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IET INSTITUTE OF ENGINEERING AND TECHNOLOGY

PROMOTING EXCELLENCE IN TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING THROUGH COLLABORATION WITH THE PRIVATE SECTOR

A deep dive into the Capacity Development Centres in Mongolia

To create training programmes that effectively prepare youth for local industries, it is crucial to engage the private sector in technical and vocational education. However, in Mongolia, the Technical and Vocational Education and Training (TVET) system lacks the capacity to respond to the demands of the labour market.

In 2014, the Swiss Agency for Development and Cooperation (SDC) partnered with the Federal Ministry for Economic Cooperation and Development of Germany (BMZ) and the Department of Foreign Affairs and Trade of Australia (DFAT) to improve Mongolia's TVET system. In partnership with the private sector and the Ministry of Labour of Mongolia, the three agencies joined efforts under the "Cooperative Vocational

Training in the Mineral Resource Sector" (CVT) project implemented by the Deutsche Gesellschaft for Internationale Zusammenarbeit GmbH (GIZ).

КНИК ТЕХНОЛОГИЙН ДЭЭД СУРГУУЛЬ

SDC and its partners invested in the development of highquality and social partnership driven TVET through this joint cooperation initiative. Complementing the core activities in the TVET institutions, the project built capacities and supported establishment of specialised Capacity Development Centres (CDC) at selected TVET schools. The partnership is a good example of a multi-donor project to improve TVET in Mongolia.

Overall, seven TVET schools were developed into specialised CDC. Six of them were co-financed by SDC between 2014-2019.

The Capacity Development Centres: A model for TVET delivery

The CDC, also known as Centres of Excellence, are innovation hubs and operate in close cooperation with the private sector.

Employers are involved in the process of defining and delivering training via Occupational Standard setting and provide structured in-company training.

CDC operate in selected occupations: industrial mechanics, welding, mechatronics, electrics-electronics, car mechatronics, carpentry and construction.

The Institute of Engineering and Technology (IET) is one of the six CDC co-financed by SDC. "Within IET, we chose to support specifically the carpentry classes, as construction carpentry is in high demand in Mongolia. This can benefit all stakeholders by creating employment and income opportunities, including selfemployment." Zayasaikhan Dugeree – Senior National Programme Officer, SDC Mongolia

IET is the only private CDC in Mongolia and is a good example of cooperation with the private sector. The institute collaborates with a dozen companies. Despite differences in investment compared to the public TVET schools, they have succeeded in sustaining the results achieved under CVT.



FUNCTIONS OF CDC

- High quality trainings in specialised fields: Competency-based curricula and up-to-date training environment that enables students to practice workplace-related skills.
- Training for teachers from other TVET institutions.
- Skills-upgrading courses for experienced engineers and technicians.
- Short term skills training for unemployed people.
- Preparation facility for the World Skills Competition.



IN-COMPANY TRAINERS

"In-company trainers are employees of private companies with experience in training techniques who ensure quality internships for the students. The project provided a framework for structured in-company training.

The main responsibility of an in-company trainer is to help coordinate industrial training within the framework of the partnership between a company and a school. This includes planning the training, aligning the content with the school's professional program, conducting the training, and evaluating the process.

Preparing and employing in-company trainers is an opportunity for the companies: they get to host trainees, who can develop on-the-job skills, and can become future employees."

Ms. D. Undarmaa Boris, in-company trainer





HOW ARE EMPLOYERS INVOLVED?

- Contribute to the development of occupational standards and competency-based curricula, the modernisation of equipment and tools.
- Develop projects with and for the teachers.
- Provide structured in-company training and internship opportunities.
- Engage in the professional board, a cooperation mechanism between TVET organisations, employers, and professional associations.

Unlocking opportunities: Benefits for employers, teachers, and students

This close collaboration with the private sector, which is a distinctive characteristic of CDC, offers several benefits and opportunities for the employers, the teachers, and trainers, and of course the students of the centres.

For employers:

Employers can observe the skills, ethics, and attitudes of students, which can help them identify potential employees for their firms. Internships and training opportunities provide a chance to prepare students for the workplace. Additionally, through in-company training, companies can host trainees who can become valuable employees for them in the future. The collaboration with the CDC provides in-company trainers with a clearer role, and time-bound work plans, resulting in increased confidence in carrying out their duties responsibly.

For the teachers and trainers:

Working with private sector partners provides teachers with access to better tools and materials to enhance their teaching methodologies, knowledge, skills, and practices. In addition, employers offer opportunities for on-the-job training, incompany internships, and exposure to industry trends. CDC/IET carpentry teachers have become well-known in the sector, improving their marketability.

