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► TVET system assessment in Somali and Tigray regional states, Ethiopia, with a focus on inclusiveness

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Kingdom of the Netherlands

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► Abbreviations

ARRA	Agency for Refugees and Returnees Affairs	JICA	Japan International Cooperation Agency
BDS	Business Development Services	JPTC	Jigjiga Polytechnic College
BoLSA	Bureau of Labour and Social Affairs	KII	Key informant interview
COC	Certificate of Competence	LPEA	Local Private Employment Agency
CRRF	Comprehensive Refugee Response Framework	MoE	Ministry of Education
DICAC	Development and Inter-Church Aid Commission	MSE	Micro and small enterprises
DTVETC	Degehabur TVET College	MTVETC	Mai-Tsebri TVET College
EIIP	Employment-Intensive Investment Programme	NGO	Non-governmental organization
FGD	Focus Group Discussion	NRC	Norwegian Refugee Council
GER	Gross Enrolment Ratio	PES	Public Employment Service
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit	PwD	People with disabilities
GPI	Gender Parity Index	SNE	Special Needs Education
ICT	Information and Communication Technology	SNNPR	Southern Nations, Nationalities, and People's Region
IDP	Internally displaced persons	SRS	Somali Regional State
IEPP	Inclusive Employment Promotion Programme	STVETC	Sheraro TVET College
IOM	International Organization for Migration	TRS	Tigray Regional State
		TVET	Technical and Vocational Education and Training
		UNDP	United Nations Development Programme
		YEP	Youth Education Pack



Introduction

The report examines the relevant features of the Technical and Vocational Education and Training (TVET) system in terms of access for forcibly displaced people, refugees, women and people with disabilities (PwD), focusing on the Fafan and Degehabur Zones of the Somali Regional State (SRS) and the North-Western Zone of the Tigray Regional State (TRS). It also assesses the capacity of local TVET providers, the state of apprenticeship systems, employment services, and local labour market assessment systems to inform training programmes in the target areas.

The study combines desk review and Focus Group Discussions (FGDs) as well as key informant interviews (KIIs). While the review provides an overview of the TVET system in the country, the FGDs and KIIs provide specific features of the TVET system in the target areas.¹

The study reviewed policies and strategies related to TVET and the rights of work of refugees and studies related to the TVET system, focusing particularly on curriculum development, determination of programme of study, admission criteria, school-to-work transition of TVET graduates, and labour market information systems such as skills anticipation.

Key informant interviews with representatives from TVET colleges, regional TVET offices, regional Bureau of Labour and Social Affairs (BoLSA) and regional Certificate of Competence (COC) agencies were conducted to inform readiness for and practices of inclusiveness of the TVET system for refugees, forcibly displaced people, women, and PwD. They focused on legal barriers, financial barriers, and other barriers, skills recognitions system in the area, and mapping of TVET providers in zones under consideration. Representatives of non-governmental organizations (NGOs) operating in the target areas engaged in training and youth job promotion took part in KIIs.

¹ We would like to thank the staff members of the Somali Regional State Education, Vocational, Technical and Science Bureau and the Tigray Regional State TVET Bureau for their assistance in providing information and facilitating discussion with stakeholders (TVET colleges, polytechnics and enterprises).

The TVET colleges assessed through KIIs and site visits were Jigjiga Polytechnic College in Fafan Zone (Somali region), Degehabur TVET College in Degehabur Zone (Somali region), Sheraro TVET College in Tahtay Adiyabo Woreda (North-Western zone of Tigray region), and Mai-Tsebri TVET college in Mai-Tsebri Woreda² (North-Western zone of Tigray region).

The TVET system in Ethiopia follows a dual system or cooperative training system where 70 per cent of training is supposed to take place at the workplace, while only 30 per cent takes place in the TVET colleges. However, in practice, students spend far too little time in the industry as part of cooperative training. Enterprises are reluctant to provide training as they view it as a waste of time. Moreover, since the TVET students have little practical experience in college, enterprises do not want to risk damaging their machines by giving access to inexperienced TVET students. Enterprises also express that the TVET students do not have the right attitude to work and only come to the enterprises because attendance is a formal requirement for graduation.

Upon graduation, TVET colleges attempt to connect students with local cooperative offices to organize them in cooperatives and assist them with setting up a business, as well as to obtain credit and working premise facilities. Microfinance institutions provide credit. The Woreda Job Creation and Food Security Office assists in providing working premises. In addition, the TVET colleges organize short training on business skills. The TVET graduates are expected to take a competence test at the Centre of Competence (COC) testing facilities.

Our findings indicated that there is no system catering for refugees in the formal programmes (levels I–V) of the TVET systems in the Somali and Tigray regions. Refugees are only provided short-term training in an ad hoc manner with the sponsorship of NGOs. Similarly, the participation of internally displaced persons (IDP) and PwD in college is very low. The colleges have no enrolment targets for refugees, IDP and PwD.

Female students make up only a third of the total number of students in the assessed colleges in the Somali region. In Tigray, female enrolment is on par with that of males. However, in both regions, female graduation is low. Women have lower employment prospects upon graduation. In both regions, women are more likely to study Information and Communications Technology (ICT), hospitality, and business and less in manufacturing and construction. Hence, there is polarization in the programmes of study by gender in both regions.

The cooperative training in the TVET system remains weak in both regions. This system is not delivering the expected outcomes of enhanced quality of training and employability.

Cooperative training is short (about two weeks on average) and students usually go to the enterprises in groups, with their instructors. There is little interaction between the enterprise staff and the students. The understanding among enterprises seems that students come to their enterprises to use their facilities (machinery) rather than to acquire knowledge and skills from the enterprises' masters. The attitude among students seems that cooperative training is a formal requirement to obtain the certificate after graduation. Upon completion of the cooperative training, there seems to be little interaction between the enterprises and students. Most of the enterprises view cooperative training as fulfilling their social responsibility by allowing TVET students to use their machinery. They do not seem to view it as an opportunity to recruit future employees.

The enterprises recruit workers from informal apprentices who came through family networks and acquaintances and those with experiences in the business elsewhere. Hence, the system of network-based recruitment by micro and small enterprises (MSE) disadvantages refugees, IDP, and PwD.

2 Mai-Ayni refugee camp is found in Mai-Tsebri woreda.

▶ 2

Main characteristics of the TVET system

▶ 2.1 Main characteristics of the TVET system at the national and regional levels

Improving access and quality of education is one of the overarching objectives of the recent five-year development plans of Ethiopia. During the recent period of rapid growth, pro-poor measures on health, education, agriculture, road, and food security have accounted for more than two-thirds of government expenditure. Expenditure on education represented more than a quarter of government expenditure. However, the TVET system is under-funded as only 5 per cent of the education budget goes to the TVET system. The bulk of the education budget is allocated for general education and higher education (GIZ, 2018).

The TVET system in Ethiopia has largely a pre-employment nature. It aims at filling the skills gap by providing training to youth and young adults to become low and mid-level operators and mid-level managers for the different sectors of the economy. The first TVET strategy was formulated in 2002 and revised in 2008. By shifting from a *curriculum-based* to an *occupational standard-based* approach, the 2008 TVET strategy emphasized the need to focus on quality rather than quantity of graduates. This was complemented by a strategy to establish an occupational assessment system (provided by the COC) open to graduates and candidates from all *formal, non-formal, or informal* TVET schemes. The 2008 strategy also aimed at gearing the TVET system towards relevance, demand-orientation, and accessibility (MoE, 2008).

In terms of inclusiveness at the national level, female participation in TVET is comparable with male participation (Table 1). However, there is a regional disparity in terms of female participation in TVET. Tigray, Amhara, Benishangul-Gumuz, Dire Dawa and Addis Ababa report higher female than male participation in the TVET system, while Afar, Somali, Gambela and Harari report lower female participation. The Southern Nations, Nationalities, and People's Region (SNNPR) and Oromia have comparable participation levels between males and females (MoE, 2018).

► **Table 1. TVET trainees by region and gender**

Region	Male	Female	Total	% of female
Tigray	18,146	19,803	37,949	52.18
Afar *	990	648	1,638	39.56
Amhara	23,708	28,728	52,436	54.79
Oromia	36,239	36,181	72,420	49.96
Somali *	2,561	2,090	4,651	44.94
SNNPR	28,068	27,359	55,427	49.36
Benishangul-Gumuz *	5,663	6,132	11,795	51.99
Gambella *	1,138	932	2,070	45.02
Harari	3,428	2,982	6,410	46.52
Addis Ababa	20,109	20,368	40,477	50.32
Dire Dawa	2,385	2,459	4,844	50.76
National	142,435	147,682	290,117	50.90

Source: 2017/18 Education Abstract, the Ministry of Education. * Data from 2014/15.

The TVET system in Ethiopia has five levels (level V being the highest). In general, the TVET level increases with the duration. While each duration depends on the curriculum for each programme and type of occupation, it can vary from a few months to three years. The programme is module-based, and it depends on the speed of the student to finish each module and the number of modules a student is willing to take.

