Effective Skill Transfer in a Culturally Diverse Environment: Constructing the Manmunai Bridge in Sri Lanka

Context
As of 2011, Sri Lanka was a multiethnic country of about 20 million people. The country’s social fabric was made up primarily of Sinhalese (75 percent, mainly Buddhists), Tamils (15 percent, mainly Hindus), and Moors (9 percent, mainly Muslims).

Sri Lanka underwent a protracted internal armed conflict between 1983 and 2009, with government forces pitted against the Liberation Tigers of Tamil Eelam (LTTE), a Tamil separatist group. The LTTE had long controlled Manmunai, an area located within Batticaloa district in eastern Sri Lanka. In 2009, as Sri Lanka’s 26-year civil armed conflict was coming to an end, the Sri Lankan government requested support from the Japan International Cooperation Agency (JICA) for the construction of the Manmunai Bridge. The government wanted the bridge to connect the eastern and western shores of the Batticaloa lagoon, an elongated lagoon that divided the Manmunai area. People used dangerous and inconvenient ferries to cross the lagoon, and communication between the shores was difficult. Development in Manmunai was a priority because the Eastern Province, where it was located, had been a key battlefield in the war. Moreover, the area had been devastated by the Sumatran earthquake and tsunami in 2004. The national government of Sri Lanka perceived an urgent need to improve roads in Manmunai and rehabilitate old bridges to improve transportation between conflict-affected inland areas and economically-developed coastal areas.

Development Challenge:
The major development challenge for Sri Lanka was to improve transportation and communication between the two shores of the lagoon in war-ravaged Manmunai.

Intervention
The goal of the project was to help vitalize the local community and improve the quality of life for local residents by constructing a new bridge across the Batticaloa lagoon in Manmunai. The bridge was 210 meters long, constructed with simple deck slabs of prestressed concrete with pretension girders. The project ran from September 2011 to May 2014, a total of 33 months, which was within the original planned duration. With Japanese grant aid, a Japanese contractor led the construction using local workers. The total project cost financed by Japanese grant aid was 988 million yen (equivalent to US$10.1 million according to the 2013 average exchange rate), which was less than planned. The contractor was chosen by open bidding and local workers were hired by the contractor through an application process.

Delivery Challenges: Organizational Capacity, Stakeholder Engagement, Beneficiary Targeting
Social and Cultural. For culture, religion, and ethnicity, the project hired Tamil, Sinhalese, and Moor workers from the community, but in the beginning there was little communication among them at the Manmunai construction site.
The Eastern Province was home to one of the most ethnically and religiously diverse populations in Sri Lanka. Tamils formed the largest ethnic group in the province (39.2 percent of the population), followed by Moors (36.9 percent) and Sinhalese (23.2 percent).1 Each village was composed of members of a specific ethnic group and there was limited communication between different ethnicities, even between members of neighboring villages. Workers spoke to workers of other ethnic groups only as needed to complete their work assignments. This potentially complicated the bridge construction project because poor communication among ethnicities on the worksite could lead to misunderstandings and jeopardize smooth project implementation.

There was a language issue among the workers as well because Tamil and Sinhalese spoke different languages written in different scripts, and most of the Tamils employed locally spoke only Tamil. This language barrier posed potential difficulties in project implementation because workers of different ethnicities often could not communicate about problems or procedures.

Roles and Responsibilities. The Japanese contractor and Sri Lankan workers perceived the division of roles differently, especially concerning the management of heavy machinery. In Japan, operators of heavy machinery performed simple maintenance such as greasing up equipment. In Sri Lanka, however, specialized mechanics handled such maintenance, and operators were only in charge of operation. The Japanese contractor perceived the Sri Lankan operators as handling heavy machinery roughly, increasing the risk of a breakdown because the operators did not feel attached to the machines.

There was one project manager in charge of the entire project, which included as many as 200 workers. With this heavy workload, the project manager struggled to oversee workers effectively. This could lead to poor management of work records, including workers’ overtime.

Human Resource and Organizational Capacity. For skilled manpower, the workers selected for the project included members of the Tamil community. As Manmunai, where most of the Tamil workers lived, was not economically and industrially developed, those workers tended to be unskilled laborers with less industrial experience and limited knowledge of techniques such as measurement, concrete casting, construction proceedings, and construction safety.

For skill transfer, the Japanese contractor’s expectations about quality, safety, and time were stricter than those generally held by the Sri Lankan workers employed on the project. Sri Lankans were thus unaccustomed to the project’s work environment. The language barrier also posed a challenge for communication between the local workers and the Japanese contractor, making it more difficult for the latter to give instructions and transfer skills.

