



# KITWE VOCATIONAL TRAINING CENTRE

## MISSION REPORT

***04 SEPTEMBER 2023 – 21 SEPTEMBER 2023***



### THE PROJECT FOR PROMOTING YOUTH EMPLOYMENT THROUGH CONSTRUCTION EQUIPMENT OPERATING SKILLS TRAINING



**HITACHI**

Reliable solutions



UNITED NATIONS  
INDUSTRIAL DEVELOPMENT ORGANIZATION

## Contents

1	Introduction.....	3
2	Participants.....	3
3	Purpose and objectives.....	3
4	Outcomes.....	4
4.1	Ministry of Technology and Science (MoTS).....	4
4.2	Northern Technical College (NORTEC) – SAP 190181 ZM.....	4
4.3	Kitwe Vocational Training College (KVTC) – SAP 200069.....	5
4.4	Technical Education, Vocational and Entrepreneurship Training Authority Zambia (TEVETA).....	5
4.5	Embassy of Japan (EoJ).....	6
4.6	National Board of Trade of Sweden.....	7
4.7	Hitachi Construction Machinery Zambia (HCMZ).....	8
5	Meeting with Institutions – NORTEC and KVTC.....	8
5.1	NORTEC.....	8
5.2	Meeting at KVTC.....	9
	<b>5.2.1</b> Meeting with KVTC management staff and Working Committee.....	9
	<b>5.2.2</b> Meeting with the Project Staff.....	9
	<b>5.2.3</b> Meeting with JICA’s consultant.....	9
6	Industrial Visit.....	10
6.1	FQM Trident Kalumbila Mine.....	10
6.2	Barrick Gold Lumwana Mine.....	10
6.3	Kansanshi Mining.....	10
7	Meeting with Lloyds Financial Limited.....	11
8	Challenges.....	11
9	Conclusion.....	11

## 1 INTRODUCTION

SAP 200069 project aims to contribute to closing the skills gap in Zambia's construction and mining industries in order to support the country's Eighth National Development Plan (8NDP). This will be achieved by; 1) Developing and accrediting a competency-based and demand-driven modern curriculum for construction equipment operator's workforce; 2) Establishing a regional Centre of excellence for construction equipment operator training; and 3) Providing vocational training and career services to unemployed and underemployed youths, with a particular focus on female and disadvantaged students. This project (SAP 200069) builds on UNIDO's extensive experience in the design and implementation of Technical and Vocational Education and Training (TVET), particularly in projects adopting the Public-Private Development Partnership (PPDP) modality. Partnership between the Government of Japan, the Government of Zambia, Hitachi Construction Machinery (HCM), and United Nations Industrial Development Organization (UNIDO) will stimulate systemic change in closing the skills gap observed in the construction and mining sectors in Zambia.

For effective and efficient project implementation, the project management unit conducts visits for project monitoring and familiarisation with stakeholders to foster collaboration and potential future synergies. This report highlights the September mission to Zambia and the achievements.

## 2 PARTICIPANTS

<b>NAME</b>	<b>POSITION</b>	<b>INSTITUTION</b>
Ms. Chie Matsumoto	Project Manager	UNIDO
Ms. Miki Aoki	Project Assistant	UNIDO
Mr. Yuta Okumura	Product Support Technical Manager	HITACHI
Mr. Chrispin Kakoma	Principal	KVTC
Ms. Alice Mutangala	Project Staff	KVTC
Mr. Caleb Katongo	Project Staff	NORTEC
Mr. Raphael Ndalama	Assistant	UNIDO
Mr. Nephas Moyo	National Project Coordinator	UNIDO

## 3 PURPOSE AND OBJECTIVES

- Meet with the Permanent Secretary (PS) at the Ministry of Technology and Science (MoTS) on expectation for Ministry commitment.
- Meet the project stakeholders at the Embassy of Japan (EoJ)