For students:

Students gain exposure to real-world work environments, enabling them to develop practical skills and learn how to work in teams. Through in-company training and internships they can prepare for long-term employment. Many graduates of the CDC are performing well in their current roles or have opened their own businesses. Finally, the CDC also act as a skills assessment centre and preparation facility for students who wish to participate in World Skills Competitions, which offers them the opportunity to represent their country on a global stage and get exposure to the most advanced tools and technology.

Stories of change: The voices of CDC/IET students



Mr. Batbuyan Namsrai, CDC graduate, 2019. Participant at the

Worls Skills Competition, 2019

My father owns a carpentry business, I used to work with him. As a college student, I used to participate in the National Olympiads of Technology. In 2014, I enrolled at Polytechnic College of Khovd Province before transitioning to the IET in Ulaanbaatar in 2017. After completing a 1.5-year study program, I graduated as a building carpentry technician. In 2019, I represented Mongolia as the first carpentry competitor at the World Skills Competition in Kazan, Russia. I was 21 years old.

Through studying at the CDC, I improved my professional competence and skills in working with tools and equipment. I learned valuable skills such as time management, communication, and planning. My teachers not only focused on technical skills but also on ethics and soft skills. This prompted me to become a teacher myself, sharing my experience and knowledge at a college in the Khovd province. My students have competed in the National Olympiads and youth startup competitions, with some achieving top positions. I now plan to pursue a master's degree in carpentry at the Institute of Technology to improve my teaching and research skills.

Without the education I received at the CDC/IET, I would have worked at my father's workshop without international exposure.



Mr. Khatanbaatar Gunshin, Participant at the World Skills Competition, 2022

I am 19 years old, and I am studying carpentry at the Polytechnic College. In 2022, I was one of the three finalists in the National Skills Competition to be chosen to represent my country in the World Skills Competition. I was trained at the IET Carpentry.

When I first started at the CDC, I felt everyone was more competent than me. But during my time there, I gained experience and knowledge. I have learned how to communicate effectively with others and how to develop my techniques. I've also had the opportunity to learn from industry professionals, which has been incredibly helpful.

The equipment at the CDC is great, but I think that the school could benefit from even more modern technology, such as the type we get to practice on at the World Skills Competition.

Looking back, I think that studying at the CDC has prepared me well for the job market. I have identified the importance of diversifying my skills, as many carpenters possess tools and experience comparable to my own. I've learned a lot of practical skills that I can use in the real world. In fact, I plan to start my own business and after a couple of years, continuing my education by attending university.

With the private sector and beyond: Lessons learned from the Mongolian CDC experience

- Engaging with the private sector and ensuring its participation in vocational skills reform and delivery at every level is essential to ensure quality and relevance of TVET.
- To effectively implement reforms and bring about changes in the system, it is necessary to secure long-term support and commitment from the government, the private sector, and the development partners. The challenges that hindered the implementation in Mongolia were inconsistencies in the TVET financing system reforms, as well as deficiencies in TVET teacher education/pre-service trainings.



Mr. Munkhtulga Gantulga, CDC graduate, 2019

I enrolled in the Polytechnic College in 2015, following my mother's recommendation to have a profession at a young age. I was at 9th grade of high school, 16 years old, when the CDC was launched in our college. I enrolled in 2018 to be a building carpentry technician and graduated from it in 2019. Now I am a bachelor's degree student in architecture at the Institute of Technology.

When I first entered the CDC training room, I was excited to see modern tools and equipment. This is very rare in Mongolian colleges. The training not only taught me carpentry but also professional and ethical work practices. I also became aware of health and safety rules, which some experienced carpenters are not aware of, leading to risks, accidents, and injuries.

I work every summer in a furniture company, which values my work ethics and professionalism, and I realised that other graduates from colleges that are not as well-equipped are not as committed to their work. If it weren't for the CDC training, I would be lost in choosing my profession and would have no skills in carpentry.

It's interesting that girls don't seem to be interested in studying carpentry, but our teachers, are mostly women and experienced carpenters, including our director Bayarmaa.

Recommendations for similar projects include:

- Coordination and harmonisation of all actors development agencies, government, and private sector is key.
- Keep a pragmatic approach, which considers national qualification frameworks, basic education levels, TVET financing, and local private sector capacities.
- Focus on the occupations in most-demand and anticipate the needs of Industry 4.0, promoting IT and digitalisation.
- Where possible, the interventions should be multi-layered and encompass the legal, institutional and schools' levels. This contributes to better results and sustainability.
- Sustainable development, human rights, inclusion, and gender mainstreaming are crucial in TVET interventions.

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Project video