indonesia. The station building looked very new, and the service comes once every hour. Tickets were given in the form of barcodes, which could only be bought from vending machines using credit or debit cards at IDR 100,000 per person. On the train that took 30 to 45 minutes, local housings and settlements could be seen along the journey.

Arriving at the rail station in the city, I immediately snapped out my mobile phone and tapped on the local popular ride hailing application: Grab. In Indonesia, ride hailing transport services are an extremely thriving business. The three companies that offer services in Indonesia are Grab, Gojek and Uber (Oxford Business Group 2018). Both Grab and Uber are also available in Malaysia; while Gojek is an Indonesian local business. The competition between Grab and Gojek is especially intense, with all kinds of services being provided. People can choose to travel using the cheaper and faster GrabBike/Go-Ride or the more comfortable GrabCar/GoCar. Other extended services include delivery of food, groceries, courier, and even pharmaceuticals. Such services offer great conveniences to locals and visitors like me. The entire journey from pick up to reaching destination is tracked through GPS real time in the online application, which ensures both efficiency as well as passenger safety to some extent. At the end of the journey, fees can be paid using the cashless online payment system (OVO) in Indonesia, saving the trouble for drivers to return small change. This business

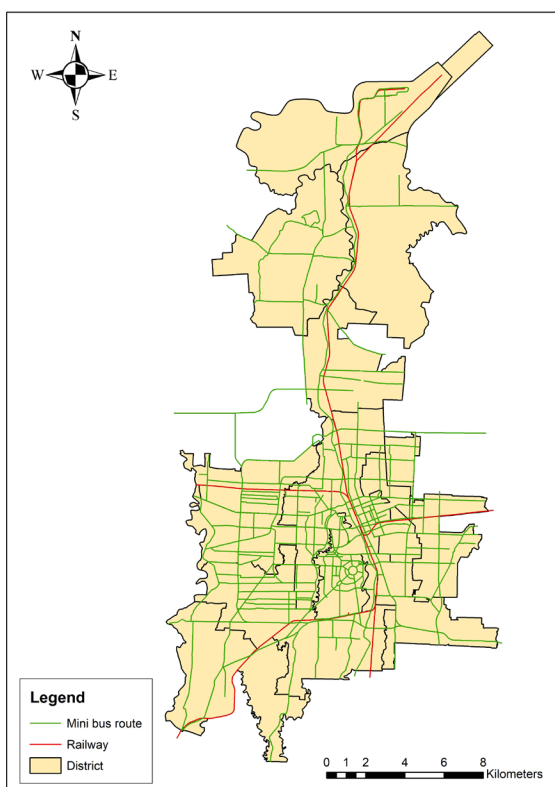


Fig. 1 Map of Medan city with its public transport network (Source: Bappeda Medan, 2018)



Fig. 2 Ride hailing bike and motor rickshaw in front of the famous Tip Top restaurant in Medan heritage area.

has offered mass job opportunities for locals, and alternatives to travel in an affordable way without owning one's own transport.

Despite all these conveniences, I wonder how this business changes the local transport system in Medan, and its long-term impacts. In particular, people's travel behavior in terms of number of trips, kilometers travelled and travel mode could significantly influence the amount of urban emissions for both greenhouse gases and air pollutants. In other cities with sufficient public transit infrastructures, ride hailing service has been seen as the savior for the first and last mile connectivity, which could encourage the ridership of public transits (Bliss 2018). However, in the case of Medan city where transit infrastructures are still developing slowly, how do ride hailing services contribute to urban sustainability aside from its socio-economic benefits? Besides, the operation of the service itself could contribute to the extra exhaust fumes. What do the ride hailing drivers do on their vehicles while waiting for a customer's call? Even an idle vehicle could emit fumes from running engines. And in addition, more trips may have been produced from the deadhead journeys from picking up passengers and returning from destinations (Schaller 2018). The local transport agency may need to consider where to place ride hailing services in the urban sustainability framework when more public transit options are built in the city (Sperling et al. 2018).

Out on the road, I was immediately greeted by the hectic traffic of the city center. Incessant honking filled the air, which was a way of warning to 'be careful' from concerned drivers. However, local people along the road seemed oblivious to it. The mixed mode traffic consisted of automobiles, motorbikes (many in the green uniforms of Gojek or Grab), *Angkot* (local public transport), motor rickshaws (*becak*),

and most noticeably, nonchalant pedestrians trying to cross the road (Fig. 2). Most of the roads were without lane lines, as drivers crisscrossed against each other to make their way forward in congested traffic. According to Joewondo et al. (2007), there was only 24,533m² road markings in the city with 3,079km of roads. I was both amazed and worried for the owner of a motor rickshaw which was going in the opposite direction of the traffic. However, it seemed to be nothing of concern as drivers skillfully avoided it. For the pedestrians, crossing the roads even those with traffic lights was dangerous as some motorbikes just ignored the signals. At places without traffic lights, people were forced to cross the roads just like that. I tried to cross roads a few times which took forever as I waited for the time when there were fewer cars, which never came. It was actually safer to cross during heavy traffic than less traffic as vehicles tend to speed along the way. My acquaintance in Medan said that you need skills and bravery to cross the roads in Medan. I never grasped the necessary skills, and had to muster great bravery standing in the middle of traffic trying to cross roads.

The destinations in the city centre itself were actually very near to each other in its dense arrangement (ITDP 2014). However, due to an unfavorable walking environment among the traffic noise, I believe people would not choose to walk. Traffic lights were scarce even in the city, and were mostly designated at locations for vehicle traffic (such as crossroads) and not pedestrians. At some point along the walking path, one would definitely need to cross the busy road to get to a destination. Furthermore, crime was a concern in Medan especially snatch robberies. I had been warned several times to be careful walking in the city. Other than the local train which I have yet to explore, another public transport in Medan was the *Angkot*, a van-like vehicle with opened doors for passengers. The *Angkot* picked up and dropped off passengers literally anywhere on the road along the way. There were different numbers and colors to the van, representing different companies. However, the fastest, and perhaps the most secure way to know which way the *Angkot* was going, was asking the driver directly himself as there were no official guide to the routes of the system. There had been numerous times that I saw *Angkot* drivers maneuvering recklessly on the busy roads. As for the motor rickshaws (I could hardly see any bicycle rickshaws), they were another kind of local transport unique to Medan. They could be seen everywhere in the city looking or waiting for customers beside the roads. Sometimes, they charged extravagantly for a short journey, especially if they caught a hint that you were not a local. Prices had to be negotiated with the rick-

shaw driver before the journey. Due to such inconvenience, it is no wonder that people were shifting from the traditional transport to ride hailing services as it is safer and more cost efficient with fixed rates (Smith 2018). If the local public transit sector still does not improve and develop fast enough, I believe the ride hailing service will continue to flourish rapidly and take over the role of public transport among the local people in no time.

Conclusion

The transport system in Medan city is still very much dependent on automobiles, both cars and motor-bikes. The increase of both ride-hailing drivers and users casts doubts, on their roles in the long-term urban transport sustainability. Ultimately, it is about reducing the vehicle kilometers travelled rather than automobile ownership or passenger kilometers travelled in the aim of achieving sustainability. Hopefully the local planning agency will give more thought to incorporating an organized public transit system and walking infrastructures in the future planning of Medan city. This will create job opportunities as well as offering more travel options that can compete with the ride hailing service. Currently, a 21km Light Rail Transit project is being planned, which will be integrated with Bus Rapid Transport (BRT) to form a

mass public transit system in Medan (Project Pipeline 2018). However, these public transport systems will be incomplete without well-connected pedestrian lanes especially at the destination end. At least, as a start, it would be nice to see some measures for safe pedestrian crossings at the city centre on my next visit.

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Can Mangroves Protect Coastal Communities from Super Typhoons?

