

Center for Sustainable Development Studies

A Center Driving African Studies in the New Era

— New Mission of Toyo University’s Center for Sustainable Development Studies —

*Kyoko Nakamura
Researcher*

In recent years, the circumstances surrounding Africa have been changing fast, with a complex network of actors involved. Africa is transforming from a recipient of international aid to the last resource frontier, a new investment destination, and a business partner, and is undergoing large-scale land and resource exploitation by multinational companies. On the other hand, expectations for social business are growing. As infrastructure is rapidly developed, diverse people, goods, and information are flowing into every corner of societies regarded as frontiers, significantly influencing the lives of local residents.

To take as an example Masai society, which is reputed to have strongly maintained its traditions, the rapid spread of school education in recent years has caused education-related spending to place a burden on family budgets. Therefore, it is becoming necessary for Masai families to earn their livelihood by starting agriculture or sending some family members to work away from home in addition to livestock farming. Moreover, it is becoming difficult for Masai children, who now need to spend most of their time attending school, to learn grazing skills—quite sophisticated skills that require judgment based on a comprehensive grasp of the geography, vegetation, orientation, weather and conditions of cattle—that Masai people used to master naturally as they traversed the landscape starting in early childhood. Meanwhile, the rapid expansion of wildlife conservation areas, which is being driven by governments aiming to increase tourism revenue as well as international non-governmental organizations (NGOs) advocating environmental conservation and biodiversity, is decreasing the amount of grazing land available year by year. With these changing conditions around livestock farming, the livelihood of



A sample of Masai herders

the Masai as well as the very foundations of their ethnic identity are thus starting to be seriously shaken.

These complicated local situations cannot be understood within the framework of a single academic discipline. Gathering data on an individual society through face-to-face fieldwork is absolutely essential, but analysis from multiple perspectives by an interdisciplinary research team and comprehensive study integrating the fieldwork and the analysis are also necessary. Today, central governments, local governments, local resident organizations, international organizations and international NGOs, researchers, and multinational companies, both large and small, as well as individuals are moving into African societies for their own purposes. But it is not easy to understand the relationships and interplay between diverse actors, which shift and change in a complicated manner due to cooperation and conflicts of interest. The existence of reliable research partners who are well versed in the circumstances of local communities is therefore crucial.

The Center for Sustainable Development Studies of Toyo University (hereinafter, “the Center”) is focusing on building research systems with strong partnerships between interdisciplinary research teams and local communities, which is indispensable for African studies in the new era. In the project entitled “Toward International Contribution in Asia and Africa in the Era of Globalization” (AY 2015 MEXT-Supported Program for the Strategic Research Foundation at Private Universities), which started in fiscal 2015 and will end in this academic year, a cross-disciplinary research team called “Inclusive Africa” has been conducting local fieldwork and analysis in South Africa, Zambia, Kenya, Senegal, Namibia, Gambia, Egypt, and others with a literally inclusive approach. The Center is also making vigorous efforts to establish bases in Africa. The first results of these efforts were the signing of an academic agreement between Jomo Kenyatta University of Agriculture and Technology and Toyo University and the joint organization of an international research workshop with JKUAT.

In the meantime, the Graduate School of Global and Regional Studies, to which researchers working at the Center belong, accepted 26 young people from the government and industrial sectors of 13 countries,

including South Africa, Senegal, Kenya, Tanzania, Mozambique, and Morocco, under the ABE Initiative (industrial human resource training initiative for young Africans) between AY 2014 and 2018. The subjects of their study ranged widely from disaster prevention and post-disaster reconstruction to urban development, waste disposal, living environment, education, women and development, climate change, the environment, tourism development, poverty reduction, and disability and welfare. Joint research projects with graduates who have returned to their home countries have already started, for example, in the areas of water resources in Tanzania and urban development in Morocco.

This academic year, the Center launched the study for achieving human security through improvement of the living environment in developing countries (from AY 2019 to 2022) under the Toyo University Focal Research Promotion Program. By taking full advantage its interdisciplinary character and close networks, as well as anticipated achievements of joint research projects, Toyo University’s Center for Sustainable Development Studies will firmly establish its position as an institution that drives African studies in the new era.

