

HOW IS A RESEARCH PROJECT TO BE DESIGNED AND CONDUCTED DURING THE COVID-19 PANDEMIC?

Shunsuke MATSUKUMA

Introduction

The MNGD Project, an international joint-research project taking place in Ethiopia, prioritized conducting its work onsite in Ethiopia, and began to be affected by the spread of COVID-19 in March 2020. The first positive case of COVID-19 was reported in Ethiopia on March 13, 2020, and community-acquired infection was recognized on March 27, 2020. For one month, infections did not accumulate, but case numbers increased in May. The project coordinator returned to Japan on March 15, 2020, as scheduled and was prepared to return to Ethiopia by May 2020, but the spread of COVID-19 forced him to suspend his travel. Researchers from both Japan and Ethiopia who were involved in the MNGD project were also unable to travel to each other.

Addis Ababa Science and Technology University (AASTU), a local counterpart for the project, was designated by the Ethiopian government in May as a quarantine facility for COVID-19 positives and their close contacts, and students and staff were evicted from the campus of the university. The MNGD project was intended to work from onsite experiments and social fieldwork surveys in Ethiopia, and because the experiments at AASTU were among the main business of the undertaking, the project activities were greatly restricted. It was decided to conduct literature review individually until the pandemic settled, and onsite experiments and social fieldwork research could be resumed.

Three months later, in August 2020, AASTU personnel were allowed into the campus. Communication between Japanese and Ethiopian researchers continued remotely, mostly through online meetings, and project activities continued, although progress was slow.

After this period, which lasted for a year, the project coordinator returned to Ethiopia in March 2021, where he remained for only two months. Then, in August 2021, he resumed his stay at the site in earnest. He was delighted to see his friends and project colleagues in Addis Ababa, and he actively resumed the

project business.

This paper describes, first, what project activities were restricted or postponed while researcher travel was restricted due to the pandemic and then, how the activities were carried out and what activities were added under the pandemic. At the end of the chapter, I will mention the outlook of the project.

Plans Modified Due to the Travel Ban in AY 2020 and 2021

Because the formulation of the project was in 2018, when there was no sign of the future pandemic, most activities were scheduled according to the intentions of the Japanese researchers traveling to Ethiopia. In the initial plan of the project, 46 man-month tasks in Ethiopia, such as experiments on problematic soils or anthropological surveys were assigned to Japanese researchers to be undertaken in each 2020 and 2021, but the project was forced to cancel all of these tasks due to the pandemic travel restrictions.

Additionally, five Ethiopian researchers were expected to travel to Japan for a 3-month training program every year, but the project postponed all training in 2020 and 2021, which made it difficult for the project to transfer knowledge and technology from Japan to Ethiopia.

However, the COVID-19 pandemic has also advanced technological developments, making it easier to host and participate in accessible online meetings and workshops. Also, five Ethiopian students were able to enroll in PhD courses as international students at Japanese universities. The project plan has been revised and expanded the activities to be conducted in Japan and online, described below.

What Was Done During the Travel Restrictions?

1. Take full advantage of Ethiopian international students

Two Ethiopian international students arrived in Japan in November 2020 and began their course work as PhD candidates at the University of Miyazaki and Ehime University, respectively. Both had been staffs in the Faculty of Engineering at AASTU and began experimental work on problematic soils in Japan. After another half of a year later, three more young Ethiopian

scholars joined the PhD courses at Kyoto University in April 2021: one had an engineering background, another had studied business administration, and the last was a geography student. Although according to the original plan, the project was to send four PhD candidates to Japan, a fifth young scholar was awarded a scholarship with the assistance of the project, for a total of five participants.

With those international students, Japanese researchers set out to rethink and redesign the civil-engineering experiment and social fieldwork research (see below). They also have contributed greatly to communication with Ethiopian researchers at the site.

2. Enlarge the experiment on problematic soil in Japan with Ethiopian international students

Within the framework of the project, the researchers will conduct experiments on problematic expansive soil in Ethiopia, specifically black cotton soil. Initially this work was to be done exclusively in Ethiopia, but the project decided to enlarge the experiment and perform it in Japan. First, some of researchers visited a site at the northern part of Japan where they could find and procure expansive soil, and second, other researchers attempted to create a mimic expansive soil to play the role of the black cotton soil in terms of its chemical composition. Those experiments were assigned to Ethiopian international students in Japan.

3. Utilize online meeting tools

Thanks to internet communication technologies, online meetings and workshops have come to be much more familiar and much easier to join from everywhere. The project organized several meetings and workshops through the internet. First, the project regularized online meetings on the progress report of the experiments in both Ethiopia and Japan. In the regular meetings, researchers in Japan could share step-by-step experimental procedures with the Ethiopian researchers, which enabled Ethiopian scholars to follow the experiment without the supervision of Japanese scholars at the site. There were some errors or misconceptions, of course, but the regular online meetings prevented the Ethiopian researchers from going widely astray.

Several online study groups were formed during the pandemic. Some social science researchers, including international students from Ethiopia, continued weekly seminars to improve their research designs and methods. Other researchers formed online study groups between Japan and Ethiopia and focused

on road construction and maintenance manuals in Ethiopia; through the study meetings, they bridged the gap in understandings and knowledge between Japan and Ethiopia.

Additionally, the project held online workshops for both Ethiopian and Japanese researchers. One such workshop was for Ethiopian international students, who gave their presentations on research topic and the progress they had made. They shared their ideas and knowledge with each other and developed further collaboration.

4. Subcontract social fieldwork research in Jinka to local researchers

While online communication tools allowed the project to move forward even in the absence of travel of principals to the site, without any business trip from Japan to Ethiopia, anthropological surveys, one of the core duties of the project, could not avoid being suspended and postponed. Because of the difficulty in forecasting the pandemic, the project decided to subcontract social fieldwork surveys to local scholars at Jinka University. Those local scholars were assigned to conduct household surveys at Baytsimal and Kaysa villages in Jinka to understand the implications to the project. Chapter by Gebre Yntiso et al. in this issue describes the details of this activity.

Outlook of the Project in 2022

The MNGD Project maintained its research activities by supervising experiments remotely and conducting additional fieldwork in collaboration with local scholars and international students. After the long period of long travel restriction, researchers of both countries may be able to visit each other in 2022. To begin with, short-term training in Japan for Ethiopian scholars should be undertaken promptly in the first half of 2022, as the project was unable to send any single person from Ethiopia to Japan in 2020 or 2021, with the exception of the international students.

Then, the Japanese researchers will also travel to Ethiopia, and the outcomes of this trip are expected to accelerate and improve research activities in Ethiopia.

Moreover, even after the lifting of the travel restrictions, the project shall keep up the good practice of continuing to hold online meetings and workshops to enable smooth communications between Japan and Ethiopia.

Last, social fieldwork research is the key to the social implementation of the

project, so the local research team can continue their surveys while Japanese scholars arrive at the site to stimulate the further research.