Moises Neil V. Seriño

Visiting Fellow, Japan-ASEAN Platform



Fig. 1 Coastal communities located in the mangrove area.

Introduction

A few weeks before Christmas, on November 8, 2013, Typhoon Yolanda (international name: Haiyan) made landfall in the Philippines. It was touted as “one of the strongest typhoons to hit land.” Several islands in the central Philippines recorded tremendous losses in lives, property, and livelihood and the region experienced severe devastation due to strong winds and storm surges brought by the super typhoon.

According to the National Disaster Risk Reduction and Management Council (NDRRMC 2015), super typhoon Haiyan devastated a total of 12,139 villages in 591 municipalities and 57 cities in 44 provinces, affecting mostly central Philippines. A total of 4.1 million people were displaced and an estimate of 6,293 casualties was recorded with 28,689 injured and 1,061 missing as of April 3, 2014 (NDRRMC 2015). The cost of damage was estimated to reach PHP 40 billion in agriculture, infrastructure, and private property damage (NEDA 2014).

On a personal level, the typhoon destroyed our village. Our house made of light materials was wiped out. In addition, the typhoon sent back coconut farming to year zero because most of coconut trees were cut by the damaging winds.

In the midst of the chaos that came in the aftermath of Typhoon Yolanda, there were stories on how mangroves saved people from death and their houses from destruction. Anecdotal reports and observations of local inhabitants in coastal villages have highlighted the usefulness of mangrove forests in reducing the damages brought by typhoon-related disasters. These personal accounts highlighted the undervalued protection service provided by mangroves. According to Das and Vincent (2009), protection against disasters related to typhoons has

been identified as one of the important ecosystem services provided by mangroves.

But do mangroves really save these coastal villages from the destruction of super typhoon? To find an answer to this question, I, together with a diverse group of researchers from Visayas State University (VSU) based in Baybay City, Leyte in partnership with the Economy and Environment Program in Southeast Asia (EEPSEA), set out to find an answer. We collected data from areas where super typhoon Haiyan passed through; particularly in the islands of Samar, Leyte, Bohol, Cebu, Negros, Panay and Palawan. We used secondary data from municipality offices and other government agencies.

The team collected data from several coastal villages hit by super typhoon Haiyan and collected data on damages and mangrove cover. We carefully selected only those coastal villages with historical mangrove as part of the sample size because there were coastal areas where mangroves do not thrive. Villages where mangroves never occurred due to unfavorable ecological conditions were not included in the sample. We wanted to value the loss of mangroves and for loss to occur it should have existed in the first place. We used satellite data to confirm the presence or absence of mangrove cover in the coastal areas included in the study. For the historical mangrove presence, we relied on maps used by the US Army Map Service in 1944.

Conversion of mangroves areas to aquaculture ponds and residential areas in the Philippines are the main causes of declining mangrove cover in the country (Primavera 2000). Mangroves have been disappearing in the country over the past decades and a significant reduction took place in the 1960s and 1970s. This is the same decade when aquaculture was encouraged by the government (Ferrer et al.



Fig. 2 Damages caused by super typhoon Haiyan in our village. It destroyed our houses and coconut trees.

2011). Figure 3 shows that there has been substantial reduction in mangrove cover. This is attributed to increasing anthropogenic activities in the coastal areas including urbanization, aquaculture, and the development of roads and reclamation areas that resulted in a huge reduction in mangrove area.

The undervaluation of mangrove ecosystem services leads to the continuous degradation of mangrove forests not just in the Philippines, but also globally. According to Valiela, Bowen, and York (2001), mangrove forests are one of the world's most threatened major tropical environments. At least 35 percent of the world's mangrove forests have been lost over the past two decades. Without changes in practices, policies, and perceptions of the values of mangroves, the trend in mangrove forest loss will likely continue.

To address the objective of this study, we used the damage cost approach in valuing the protection services provided by mangrove ecosystems against typhoon-related damage. This method takes into account the actual damage caused by super typhoons in areas with mangrove forests compared to the damage in areas with or without reduced mangrove forest. The damage cost approach evaluates the amount of damage that was averted due to

the presence of mangroves or the damage that could have occurred if there had been no mangroves.

We used data on 384 coastal villages controlling for historical mangrove cover and other confounding village level characteristics in examining the influence of remaining mangrove vegetation on human deaths and housing damage. Results show that coastal villages with substantial mangrove cover suffered less damage compared to coastal villages with reduced mangrove cover. This life- and property-saving effects of mangroves is robust across several specifications suggesting that the remaining mangrove cover played a significant protective role when super typhoon Yolanda hit central Philippines. The estimated average cost of saving a life, by retaining the remaining mangrove vegetation, amounts to as much as USD \$302,000 (PHP 15 million) while the estimated reduction in compensation for totally damaged houses is around USD \$53,000.

Mangroves provided significant protection to communities. Coastal communities with substantial mangrove cover suffered fewer or lesser casualties and lesser housing damage as compared to coastal communities with reduced mangrove cover. Our study finds significant evidence on the protective function of mangroves implying that the remaining mangrove vegetation reduced the number of deaths and damaged houses during the Yolanda incident. Mangroves can protect us (our lives, livelihood and properties) from the damaging effects of typhoons.

Mangroves act as natural barriers in coastal areas, protecting communities from storm surges, waves, tidal currents, and typhoons. The Philippines is hit by an average of 20 typhoons a year, according to the country's weather bureau. Results of the study suggests that we can use mangroves as a natural defense against the damaging effects of typhoons.

Mangrove protection and conservation has generated renewed attention as one of the feasible approaches in providing protection to coastal communities. Policy makers should intensify their efforts

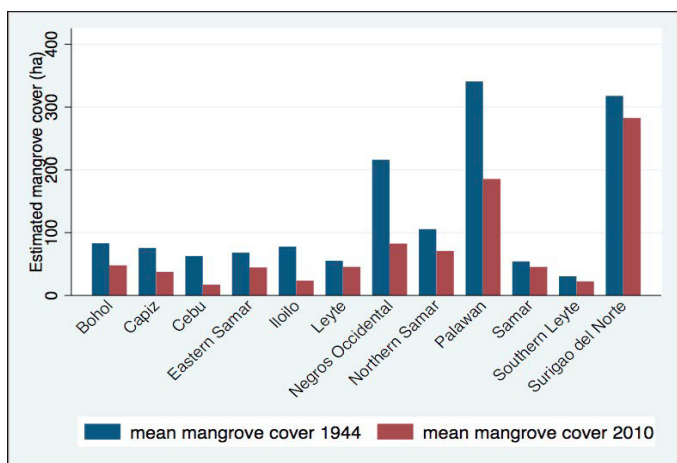


Fig. 3 Estimated reduction in mangrove cover from 1944 to 2010.



Fig. 4 Focus group discussions with coastal communities presenting the results of our investigation.

to conserve mangrove forests as a long-term strategy in providing protection to coastal communities and better adaptability to typhoon-related disasters. This is because more frequent and stronger typhoons are to be expected due to climate change. Coastal communities and local governments should preserve and not further degrade remaining man-

grove cover as there is compelling evidence of its protective function.

The results of the study have been presented to various agencies and local government units to campaign for mangrove protection and prevent further destruction in the remaining mangrove cover. The study is also featured in a magazine focusing on environmental issues. Results of the study have been published by EEPSEA. This study shows the importance of using natural resources as one of the feasible approaches in mitigating the adverse effects of climate change.