Study on Spatial Characteristics and Use of Public Space in a Slum in Nairobi

*Haruka Ono
Visiting Researcher*

From February 4 to 11, 2019, we conducted a study on spatial characteristics and use of public space in a slum in the Kenyan capital of Nairobi. Nairobi has developed as the center of the tertiary sector in East Africa. Since Kenya’s independence in 1963, the city has been rapidly

urbanized, maintaining annual average population growth of around 5%. It is said that 55 to 60% of its 3.14 million residents (as of 2009) are currently living in slums that account for only 5.2% of the total residential area.

The average population density in slums in Nairobi is



Children drawing water at a watering spot on the road



Eateries opened on the street

extremely high at 50,000 persons/km². And slums are densely crammed with buildings. At the same time, various types of public spaces are created in slums and used by people in everyday life for chatting with neighbors, trading, drawing water, and so on. While these highly concentrated slums are formed outside the framework of urban planning systems, how is public space created and managed, and how is this public space used by residents? I would like to clarify these to find clues for developing ways of improving slums.

We conducted our study in a slum about 15 km away from central Nairobi called “Mukuru Kwa Njenga,” where about 150,000 people live in an area of a single square kilometer. We firstly carried out mapping of public spaces, such as roads, alleys, and squares, then performed a questionnaire survey on usage behavior with individuals and groups using the public spaces. With regard to the groups, we also asked about the members’ attributes, such as place of residence, occupation, race, and languages used on a daily basis, to understand the

relationships between group members.

The findings revealed that public spaces in Mukuru Kwa Njenga largely consist of thoroughfares, such as roads and alleys, and school yards. The existence of small square-shaped residual spaces was not confirmed. In terms of use, economic activities are well practiced in relatively wide thoroughfares. Groups generally chat as people gather at places where their relatives or friends are doing trade or other business. Thoroughfares serve as places to provide infrastructure services, such as water sales, or open a market of sorts. It was also revealed that open spaces in the daytime become a playground for children who are attending schools that have no school yard and in the evening become sports grounds for young people after work.

We conducted the study in the daytime on weekdays. We would like to conduct a future study in the morning or evening on weekdays and weekends to ascertain how the use of public spaces differs at different times of day and on different days of the week.

Changing Position of Cairo in the Global Urban System

*Noritsugu Fujimoto
Researcher*

I visited the Egyptian city of Cairo, a city that serves as a node between Africa and the Arab world. We conducted an interview survey on changes in Cairo’s position in the global urban system at local research institutes, including Ain Shams University (ASU), and central management functions, such as the Egyptian Exchange and the Greek Campus.

Egypt was the cradle of the Egyptian civilization, one of the four major civilizations of the ancient world. There are pyramids in Giza, about a one-hour westward drive from central Cairo, which extends along the Nile River. With the city having been formed in ancient times, the Greater Cairo metropolitan region has a long history of human settlement and dense habitation and is estimated to have a population of more than 16 million. On the other hand, due to its proximity to Europe and Asia—it is located in North Africa with the Mediterranean Sea to the north—Cairo has been influenced by many cultures. Since the beginning of the Christian era, Cairo has been influenced by Islam, Asia, and Europe: Islamization in the 7th century, becoming part of the Ottoman Empire in the 16th century, and becoming a British protectorate at the end of the 19th century. Following independence in 1922, Egypt has undeniably played an important role as a



ASU's Faculty of Economics building

member of the Arab world, as indicated by its name, “the Arab Republic of Egypt.” As globalization progresses, the geographic status of Cairo as a node between multiple regions is unlikely to change even in the 21st century, as economic indicators show.

ASU’s Faculty of Economics, one of the places I visited, has turned out six finance ministers of Egypt. As I met the dean, Professor Tamer Rady, I asked him about

effective economic policy for improving Cairo's position in interurban competition. He answered from the perspective of neoclassical economics that "increasing the domain of the market economy by easing regulations and other measures will naturally lead to growth." Looking at the current environment surrounding African nations, the economies of major cities are growing due to rising primary commodity prices, the existence of a low-cost and abundant workforce, and an increase in direct and indirect investment. In fact, globalization is promoting economic growth. Countries and cities that design systems to increase incentives for multinational companies to establish offices are improving their position in the global urban system, and Cairo is no exception.

