

NOTES ON THE INTRODUCTION OF ROAD MAINTENANCE TECHNOLOGIES: PREPARATION FOR IMPLEMENTATION IN VILLAGE B IN SOUTHWESTERN ETHIOPIA

Morie KANEKO

ABSTRACT The essay aims to elucidate the details of a project to the residents of Village B, one of the sites of the MNGD project and to explain how the project promotes participatory road maintenance. The members of the MNGD project assume that accepting the concept of participatory road maintenance and implementing the management of community road maintenance using the new technology will take time for the residents. The reason underlying this notion is that the project members regard the project as a means of creating a social behavior that was previously non-existent in the community. The participants in the village meeting generally accepted the proposal in a positive manner.

Key Words: MNGD project, Road maintenance technologies, Community road maintenance, Do-nou, Ethiopia

Introduction: Road Construction in Southwestern Ethiopia

The essay aims to elucidate the details of a project to the residents of Village B, one of the sites of the MNGD project and to explain how the project promotes participatory road maintenance. The essay is based on a research conducted in Village B, which lasted for approximately about two weeks (i.e., mid-October to early November 2019). One month after the research, a Japanese engineer/researcher from the MNGD project visited the village and worked with the villagers on actual road maintenance (i.e., to organize participatory road maintenance).

During this period, the author interviewed the officials of Village B (i.e., chairperson, secretary, and leaders of each district), the head of *Bako-dawla woreda* (one of the administrative units in Ethiopia and equal to a district in English), the Jinka district manager of the Southern Road Authority, the head of

the Department of Road and Transportation in South Omo Zone, and Mr. T, who was a former local official of Universal Rural Road Access Program [URRAP] and a student of Jinka University. Afterward, the author explained the details of the project to the residents of Village B and the concept of participatory road maintenance at a village meeting. In this essay, the main informants pertain to local officials in Village B, who are mostly aged 20 and 30 years and whose main occupation is farming.

One of the project's target areas, namely, South Omo Zone in southwestern Ethiopia, suffered from unpaved main roads until the early 2000s. Although a few paved areas existed, they were poorly maintained and ridden with holes. In the 2010s, the Ethiopian government initiated the widening and paving of main roads leading to a sugar factory. The main reason for this development is to improve access to the sugar factory, which is under construction in South Omo Zone.

One of the elders living in the target area explains that the community considers roads similar to eyes. If one cannot see, then one cannot gain knowledge or experience, which stunts personal growth. In the same manner, the community believes that economic and social growth will be difficult in the absence of good roads. Moreover, the residents of Village B view roads as an integral part of daily life. For this reason, they built the community road from the village to the main road with their own hands. Alternatively, however, the main assumption is that the government should implement road construction.

The Shift in the Discussion at the Village Meeting to Road Maintenance Technology

The MNGD project aims to develop technology required to construct and repair community roads from the village to the main road using locally available materials. The project mainly focuses on developing a new technology for road construction in terms of soil properties, such as problem soils and black cotton soils. During the first part of the whole project, the main research activity intends to clarify the physical structure of problem soil through laboratory procedures. For the latter part of the whole project, the main research activity endeavors to apply the laboratory results to the local community. From the standpoint of those involved in the project, social implementation refers to the ability of the residents to collaborate on the construction and maintenance of roads on the basis of the results of laboratory testing. The members of the MNGD project deem that the

introduction of technology procedures to the residents can be conducted within a short period. At the same time, the members assume that accepting the concept of participatory road maintenance and implementing the management of community road maintenance using the new technology will take time for the residents. The reason underlying this notion is that the project members regard the project as a means of creating a social behavior that was previously non-existent in the community.

Against this background, the Japanese members of the project recognized the necessity of raising the awareness of the residents and the academic staff in Jinka University regarding participatory road construction and maintenance as early as possible during the research period. At the project site, researchers from the field of engineering proposed the construction and maintenance of a road with a length of 100 to 200 m with the participation of the residents.