Moises Neil V. Serifo is an assistant professor and is currently the head of the Department of Economics based at Visayas State University (VSU), Visca, Baybay City, Leyte, Philippines. He earned his bachelor's degree in statistics and took his MA in International Development at International University in Japan, Niigata in 2009. He finished his Doctorate in Economics at Göttingen University, Germany in 2014 under the supervision of Prof. Stephan Klasen. He teaches economic courses, econometrics, agricultural economics both at the graduate and undergraduate level. His research interests include a variety of topics including valuing protection services provided by mangroves, enhancing productivity among small-scale vegetable and coconut farmers, investigating climate resilient agricultural practices and determinants of household carbon emissions. Recently, he established a socio-economic research center based at VSU. The center helps in capacitating researchers in the Visayas region conduct socio-economic research.

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Can mangroves protect people from typhoons?

By HENRYLITO D. TACIO

A FEW weeks before Christmas, on November 8, 2013, Typhoon Yolanda (international name Haiyan) made a landfall in the Philippines. It was located as "one of the most intense tropical cyclones on record."

"The typhoon uprooted trees, destroyed buildings, and brought storm surges of up to 6 meters," wrote Dr. Alice Joan C. Ferrer, a professor of the Division of Social Sciences at the University of the Philippines in Marikina City. "The typhoon destroyed coastal communities in 8 of the 17 regions in the Philippines and affected 16 million individuals or 3.4 million families."

The total cost of damage: P18.9 billion (P20.2 billion for agriculture and P16.6 billion for infrastructure including bridges and buildings). In the middle of the chaos that came in the aftermath of Typhoon Yolanda, there were stories on how mangroves saved people from death and their houses from destruction. "People attributed their own casualties to mangroves," Dr. Ferrer wrote in a paper that was published by the Economy and Environment Program for Southeast Asia (EEPSEA), which was headed by the International Development Research Center (IDRC) of Canada. "These communities remain in the value of mangroves."

But do mangroves really save these people from destruction? To find an answer to this question, a study on the protection service by mangroves was conducted by a group of researchers from the Visayas State University (VSU) based in Baybay City, Leyte. EEPSEA funded the study.

The researchers collected data from areas where Typhoon Yolanda passed through, particularly Samar, Leyte, Bohol, Cebu, Negros, Panay and Palawan. They used secondary data from municipality offices and other government agencies.

"For casualties, we collected data on number of dead, missing and injured individuals," said Moises Neil V. Serifo, assistant professor of the Department of Economics, who headed the study. "For the damages to properties, we collected data on totally and partially damaged houses."

Based on results, they found out the province of Leyte has the highest number of death among the provinces hit by typhoon Yolanda.

Those injured were not classified into either major or slight injury. "As long as people seek treatment in hospital and clinics, they are counted as injured," Serifo explained. "However, a huge number of people who were injured did not seek treatment."

According to the researchers, heavy casualties were reported in Leyte and Samar because storm surge heavily devastated these areas.

Aside from casualty, heavy damages on properties were also recorded. "We aggregate the damages into partially and totally damaged houses. Results show that on average, 85 houses per barangay were reported to be partially damaged and 58 houses per barangay were reported to be totally damaged," Serifo reported.

Provinces Occidental and Leyte were among the top provinces that reported relatively higher damages in housing property while Bohol reported minimal damages to its housing property. The study found out that "there are more damages in housing properties in areas with relatively lower mangrove cover compared to coastal barangays with substantial mangrove cover," the researchers wrote.

In an exclusive interview, Serifo also said, "Mangroves provided significant protection to communities. Coastal communities with substantial mangrove cover suffered fewer or less casualty and less housing damages as compared to coastal communities with reduced mangrove cover."

Serifo further said, "Our study finds that the remaining mangrove vegetation reduced the number of deaths and damaged houses during the typhoon incident. This property and lifesaving effects of mangrove is robust. Mangroves can protect us (our lives, livelihood and properties) from damaging effects of typhoons."

Dr. Ferrer had the same idea. "Mangroves act as natural barriers in coastal areas, protecting communities from storm surges, waves, tidal currents, and typhoons," she wrote.

Some scientific studies have shown that a barrier of mangroves over 100 meters wide can reduce wave height by between 13% and 66%. In addition, "a per kilometer width of mangroves can weaken storm surge by 5-50 centimeters and surface wind waves by more than 75%."

On why the VSU researchers emphasized their study more on mangroves, Serifo said, "We focus on mangroves because mangrove have suffered degradation in the past decades and these mangrove ecosystems have been doing a very important job of protecting coastal communities from damaging effects of typhoons."

The Philippines is hit by an average of 20 typhoons a year, according to the country's weather bureau. "The Philippines is in the typhoon prone zone and we can use mangroves as a natural defense against typhoons," Serifo said.

According to Serifo, if given a value, "the estimated average cost of saving a life by retaining the current mangrove vegetation amounts to as much as P15 million."

Because of that, he urged policy makers to "intensely his efforts in conserving mangrove forests as a long-term strategy in providing protection to coastal communities and better adaptability to typhoon-related disasters."

According to Serifo, mangroves that were devastated by typhoons can grow back naturally. "If you have thick mangrove cover, the expected damage will be reduced," he said.

Aside from protection service, mangroves also provide a number of valuable ecosystem services that contribute to human well-being, including provision timber, fuel wood and charcoal, regulation (erosion control, prevention of salt water intrusion), habitat (nursing, spawning and nursery habitat for commercial fish species, biodiversity), and cultural services (recreation and aesthetics).

Not only that, "Mangroves in general are one of nature's best ways for combating global warming," Dr. Filberto Pulido, policy and research specialist of ASEAN Centre for Biodiversity (ACB), told participants of the panel discussion on the relationship between biodiversity and climate change some years back.

But, on the other hand, mangroves also act as a "tidying carbon time bomb." A Rappler report explained that "when a mangrove forest is uprooted and destroyed, the enormous amount of carbon stored in its roots are released into the atmosphere as carbon emissions."

According to Dr. Pulido, digging up only two meters of soil in a mangrove forest for construction site, says a shrimp pond, already releases 1,400 tons of carbon per hectare per year.

But despite their varied uses, mangroves are fast disappearing. Studies have shown the country's original 500,000 hectares of mangroves has whittled down to 120,000 hectares in 1994.

"The massive losses of mangroves happened in the 1950s and 1960s when the government encouraged aquaculture in order to increase food production in the country," Dr. Ferrer said.

Valuing the protection service provided by mangroves in the typhoon-hit areas in the Philippines

Mangroves protect storm surges

protecting communities from storm surges, waves, tidal currents, and typhoons," she wrote.

Moises Neil Serifo

Mangroves provided significant protection to communities. Coastal communities with substantial mangrove cover suffered fewer or less casualty and less housing damages as compared to coastal communities with reduced mangrove cover.

Moises Neil Serifo, assistant professor of the University's Department of Economics

Fig. 5 News article presenting the results of the study.

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Examining Forests Fires and Their Social Impacts on Local Communities in Central Kalimantan*

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Introduction

Peatland degradation and forest fire problems are global environmental problems that require understanding both in terms of social and ecological contexts. Tropical forests and peatlands are high in biodiversity and concurrently high carbon areas. However, climate change and human interventions including economic development and commercial

logging as well as large-scale plantations are negatively affecting these vulnerable and fragile systems. Forest and land clearing for agriculture and development and degradation from over-extraction of timber and development of oil palm plantation is leading to rapid peat decomposition and an increase in the incidences of forest fires. These in turn, can result in an increase of carbon dioxide emissions and haze causing incalculable damage to the economy and to the health of people in the region. This article reflects over some of these issues and responses to them in the context of research currently being conducted jointly by both Japanese and Indonesian researchers.