The annual *Education Abstract* has started to record primary and secondary enrolment rates for refugees since 2017/8. Tables 2–4 show gross enrolment ratios of primary and secondary school students in the major refugee camps in Ethiopia. There is a large disparity in terms of student enrolment in the various refugee camps. As shown in Table 2, the gross enrolment ratio (GER) for the first-cycle primary school for refugees at the national level is 101 per cent for males and 78.3 per cent for females.³ The corresponding figures for non-refugees at the national level are 145 per cent and 129 per cent. The GER for second-cycle primary schools for refugees are male (54.7 per cent) and female (27.1 per cent) while the corresponding figures for non-refugees are male 83 per cent and female 76 per cent. Hence, the disparity between refugees and non-refugees is even higher in the second cycle of primary schools.⁴

The GER is much lower in secondary schools, as shown in Tables 3 and 4. The national average in the first and second cycles is 47.6 per cent and 13.1 per cent, respectively. The corresponding figures for refugees are much lower. The Gender Parity Index (GPI) also remains very low indicating low participation of female students among refugees.

► **Table 2. Primary school gross enrolment ratios of refugees (first and second cycles)**

Location	GER first cycle (grades 1–4)			GER second cycle (grades 5–8)		
	Male	Female	Total	Male	Female	Total
Samara	18	12.7	15.4	6.6	1.8	4.2
Assosa	197.9	169.5	184.4	134.3	81	109.4
Dollo Ado	80.7	66.2	73.4	27.1	13.1	20.2
Gambella	105.7	79	92.5	65.1	27.7	47.4
Jigjiga	142.8	125.3	134	72.5	61.3	66.9
Shire	189	124.5	158.9	128.7	106.6	120.8
All refugee centres	101	78.3	89.8	54.7	27.1	41.5

Source: 2017/18 Education Abstract, the Ministry of Education.

³ GER can be greater than 100% due to under-aged (early enrolment) and over-aged children (e.g. repetition) enrolling outside the official school age for specific grades.

⁴ Note that the non-refugee data is at the national level, not at the target areas.

► **Table 3. Secondary school gross enrolment ratios of refugees (first cycle)**

Location	Population age 15-16			Enrolment in secondary (grades 9-10)			GER (%)		
	Male	Female	Total	Male	Female	Total	Male	Female	GPI
Samara	1,151	1,037	2,188	62	24	86	5.4	2.3	0.43
Assosa	1,261	1,053	2,314	307	56	363	24.3	5.3	0.22
Dollo Ado	7,535	7,184	14,719	479	90	569	6.4	1.3	0.2
Gambella	8,857	7,167	16,024	2,788	528	3,316	31.5	7.4	0.23
Jigjiga	1,333	1,340	2,673	337	429	766	25.3	32	1.27
Shire	1,584	706	2,290	202	99	301	12.8	14	1.1
All refugee camps	21,721	18,487	40,208	4,175	1,226	5,401	7	13.4	0.35

Source: 2017/18 Education Abstract, the Ministry of Education.

► **Table 4. Secondary school gross enrolment ratios of refugees (second cycle)**

Location	Population Age 17-18			Enrolment in Secondary (grades 11-12)			GER (%)		
	Male	Female	Total	Male	Female	Total	Male	Female	GPI
Samara	993	948	1,941	18	3	21	1.8	0.3	0.17
Assosa	1,253	800	2,053	67	4	71	5.3	0.5	0.09
Dollo Ado	5,691	5,123	10,814	192	32	224	3.4	0.6	0.19
Gambella	7,222	5,700	12,922	456	18	474	6.3	0.3	0.05
Jigjiga	1,101	1,103	2,204	266	70	336	24.2	6.3	0.26
Shire	2,260	1,085	3,345	25	8	33	1.1	0.7	0.67
All refugee camps	18,520	14,759	33,279	1,024	135	1,159	6	9	3.5

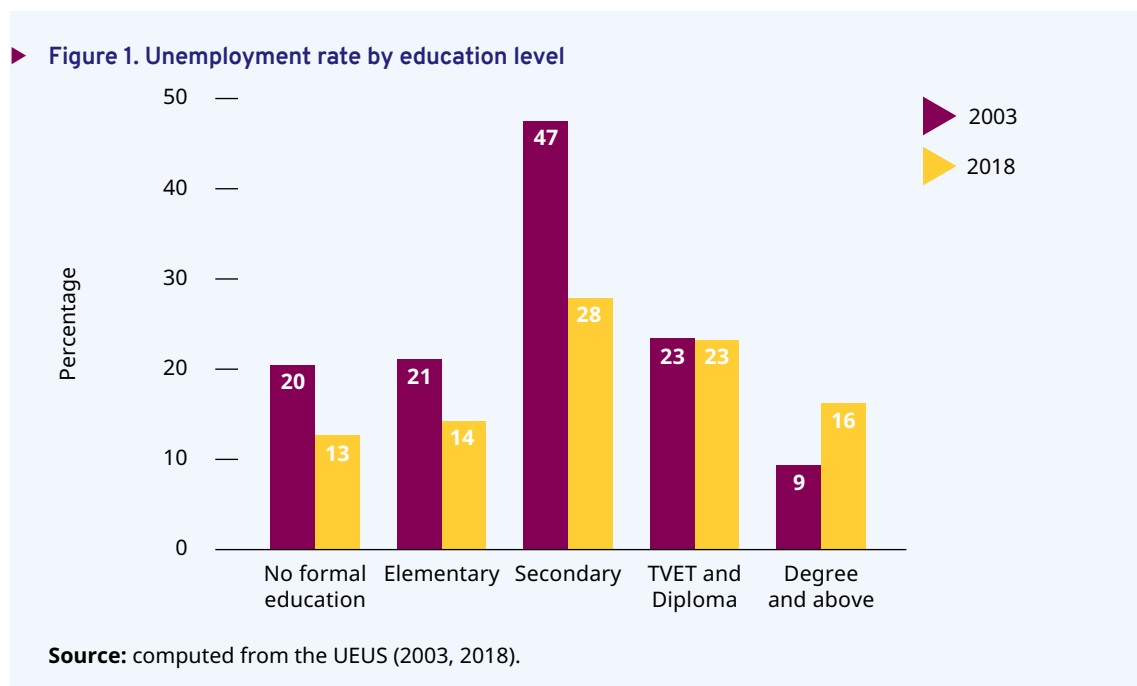
Source: 2017/18 Education Abstract, the Ministry of Education.

In 2006 the Ministry of Education (MoE) implemented a Special Needs Education (SNE) Programme, which was revised in 2012. However, the participation of students with special needs in TVET remains low. For example, in 2015 only 1,000 students with special needs were enrolled. The SNE enrolment rate for grades 1-8 in 2017/8 was 9.8 per cent, while the target was 47 per cent. Similarly, the enrolment rate of students with special needs for Grades 1-8 in 2017/8 was 2.8 while the target was 30. Some of the factors accounting for the low participation of students with special needs in TVET, according to the MoE, include a limited number of special needs students who finish secondary school, TVET staff without the required skills for serving students with special needs, and lack of teaching materials adapted for SNE.

In terms of financial sources, the bulk of TVET funding comes from the government. The share of TVET spending from the overall education budget, however, remains low at 5 per cent, with per capita spending per trainee half that of higher education (GIZ, 2018). NGO and private sector participation in the TVET system is limited, with more than 80 per cent of level 1 and II graduates coming from public TVET colleges. Regional authorities are responsible for the budgets of TVET colleges in their respective regions. Private sector participation in the TVET system focuses on levels III-V and social science and business fields.

In terms of the institutional structure of the TVET system, the Federal TVET Agency is responsible for regulating the TVET system and organizing, facilitating and endorsing occupational standards. Regional TVET bureaus and regional accreditation agencies prepare the occupational standards following the federal regulations. The Federal TVET Institute is responsible for training teachers for TVET colleges in the country as well as federal public universities.

Several studies have identified the key gaps in the TVET system. TVET graduates face high unemployment prospects. For example, despite the expansion of the TVET system in the country, the unemployment rate of TVET graduates remains unchanged at about 23 per cent in 2003 and 2018 (Figure 1).



One key challenge is the supply-driven nature of the TVET system, as there is no functional skills anticipation system in the country. This has resulted in skills mismatch and high unemployment of TVET graduates (see, for example, Krishnan and Shaorshadze, 2013; Mekonnen and Tekleselassie, 2018). Poor quality of training in the TVET system is another constant affecting the school-to-work transition of graduates (see, for example, Abebe et al., 2018). The poor quality emanates from the limited competency of teachers, lack of suitable equipment and weak cooperative training (workplace attachment) system. Another key shortcoming of the TVET system is poor education – industry linkage that has led to skills training without accounting for industry needs and the industry reluctance in providing cooperative training (workplace attachment) opportunities for TVET trainees. This has resulted in skills being not relevant to market demand. An additional key limitation of the labour market which also affects TVET graduates is poor public employment services and job centres that are not fully functional, resulting in high recruitment costs for firms and high search costs for jobseekers (see, for example, Abebe et al., 2016). The MoLSA 2018/9 Annual Bulletin showed that only 17 per cent of jobseekers registered were placed on jobs in 2018/19 (MoLSA, 2020).

The high unemployment prospects of TVET graduates, the supply-driven nature of the TVET system, poor quality of training, and weak industry-TVET linkage (and hence poor cooperative training implementation) have also been confirmed by our assessments in the Somali and Tigray regions.

► 2.2 Overview of the TVET system in the target areas in the Somali and Tigray regions: Mapping of TVET providers

2.2.1 The TVET system in the Somali Regional State: Mapping of TVET providers

In the SRS there are twelve public TVET colleges, two public polytechnic colleges, six private colleges and two NGOs providing training. Hence, a total of 22 TVET institutes that provide training in the region (Table 5). Three of the 14 public colleges and polytechnics specialize in health training, and one management institute trains students in accounting and human resource management. While the polytechnic colleges have access to internet wifi, only 9 of the 18 TVET colleges have wifi access. Students can access the internet on the college premises.