- Meet Director General (DG) at Technical Education, Vocational and Entrepreneurship Training Authority Zambia (TEVETA) for project update and certification of qualified trainers for operator training and excavator final module production.
- Visit Hitachi Construction Machinery Zambia (HCMZ) for project updates and future plans.
- Visit private sector firms/mines to build and strengthen relationship with industry through knowledge sharing, and to enhance placements of students in the job market through internship, attachment and industrial tours.
- Meet college management and trainers at Northern Technical College (NORTEC) and Kitwe Vocational Training Centre (KVTC) to discuss project implementation.
- Conduct team-building workshop with the project field teams
- Participate in gender awareness-raising campaign to encourage female enrolment.

## 4 OUTCOMES

### 4.1 MINISTRY OF TECHNOLOGY AND SCIENCE (MOTS)

The project delegation, together with the Acting Principal at NORTEC and KVTC, visited the Ministry of Technology and Science where the Permanent Secretary (PS) welcomed the delegates in conjunction with the Senior Technical and Vocational Education Training (TVET) Officer and the Acting Senior TVET Officer at the Ministry of Technology and Science (MoTS) to follow up on the expectations for the government commitment to project deliverables at NORTEC and KVTC.

Following introductions, the team provided the following update on various activities that have taken place and where the project stands in the partnership that exists between stakeholders.

### 4.2 NORTHERN TECHNICAL COLLEGE (NORTEC) – SAP 190181 ZM

The team informed that the ZAMITA project is targeted to end in December 2023. The project successfully completed the curriculum development with cooperation from the government through TEVETA. Then through Volvo Trucks, the technical partner completed donating equipment and delivering training of trainers (ToT's) to NORTEC lecturers. Finally, project plans to finish rehabilitation works and digitization of the classrooms at the college as soon as possible. What remains is the government commitment for the scaling up program to support staff development to other colleges.

In response, the PS thanked the project team for the visit, and appreciated that the project conducted at the institution is in line with policy directive of skills development as part of the 8<sup>th</sup> national development plan. The PS assured to pick up the bursary issue for the project beneficiaries at NORTEC and discuss with directorate members way forward for support. He informed that, the constituency development funds is now made available via local authorities at constituency level to support students resolve bursary issues. Commenting on skills development, the ministry informed that it is focusing on areas such as equipping the institutions with relevant training, curriculum

development and building staff capacity. Therefore, appreciated the project for scaling up and technology transfer program.

#### 4.3 KITWE VOCATIONAL TRAINING COLLEGE (KVTC) – SAP 200069

The team shared updates on another project at KVTC a Public Private Development Partnership (PPDP) with Embassy of Japan, Hitachi Construction Machinery (HCM), Government of Zambia and UNIDO which focuses on skills development for the operator training. This project implementation begun in 2022 and successfully worked with the lead from TEVETA to develop the curricula for excavator, front-end loader, Dump Truck operator training. These have been accredited and the TEVETA is working on developing the modules. Training of trainer programs for KVTC lecturers in collaboration with HCM are being conducted and working to procure necessary equipment. The project plans to roll out the beneficiary training and infrastructure upgrade for the training Centre. In this regard, the team inquired on the procedures of getting approvals for the construction works for the new infrastructure. The ministry advised to share drawings and plans for further guidance and approvals. However, since this is a sponsored project and is being implemented by UNIDO, UNIDO should manage the procurement processes and supervision, according to its rules and procedures.

The team invited the ministry to attend the upcoming Project Steering Committee (PSC) meetings in November 2023 in-person or online. The team expressed gratitude to the ministry for the opportunity to meet and looked forward to continued support from the government.