Towards transdisciplinary research on peatland restoration

Since 2016, we have been involved in a large-scale research project led by Emeritus Prof Kosuke Mizuno (CSEAS) and Associate Prof. Osamu Kozan (CSEAS) on peatland restoration in Indonesia. CSEAS has a long history of committing itself to peatland research in Indonesia since a previous generation of Japanese scholar took an interest in, and pioneered research in

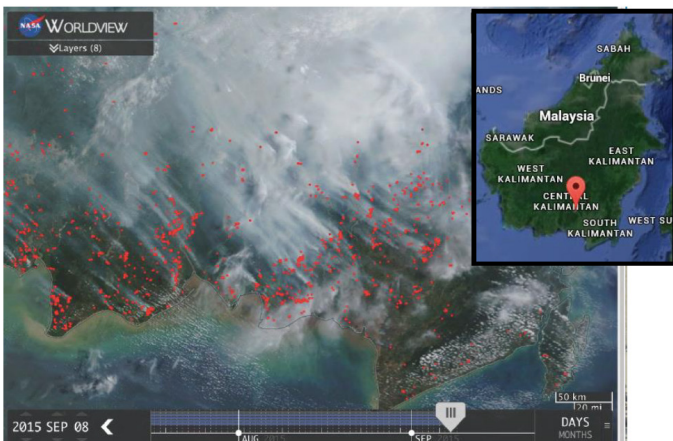


Fig. 1 NASA Worldview, September, 2015
<https://worldview.earthdata.nasa.gov/>



Photo 1 Burned peatland forest & Solar image under thick haze conditions in 2015, Central Kalimantan



* This article was originally written prior to the large-scale fires that swept over Indonesia in mid-2019.

the country (Furukawa 1992; Abe 1993)¹.

Since the initiation of a large-scale G-COE project (2007–11)², Prof. Mizuno and his team started conducting intensive research in Riau, and the project now continues a new research initiative entitled “Toward the Regeneration of Tropical Peatland Societies: Establishment of an International Research Network and Proposals for the Future” (2017–22) at Research Institute for Humanity and Nature (RIHN), Kyoto.

After forest fires swept across parts of Indonesia in 2015, the Indonesian government established the Peatland Restoration Agency (*Badan Restorasi Gambut* (BRG)) and Dr. Haris Gunawan, a graduate of ASAFAS, and a peatland scientist at Riau University, was appointed to Deputy of Research and Development, BRG. This relationship led to concluding an MOU between Kyoto University, RIHN and BRG. The Kyoto university team participates in this project as an active support member for research initiatives. BRG is a government organization empowered to implement peatland restoration activities in degraded peatland areas with a mandate to work with local and international researchers who participate in solving problems on the ground with the aim of restoring degraded peatland throughout Indonesia.

In 2015, a series of severe forest fires and subsequent haze swept across parts of Indonesia. The concentration of particulate matter (PM10) in Palangka Raya (Central Kalimantan) reached extremely high levels. According to technical guidelines for calculating and reporting as well as air pollution standard index information, the safe limit for human health PM 10 is <400 ug/m³. If this threshold is passed, the Air Pollution Standard Index (ISPU) is interpreted to be in very unhealthy and can cause increased sensitivity in



Photo 2 Faculty of Medicine, Palangka Raya, University, 2019

patients with asthma, bronchitis, and other related diseases. In particular, haze affects the health of children, pregnant women and the elderly.

To facilitate research on mitigation measures to minimize haze’s impact on health, in February 2019, an Implementation Agreement was signed between CSEAS and the Faculty of Medicine, University of Palangka Raya. Research headed by Dr Donna Kahanjak (Faculty of Medicine), in collaboration with Dr. Kayo Ueda (Faculty of Engineering and the Graduate School of Global Environmental Studies) from Kyoto University will be conducted by both local key partners.

Air quality monitoring is essential to understand the risk of haze. However, monitoring stations for particulate matter such as PM2.5 and CO are limited in Palangka Raya, Central Kalimantan. To improve this situation, our group members, Profs. Masahiro Kawasaki and Osamu Kozan (Kyoto Univ. and RIHN), Kenichi Tonokura (Tokyo Univ.), Yutaka Matsumi (Nagoya Univ.), Masafumi Ohashi (Kagoshima Univ.) and Mikiyori Kuwata (Nanyang Tech. Univ.) are currently working with the local meteorological and geophysical agency (*BMKG Kepala Stasiun: Catur Winarti*) and municipal environmental and other relevant agencies, to assess a low-cost and easy-handling air quality monitoring system.

The image below in figure 2 shows CO data at BMKG in Palangka Raya, in which the BG level is only slightly higher than in the left figure at Buntoi during the wet season. However, in October during dry season, a strong increase is seen due to peatland fires in Palangka Raya.

Investigating the causes and impacts of forest fires and haze

The Center for International Forestry Research (CIFOR) is one of the key international research institutions based in Indonesia working on peatland issues. Since 2017, we started a Ministry of Agriculture, Forestries and Fisheries (MAFF) funded project entitled “Enhancing climate-resilient livelihoods in boreal and tropical high carbon forests and peatlands” with inter-disciplinary teams based in the region (2017–2020). For collaboration, we work with the Center for International Cooperation in Sustain-

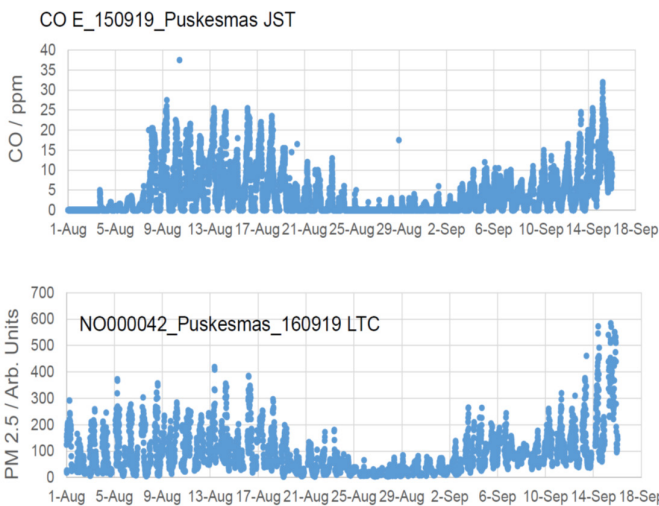


Fig. 2 The image below in figure 2 shows CO and PM 2.5 data at Palangka Raya have a strong correlation during this fire season. PM 2.5 levels are six times higher than the Indonesian guideline for the PM pollution.

able Management of Tropical Peatland (CIMTROP) as a local partner to implement research on the field. CIMTROP has been working on peatland issues in collaboration with transdisciplinary stakeholders running workshops and trainings on peatland management and the effects of peatland deforestation on climate change. CIMTROP has also tested the effectiveness of fire suppressant technology, including firefighting foam and peatland restoration.

In collaboration with CIFOR and CIMTROP, University of Palangka Raya, we have been working on forest fires and haze in Central Kalimantan with a transdisciplinary research team of experts from Japan and Indonesia. The objectives of the MAFF-CIFOR project are as follows:

- 1) To understand the policies and socio-economic drivers of deforestation, climate events and forest fires in boreal and tropical forests and peatland ecosystems;
- 2) To investigate the causes of fires in forests and peatlands in order to assess the effects of various land use and land management systems at local and regional levels;
- 3) To examine the various impacts of climate change and variation as well as of forest fires on local livelihoods and land and resource use practices;
- 4) To investigate appropriate climate-resilient livelihood options in the region through collaboration with stakeholders at local and national levels and to explore specific climate change mitigation and adaptation actions.

Our team has focused on investigating patterns of land-use change through various types of land-based development and the impacts of forest fires in boreal and tropical forests and peatlands. Furthermore, we are collecting social and ecological baseline data at research sites and aim to assess the impacts of fire and haze events on local livelihood. So far, we have focused on the social impact of for-



Photo 3 MAFF-CIFOR project meeting at Center for International Cooperation in Sustainable Management of Tropical Peatland (CIMTROP), University of Palangka Raya

est fires including those on livelihood and health. Through these activities, local researchers are trying to minimize the effects of forest fires and air quality monitoring and mitigation measures.