► **Table 5. Number of accredited TVET in the Somali region in 2020**

Type of college	Public	Private	NGO	Total
Training centre	-	-	2	2
TVET college	12	6	-	18
Polytechnic	2	-	-	2
Total	14	6	2	22

Source: Somali Regional State Education, Vocational, Technical and Science Bureau.

The private colleges focus on providing training in health sciences, business and management. The public TVET colleges focus on producing operators and supervisors on water technology, manufacturing, ICT, agriculture, automotive technology and construction. NGOs focus on providing short-term training. The list of public and private colleges and the programmes they offer are provided in Tables 21 and 22 in the Appendix.

The Somali region has one of the lowest TVET college coverage in the country, with only 10 out of its 99 woredas having a TVET college, compared with 40 per cent of woredas having a TVET college at the national level.

The majority of public TVET students in the SRS are at levels I and II. Female participation in levels I and II remains very low; with less than a third of total enrolment. In the advanced levels of III and IV, female participation has improved in the last three years and has become comparable with that of males in the academic year 2019/2020 (Table 6). The expansion of levels I and II is due to new TVET colleges in rural areas providing training in these levels.

► **Table 6. Somali region public TVET enrolment by gender and level**

Years	Numbers											
	Level I			Level II			Level III			Level IV		
	M	F	T	M	F	T	M	F	T	M	F	T
2017/18	967	579	1,546	753	449	1,202	912	557	1,469	893	605	1,498
2018/19	1,571	315	1,886	520	508	1,028	1,188	715	1,903	698	549	1,247
2019/20	1,968	691	2,659	1,571	711	2,282	830	896	1,726	275	270	545
Years	Percentage											
	Level I			Level II			Level III			Level IV		
	M	F	T	M	F	T	M	F	T	M	F	T
2017/18	63	37	100	63	37	100	62	38	100	60	40	100
2018/19	83	17	100	51	49	100	62	38	100	56	44	100
2019/20	74	26	100	69	31	100	48	52	100	50	50	100

Source: Computed using data obtained from the Somali Regional State Education, Vocational, Technical and Science Bureau.

Enrolment in private TVET colleges is dominated by male students, as female students constitute about a third of the students at all levels (Table 7). This could indicate that female students face more financial difficulties in paying for TVET programmes.

► **Table 7. Somali region private TVET enrolment by gender and level**

Years	Numbers											
	Level I			Level II			Level III			Level IV		
	M	F	T	M	F	T	M	F	T	M	F	T
2017/18	256	120	376	245	98	343	223	83	306	194	78	272
2018/19	218	78	296	316	121	437	215	91	306	334	153	487
2019/20	261	101	362	351	91	442	293	165	458	388	145	533
Years	Percentage											
	Level I			Level II			Level III			Level IV		
	M	F	T	M	F	T	M	F	T	M	F	T
2017/18	68	32	100	71	29	100	73	27	100	71	29	100
2018/19	74	26	100	72	28	100	70	30	100	69	31	100
2019/20	72	28	100	79	21	100	64	36	100	73	27	100

Source: Computed using data obtained from the Somali Regional State Education, Vocational, Technical and Science Bureau.

In terms of access to short-term training, male students dominate in training provided by public institutions and NGOs, where only a third of the students are females. Short-term training by private providers shows a mixed picture in terms of access by gender. In 2019/20, about 44 per cent were female students, while females dominated in the previous two years (Table 8).

► **Table 8. Somali region short-term training enrolment by gender and provider**

Years	Numbers											
	Public			Private			NGO			Total		
	M	F	T	M	F	T	M	F	T	M	F	T
2017/8	7,719	381	8,100	55	5	60	25	0	25	7,799	386	8,185
2018/19	1,441	1,286	2,727	164	26	190	101	0	101	1,706	1,312	3,018
2019/20	1,355	599	1,954	83	65	148	163	54	217	1,601	718	2,319
Years	Percentage											
	M	F	T	M	F	T	M	F	T	M	F	T
2017/8	95	5	100	92	8	100	100	0	100	95	5	100
2018/9	53	47	100	86	14	100	100	0	100	57	43	100
2019/20	69	31	100	56	44	100	75	25	100	69	31	100

Source: Computed using data obtained from the Somali Regional State Education, Vocational, Technical and Science Bureau.

TVET teachers are overwhelmingly male in both public and private TVET colleges. In public colleges, 92 per cent of the teachers are male (up from 90 per cent in 2017/18), while in 2019/2020 in private colleges, 88 per cent are male (similar to the previous two years). Hence, male domination in TVET teaching has not changed in the three years since 2017 (Table 9).

► **Table 9. TVET teachers by gender in the Somali region**

Years	Public			Private		
	M	F	T	M	F	T
2017/18	89.8	10.2	100	88.1	11.9	100
2018/19	90.1	9.9	100	87.5	12.5	100
2019/20	92.0	8.0	100	87.9	12.1	100

Source: Computed using data obtained from the Somali Regional State Education, Vocational, Technical and Science Bureau.

TVET colleges operate under capacity, as they do not get enough students to enrol in them. Our KIIs with the four colleges indicated that they operate under 50 per cent capacity, especially for short-term training (see Table 10).

► **Table 10. Percentage of intake versus capacity**

Type	2015/16	2016/17	2017/18	2018/19	2019/20
Formal	83.6	85.1	71.6	48.4	58.5
Short-term training	25.4	111.0	107.7	23.0	17.0
Total	50.3	99.4	91.2	33.5	32.1

Source: Computed using data obtained from the Somali Regional State Education, Vocational, Technical and Science Bureau.

The TVET colleges in the Somali region and the TVET bureau indicated that they have recently started conducting tracer studies of their graduates as well as labour market needs assessment. However, the quality of the labour market assessment both at the college and bureau level lacks quality and clarity. Local government offices are heavily represented in the interviews of the labour market assessment.

The reports produced can rarely inform about the skills mismatches in the labour market as there is no indication that those reports have been used as inputs for curriculum and programme development in the colleges. The Jigjiga Polytechnic College (JPTC) recently conducted its first comprehensive tracer study focusing on the 2017/18 and 2018/19 graduates. The tracer study can be considered of high quality and properly done. The Degehabur TVET college (DTVETC) does not have a tracer study; they collected data on labour market assessment but have not analysed it.

NGOs have been involved in the provision of training for host communities and refugees. The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and the Development and Inter-Church Aid Commission (DICAC) of the Ethiopian Orthodox Church are typically active. The DICAC provides short-term training for members of host communities and refugees. GIZ is typically involved in the employment promotion of TVET graduates for both host communities and refugees through its Inclusive Employment Promotion Programme (IEPP), which has linked about 50 TVET graduates in the Somali region with enterprises in the form of “paid internship”. GIZ pays the basic salaries of these interns for six months, after which the enterprise has the option of hiring them or not. All IEPP participants are locals, but there is a plan to include refugees in future programmes.⁵ Other NGOs involved in training in various ways, such as funding and facilitating, include Save the Children, International Organization for Migration (IOM) and the United Nations Development Programme (UNDP).

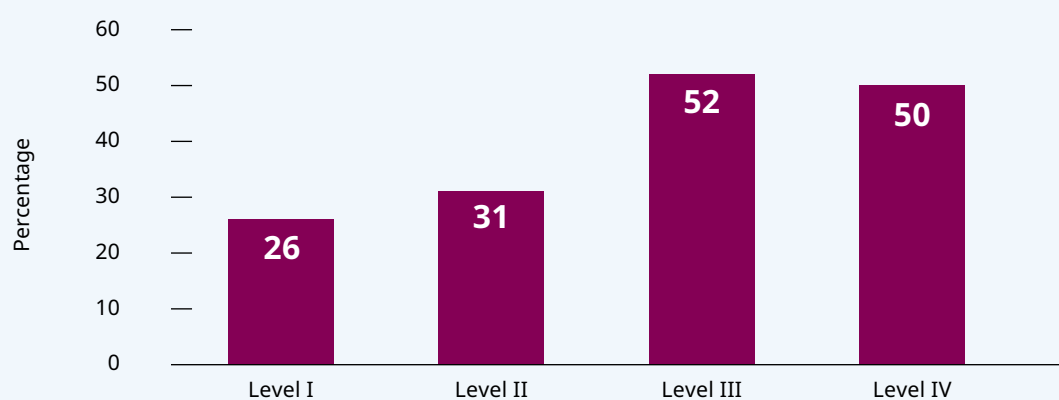
2.2.2 The TVET System in the Fafan and Degehabur zones of the Somali Regional State

Jigjiga Polytechnic College

The JPTC was established in 2001 as a technical and vocational training institute and upgraded to a polytechnic in 2006 with the support of the Japan International Cooperation Agency (JICA). In the academic year 2019/20, the JPTC had 840 students in its formal programmes (levels I–V). Furthermore, every year the college provides short-term training to thousands of students who are sponsored by local government offices or NGOs. Since its establishment, the JPTC graduated more than 13,000 students in its formal programmes and more than 20,000 in its short-term programmes, which last from 9 days to 10 months. The JPTC serves eleven woredas and three city administrations within the Fafan Zone of the SRS.

In the 2019/20 academic year, the share of female students by levels constituted 26, 31, 52 and 50 per cent of students in levels I, II, III and IV, respectively (Figure 2).

► **Figure 2. Percentage of female students by levels in 2019/20 (public TVET colleges and polytechnics colleges)**



Source: Computed using data obtained from the Somali Regional State Education, Vocational, Technical and Science Bureau.