*Group photo project delegation with PS, TVET officers after meeting at MoTS*

#### 4.4 TECHNICAL EDUCATION, VOCATIONAL AND ENTREPRENEURSHIP TRAINING AUTHORITY ZAMBIA (TEVETA)

The project delegation was welcomed by the Director General (DG) and Finance at TEVETA for project update and follow up on the certification of qualified trainers for operator training and production of final module for excavator at KVTC. The team gave an update from the earlier meeting with MoTS on the two projects (at NORTEC and KVTC) expectations on the government commitment for bursary disbursement and staff capacity building. The team informed TEVETA that the ministry assured to follow up on the pending activities. For the project at KVTC, the visiting delegation

appreciated good support and leadership from TEVETA on the timely curriculum development and accreditation for the heavy equipment operator training programs. TEVETA informed the delegation that at the time, the excavator operator modules were being developed and also, they would be available soon for the training. Another component was that capacity building was going as planned. The project was proceeding with providing training of trainers (ToT's). The two newly recruited KVTC trainers are also going to take training HITACHI facilities in Japan. Infrastructure works was another component which was in the documentation process and tendering is forecasted in the upcoming months. On the equipment side, the project had procured a HITACHI excavator which was delivered on site in June at KVTC, ready for the purpose of training. Simulators are other equipment under procurement, which had faced some delays due to procurement procedures. The team was excited that KVTC would soon be ready for excavator training as students had started applying for the operator course. In this regard, the delegation requested to have KVTC instructors tested on the Recognition of Prior Learning (RPL) before end of the year 2023 to obtain certification and accreditation from TEVETA. In response, the DG advised KVTC to submit formal request then TEVETA could plan for the activity. Lastly, the project team invited TEVETA to attend in person for the upcoming PSC meeting in November 2023 at KVTC and NORTEC (Kitwe and Ndola respect).



*Group Photo with TEVETA DG and staff*

#### **4.5 EMBASSY OF JAPAN (EOJ)**

The project team visited the Japanese embassy and met with the First Secretary Economic Cooperation/Affair Section to provide an update on the KVTC project. The team shared the progress of the project that the curriculum development and accreditation for operator training was completed, which enabled completion of activities in output 1 ahead of the timeline. In output 2, the training of trainers (ToT's) program was going as planned. The project had procured a HITACHI excavator which was delivered on site at KVTC for training and excavator simulators were under procurement. Other equipment to be procured are in the pipeline such as front-end loader and dump truck. Under output 3, the project would commence the training of beneficiaries for the excavator training course in a phased manner, starting with the excavator operator training. The team further

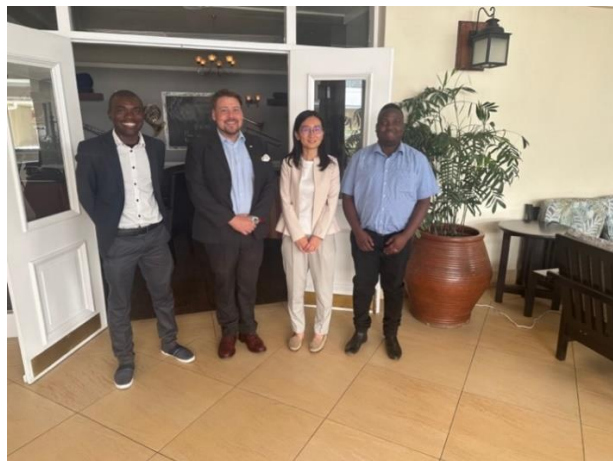
informed that, the project forecasted extensions of workplan for construction and equipment up to 2024, due to the documentation and tendering process.

The delegation shared that they would visit the mines in Northwestern province to meet the key management staff and engage in dialog for possible future synergies related to training and student capacity development.

#### 4.6 NATIONAL BOARD OF TRADE OF SWEDEN.

The team converged with the Policy Advisor of National Board of Trade to discuss possible opportunities for strategic synergies with the Swedish cooperation.