CIFOR's research work focuses on field research and typically consists of Focus Group Discussions (FGDs) and a household survey. At each site, three FGDs will be organized with key informants. The objective of the FGDs is to gain an overview on demography, land use, and livelihood strategies as well the impact of forest fires and climate change events, including risk coping strategies and how local people adapt to and mitigate activities in forest areas with appropriate climate-resilient livelihood options. We also aim to look for possible locations for installing portable PM2.5 sensors to construct an air quality monitoring system. In addition, FGDs allow us to explore discussions on migration and mobility, and how these influence (or not) changes in land use.

FGDs in this document are facilitated group discussions with a focus to seek solutions with the community and community leaders and to gather information about a specific or focused topic in a group. So far, we have conducted interviews in two areas in 2018; one is in Buntoi, and the other in Tumbang Nusa village, both in Pulang Pisau district. We aim to conduct several FGDs throughout 2019.

The FGDs we are conducting are analyzing community perception and fire risk with the aim of capturing information about a household's strategies and social networks. In particular the team from CIFOR have been looking for information in regards to the following:

- 1) History of fire and fire risk in Central Kalimantan, especially within Pulang Pisau district.
- 2) Community farming and land use practice.
- 3) Land use change and the different actors that influenced it or have been influenced through the household.
- 4) How fires have impacted the health, economy, education, and livelihood of communities.
- 5) The different risks affecting incomes and the variety of mechanisms that are used to cope with fire and haze.
- 6) The sharing of knowledge regarding household's livelihood strategies.

The 2019 Weak El Nino Fire in Central Kalimantan

In mid-2019, Indonesian peatlands fires raged and a large number of people suffered from the resulting dense haze. The National Oceanic and Atmospheric Administration (NOAA) classified 2019 as a weak El Niño year from a NOAA running 3-month mean SST

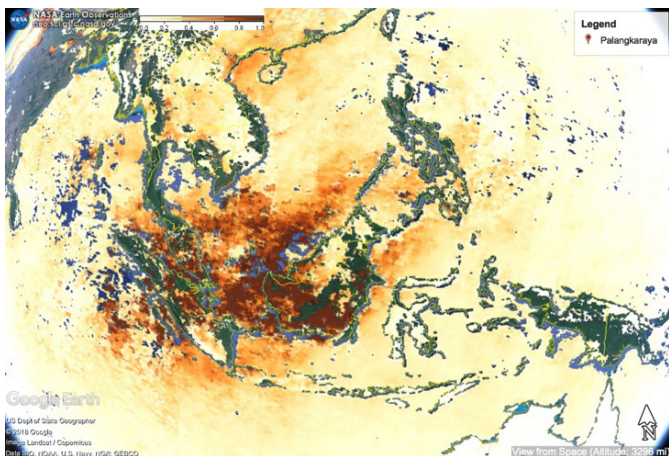


Fig. 3 NASA Aerosol Optical Thickness (AOT) in September 2019

anomaly for the Niño 3.4 region (i.e., 5°N-5°S, 120°-170°W). Resulting forest and land fires brought about a severe trans-boundary haze and covered Central Kalimantan, South Kalimantan, Riau, Jambi and South Sumatra as well as other neighboring ASEAN countries. Between January to October there were a total of 11 fires in Central Kalimantan processed from NASA hotspot data and 86% occurred during two months in the dry season (September – October 2019). Those districts that experienced the severest fires were Pulang Pisau (98% were in peatlands), Palangka Raya (85% in peatlands) and Kapuas (60% in peatlands). Fig. 3 shows the haze conditions that blanked the city of Palangka Raya from NASA Aerosol Optical Thickness (AOT) in Fig. 3.

A collaborative research team from University of Palangka Raya, Kyoto University and CIFOR funded by MAFF has been conducting ongoing social impact studies in seven villages in four regencies in Central Kalimantan prior to and during the fire season in 2019. In this current ongoing research, there are three levels of analysis, namely household surveys, Focus Group Discussions (FGD) and key informant interviews (KII). Each village has stated that the source of fire in their villages varied greatly depending on household information, population, education level, land use, and livelihood activities and local socio-economic issues. Forest fires have greatly disrupted the health, economy and social life of local communities and as a result of this, a large number of villagers have been seeking for help with inexpensive non-burning farming methods, adequate health facilities, and socialization for early warning fire systems.

As a result of this, since early 2019, we have installed CO and PM 2.5 devices in Palangka Raya and Pulang Pisau to collect data. So far, this has shown a clear increase in the concentration of both parameters since the beginning of August, in other words, about one month after the first fire. This haze worsened air quality and visibility in both Palangka Raya and Pulang Pisau areas. We have also installed CO and PM 2.5 tools in an area with more better air

quality in the southern part of Palangka Raya (Mandomai Village, Kapuas) and in the north (Tangkiling Village, Palangka Raya) after the fire season. As of the end of 2019, transdisciplinary research activities are planned in SDN 4 Ukit Tunggal (one of the haze-affected areas in Palangka Raya) with the aim of creating haze free space model for elementary school students and also to create a manual for fire prevention and protection for local communities in Palangka Raya, and Pulang Pisau. Concurrently, we will carry out further public health research to investigate the impact of haze on local fire-fighting teams, students and villagers.

Conclusion

In trans-disciplinary research, co-design, co-production, co-dissemination are all key elements for successful collaborative activities. This requires more time and effort to understand each other's strength. When we interview several key informants in different sectors, we have encountered many people who are concerned about how to respond to the next El Niño. Measures are also being planned at the state level, however, more efforts are needed to prepare for all contingencies. Although the current initiatives have limited manpower and resources, we hope that we can provide clearer scientific evidence through research, discussions and negotiation to set up mitigation measures. These will ultimately help us understand the needs of local communities who face the brunt of changes that play out in their everyday lives but impact the region at a macro-level.

Notes

- 1 Professor Hisao Furukawa (1940–), former professor at the Center for Southeast Asian Studies (CSEAS).
- 2 The Global COE Program, "In search of a Sustainable Humanosphere in Asia and Africa," ran over five years between 2007–2011. The result were published in a volume in 2016, Mizuno *et al* (2016).

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The Grand Rituals at Besakih Temple in Bali and the Historical Moment of Hinduism in Indonesia

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In 1993, large-scale rituals were held at Besakih temple in Bali. Realization of such spectacular rituals at the grand head temple of Hinduism in Indonesia seems to assure the establishment of the religion, even as a minority. In the background, however, there was a deepening conflict between the Bali-centrists, who regarded rituals and practices in Bali to be essential to Hinduism in Indonesia, and the faith-centrists, who adhered to Hinduism as a faith that has spread across the globe. At the turn of 21st century, the representative institution, supposed to protect Hinduism, failed to resolve the conflict, which has resulted in a schism.

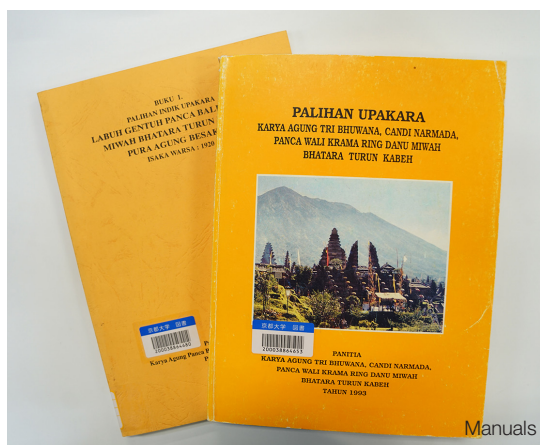
Large Scale Rituals and Manuals

In 1993, a series of large-scale rituals were carried out in the central temple of Besakih in Bali, Indonesia. Since the centennial ceremony held in 1979 at the same temple had turned out to be lacking some parts, they were carried out in 1993. Despite being called centennial, the only proof available is the palm-leaf manuscript reporting the existence of the rituals, hence, it is not certain if they had really been conducted a century ago. Furthermore, according to an essay written by a traveler from the Netherlands, the country that had colonized Indonesia, the temple had collapsed and not been functioning as a temple prior to an earthquake in 1917. Though the rituals held in 1993 were based on the dates on the calendar, they only existed in documents and not in the memory of the living people. In other words, they were brand-new rites that had not been embedded in their practice.