5 There is a need to study the impact of the IEPP in terms of actual employability so similar programs can be implemented by other interested organizations.

► **Table 11. JPTC 2019/20 Number of students by programme and gender**

	Level I			Level II			Level III			All levels
	M	F	T	M	F	T	M	F	T	Total
ICT	71	29	100	65	28	93	0	0	0	193
Agriculture	33	17	50	13	4	17	0	0	0	67
Electricity	41	8	49			0	0	0	0	49
Electro-mechanical maintenance technology	28	7	35	11	0	11	12	7	19	65
Water system distribution	20	12	32	15	3	18	0	0	0	50
Water and sanitation system construction	27	10	37	7	3	10	0	0	0	47
Automotive technology	36	0	36	8	0	8	0	0	0	44
Garment	9	11	20	3	4	7	0	0	0	27
Construction	55	8	63	0	0	0	0	0	0	63
Hotel industry	2	41	43			0	1	20	21	64
Furniture	31	1	32	9	0	9			0	41
General metal fabrication	17	0	17	7	0	7			0	24
Surveying	40	12	52			0	8	2	10	62
Bartending	0	0	0	8	0	8	0	0	0	8
Hotel kitchen operation	0	0	0	0	13	13	0	0	0	13
Industrial electrician machine and drive servicing	0	0	0	14	2	16	0	0	0	16
Building and electrical installation	0	0	0	6	1	7	0	0	0	7
Total	410	156	566	166	58	224	21	29	50	840
Percentage			67.4			26.7			6	

Source: Computed using data obtained from the Somali Regional State Education, Vocational, Technical and Science Bureau.

► **Image 1. Signpost for the location of the programmes (sectors) and departments at the JPTC**

Source: ©ILO/T.G. Tekleselassie.



► Image 2. Manufacturing sector workshop at the JPTC



Source: ©ILO/T.G. Tekleselassie.

► Image 3. Lecture area at the JPTC



Source: ©ILO/T.G. Tekleselassie.

► Image 4. Skill gap training



Source: ©ILO/T.G. Tekleselassie.

The list of programmes and the rate of student enrolment is reported in Table 11. As shown, ICT has the highest number of students (23 per cent), followed by agriculture (8 per cent), hotel industry (8 per cent), electro-mechanical maintenance technology (8 per cent), and construction (8 per cent). Image 1 is a signpost for the location of the different programmes (sectors) and departments at the JPTC. Figures 4 and 5 show a manufacturing workshop and a typical lecture area at the JPTC.

The JPTC uses the national occupational standard to design its programmes, taking into account the region's context. The college also has started conducting market demand assessment and tracer studies to decide on future programmes of study, and which programmes should be kept or discontinued.⁶ However, our discussion with the JPTC indicated that in practice programmes have been dictated by government priorities.

The JPTC does not provide accommodation to its students, some of whom come from outside Jigjiga. Those from Jigjiga itself are given pocket money of about 300 Ethiopian Birr per month to encourage them to be trained in science, technology and manufacturing programmes. Between 2010 and 2020, JPTC did not offering training in business and management; however, this became part of the curriculum in the academic year 2020/2021.

More than 26 per cent of JPTC teachers are master's graduates, 70 per cent first degree and the rest C-level, who are upgrading their education to degree level. The teaching staff of the JPTC is, therefore, well qualified. Image 4 shows a trainee being taught by an instructor to bridge a skill gap.

⁶ Our discussion indicated that the first major comprehensive tracer programme by the JPTC was conducted in 2020.

Cooperative training

In line with the national TVET strategy, the JPTC follows the cooperative training (workplace attachment) modality where the bulk of training (70 per cent) is to be provided at enterprises. This cooperative training system, also known as a dual training system, is intended to enhance the quality of training but also to expose candidates to the world of work, thus enhancing their employability prospects.

Cooperative training at the JPTC is carried out in collaboration with public and private enterprises. The college searches for industries that will accept to train students, and in exchange the enterprises receive training by the college through the industry extension programme, agreed by signing a memorandum of understanding.

Discussion with the JPTC representatives and enterprises indicated that the average duration of training at the workplace ranges between two and four weeks, depending on the type and length of the programme. Therefore, compared with the formal apprenticeship system, the cooperative training provided at the JPTC is too short. Teachers from the college accompany groups of students during the cooperative training, but our discussion revealed that trainers from the enterprises spend little time training the students, and in fact cooperative training seems to be merely an attempt to tick boxes for formality.

Our discussion also showed that most of the students coming for cooperative training have little interest in learning, and the majority seem to attend only so they can graduate. Enterprises rarely hire from the TVET system in general and students from the cooperative programme in particular. Similarly, our discussion suggested that most of the students use the TVET system to continue their education to higher degree levels. For example, a student who does not have the required grades to continue to preparatory programmes after grade 10 can attend TVET levels 1 and II then can continue to levels III–IV and beyond after completion.

According to our discussion with representatives of the enterprises and the college, some of the key challenges of implementing cooperative training include:

- ▶ The high cost of transportation for enterprises located far away from the college. The college has only one bus that is used for staff transportation and taking students to cooperative training.
- ▶ Lack of hiring enterprises for some programmes, such as cybersecurity.
- ▶ It is often difficult to find enterprises with equipment and training, as most of them are either micro or small.
- ▶ Some enterprises fear the students will become future competitors.
- ▶ Many industry trainers do not have competence certificates themselves.
- ▶ Some industry trainers request payment of per diem for supervising students.
- ▶ Even though former JPTC graduates offer cooperative training more willingly, most of those students are working in white-collar jobs.

TVET to work transition

The JPTC conducted the first tracer study of the 702 graduates from years 2017/8 and 2018/19 in 2020 and was able to trace half of them. The focus was on formal TVET graduates so does not include short-term graduates. 26 of the respondents were female. The result of the tracer study shows that only 29 per cent of the respondents were employed (either wage employment or self-employment) while the remaining 71 per cent were either unemployed or continuing further education. The employment rate for male and female graduates is comparable. The authors of the tracer study ascribe the high unemployment in the region to lack of labour market information systems, skills mismatch between the skill produced and those demanded by the market, and a lack of TVET-industry linkages. Among those out of employment, 44 per cent of male TVET graduates are continuing further education, while 33 per cent of female graduates are in further education.

There is also a huge disparity in employment rates between training programmes. Those who graduated in automotive, hotel and tourism, surveying and electronics had out-of-employment rates⁷ of more than 80 per cent a year after graduation. While also facing high unemployment rates, graduates in ICT, water, and manufacturing fare better in securing employment compared with the other fields. However, graduates in manufacturing only represent about 6 per cent of the total number of graduates.⁸

Among those employed, 75 per cent found a job through their personal network, for instance by contacting companies directly or using their own contacts. 11 per cent of employees found a job through the network established via cooperative training. Among those who did find jobs, 55 per cent were employed within a year, while the remaining 45 per cent had to wait a year or 18 months. A third of those who found jobs work in areas for which they are not trained. Moreover, 70 per cent of those who have jobs are employed by the government, while 8 per cent work in private enterprises and only 1 per cent found employment in an NGO. The authors of the JPTC tracer study underline that private enterprises prefer to hire informally trained workers. For those who wanted to start their own business, financial constrain was the most binding challenge.

Many graduates do not engage in the industry they are trained for after graduation. For example, many auto-mechanics graduates work as drivers.

Gender inclusiveness

Female students make up less than a third of students at the JPTC, at 29 per cent. Moreover, there is self-selection among female students, leaning towards the hotel industry (25 per cent), ICT (23.5 per cent), and agriculture (8.6 per cent) curricula. The programme attracting more male students are ICT (23 per cent), construction (9 per cent), electro-mechanical maintenance technology (8.5 per cent), surveying (8 per cent), agriculture (7.7 per cent) and automotive (7.4 per cent).

Refugee inclusiveness

The JPTC has not had refugee students in its formal programmes. However, up to 25 per cent of its trainees in the short-term programmes are refugees sponsored by NGOs. Most of its short-term programmes cater to groups of students organized by the municipality and woreda offices such as job creation, and MSE offices. In the case of refugees, NGOs cover the cost of short-term training. The Comprehensive Refugee Response Framework (CRRF) has been approved by the federal parliament but has not yet been implemented. Several NGOs are trying to engage in CRRF by sponsoring trainees in JPTC's short-term training programmes.

The JPTC does not charge qualified students in its formal programme. Hence, anyone that fulfils the entry criteria (grade 10 completion) is eligible for admission, without regard to their refugee status. This is a good practice.

IDP inclusiveness

Like any other individuals, internally displaced people in the region are eligible for formal training and short-term training. About 10 per cent of the short-term trainees are IDP.

7 We are using the term "out of employment" rather than unemployment as the latter excludes graduates who are currently in further study. Note that the TVET system was designed for people who would join the labour market or self-employment after graduation rather than continuing further education.

8 Manufacturing refers to general metal fabrication and assembly (GMFA) in the old curriculum (currently called mechanics, which includes welding, basic metalworking and machine operations).

PwD inclusiveness

The JPTC did not have any PwD among its students up until the academic year 2019/20, when it provided short-term training (45 days) in the garment industry for 40 PwD sponsored by BoLSA. They included people with physical and mental impairments. Another 30 received short-term training in garment-making (10 days), sponsored by a volunteer who lives in Germany and has a physical impairment himself.

