

Reform of Technical and Vocational Education and Training (TVET) in Viet Nam

TVET for Skilled Workforce in the Wastewater Sector

Context

In Viet Nam, the wastewater sector is considered a new green sector with a considerable development potential. Only 10% of the collected wastewater is treated, the remaining flows untreated into free water. To improve the quality of life of the people and the environment, the Vietnamese Government commits to increase the share of treated wastewater to 60% of the total urban sewage by 2020. According to the Vietnamese Ministry of Construction (MoC), to accomplish these objectives, Viet Nam would require 36,000 km of sewerage network, 116 municipal wastewater treatment plants as well as 150 industrial and wastewater pre-treatment plants. More than 8,000 skilled workers are needed for the operation and maintenance of plants and sewerage systems. This means, every year about 800 technical workers need to be trained and qualified for the sector in the next ten years. Despite the constantly growing demand for skilled workers, the existing initial training and further training system in the wastewater sector has been inadequate.

Objective

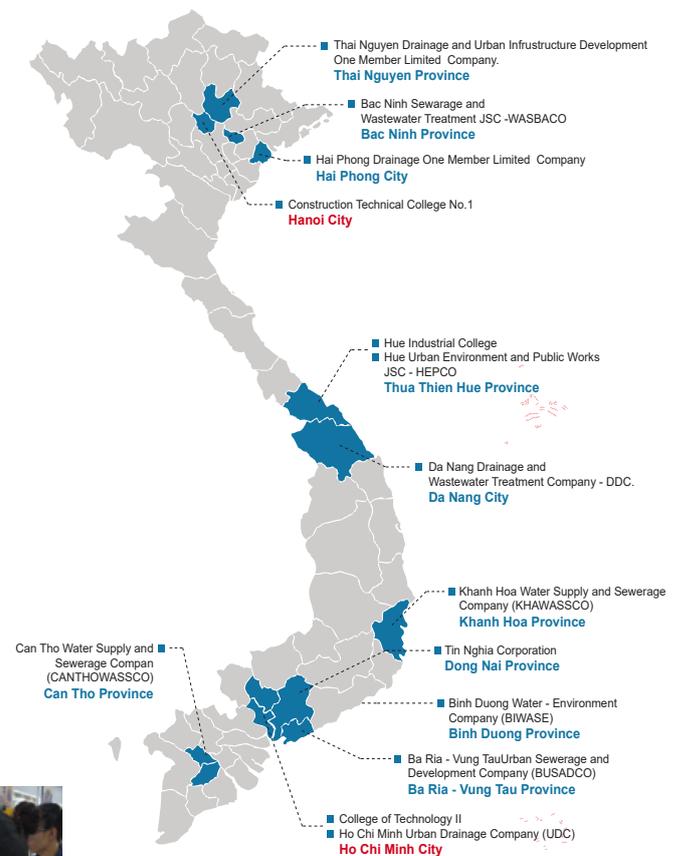
The College of Technology II provides demand-oriented technical and vocational education and training in the wastewater sector.

Approach

Within the framework of the Programme 'Reform of TVET in Viet Nam' implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH on behalf of the Federal Ministry for Economic Cooperation and Development (BMZ), the consortium of the consulting companies GOPA/PLANCO in cooperation with Dresden Sewage Company under the guidance of GIZ has established the new occupation 'Sewage Engineering Technicians' as well as the respective vocational training programme. The cooperative model, which is based on the close cooperation between TVET institutes and the business sector, is pursued to ensure that the training is demand-oriented and practice-based, thereby enhancing the employability of

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Training locations of the piloted cooperative training programme 'Sewage Engineering Technicians'



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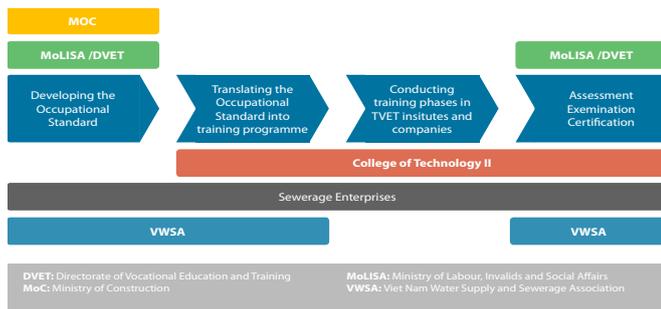
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Training in the TVET institute and in the companies

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the trainees. From November 2015 to October 2018, the first cooperative training course with 22 trainees has been piloted at the College of Technology II and five partner wastewater companies in Ho Chi Minh City, Binh Duong, Khanh Hoa, Can Tho and Ba Ria - Vung Tau.



Fundamental steps of the development and implementation of the cooperative training programme 'Sewage Engineering Technicians'

Results by 2018

To enable the success of the cooperative approach, a functioning interaction between actors is crucial. All relevant stakeholders signed a cooperation agreement, which defines the roles and responsibilities of the respective stakeholder, their interaction as well as their communication structure in the development and implementation of the first cooperative training course.

As the foundation of the new training programme, an occupational standard and learning outcomes 'Sewage Engineering Technicians' are developed jointly by the Vietnam Water Supply and Sewerage Association (VWSA) and its member companies, MoC, the Ministry of Labour, Invalids and Social Affairs (MoLISA), and the German project partners. Examinations of trainees are jointly conducted by the TVET institute, VWSA and the partner companies.

A three-year training programme including 30 theoretical and practical training modules was derived from the occupational standard. The partner companies appreciate the progress of the trainees and their contributions to the productivity of the companies. Strongly increased motivation and passion for the future profession among trainees as well as a special appreciation for in-company training phases has been observed. The training programme will continue being implemented by the qualified Vietnamese teachers and trainers. This is the basis disseminating the model and ensuring a broad impact of the training programme.

After a further training programme in professional theory and practice, including the qualification as examiners, delivered by German experts, 29 teachers and in-company trainers

were recognised to have a qualification equivalent to qualified technicians in Germany. The equivalence to the German standard regarding the quality and the procedure of the training, including examination and evaluation as well as in occupational competence has been officially certified by the Chamber of Industry and Commerce (IHK) in Dresden (Germany).

These core teachers and in-company trainers have trained 31 new trainers and trainees, of which 25 passed the equivalence competence examination in October 2018.

Besides the initial vocational training, the programme's activities focus on sector-specific short-term training for technical experts who are working in sewage companies. The sector association VWSA, as agreed by its member companies, is the central institution, which provides high quality short-term training programmes based on the needs of companies. VWSA certified 24 new in-company trainers and 10 examiners qualified by the Programme 'Reform of TVET in Viet Nam'. Until August 2019, four short-term training courses were completed and delivered to approximately 550 skilled workers in the wastewater sector.



Further training of teachers and in-company trainers

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