As such, how was it possible to perform such new grand rites? The only way to construct the rituals was to refer to names of the rites and offerings recorded in documents and to know them through analogies. The thick yellow book with the name of the rites inscribed on its cover is what it called a manual with descriptions of the formulated ritual pro-

ceedings. And the rituals were reduced to practices based upon this manual. The practices prescribe the procedures, yet this does not mean there was any precedent for them to be manualized. This manual was the source of the reconstructed grand rituals as they were, that no one had ever seen before.

The rituals were grandiose, in the sense that they accompanied multiple rites held in each temple of Besakih, as a complex of multiple temples, and that the scale and the number of offerings involved in each rite could amount to a maximum. The offerings included performances of gamelan music and dance. Everything was written down in the manual in chronological order, such as how the priests conduct each



Manuals



Accepting holy water with the temple

rite, offerings and work groups for preparations.

The enormous preparatory works were shared among parties including groups which possessed temples, as well as different districts constituting the province of Bali. In each district, they followed instructions given by the designated priests to proceed with works. Such division of labor was enabled by the cooperative system between the representative institutions of Hinduism in Indonesia, known as Parisada Hindu Dharma (Parisada) and the provincial government of Bali that had begun to be formed prior to 1979, culminating in the 1990's.

As Parisada's priests specified the details of the rites, two committees, the central one established in Besakih and the local one in each district, gave instructions for the works. The highest position in the central committee was held by the provincial governor, while the second highest, were occupied by those inspectors including the Hindu Department head of the Ministry of Religious Affairs alongside the district governor. Though executed through the channels of the provincial administration, this was an indication that the Hindu rituals were for the whole nation. And what was handed out at the general meeting of the central committee was this manual. It was only delivered to the parties to the conference and was of course, not for sale. However, it was obtained by one of my research collaborators who had attended the meeting as a note-taker.

The Individual and the Symbolic Cosmos

What kind of funds helped to realize the grand rituals in 1993? The provincial government had provided

reserves prior to the rituals, though they were untouched in the end. The grand rituals themselves were fully funded by donations from individuals and organizations.

For the implementation of the rituals, the provincial government had prepared booklets for the individuals that described the guidelines and significance of the rites, the way to receive consecrated water, as well as ritual procedures to be observed at individual homes and villages in tandem with those at Besakih temple. It also referred to appropriate manners as a good Hindu to participate in rituals. To be more specific, it obviously suggested that they are required to have a clean mind, speech and deeds in order to accomplish the sacred rites, and that they should take part in the rites, offering material or monetary contributions for the rituals willingly and according to their own capacities. Material contributions implicate rice, fruits as ingredients for the offerings as well as sweets and so on.

For individuals, clear prescriptions on how to receive consecrated water was very significant. What is fundamental to rituals in Bali is the priest who turns the water sacred through rites and those individuals who receive it. In the case of a large-scale ritual, they would specify the date, time and place for the delivery of consecrated water to be picked up by village representatives, who would then distribute it to each household. Thus, as the flows of materials and financial participation from below and distribution of consecrated water from above were united through the fairly modern technology of duplication, in other words, in the form of leaflets, the rituals were transformed into reality as a grandiose universe.

Consequently, the rituals of 1993 had collected rather excessive funds from contributions by individuals and organizations. Considering this fact, it is possible to estimate that the level of approval and a sense of participation in the rites were substantially high. On the other hand, however, it is hard to deny an ostentatious display of greed drenched in vanity, which could be seen through the purchase of private cars and homes as well as by the use of expensive clothes in 1990's Bali, all of which were accumulated wealth from tourism. As a matter of fact, the names of donors and the amount of contributions were published in newspapers and the way the amount surged as the dates drew nearer to rituals was an indication that the large-scale rituals were a new site of showing off one's conspicuous consumption and prestige. Making some donations to the rituals at Besakih temple had turned into a new means of "being ostentatious."

On the other hand, since individual participation in the rituals was realized through the distribution of consecrated water via villages, it also brought to light the existence of those who couldn't take part in the rites. Those born in and commuting to schools and working in Denpasar, the capital city of Bali province. Since their relationships with their parents' villages have already become tenuous, they could not partici-

pate in the village-based rituals. It was a Hindu framework, which could accommodate such people including globally expanded religious Hindu groups such as Saibaba and Hare Krishna.

Such religious bodies would sharply criticize the Hinduism defined by Parisada, for being dependent on the community of Bali as well as binding people to authority, offerings and androcentrism. In contrast, these organizations held regular gatherings to discuss their matters and had been helping each other in their daily lives. As the voices of those born in Denpasar had become a large number to the extent that they couldn't be ignored any more, Parisada had no choice but to acknowledge their existence as schools of Hindu (*Bernafaskan Hindu*). This was one of the triggers leading to their fragmentation, which will be mentioned later.

Representative Institutions of Minority Religions

The religious majority in Indonesia are Muslims, while Hindus are the minority who account for less than 10 percent of the population. The government has established its own system to authorize religions to handle the situation, in which religious minorities exist apart from the dominant majority. As a central government office, they have set up a Ministry of Reli-



Saibaba's Meeting Place in Denpasar



Parisada Headquarters

gious Affairs to designate the official religions (*agama*) and to distinguish them from other religious practices regarded as faiths (*kepercayaan*), while approving various rights given to the official ones, such as the right of education at schools. It is a well-known fact that the system originated from the Ministry of Religious Affairs which had been established during the Japanese military regime period with an aim of pacifying in Muslims.

Hinduism was authorized as an official religion in 1958. After a long period of negotiation between the Bali government and the Ministry of Religious Affairs, the provincial government finally received official recognition for Hinduism. In the following year, Parisada was established as a representative institution for Hinduism in Indonesia. For the Balinese, it was an achievement of their long-held dreams. Not only religious people, but also politicians and intellectuals of the province came together under Parisada.

Acquiring official recognition meant that their activities across Indonesia were admitted. As they have expanded, there is no province at present, that doesn't have a branch of Parisada, excluding the province of Aceh. With the exception of Bali, where Hindus are a majority, the religion is a minority in other parts of the country. Not only in terms of its institutional acknowledgement, but also in considering their protection from the surrounding Muslim populations, the existence of Parisada in regions outside Bali is significant for Hindus.

Schism or Historical Moment of Hinduism in Indonesia

At the turn of the 21st century, Parisada fragmented in Bali. In retrospect, it could be said that the split was inevitable, because of a head-on confrontation within the institution of Parisada, between the Bali-

centrists, who regarded rituals and practices in Bali to be essential to Hinduism in Indonesia, and the faith-centrists, who believed in the quintessence of the faith to be providing support for each person in their daily life and maintained this idea under the banner of democratization of Hinduism.