For the academic year 2020/21 the JPTC is planning to train 40 PwD. However, the college needs funding to promote education for PwD, as an investment is needed to make the classrooms and workshops accessible to them. The instructors at JPTC also require technical and pedagogical competencies to successfully teach PwD.

Key challenges facing the JPTC

Some of the key challenges facing the JPTC in delivering quality training to students include the following.

- ▶ Facility shortage – old infrastructure and equipment. The buildings were built several years ago when the college was smaller. Even though the number of students increased, the number and size of buildings remain the same. Moreover, the college lacks modern machinery and equipment such as computers.
- ▶ Competence of teachers: their education is theory-based, even though TVET requires practical knowledge. Lack of depth as it is occupational standard based. “We are planning to provide a COC test for our teachers’ level-based knowledge and a skills test for knowledge and attitude. If [the tests are] failed, skill-gap training is provided in our college by those who are COC-certified.”
- ▶ “We are under capacity as there are many private colleges with low quality mostly providing courses in business and accounting.” Hence, students wanting to get business and accounting training need to go to private colleges. The JPTC has not been offering courses in business and accounting since 2003. They are planning to offer them in the academic year 2020/21

Degehabur TVET College (DTVETC)

The Degehabur TVET college started providing training in 2017/18) with 183 students. In 2019/20, the college had 51 students in its formal programmes and 264 in its short-term programme in seven departments, namely: water distribution system, ICT, building and electric installation, general metal fabrication, furniture making, garment and textile, and animal health. All students in the formal TVET programme are provided with boarding services within the college premises.

In addition to the three programmes in its formal division, the DTVETC also provided short-term training (often 45 days) training in the garment, general metal fabrication, furniture making, animal health extension, and construction industries.

The college is operating under capacity (at less than 50 per cent) owing to low demand, as there are not many secondary schools in the area.

► **Table 12. DTVETC 2019/20 number of students by programme and gender**

	Number of students					
	Level I			Level II		
	M	F	T	M	F	T
Water	41	31	72	8	3	11
ICT	49	29	78	14	5	19
Electrical	41	5	46	8	0	8
	Percentage					
Water	56.94	43.06	100.00	72.73	27.27	100.00
ICT	62.82	37.18	100.00	73.68	26.32	100.00
Electrical	89.13	10.87	100.00	100.00	0.00	100.00

Source: Computed using data obtained from the Somali Regional State Education, Vocational, Technical and Science Bureau.

► **Image 5. Garment workshop at the DTVEC**



Source: ©ILO/T.G. Tekleselassie.

Inclusiveness of training

- ▶ Only a third of the students in the formal programme are women. Trainers are overwhelmingly male, as only one out of the 64 trainers in DTVETC is female.
- ▶ The college trained two PwD in 2018/19 and one in 2019/20.
- ▶ No training has been provided to refugees, as they have not received any demand from them. There are no refugees in the surrounding woredas.
- ▶ The colleges provided short-term training to 180 IDP funded by Oxfam.

Cooperative training

Cooperative training is mostly given in collaboration with public institutions, notably city administration (water office, animal health office, and the cooperative office). Two furniture enterprises from the private sector provided training to the students.

Education to work transition

Most graduates go to work in local public offices or public enterprises. The link with the private sector is poor.

Key challenges

- ▶ Demand for enrolment is low as there are not many secondary schools in the area.
- ▶ Teacher's capacity: skill gap as they do not keep up with changing industry demand. Moreover, about 90 per cent of the teachers are B-level; only 3 per cent are A-level. Ideally, at least 30 per cent of the teachers should be A-level.
- ▶ Electricity: some machines need more electric power than the capacity available, and hence such machines are not in use (see Image 6).
- ▶ Shortage of training material: no labs for the water department, lack of soil for testing, lack of tools such as computers.
- ▶ Shortage of equipment to support teaching such as computers, internet access, and e-library.
- ▶ No trainers for some courses such as hotel and tourism (kitchen management and hotel operation).
- ▶ No medical clinic or emergency health services.
- ▶ Lack of transport service facilities for college staff members.
- ▶ Lack of awareness in the community about the benefits of TVET.
- ▶ Weak coordination of cooperative training.
- ▶ Lack of adequate credit for cooperatives formed by TVET graduates leads to their collapse.

▶ **Image 6. Machinery not in use due to shortage of electric power.**



Source: ©ILO/T.G. Tekleselassie.

1.2.3 The TVET system in the Tigray region: Mapping of TVET providers

The Tigray region has 45 public TVET colleges and polytechnic colleges in its 54 woredas, 28 of which do not have a TVET college. In 2021 the woredas are being restructured and their numbers will increase significantly, meaning there will be more woredas without a TVET college.

Formal training is offered by 85 private TVET colleges and centres in the region, of which 63 training centres have accreditation to offer short-term training (see Table 13 for a summary of the types of TVET institutions in Tigray region).

The public TVET colleges in the Tigray region are categorized geographically into the Southern Cluster, Mekelle Cluster, Central Cluster, Eastern Cluster, and Western Cluster. The Western Cluster covers the Western and North-Western zones of the region.

► **Table 13. Types of TVET colleges in the Tigray region**

Ownership	Type	Number
Public TVET colleges and polytechnics	TVET colleges and polytechnics	45
Private: formal training	Polytechnics	1
	Colleges	35
	Training centres	49
Private: short-term training	Training centres	63
Total		193

Source: Tigray Regional State TVET Agency.

The list of public TVET colleges in the North-Western zone of the Tigray region is shown in Table 14. The private TVET colleges and training centres, including those managed by NGOs, in the North-Western zone of the Tigray region (the focus assessment) are listed in Table 22, in the Appendix.

► **Table 14. Public TVET colleges in the North-Western zone of the TRS**

College name	Location	Remark
Sheraro College	Sheraro	TVET
Shire Agricultural College	Shire	TVET
Shire Polytechnic College	Shire	TVET Polytechnic
Selekleka College	Selekleka	TVET
Endabaguna	Endabaguna	TVET
Mai-Tsebri College	Mai-Tsebri	TVET

Source: Tigray Regional State TVET Agency.

The TVET system in the TRS envisions TVET graduates to be self-employed rather than being wage employees. This is the case in the rest of the country. Hence, the TVET colleges in cooperation with woreda MSE offices attempt to organize TVET graduates in cooperatives to start their own business and facilitate credit provision and working spaces.

The TVET colleges in the Tigray region and the TVET Bureau indicated that they conduct tracer studies of their graduates and labour market needs assessments. However, both at college and bureau levels, the studies and assessments are lacking in quality and clarity. Local government offices are heavily represented in the interviews of the labour market assessments which may therefore be biased and not reflect the actual situation. The reports produced can rarely inform about the skills mismatches in the labour market, and there is no indication that those reports have been used as inputs for curriculum and programme development in the colleges. There are clear skill and capacity gaps in conducting labour market assessments.

NGOs have been involved in the provision of training for host communities and refugees in Tigray. GIZ and the Norwegian Refugee Council (NRC) are typically active.

GIZ is involved in the employment promotion of TVET graduates for both host communities and refugees through its IEPP and has linked about 50 TVET graduates in the Tigray region with enterprises in the form of paid internships. GIZ pays the basic salaries of these interns for six months, after which the enterprise has the option of hiring them or not. So far, all IEPP participants have been locals, but there is a plan to include refugees in future programmes.

The NRC Youth Education Pack (YEP) provides training to refugees (50 per cent) and host communities (30 per cent) in the Mai-Ayni and Adi-Harush refugee camps. Training often takes six to ten months and is equivalent to level 1 TVET programmes. The training programmes include IT, garment making, electrical installation, construction, hotel kitchen operations, basic metalwork and furniture making. The criteria for selecting individuals for training include age, gender, and level of disability. Priority is given to those aged 15 to 25, female, and PwD.

ZOA International is another NGO active in Tigray in funding the training and employability improvement of refugees and members of the host community.

1.2.4. The TVET system in the North-Western zone of the Tigray Regional State

Mai-Tsebri TVET College (MTVETC)

The Mai-Tsebri TVET College started operation 2016/7 with three programmes, namely, IT, accounting and construction. In 2019/20, it had 512 students in its formal training programme (levels I–IV) and 563 students in its short-term programme. The college operates under capacity owing to a lack of demand. In 2019/20, the college provided training at 65 per cent capacity in its formal programme and 28 per cent in its short-term programme. The average for the Western Cluster was 85 per cent and 22 per cent respectively. The regional averages were 74 per cent and 31 per cent.

The major training programmes offered in the MTVETC are auto-mechanics, construction, metalworking, furniture making, IT support services, database administration, accounting and cadastral survey administration.

Inclusiveness of training

Female students account for more than 50 per cent of the total (Table 15). However, there is a difference in programme enrolment by gender. While the auto-mechanics programme is dominated by men, programmes such as IT support service, Industrial Electrical Machine Drive (IEMD), database administration and cadastral surveying are dominated by female students. The short-term training programme in 2019/20 focused on ranching, poultry, cobblestone making, goat and sheep farming, and dairy farming. Training in ranching was particularly dominated by women.

► **Table 15. Mai-Tsebri TVET college enrolment**

	Male	Female	Total	Percentage from planned (%)		
				Mai-Tsebri	Western Cluster average	Regional average
Formal training	203	309	512	65	85	74
Short-term	140	423	563	28	22	31

Source: Tigray TVET Bureau.

In 2019/20, four PwD received training in the short-term programme. In the two previous years, two students with disabilities attended the training programmes.

The college provides training for refugees in its short-term programmes in collaboration with NGOs. In 2017/18 65 refugees were trained and in 2018/19 90 refugee students, in two rounds.

