

# **Vietnamese Secondary School Sanitation Construction Project**

## **Introduction**

Collaborating with the Faculty of Social Sciences and World Vision Vietnam, Project Mingde launched an overseas project in rural Vietnam. With the funding from the Gallant Ho Experiential Learning Centre, 14 undergraduates (9 from the Department of Civil Engineering, 4 from the Faculty of Social Sciences and 1 from the Department of Comparative Literature) took part in the project.

The project lasted for 7 weeks from early June 2018, beginning with fundamental workshops which get the students grasp the cross-cultural differences and develop potential skills for the work in Vietnam. The program was made up of three parts including (1) the sanitation construction, (2) capacity building on water and sanitation knowledge (e.g. conducting hygiene lessons and contests) and (3) need analysis of the commune regarding the environmental aspect.

Capacity building is of importance to enhance the ability of the local to cope with the problems in their locality. The students from HKU conducted a series of lessons teaching the secondary school students about adopting the hygiene practices as well as a contest to engage the local children to demonstrate the knowledge learnt. The interaction with the local children also enhanced inter-cultural learning.

Working as a multidisciplinary team, the students utilized their academic knowledge and cooperate to carry out the need analysis in the local community. Adopting the social-sciences-related interviewing skills and the engineering technical knowledge, the students directly interviewed the local stakeholders and sought to understand the needs and difficulties of the local community, both tangible and intangible.

## **Sanitation Construction**

Regarding the sanitation construction, the students worked closely with local professional construction team to build a one-storey toilet for a secondary school in Trung Dung commune. Deeply involved in the construction, the students performed multiple roles ranging from assisting the construction to monitoring and recording the construction progress. In order to fulfil the task of quality monitoring, the students visited the sanitation facilities in Tan Hung Secondary School, which was previously built by Project Mingde in 2015, to understand how to contextualize the global building standard into local setting limited by the capacity, resources and time. The sanitation was successfully built in the late July 2018 and an inauguration ceremony was organized. About 250 local students and teachers gained benefit from the new toilet and improved their hygiene standard.

The construction project is located in Trung Dung Secondary School in Dung Trung commune. The project is a two-month contract which lasted from 10 June to 30 July. The client of the project is World Vision, and the students from The University of Hong Kong played the role of an assist resident engineer to participate in the process. The sanitation facility is tailor-made of Dung Trung villagers, consisting of

every basic function. The sanitation facility has a gross floor area of 14400m<sup>2</sup>x 6000 m<sup>2</sup> and a total height of 3.85 meters including the roof.

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The foundation part of the sanitation facility was done before HKU students' arrival. The construction work can be briefly divided into various parts, including foundation; construction of columns and walls; construction of ceiling, roof and drainage system; and lastly the doors, windows, tiles and building services. Total of six columns with reinforcement are completed on 15th June. The bricklaying works of walls were started on 14th June starting from the back wall. By the time of 21st June, all the walls including side walls, back wall and front wall are completed. The walls for corridor were finished by 22nd June. Backfilling works were done throughout the two weeks for the construction of corridor. Starting from 22nd June, the walls for plants have started. The latest progress of the work was the bricklaying for the front plant decoration and the roof frame support.

The backfilling of the corridor near the entrance of the toilet is completed. There were several unclear parts in the drawings. Thus, the width of the corridor was clarified and should be 1.5m instead of 1m/1.2m. The site workers have started to build the brick wall which is near the pond. All six columns are completed. Roughly half of the back walls have completed. Near the noon, the back walls have reached to the window level. The bricklaying of two side walls has started, roughly five layers have completed. Bricks are distributed to the site near the brick walls for convenient and efficient works, providing the first-hand experience for HKU students.

Besides the construction part, HKU students bore different responsibilities. There are several responsibilities of HKU students, assistant resident Engineers. To commence with, preparing site diary is of paramount importance, which is reporting the construction progress and providing site photos. Besides, regular meeting with contractors is held every week, discussing and monitoring the working plan and problems. Checking and recording construction safety on site are other responsibilities of assistant resident Engineers. Last but not least, estimating the work progress and preparing bi-weekly progress cannot be missed.

Besides, meetings were arranged with the contractor, consultants and the school. The first two meetings have discussed about the design changes since some design confusions have been discovered. Clarifications were made by the contractors and the errors were confirmed by the consultant and contractor. The construction plan was delivered to us and the current works are on track with the plan.

### **Most Significant Change stories**

Aside from this, the students gained exposure in journalism by writing the Most Significant Change stories (MSC stories). The MSC stories are the narration of the recipients, who have received support from the World Vision Vietnam. Through interviewing the local who had benefited from World Vision's aid, the students were able to write about how the organisation intervention improves the local's living

standard and solve their emergency problems such as severe illness, malnutrition and lacking infrastructure. Not only can the MSC stories let the donor of the World Vision grasp how their donation is actually used, they can also act as a tool for the local to voice out their opportunities and challenges to the donors.

### **Need Assessment**

Working as a multidisciplinary team, the students utilized their academic knowledge and cooperate to carry out the need analysis in the local community, Trung Dung commune and Le Xa commune. Different social topics have been assessed ranging from household water and sanitation situation to community waste treatment problems. Adopting the social-sciences-related interviewing skills and the engineering technical knowledge, the students directly interviewed the local stakeholders and sought to understand the needs and difficulties of the local community, both tangible and intangible. Eventually, the students produced videos and reports as well as conducted presentation to reveal the problems in the community and raised possible core causes and their impact to the local. Incorporating academic knowledge and innovation, the students could create feasible solutions and recommendations for improving the communities. During the process, the students also increased their awareness on global developmental issues such as water and sanitation, which fostered them to rethink how to contextualise the global issues into local settings and provide locally adaptable resolutions.

### **CHAST Lesson**

In this summer, HKU students collaborated with World Vision to organize Children's Hygiene and Sanitation Training (CHAST) lessons aiming to improve local students' hygiene awareness. Through playing games and dancing with local children, the kids were able to learn more about good hygiene practices. For instance, they are now familiar with the correct steps of handwashing and realize the importance of using water from a clean source. In long term, we hope students can build up good personal hygiene habits which enables them less likely being invaded by germs and parasites. Together with the construction of a new lavatory, CHAST lessons played a crucial role in bringing a better living condition to local students.

List of team members of this trip:

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