Since the 1980s, indications had begun to surface. In 1984, they were trying to form a nationwide mass organization under Parisada, however, they failed, due to the secession of Wayan Sudhirta and others. Thus, the mass organization first split. Wayan Sudhirta was the very person, who was later setting up a group, calling themselves *Pemuda Hindu* (Youth Fighter of Hindu), whose operational center in Denpasar turned into a base for the movements of the faith-centrists. In 2004, he ran in the provincial assembly election and made a summary of his public pledge in a leaflet. At first, at a conference called Mahasabha, a gathering of representatives of the branches across the nation was convened in 1986, which was then followed by Lokasabha, the provincial assembly of Bali. This was a prelude to the splitting of the Bali branch off from the totality of Parisada.

In 1991, after the 6th general meeting, those who had been unhappy with Bali-centrism organized the Forum Cendekiawan Hindu Indonesia and began to actively discuss the ideal of Hinduism as a faith. Then, after going through the Asian currency crisis in 1997 and the fall of Suharto regime in 1998, the breakup was conclusive since some members of Parisada Bali, leaning toward Bali-centrism, walked out of the integral Parisada in 2001. Thus, the resolution of the 8th general meeting was dismissed at a subsequent local conference in Bali.

People centered around Denpasar assembled under the movement to promote the democratization of Hinduism. Those included *Pemuda Hindu* at the center, along with groups of "shared origins" (groups based upon the idea of sharing an ancestral origin of birth. Those with their own temples, ceremonies and priests.) as well as members of Saibaba and Hare Krishna, mentioned above. The members of the groups of shared origins criticized the Bali-centrists for being privileged in two ways. They argued that the Bali-centrists based in Ubud were actually collaborators to colonial rule with some privileges granted by the colonial government, while at the same time, they were bowing to the Suharto regime to monopolize the benefits of tourism. Unlike theirs, priests belonging to groups of shared origin could not participate in the rituals at Besakih temple, so they insisted that such a fact be democratized and the priests of all kind of groups should be allowed to take part in rites. People centered around Denpasar

claimed they were also the Hindus and demanded voting rights in Parisada, which had not been accredited to them. As the resolution of the 8th general meeting had accepted these claims, Parisada Bali did not approve them.

It is possible to say that ritualism versus fideism is a universal composition of conflict at the heart of any religion. In the case of Bali, there is ritualism on one hand, rooted in village life and fideism on the other, accommodated through globally expanded religious activities. Furthermore, there were criticisms from a decolonialized perspective and accusations against monopolizing self-interests dependent upon the centralized administrative system. Hinduism has turned into a framework, under which respective discrete agents in strained relations would develop their own claims. In 1993, just before the fall of the Suharto regime, they barely managed to carry out the grand rituals of Besakih temple. Yet, after the collapse of the regime, the tension was explicitly exposed and as it was irretrievable, the representative institution of Hinduism, which was meant to protect the minority, split. Materials here shed light on the very historical moment in which Hinduism in Indonesia finds itself located.

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Materials on Christianity and Spanish Documents in the Foronda Collection

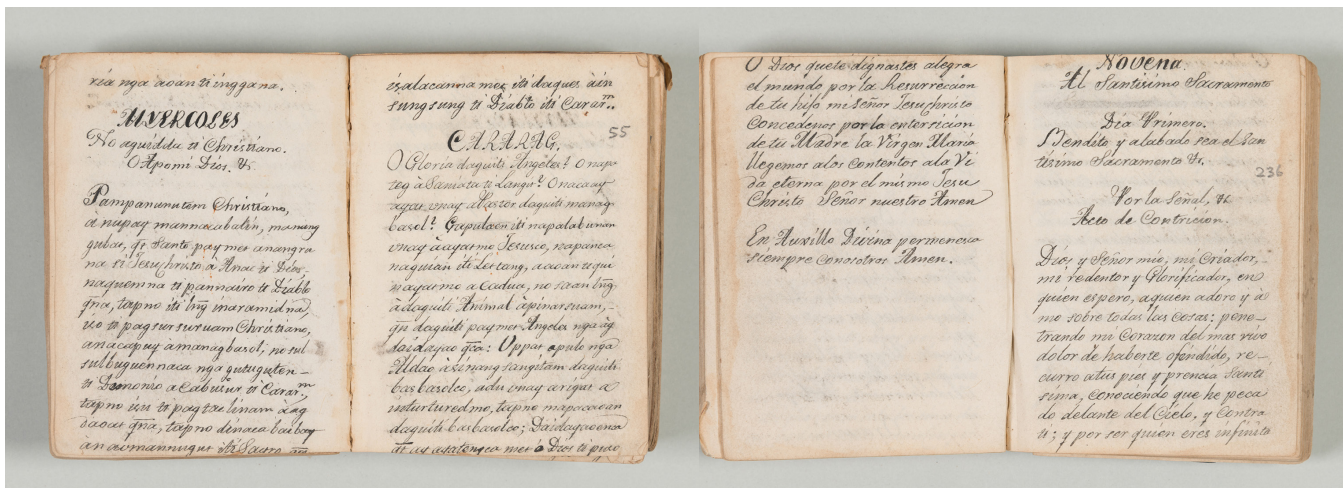
Moriwaki Yuki

University of Tokyo Graduate School of Economics

The Foronda Collection in the library of the Center for Southeast Asian Studies (CSEAS) offers a rich assortment of invaluable material on the history, social sciences, arts, literature, religion and folklore of the Philippines amassed over four decades by Dr. Marcelino Foronda (1907–1997), a renowned Filipino historian and scholar.

I do not specialize in research on the Philippines or even on Southeast Asia. My focus is on the history of Christianity in 16th and 17th century Japan, but it just happens that I am currently conducting research on the preservation of European rare books, historical documents and manuscripts, and in relation to this the Foronda Collection is of special interest to me. I have had the good fortune to examine the 11 manuscripts included in the Collection’s roughly 7,000 items. In perusing the contents of those written in Spanish or having to do with Christianity, I found two works which I introduce below to be of particular interest.

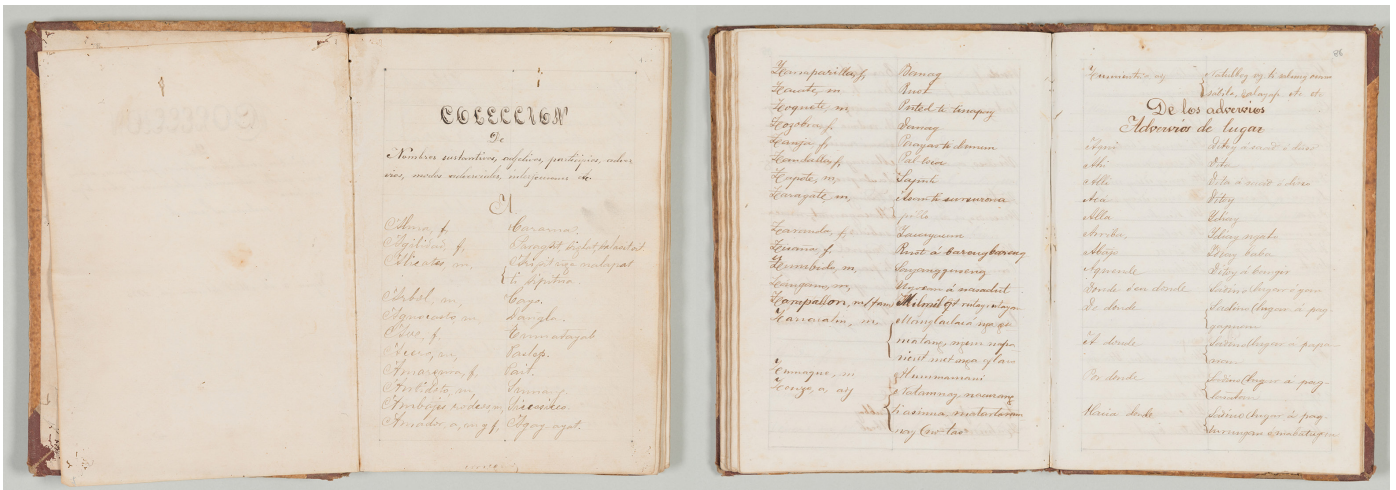
(1) [Untitled prayer book in Ilocano] (No. 6429)



This is an untitled Christian prayer book believed to date from the end of the 19th century. It appears to be missing an opening text and instead starts abruptly with text written in the Ilocano language. There are passages sprinkled throughout, however, of prayers written in Spanish (such as prayers for the first Communion and a novena –a set of prayers repeated for 9 successive days) and Latin (litanies and antiphonies). Unfortunately, I am not familiar with

the Ilocano language and so cannot determine whether the Ilocano prayers are translations of the Spanish and Latin text, or whether they are separate prayers to be used in conjunction with the Spanish and Latin prayers. In either case, this is clearly an important manuscript for understanding the place of Catholicism in the Ilocano-speaking regions at the time.