Following introductions and presentation of factsheets materials to show snap shots of Kitwe and Ndola projects, the project manager gave a brief overview of the UNIDO projects implemented in Copperbelt, Zambia which have similar model of public private development partnership (PPDP). The project manager (PM) explained UNIDO's role in supporting technical and vocational areas in the skills development, working in the training of trainers, provision of equipment and curriculum development. The PM also mentioned on importance of the sustainability strategy to capacitate the training centers to be able to provide training to beneficiaries on their own as one of the main focus for these types of projects. The Policy Advisor appreciated the projects' strong demand-driven approach responding to the skills markets. He also highlighted challenges experienced in the supply chain, particularly in the SME sector and top tier companies operating in the mining and related sectors. He mentioned the need for certified and safety inspectors, as well as the importance of certificates and test reports in developing countries. The goal was to build a structure to get recognition for value addition and to support sustainable supply chains at a global stage. He mentioned the importance of stakeholder consultation and procedures in highlighting issues. He advised UNIDO delegation on pilot projects for local gap analysis in service development centers, for integration to work together with relevant government ministries.



*Group Photo with Policy Advisor of National Board of Trade, National Board of Trade Sweden*

#### 4.7 HITACHI CONSTRUCTION MACHINERY ZAMBIA (HCMZ)

The project delegation visited HCMZ and provided briefing on the project progress at KVTC. The team reviewed the previous minutes and discussed the issues and actions.

The team reported that the marketing activities of the project were going well and they were reaching out to a wider range of stakeholders.

Finally, the team agreed to hold the PSC meeting on November 7<sup>th</sup> and invite relevant stakeholders. The in-person meeting would take place.



*Group Photo with HCM team*

## 5 MEETING WITH INSTITUTIONS – NORTEC AND KVTC

### 5.1 NORTEC

The project team interacted with the management of NORTEC comprising of the Acting Principal, Acting Training Manager, the Human Resource Manager, Finance Manager, Acting Head of Department, Procurement Officer, Maintenance Supervisor to discuss various activities of the project:



*Group Photo with NORTEC Management*



The PM conducted a team building exercise through social networking with the project field team, which consisted of the Project Communication and Visibility, Media Administrative, career service data entry operator and career service student affairs assistant. The exercise aimed to identify the main challenges faced by the project and to discuss potential solutions through mine mapping.



*Group Photo with teaching staff*

## 5.2 MEETING AT KVTC

### **5.2.1 MEETING WITH KVTC MANAGEMENT STAFF AND WORKING COMMITTEE**

The visiting delegation met with the KVTC management and discussed project progress and deliverables. In attendance was the principal, vice principal, HOD Electrical, HOD HER and Light Vehicles, Internal Auditor, Head HR and Accountant. KVTC principal gave a debrief about KVTC, programs and some of the key challenges. In addition, KVTC expressed gratitude to the project partners for the support being rendered. The principal emphasized the need to conduct more campaigns to attract more youths, the vulnerable and females in attending these courses at KVTC. The visiting delegation thanked KVTC for the dedication and commitment in ensuring that the project is a success.

### **5.2.2 MEETING WITH THE PROJECT STAFF.**

The PM and the Project Assistant met with the KVTC project staff and interacted on identifying key challenges being faced and how to address them. The project staff, M&E assistant, Admin Assistant, Career Service assistant and the Media production assistant. The team engaged in a team building exercise facilitated by the PM to identify some key challenges and proposed solutions to the challenges.

### **5.2.3 MEETING WITH JICA'S CONSULTANT**

The UNIDO team from NORTEC and KVTC projects met with the survey team from IMG, a Japanese consultant company hired by JICA, online and discussed some lessons learnt regarding on the project concept, model, implementation and challenges. The survey team was happy to learn from the two projects and informed us that they would use this information for development purposes.