Addressing Delivery Challenges

This section elaborates how the Japanese contractor tried to mitigate the delivery challenges described above.

Social and Cultural

The Japanese contractor made efforts to foster communication among workers of different ethnic groups through recreational events such as parties or a cricket match. In the second half of the construction phase, Tamil, Sinhalese, and Moors (who predominantly speak Tamil) started to communicate more with each other. According to the Japanese contractor, communication became more natural, workers interacted with people outside their ethnic groups and parties, and ethnically mixed teams played cricket.

The contractor encouraged some Sinhalese engineers to learn useful phrases in the Tamil language in order to communicate with co-workers and give instructions. As a result, engineers quickly detected delays in assigned work where additional support was necessary.

The Japanese and Sri Lankan engineers from the Japanese contractor often visited a teahouse near the site to mingle with local people and listen to their opinions and complaints about the project. Because local people could directly

communicate with the contractor, their grievances were less likely to lead to discontent. For example, there were complaints that a cloud of dust was raised before landfills and that dirt was left on the site, and there were demands to put crushed stone on an unpaved road and to properly clean it. The Japanese contractor responded carefully to those citizen grievances and demands and Tamil-speaking workers in the project sometimes conveyed the contractor’s message to the local people for better understanding.

Roles and Responsibilities

The Japanese contractor showed the local workers how to work until they understood how to do the job. For example, casting concrete and adjusting its height required good judgement nurtured by experience. The contractor demonstrated how to adjust its height and the local workers gradually understood what the contractor required of them. It took about six months for them to learn. This understanding, along with the contractor recognizing workers’ progress, fostered positive attitudes towards work. Eventually, the workers who quickly understood the techniques and work processes asked the Japanese contractor to confirm whether their attempt was on the right track or not and then took up a broader range of responsibilities.

The Japanese project manager delegated his responsibility to manage local workers to a local supervisor. The supervisor was entrusted to manage the workers’ shifts and to approve local workers’ overtime requests. Delegation of authority built trust between the project manager and the supervisor and freed up the project manager’s time for other responsibilities, allowing him to manage the project more effectively.

Human Resource and Delivery Capacity

The contractor repeatedly instructed the workers about the following:

- Safety consciousness: One of the most important things in construction is safety, but local workers did not know what “being careful with safety” meant. For example, local workers did not know about wearing a helmet and proper uniforms to protect them at the construction site and did not visually communicate with each other when several workers used machines and needed to coordinate to avoid an accident. The project manager led morning assemblies every day before the start of work, presenting the ideas of “safety” and the “importance of life” to workers. The assemblies appealed to workers’ feelings, for example by encouraging them to imagine how their family would feel in case of an accident. This helped workers understand the importance of safety and carry out their work with safety in mind. The morning assemblies discussed safety issues along with the daily schedule and work process. In addition, workers were required to wear a uniform, shoes and a helmet upon entering the construction site, just as the Japanese contractor did. Those who failed to do this were dismissed. Gradually, the workers learned safety management. There were no accidents during the project.

- Getting into work mode: At morning assemblies, warm-up exercises were conducted with all the workers’ participation. The physical exercise was a means to prepare everyone to switch to work mode from private mode.

- Importance of understanding construction procedures and preparation: Initially, the workers focused on their immediate assignments without considering the next step of work. The contractor decided to present the entire process of construction and explain how each work step is related to the next step. The contractor explained this to the workers by drawing pictures or by actually demonstrating the work. Some of the workers who understood the message began to do their work in a different way that took into account the next step, and they asked the contractor if they were doing their work correctly. Gradually, the workers became conscious of the work process and started to prepare for the next steps without being told to do so.

The contractor appointed as the project’s chief engineer a Sinhalese engineer who had been recruited four years earlier in another JICA project and was been familiar with how to work with a Japanese contractor. This engineer worked on preparation of construction planning, technical documents, and monthly reports. He spoke fluent Japanese and was a strong link between Sri Lankan workers and Japanese. The engineer understood the requirements of the contractor and proactively supported communication with local workers when the contractor failed to express his intentions because of his poor language skills.
Results

After working in construction for about two years, unskilled laborers could become operators with a higher salary, advancing their careers. Workers improved their skills through technology transfer from the contractor, and 30 to 40 of them landed better jobs after the project. Furthermore, the completion of the bridge facilitated the movement of people, which increased interaction among different ethnic groups. That interaction led to an increase in business partnerships, buying and selling of products, and additional establishment of value chains across different ethnic groups.

Lessons Learned

Prioritizing Communication

Despite language and ethnicity being a barrier, keeping communication alive bridged the gap among people of different backgrounds and enhanced learning and respect for each other. In this project, the gap was bridged by using various means both in the workplace and outside the workplace.