The social scientists in the MNGD project, who are involved in social implementation, consulted with counterparts at Jinka University and suggested the introduction of the construction of community roads to the residents in Village B. Counterparts at Jinka University agreed to the proposal and collaborated in terms of preparation. Furthermore, they explained the background of the concept to local officials, as well as the chairperson, secretary, and other officials in Village B. The social scientists then asked them to recommend community roads for demonstration. The officials immediately responded that a road in front of an elementary school led to difficulty for children in going to school during the rainy season. Thus, if this road can be fixed, then many residents in Village B will be aware of the project and the technology. The MNGD project members decided that this road will be the demonstration site and made further preparations.

Introducing the MNGD Project at the Village Meeting

On October 17, 2019, the author participates in a village meeting with the academic staff of Jinka University and Mr. T. In Village B, regular village meetings and communal labor are held every Thursday morning. Village B is divided into 10 districts, and several representatives from each district participate in the program every week. Four representatives from each district attend the meeting on October 17 for a total of 40 or more attendees.

The following excerpt is a partial description of the discussion at the

village meeting during the introduction of the MNGD project and proposal of participatory road maintenance. The language used was Aari, the local language. On the day of the meeting, a video camera was used to film the village meeting.

Thank you for your time today. My name is Morie Kaneko. I am from Japan. When I was a student, I was conducting my research in this area. The man over there is a lecturer at Jinka University. He is from Shangama area. Here this is Mr. T. He is a student from Jinka University. He worked in the zone office until two years ago. He is from Gazer city.

We are now working on the MNGD project, which develops new technologies for road construction. This MNGD project is not a project to build a road, but a project to introduce you to the technology of building a road.

The other day, I offered the chairperson of Village B to show our project's new technology to residents. I asked him to recommend a site that can best demonstrate the road maintenance technology to residents. He suggested the road in front of the school, which is approximately 150 meters in length.

To introduce this technology to all of you, I need to discuss a few aspects with you. The new technology does not use bulldozers but human hands (labor).

What I am requesting from you is this: we are going to provide the technology and materials. At the same time, I request all of you to donate your labor for the completion of the road maintenance.

The person who knows this technology is going to be here after one month. Before he comes, I would like to make sure that you all want to know about this technology. I came to the village meeting to see if you would be willing to provide labor.

When I was here the other day, I was told that if there was a road for cars to enter, you could easily bring their crops to the market. In addition, when I went to the health post in the village, I was told that cars can transport pregnant women with birth problems to the hospital. Knowing this new technology, we can start building the roads ourselves without waiting for the government.

After the explanation, the chairperson asked the participants in the village meeting whether they had questions or comments about the explanation. Four or five people offered their opinions and questions. No one expressed objection to providing labor due to the prior coordination of the village chairperson and officials. Instead, many of the questions pertained to the durability of the road. The author replied that roads built using Do-nou technology, which was developed by the project leader, can be maintained for at least two or three years according to geographical conditions in the target area. Finally, an elderly man raised his hand and gave a speech about his experience of fixing roads in his village when he was younger. He expressed interest in learning about the new technology and road construction and willingness to provide labor for road maintenance. The chairperson concluded the meeting by saying that the participants generally accepted the proposal in a positive manner. However, the agenda for the village meeting remained. In this regard, the experts of this project will decide on various details, such as the duration of the work, schedule, and number of people to provide labor, upon their arrival in one month.

After the Village Meeting

Mr. T, who joined at the village meeting, expressed no objection to the project's policy of not paying wages to the residents who will contribute their labor to road maintenance. However, the student suggested to the author that the project should provide the participants with meals at least. The members exchanged opinions regarding showing gratitude to the residents for their labor. Japanese researchers who have been working in the area for a long time, including the author, have considered not paying the residents with cash or other compensation for their labor for the following reasons. 1) The objective of the project is to develop and provide a new technology for road maintenance. 2) The project hopes that the residents understand that the project is not a road construction company. 3) Residents can learn new skills by participating in this activity.

Eventually, as per the suggestion of the president of Jinka University [at the time] and a core member of the project, all participants will share a meal after the road construction. This observance was in keeping with the labor practices of the region. In reality, however, as described in another chapter of this essay, the funds originally allocated for lunch were used to purchase materials to repair the

roads made impassable by the long rains at the request of the residents.

After the village meeting, the author left the site to prepare the equipment needed for road maintenance.