## 6 INDUSTRIAL VISIT

### 6.1 FQM TRIDENT KALUMBILA MINE

The FQM Trident Limited Training Centre staff, led by Mine Training Superintendent and Technical Training Manager, warmly received the team as she explained how the training Centre collaborates with TVET institutions affiliated to TEVETA to train their own operators using simulators and assessments based on dover tests before actual training. As a part of the company's CSR activities, they support a community vocational training Centre run by LTVC, which is under TEVETA, by offering necessary infrastructure for the heavy equipment operator course at the school. The visiting delegation could not visit the training Centre due to time limitation. However, FQM Trident advised that the project team could visit again to see the training Centre. The visit to the mine paved the way for possible synergies including student placements, ToTs and partnerships.

### 6.2 BARRICK GOLD LUMWANA MINE

The Site Manager for HITACHI Construction Machinery, greeted the delegation warmly. The delegation then met with the General Manager of Barrick Gold. The project team presented a brief overview of the UNIDO projects being implemented in the Copperbelt, at NORTEC in Ndola and KVTC in Kitwe. They emphasized the importance of visiting the Barrick Lumwana training facility for TVET institutions. He also shared some of the future plans they have for the existing training centre at Lumwana and how they have been upgrading their local staff to more skilful roles from general workers. The delegation toured the training Centre and the simulation used to train operators, and learned about the training procedures and enrolment methods. In the briefing with the staff from the training section, it was highlighted that as the mine is trying to double the production capacity in the coming years, they are facing a shortage of heavy equipment operators as well as engineers. They also confirmed that accepting trainers from KVTC and NORTEC would be a possibility. The visit gave more insight on the visiting team for future collaborations especially regarding student placements and Training of Trainers.

### 6.3 KANSANSHI MINING

The Kansanshi copper-gold mine near Solwezi, in the North Western Province of Zambia, has been flagship operation since 2005. From its open pits, the mine produces copper and utilizes state-of-the-art technology to extract copper and gold from three different ore types, with world-class efficiency. Kansanshi Mine has one of the best mining-orientated training facilities in Zambia and beyond. This world-class training centre has full scale simulations so that all theoretical courses are also seen and experienced in practice on site. Kansanshi has continued to recruit mining industry-oriented graduates, attracting students from TVET institutions as far as Copperbelt province. The project team had an opportunity to interact with some NORTEC graduates for feedback on how they are performing in industry. Industry was pleased to give feedback on how the graduates they are receiving are working on earth moving equipment in the mines. This visit was fuelled by a number of graduates working in this mine from ZAMITA programs. The visiting delegation looked forward to future engagements with regards to training development. A Hitachi Dump truck simulator was

identified for a potential collaboration with the KVTC project. More discussions are planned with HCMZ and Kalumbila management for the KVTC project.

## 7 MEETING WITH LLOYDS FINANCIAL LIMITED

The project manager and the project assistant encountered the Chief Executive Officer and member of staff from Lloyds Financial Limited, accompanied by the HCMZ president. They are currently working on the development project in the Central Province in Zambia, together with the Zambian government. They explained that the project has both hard – infrastructure and soft – social program aspects, and are seeking for possible collaboration with UNIDO for the social projects, especially in the capacity building area. They are currently working on the due diligence to understand the market and the value chain. The PM explained UNIDO may be able to support the project in different areas (e.g.; capacity development etc.). As way forward, the PM suggested the company to share the results of due diligence, also to propose areas needed for development support. Parallely, the Project Manager will discuss internally for the areas of possible support from UNIDO and collaboration.

## 8 CHALLENGES

- The delegation was not able to visit the community training centre due to the time limitation for the FQM Trident Visit. Possible recommendation is to set one and half days visit to make the program more flexible.
- Delays at Kansanshi mine and limited access to the tour sites. Mainly due to internal coordination within the mine. Possible recommendation is to follow up with key focal points in arranging the visit in advance and obtaining confirmation in advance.
- Taking Pictures was Challenging as all mines have approval policies in terms of image capturing and sharing.

## 9 CONCLUSION

The engagements and Tours during the Projects Manager visit successfully achieved their objectives on the projects at Kitwe Vocational Training Centre and Northern Technical College.