Cooperative training

Enterprises can come to the college to use some of the machinery in return for providing cooperative training to the students. The college also provides maintenance services for machinery in the enterprises.

In 2019/20, about 45 per cent of the planned cooperative training materialized. However, the Western Cluster average was 70 per cent while the regional average was 56 per cent.

The college provides training to prospective graduates in life skills, entrepreneurship, and business planning. It also works with the MSE office and youth office to organize graduates in cooperatives and obtain the necessary support, such as credit and working premises.

The college focuses on the self-employment of its prospective graduates.

There is a skills mismatch: while the college focuses on the training of technical skills for industries, jobs tend to be available for business and accountancy graduates. However, since the federal and regional TVET policies focus on programmes relevant to industries, the college has difficulty changing to programmes with better job prospects, such as accounting and business.

Challenges in cooperative training

- Enterprises are too small.
- Some enterprises are afraid of risk when giving access to their machinery to students, but the trend is changing.

General challenges facing the college

- Low competence of teachers, and some skills are in short supply such as electronic maintenance. Most of the teachers are C-level.
- Shortage of equipment. For instance, the cadastral survey department, which requires computers for its labs, does not have any. As such, they try to use the computers in the IT department when they are vacant. Moreover, most instructors do not have laptops.
- Shortage of transportation for staff and students going to cooperative training.

Education to work transition

Out of 179 graduates (43 per cent women) in the formal programmes in 2019, about 54 per cent found jobs. Out of these, 43 per cent were in government, 49 per cent non-governmental (including the private sector), while 8 per cent set up their own business individually. None were organized in a cooperative despite the college's focus on cooperatives. Men were more likely to find jobs (69 per cent) than women (35 per cent).

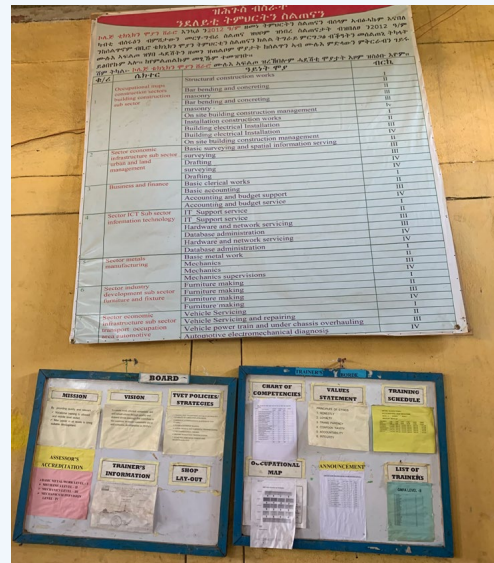
For short-term trainees, out of the 563 graduates in 2019, about 42 per cent found jobs, all of them organized in cooperatives.

Sheraro TVET College (STVETC)

The Sheraro TVET College was established in 2002 with two teachers and seven students in two programmes: IT and secretarial science. The college has expanded rapidly ever since, especially after 2007, and by 2020 had 7 programmes and 44 teachers, 90 per cent of whom are B-level. Figure 7 shows a noticeboard indicating new programmes accredited by the regional TVET bureau and inviting applicants to enrol. Image 8 shows the storeroom for tools, organized following the Kaizen system of property handling.

In the academic year 2019/20, the college had 888 students in its formal programmes (levels I-IV), with female students accounting for more than 50 per cent (Table 16). The types of programmes offered at the Sheraro TVET College in the same year are shown in Table 17.

► Image 7. Noticeboard for newly accredited programmes and call for applicants



Source: ©ILO/T.G. Tekleselassie.

► Image 8. Storeroom at STVEC



Source: ©ILO/T.G. Tekleselassie.

► **Table 16. Enrolment in Sheraro TVET college**

	M	F	Total	Percentage planned (%)		
				Sheraro	Western Zone average	Regional average
Formal training	382	506	888	89	85	74
Short-term	455	640	1095	16.5	22	31

Source: Tigray TVET Bureau and Sheraro TVET College.

► **Table 17. Types of programmes offered at Sheraro TVET College**

Programme	Short-term	Formal			
		Level I	Level II	Level III	Level IV
Structural construction works	✓	I			
Bare bending and concreting	✓		II		
Bare bending and Bamboo concreting	✓			III	
Masonry	✓		II		
Masonry	✓			III	
On-site building construction management	✓				IV
Installation construction works	✓	I			
Building electrical installation (BEI)	✓		II		
Building electrical installation (BEI)	✓			III	
Basic surveying and spatial information services	✓		II		
Surveying	✓			III	
Surveying	✓				IV
Drafting	✓		II		
Drafting	✓			III	IV
Automotive power train and under- chassis servicing	✓	I			
Power train under chassis Light Duty	✓		II		
Power train under chassis Light Duty	✓			III	
IT support service	✓	I			
IT support service	✓		II		
Hardware and networking service	✓			III	

Source: Tigray TVET Bureau and Sheraro TVET College.

Cooperative training

In 2019/20 about 25 per cent of planned cooperative training materialized. However, the Western Cluster average was 70 per cent while the regional average was 56 per cent.

Discussion with college representatives indicated that cooperative training saves the college resources as the students gain access to machinery that is not available in the college.

FGDs with MSE indicated that cooperative training provided them with free labour. It has created an opportunity for TVET–industry cooperation, and also gives students the chance to network when looking for jobs.

Challenges in the provision of cooperative training

- ▶ Small number of enterprises means that some get too many trainees: one hotel had to close its operation for a day to train students.
- ▶ Some enterprises refuse to give cooperative training.
- ▶ Many firms are too small.

Inclusiveness

Males and females have comparable access to training at the Sheraro TVET College; there are no students from the refugee community.

Five PwD trained in the formal programme in 2019/20, while 50 were trained in the short-term programme. However, these training programmes are not tailored for PwD. The instructors require technical and pedagogical competencies to successfully teach PwD.

Education to work transition

Out of 132 graduates in 2019 (35 per cent were women), about 34 per cent found jobs, and of these, 36 per cent were in government, 8 per cent non-governmental (including the private sector), while less than 56 per cent set up their own business individually. None were organized in a cooperative, despite the college focus. Men were more likely to find jobs (69 per cent) than women (35 per cent).

For short-term trainees, out of the 1,095 graduates in 2019 about 47 per cent found jobs, and among these, 95 per cent were organized in cooperatives.

General challenges

- ▶ Shortage of classrooms and workshops.
- ▶ Shortage of books in the library.
- ▶ Old machinery. This has become particularly problematic as some of the competence tests require modern machinery that does not exist in the college.
- ▶ Shortage of tools in some departments such as GMFA and Surveying Technology
- ▶ Teacher competence: occupational standards change frequently so there is a need for a short training update for the teachers.
- ▶ Transport: no vehicle for staff transportation or to take students to an enterprise for cooperative training.
- ▶ Shortage of water; some workshops do not have access to water.

▶ 3

Key challenges of inclusiveness of the TVET system

▶ 3.1 Challenges of inclusiveness of the TVET system in the Somali Regional State

Female Participation in the TVET system

In terms of gender, the assessment of the TVET system in the Fafan and Degehabur zones of the Somali region shows that female participation in TVET training is limited to about a third of the students. There is polarization in terms of the fields of training where women and men participate. Female participation in departments such as surveying, manufacturing, furniture making, and auto-mechanics is very low, while it is higher in ICT and hospitality training.

Moreover, upon graduation, female students face lower employment prospects than men. While men who graduated from TVET and who are not working are more likely to attend further education, female graduates of TVET who have not found work are more likely to be engaged in household or family affairs. Hence, there is a risk of skill loss for female graduates who are not working. In addition, students at private TVET colleges are overwhelmingly male, suggesting that financial barriers prevent women from attending private TVET colleges.

There is a gender gap in terms of TVET participation of women, not only as trainees but also as trainers. Overall, less than 20 per cent of the trainers in the Somali region TVET system are women.

Refugees in the TVET system

Neither the JPTC nor the DTVETC have had refugee students in their formal programmes. However, up to 25 per cent of trainees in the short-term programmes at the JPTC are refugees sponsored by NGOs, which cover their costs. The CRRF that has been approved by the federal parliament has not yet been implemented in the Somali region, but several NGOs are trying to engage in CRRF by sponsoring trainees in JPTC's short-term training programmes.

No training has been provided to refugees at the DTVETC as no demands have been received from them. There are no refugees in the surrounding woredas. Consequently, there remains a gap in terms of refugees accessing the formal TVET system.

One key challenge to admitting refugees into the formal TVET system is that it is difficult for the college to determine the grade 10 equivalent of refugees who studied or started their studies abroad. Obviously, this does not affect those who completed grade 10 in Ethiopia. The lengthy process of grade conversion for refugees is carried out by the MoE.

IDP in the TVET system

Like any other individuals, IDP in the region are eligible for formal and short-term training. About 10 per cent of the short-term trainees at JPTC in 2019/20 were IDP. The DTVETC provided short-term training to 180 IDP funded by Oxfam.

Given that the Somali region has one of the highest numbers of IDP owing to conflicts and natural disasters, the number of students getting access to the TVET system is low.

There is a need for collaboration among government agencies in charge of IDP and the TVET system to improve access to formal and short-term training for IDP. Moreover, since IDP are new to the area, the heavily network-based worker recruitment does not favour them in terms of accessing jobs. Hence, IDP face even starker employment prospects than locals. Many locals who do not find jobs continue to study to enhance their prospects. IDP, who face even bleaker financial prospects, are less likely to afford further education.