Meanwhile, as shown by the fact that the dean earned his degree in the United States, it is also true that the ideological underpinnings of research institutions that are deeply involved in formulating and deciding economic policies are becoming more neoliberal. This is a typical example of the rapidly increasing commitment to neoliberalism following the resignation of President Mubarak in 2011 due to the Arab Spring and subsequent backlash against his dictatorship. Our survey with a diverse range of interviewees also revealed that the establishment of offices of multinational companies could undeniably lead to quantitative economic growth as "growth without development" that lacks a decision-making function.

Report on a Survey on Reconstruction after the Central Italy Earthquake

*Kozue Kashiwazaki and Ryo Matsumaru
Researchers*

From February 16 to 23, 2019, we visited Camerino, a central Italian city affected by the Central Italy Earthquake, as we had also done in the previous year. We exchanged opinions with researchers at Camerino University, and conducted an interview survey in Camerino and four small surrounding settlements to confirm the current status of reconstruction efforts. Based on the survey results, we were able to systematically clarify the legal systems and governmental organizations related to reconstruction efforts and confirm changes in community organizations owing to the existence of a long-term reconstruction plan in a historical conservation area. Particularly in this case, which involves a large-scale disaster crossing four states, it became apparent that decentralization with the 2001 constitutional reform changed land ownership rights and the housing registration law, having a seriously negative effect on reconstruction procedures primarily in the historic zone. It was also revealed that the construction of temporary housing by the central government has maintained a high level of quality and allowed for long stays, unlike that in Japan, but residents' burdens and complaints are increasing because of delay in procedures related to the aforementioned legal system and no prospect of restoring historical buildings to their original state. We will continue our study with a focus on reconstruction processes that are widely and progressively ongoing.

On February 19, we held an open seminar on the theme of "Disaster Risk Management and Recovery:

Theory and Japan's Experience" at Camerino University to introduce example from Japan's experience. We shared knowledge of post-earthquake reconstruction and exchanged opinions with participants, including related faculty members and about 130 doctoral students.



Open seminar



Interview survey at temporary housing

Issues Emerging at Recent International Conferences regarding Japan's Plastic Resource Recycling Strategy

*Tsunehumi Inoue
Visiting Researcher*

Prevention of marine pollution is one of the targets of the Sustainable Development Goals (SDGs). At the Group of Seven (G7) summit held in June 2018 in Canada, Japan's Prime Minister Abe referred to marine plastic waste washed up on Japanese shores and emphasized the importance of multinational initiatives. As the chair of the Group of Twenty (G20) summit to be held in Osaka in June 2019, the Japanese government aims to lead efforts to address the issue. But the Japanese government did not sign the G7 Ocean Plastics Charter, which calls for working with industry toward 100% reusable or recyclable plastics, on the grounds of insufficient domestic legislation. To catch up and prepare for the G20 summit, the Japanese government is developing a more extensive strategy for plastic resource recycling. Meanwhile, China's ban on imports of plastic waste in 2017 and the addition of unclean waste plastic to the waste subject to control under the Basel Convention in May 2019 further complicated the implementation of the strategy.

The countries that generate very large amounts of marine plastic waste are concentrated in East and Southeast Asia. The 3R International Scientific Conference on Material Cycles and Waste Management 2019 (held from February 27 to March 1, with 300 participants from 17 countries), which addressed the issue of plastic waste and organized a field trip (see photo), and the Ninth Regional 3R Forum in Asia and the Pacific (held from March 4 to 6, 2019, with 550 participants from 39 countries) were held in Bangkok, Thailand. I participated in these conferences as part of my research and discussed issues associated with Japan's plastic resource recycling strategy with related parties.

Untypically for a strategy, Japan's strategy sets numerical targets: (1) reduction of one-way plastic (e.g., containers and packaging) by 25% in cumulative total by 2030; (2) reusable/recyclable design by 2025; (3) reuse/recycling of 60% of containers and packaging by 2030; (4) reuse/recycling (including heat recovery) of 100% of used plastic by 2035; (5) doubling plastic recycling by 2030; and (6) introduction of biomass plastic of about 2 million tons.