(2) Colección de nombres sustantivos, adjetivos... (No. 6427)

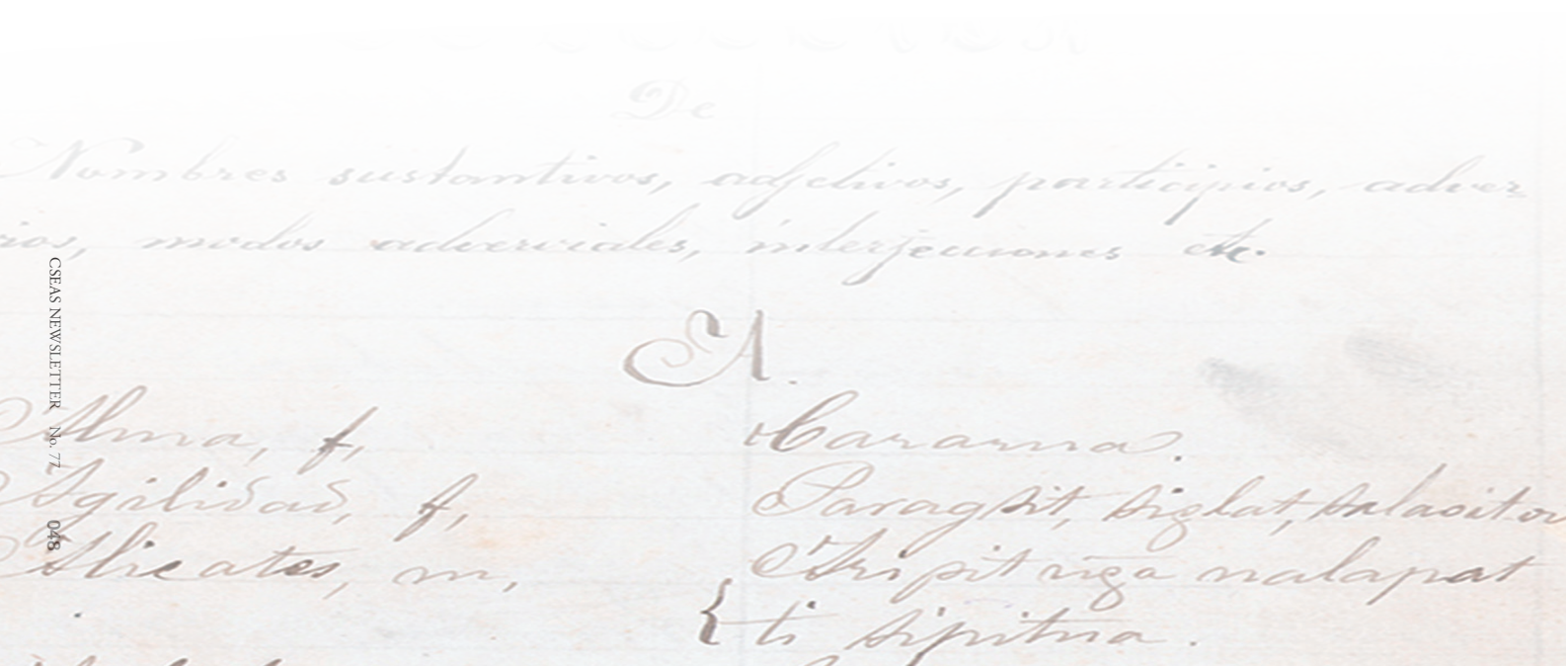


This is an alphabetical list of Spanish words, their parts of speech, and meanings explained in the Ilocano language; in essence a type of vocabulary book. The title page indicates it was compiled in the city of Vigan in the province of Ilocos Sur on March 5, 1898, just before the outbreak of the Spanish-American War that would eventually lead to the independence of the Philippines. It is an intriguing fact that this vocabulary book must have been used to study Spanish at a time of rising nationalism in the Philippines.

While such Japanese scholars as Ikehata Setsuho and Sugaya Nariko have carried out some outstanding research on the Philippines during its Spanish colonial period, research relating to the Ilocano language is still sparse. In this regard, the Foronda Collection offers a fascinating glimpse into the Philippines under Spanish rule and Catholicism in the Ilocano-speaking regions. We can only hope that specialists will take advantage of this rich resource to further research into the colonial period.

Collection Materials

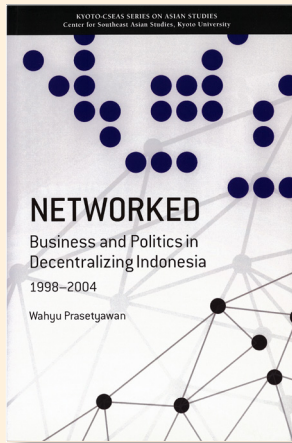
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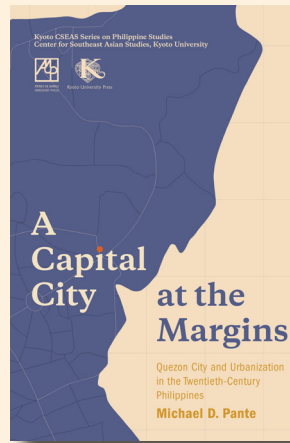


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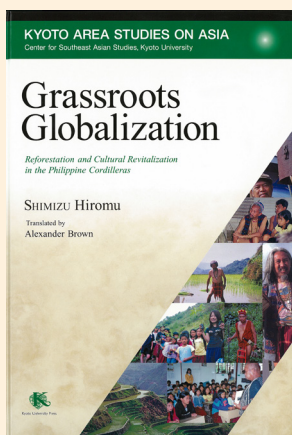


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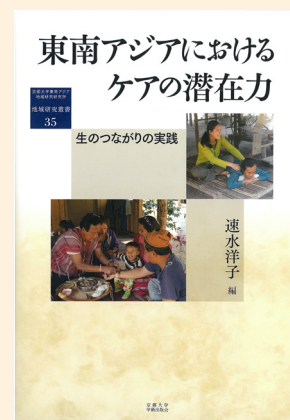
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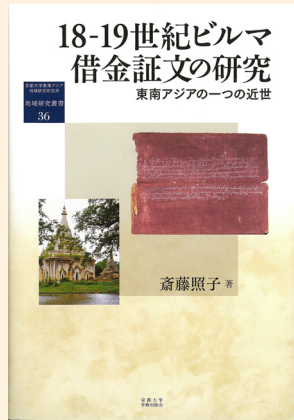
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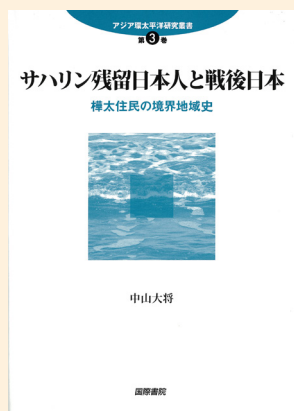


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