PwD in the TVET system

The JPTC did not have students among PwD until the academic year (2019/20), when the college provided short-term training in garment making for 40 PwD sponsored by BoLSA. Another 30 were given short-term training sponsored by a volunteer who lives in Germany and has a physical impairment himself. Similarly, the DTVETC trained 2 PwD in 2018/19 and 1 in 2019/20. For the next academic year 2020/21, the JPTC is planning to train 40 PwD.

Some college classrooms and workshops were not built with PwD in mind as many have stairs, and other amenities, such as bathrooms, are not adapted for PwD. In addition, training materials are limited, such as textbooks in Braille. The instructors require technical and pedagogical competencies to teach PwD successfully.

► 3.2 Challenges of inclusiveness of the TVET system in the Tigray Regional State

Female participation in the TVET system

The assessment of the TVET system in the North-Western zone of the Tigray region shows that female participation in TVET training is on a par with male students when considering recent enrolment data. However, data on graduates shows that female students are less well represented. For example, in 2019, female graduates represented 43 per cent and 35 per cent in the Mai-Tsebri and Sheraro TVET colleges, respectively.

The fields of training are polarized for men and women. Female participation in manufacturing, furniture making and auto-mechanics is very low, and shows a preference for ICT and business or accounting.

Moreover, upon graduation, female students face lower employment prospects than men. For example, among the 2019 graduates, there were more job openings for men (69 per cent) than for women (35 per cent), implying that more support is needed for women in the transition from training to education.

Refugees in the TVET system

Neither the Mai-Tsebri nor Sheraro TVET colleges have had refugee students in their formal programmes. However, MTVETC provided training for refugees in its short-term programmes in collaboration with NGOs. In 2017/18 it provided training for 65 refugees and in 2018/19 for 90 refugees in two rounds. It also sends some of its instructors to teach at the Mai-Ayni TVET college when invited.

No training has been provided to refugees at the STVETC, as no demands have been received. There are no refugees in the surrounding woredas.

Thus, it can be seen that there is a gap in terms of refugees accessing the formal TVET system.

A key challenge for the admission of refugees to the formal TVET system is that it is difficult for the college to determine the grade 10 equivalent of refugees who studied to that level outside Ethiopia. The MoE is responsible for carrying out the lengthy process of grade conversion.

IDP in the TVET system

Like any other individuals, IDP in the region are eligible for formal and short-term training. Most of the IDP come from the neighbouring Oromia region.

There is a need for collaboration among government agencies in charge of IDP and the TVET system to improve access to formal and short-term training for IDP. Moreover, since IDP are new to the area, the heavily network-based worker recruitment does not favour them, and for that reason they face even starker employment prospects than locals. Many locals who do not find jobs continue to study to improve their prospects, while IDP are less likely to be able to afford further education.

PwD in the TVET system

In 2017 and 2018, two students with disabilities attended the training programmes each year. In 2019/20, four PwD were offered training in the short-term programme at MTVETC. In the STVETC, five PwD trained in the formal programme in 2019/20. In the short-term programmes, 50 people with disabilities were trained, with the support of the woreda jobs creation office.

However, there does not seem to be a system that caters to PwD or gives them encouragement. The colleges lack suitable facilities and programmes designed for PwD.

Some of the classrooms and workshops are not convenient for PwD as they are scattered over the compound, and other amenities such as bathrooms are not suitable for PwD. Support material is limited and there are no textbooks in Braille. The teachers are not trained in methods and approaches that aid PwD, and require more technical and pedagogical competencies to teach PwD successfully.

▶ 4

Skills recognition system

▶ 4.1 System for the recognition of qualifications

Formal programmes in the TVET system in the Somali and Tigray regions require the completion of grade 10 national exams in line with the national education policies,⁹ which means that anyone completing grade 10 has had access to the formal TVET system as long they have a national identification card.

Refugees who have completed secondary school abroad (the equivalent of Grade 12 in Ethiopia) can access TVET. However, students who have not finished secondary school in their countries were expected to first enrol in grade 10 in Ethiopia (or pass the grade 10 national exam) and complete it before they can access the TVET system. The credentials of students who have evidence of completion of grade 10 or 11 in their respective countries will have to be verified by the federal MoE before they can be admitted to formal programmes in the TVET system. This process is lengthy and discourages students from accessing the formal TVET system in Ethiopia. It has also been a bureaucratic nightmare for the TVET colleges themselves when approached by prospective students from the refugee community. However, students applying to the TVET colleges for formal training are few. For the 2020/21 academic year and thereafter, the TVET system will only accept students who complete grade 12. It is uncertain what the entry requirement will be for refugees who completed high school abroad.

Short-term programmes in the TVET system do not require any prior qualification. In both regions, they are generally administered by woredas or other local government offices and NGOs, who usually bring a group of trainees to the colleges. It is not common for individuals themselves to approach the colleges

⁹ Note that the education system of Ethiopia was changed in 2020 and the national exam in grade 10 was abandoned. Hence, the TVET college will have to admit only students who complete grade 12.

for short-term training. The college agrees with the offices and NGOs to offer the training and settle the budget. The JPTC, DTVETC and MTVETC have had short-term trainees from the refugee community sponsored by NGOs.

In principle, anyone can take competence exams without prior qualifications, but it is not common for individuals in general or individual refugees to approach the TVET colleges to take a competence exam. Most of the competence exams are offered to TVET graduates, local government staff and staff members from the enterprises (industry).

► 4.2 Recognition of prior learning system to access the labour market

Our discussions with nine firms in the target areas of the Somali region and eleven firms in the Tigray region indicated that they rarely hire TVET graduates. Most of the firms hire operators who were informally trained within the firm or other enterprises. However, COC does not seem to be a requirement the MSE are looking for when recruiting workers.

The firms rarely hire students who stayed with them as part of the cooperative training. The general thinking is that TVET students prefer either white-collar jobs or employment in large firms, or simply use TVET training to qualify eventually for enrolment in universities. Moreover, the TVET colleges focus on organizing the TVET graduates into cooperatives in collaboration with local MSE offices rather than preparing them for wage employment in the local MSE.

Our discussions with the TVET college deans and outcome-based training (OBT) directors, as well as enterprises, showed that the success rate of TVET graduates in self-employment (in the form of cooperatives or individual basis) is very low. The discussion with enterprises showed that the TVET graduates formed as cooperatives are rarely sources of competition for them, as they usually break up without taking off. The lack of interest among TVET graduates in self-employment and the lack of practical experience on how to conduct business are mentioned as the reasons for the low success rate.

Lack of experience and inadequacy of support in Business Development Services (BDS) is considered the main reason for the low success rates of MSE formed by TVET graduates in target areas in the Tigray region. In the Somali region, our discussion with the JPTC indicated that the success rate of cooperatives is better if formed, but there is a lack of interest among TVET graduates to engage in self-employment, as they prefer white-collar jobs or prefer to continue further education rather than join the world of work.

Hence, MSE mainly source their workers among those with experience in other enterprises or those trained within them as a formal or informal apprenticeship. Most of the trainees in the informal apprenticeship come through family networks and acquaintances, so that it appears that informal apprenticeship and the experience acquired through it is valued more than formal qualifications among enterprises.

While not a common practice, having a certificate of competence is also viewed as an important indicator of qualification by some enterprises we spoke with. Some of these, especially those who were former students of the colleges, are also involved in conducting COC tests in collaboration with the TVET colleges. Skills informally acquired outside the formal TVET system can be assessed and certified using the COC tests under regional COC agencies, based on the national occupational standards.

Provision of COC tests for the industry in collaboration with COC agencies is also a mandate of the TVET colleges. When preparing annual targets, the colleges also set targets for COC exams for their students and the industry, particularly MSE. However, performance in terms of COC tests provided to the industry remains very low, and therefore the awareness among MSE about the value of competence remains low.

▶ 5

Suggested recommendations on capacity gaps to fill for an inclusive TVET service

In this section, we provide recommendations based on the key challenges identified in the previous sections. We discuss recommendations that enhance the inclusiveness of the TVET systems in the Somali and Tigray regional states in the short and medium terms. Since the basic challenges are common to the two regions, the recommendations are relevant for both regions. An action plan for implementing the recommendations is provided in Annex 1.

▶ 5.1 Short-term recommendations

- ▶ Invest in digitalization of the colleges – the colleges have a shortage of computers, laptops and e-libraries.
- ▶ TVET colleges should collaborate with associations of PwD to cater for their needs, specifically:
 - ▶ invest in making the campuses accessible to PwD – build pathways for them as some buildings and workshops have stairs;
 - ▶ invest in improving toilet facilities with running water, as this is especially important for women and PwD;
 - ▶ train instructors at the colleges in technical and pedagogical skills that help to teach PwD successfully.
- ▶ Introduce ways of converting qualifications of refugees into national equivalent at the college level without having to send them to the MoE. This can be done in collaboration between the regional TVET bureau, the MoE, the Ministry of Science and Higher Education, and the Agency for Refugees and Returnees Affairs (ARRA) to enhance the enrolment of refugees in the formal TVET system.