The issues around Japan's plastic resource

recycling strategy discussed at the two international conferences are as follows: (1) Of the 84% recycling rate of plastic waste of containers and packaging, which is the strategy's assumption, energy recovery accounts for 57%. Other countries value chemical and material recycling from the perspective of resource recycling, and are critical of energy recovery that leads to resource consumption; (2) In discussing measures against marine waste, causes and effectiveness of the measures are not fully examined (measures against things that become marine waste in large quantity are not sufficiently described); (3) Reducing plastic waste in Japan is important, but operation in countries that need treatment/disposal technology should be emphasized if the focus is placed on efficiency; (4) Many of the numerical targets do not seem to be valid figures based on life cycle analysis; (5) International phenomena, such as Chinese recyclers starting recycling outside China in response to China's ban on imports of plastic waste, should be considered; and (6) Japan is unexpectedly lagging in plastic-free initiatives due to its victim mentality that marine plastic waste comes from China and South Korea.



Visit to ESPEC, a final landfill site in Thailand

New Visiting Researcher and Research Assistant

Flamand Pierre, Visiting Researcher

A Study on the Optimization of Fecal Sludge Collection Efficiency in Developing Countries

—Focus on Septic Tanks



For my research I chose to select a topic related to my work in sanitation, with the wish to not only contribute to research but also to make a change on the ground and become a better professional. I am therefore researching on fecal sludge management (FSM), an essential yet

neglected aspect for the proper maintenance and functioning of non-sewered sanitation facilities, which are used by 2.7 billion people worldwide; a number that is expected to reach 4.9 billion by 2030. I am more specifically focusing on fecal sludge (FS) collection which is, with treatment and disposal or reuse, the most important link of the sanitation service chain for non-sewered sanitation. However, these facilities – particularly septic tanks – are often poorly operated and maintained. Sludge removal is not carried out on a regular basis and numerous surveys have indicated that septic tanks are rarely emptied or only tended to when blockage or failure occurs. The development of new analysis methods, which is the goal of my research, is therefore crucial to improve the efficiency of FS collection, contribute to public health and the environment and, ultimately, to the achievement of SDG 6.2 and 6.3.

Hitomi Sonohata, Research Assistant

A Study on Modeling Infection from Vectors in the Tropics

—Focus on the Relationship with Waste



There is an epidemic in the tropics of vector-borne diseases, particularly those borne by mosquitoes, which is reputed to be the animal that kills the most human beings. One of the most typical mosquito-borne diseases is malaria, but this study focuses on mosquitoes

of the genus *Aedes*, specifically, *Aedes aegypti* and *Aedes albopictus*, that transmit dengue fever and Zika virus in the Republic of Panama in Central America, and on modeling of solid waste-derived sources. A new classification method developed in 2017 by WHO, the U.S. CDC, and the ECDC designates the Republic of Panama as the region where a new chain of infection was confirmed or the region that most requires attention. The number of dengue fever patients examined by Panama's Ministry of Public Health in the past 26 years has reached 67,837 persons. This study will measure and analyze the level of rainwater pools on specific solid waste based on past data on weather factors (temperature, rainfall, wind speed) and the number of dengue fever patients in the Republic of Panama. I hope that ascertaining the relationship between mosquitoes and waste will make it possible to have clearer measures against mosquitoes and offer proposals for infection prevention.

Reference



- 5 min from Exit A3 of Hakusan Station on the Toei Subway Mita Line
- 5 min from Exit 1 of Hon-Komagome Station on the Tokyo Metro Namboku Line

Center for Sustainable Development Studies (CeSDeS), Toyo University
(Strategic Research Base Development Program for Private Universities)

Address: 7th floor, Building 8 Hakusan Campus, 5-28-20 Hakusan, Bunkyo-ku, Tokyo, 112-8606, JAPAN

E-Mail: cesdes@toyo.jp

URL: <https://www.toyo.ac.jp/en/research/labo-center/orc/>

Tel/Fax: +81 3-3945-7747 (9 a.m. to 5 p.m. on Tuesdays, Thursdays, and Fridays)