- ▶ Create awareness among refugees about TVET opportunities and assist them with registration in TVET colleges in collaboration with ARRA.
- ▶ Include refugees, IDP and PwD in the enrolment targets of colleges, which currently aim mainly to balance gender parity.
- ▶ Implement the 2019 Refugee Law by way of directives, so that local institutions can implement it. Refugees have difficulty obtaining work permits and licences such as a driving licence, as regional authorities do not seem to be aware that the refugees have the right to work. Several refugees have obtained training from NGOs and organized themselves into cooperatives. Some of them also received financial aid and assistance to acquire working premises. However, they struggle to transport their products as they are not allowed to drive. There is also a need to create awareness among the community that refugees are now allowed to work in the country, so that suppliers and buyers can feel comfortable in creating linkages with MSE owned by refugees.
- ▶ Link the TVET system with the EIIP. In the study areas, these programmes could provide internship opportunities for TVET graduates and eventually employ them or provide sub-contracts for those organized in cooperatives. This could enhance the employability of the TVET graduates as they get practical experience during the apprenticeship programme.
- ▶ Embed core employability skills in the TVET system through learning approaches that encourage communication, team work, creativity and problem-solving, among others. TVET focuses on technical skills, while some form of core skills focusing on job search methods are provided in an ad hoc manner after graduation. Moreover, the TVET colleges told us they give business training to all TVET graduates. However, this training lacks depth and is not tailored to their needs.
- ▶ Expand the internships system in addition to the existing cooperative system. The cooperative system provides a chance for students to train in enterprises before finishing their education. An internship system that mandates TVET graduates to receive exposure about the world of work can help build trust with employers and enhance employability. NGOs and government can subsidize the programme by partially paying the salaries of the interns for a few months, after which the firm can decide to hire them or not. GIZ, in its IEPP, has linked about 100 TVET graduates (about 50 in the Somali region and 50 in Tigray region) with enterprises by paying the basic salary of the graduates for six months on behalf of the enterprises. The enterprises have the option of hiring the workers at the end of the six months if they choose to do so. This will be particularly important for female graduates, refugees, IDP and PwD as they have less established networks and contacts in the labour market. Such programmes could be implemented in both regions, focusing on members of the host communities and refugees as part of the CRRF funded by development partners.
- ▶ Strengthen career guidance in TVET colleges. These departments are under-staffed, with only one career guidance professional each, whereas our discussion showed that there should be at least five in each college. They need to guide students effectively on the job prospects of the programmes and what they can expect from each of them. They also need to guide graduates about jobs and employability by training them on how to write a CV, how to apply for jobs and how to contact BDS providers.
- ▶ Strengthen Public Employment Service (PES) providers in both regions. PES offices and licensed Local Private Employment Agencies (LPEAs) register jobseekers and aim to match them with any vacancies available. Our discussion with the Somali BoLSA indicated that jobseeker registration and placement in the Somali region began only in 2020, and so PES is very weak, as it is also in Tigray.

► 5.2 Medium-term recommendations

- New facilities such as classrooms and workshops should be designed to be suitable for PwD.
- Provision of transportation services for staff and students doing cooperative training. Some of the enterprises that provide cooperative training are located far away from the colleges.
- Priority in providing boarding facilities for women, IDP and refugees. The JPTC is constructing dormitories for students coming from surrounding woredas. Upon completion (after 2021) priority should be given to refugees, IDP, PwD and host communities. Degehabur already has boarding facilities for its formal TVET students. However, refugees and IDP are not benefiting, as their participation in the formal programmes remains low. The colleges in Tigray do not provide dormitory and boarding facilities to students. As part of the CRRF, development aid agencies can invest in providing boarding facilities for refugees and IDP in both Somali and Tigray regional states, as they have a high number of refugees.
- The focus of the TVET system has been on self-employment by organizing graduates in cooperatives. There is a need to re-orient the TVET system to include targeting employment in existing enterprises. This can be done in collaboration with the regional TVET bureaus. To implement this, there will be a need to enhance the TVET–industry linkage. The colleges will need to include industry representatives in the curriculum and programme development to ensure the skills that are in demand in the market. The current labour assessment system lacks quality but is also focused on the needs of public institutions.
- More autonomy should be provided to colleges to design the programmes of study. Even though the colleges claim that their programmes are based on tracer studies and labour market assessment, we have understood that colleges continue to provide training programmes based on the national priority rather than the local market demand. Some TVET colleges continue to offer programmes even if there is no local demand.
- The colleges and the TVET bureau have capacity and skill gaps in conducting tracer and labour market assessment studies, which lack depth in their analysis. Moreover, there is no evidence that the colleges base their programmes on these studies, as skills mismatch and unemployment of TVET graduates remain an issue.
- There is a capacity gap in TVET system management at the regional TVET level. The staff at the SRS Education, Vocational, Technical and Science Bureau can benefit from capacity-building training on how to conduct tracer studies and labour market assessment at regional and municipality levels. A properly conducted labour market assessment at these levels can provide additional information on skill demand that the TVET and polytechnic colleges can use as an input in designing curricula and programmes.
- Data on the labour market by PES is incomplete, not regularly updated, and fragmented nationwide. The Somali region started recording jobseekers only in 2020. Moreover, jobseeker registration is done only for those who approach BoLSA. Owing to the absence of active support for jobseekers, the incentive to register as a jobseeker at the BoLSA and woreda offices is low. Hence, the BoLSAs in both Somali and Tigray regions and their local counterparts (woreda branches) can benefit from capacity-building training on active labour market policies such as jobseekers and vacancy registrations and job placement.

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7.1 Appendix

► **Table 18. Institutions interviewed in the Somali region**

	Name of institute	Type
1	SRS Education, Vocational, Technical and Science Bureau	Government
2	SRS Bureau of Social and Labour Affairs	Government
3	SRS Centre of Competence	Government
4	Jigjiga Polytechnic College	Public College
5	Degehabur TVET College	Public College
6	GIZ	NGO
7	Jigjiga Garage	Enterprise
8	Liben floor factory	Enterprise
9	Amin Garage	Enterprise
10	Abdul Woodwork	Enterprise
11	Sabati Garment	Enterprise
12	Global Metal and Wood Work	Enterprise
13	Hooemaal Furniture	Enterprise
14	Bilen Bakery	Enterprise
15	Hassen Wali Hotel	Enterprise

► **Table 19. Institutions interviewed in the Tigray region**

	Name of institute	Type
1	Tigray TVET Bureau	Government
2	Tigray Bureau of Social and Labour Affairs	Government
3	May-Tsebri TVET College	Public College
4	Sheraro TVET College	Public College
5	YEP – NRS	NGO
6	GIZ	NGO
7	ZOA	NGO
8	Berihu Garage	Enterprise Mai-Tsebri
9	Zenebe Metalwork	Enterprise Mai-Tsebri
10	Teshale Abraham Furniture	Enterprise Mai-Tsebri
11	Global Metal and Wood Work	Enterprise Mai-Tsebri
12	Tadele Furniture	Enterprise Mai-Tsebri
13	Metal Work Cooperative	Enterprise Sheraro
14	Michael Construction	Enterprise Sheraro
15	Andom Construction	Enterprise Sheraro
16	Tesfay Seyoum Hotel	Enterprise Sheraro
17	Full Night Soap	Enterprise (Eritrean refugees supported by ZOA) Shire
18	Tsega Shop	Enterprise (Eritrean refugee supported by ZOA) Shire

► **Table 20. Public TVET colleges and their training programmes in the SRS**

	Name of college	Occupation/programme
1	Filtu TVETC	<ul style="list-style-type: none"> • Cooperative • Water • Construction • Building electrical installation • ICT • Garment • Crop production • Animal production
2	Godey PTC	<ul style="list-style-type: none"> • Animal health • Animal production • Crop production • Natural resource management • ICT • Agricultural cooperative • Furniture making
3	Godey HSC	<ul style="list-style-type: none"> • Health caregiver • Laboratory • Pharmacy • Nurse • Midwifery
4	Fiiq TVETC	<ul style="list-style-type: none"> • Electric • Natural resource management • Water supply • ICT • Animal health • Basic agriculture
5	Jarati TVETC	<ul style="list-style-type: none"> • ICT • Animal production • Natural resource management • Animal health • Water • Cooperative • Building Electrical Installation (BEI) • Automotive • Furniture • General metal fabrication and assembly • Structural Construction Works (SCW)
6	Moyale TVETC	<ul style="list-style-type: none"> • ICT • Cooperative • Natural resource management • Animal production • Water resource • Electricity • Automotive • Manufacturing • Structural construction
7	Qebridgehar Health Sciences College	<ul style="list-style-type: none"> • Nurse • Midwifery • Medical laboratory • Pharmacy
8	Q/dahar TVETC	<ul style="list-style-type: none"> • Water • Agriculture • Building electrical installation • ICT • Furniture • General metal fabrication • Automotive • Crop production • Animal production
9	Jigjiga HSC	<ul style="list-style-type: none"> • Comprehensive nurse • Comprehensive midwifery • Pharmacy technician • Lab technician • Nursing assistant • Lab assistant • Pharmacy assistant • Health Information Technology (HIT)
10	Jigjiga PTC	<ul style="list-style-type: none"> • ICT • Agriculture • Electric • Electro-mechanical maintenance technology • Water system distribution • Water and sanitation system construction • Automotive • Garment • Construction • Hotel • Furniture • General metal fabrication and assembly • Surveying • Bar bend • Hotel kitchen operation • Industrial electrician machine and drive servicing • Building electrical installation
11	H/Gala TVETC	<ul style="list-style-type: none"> • Water • Crop • Natural resource management • Automotive • Electric • ICT • Textile • Construction
12	Wardher TVETC	<ul style="list-style-type: none"> • Water • Furniture • ICT • Building electrical installation • Construction • General metal fabrication • Automotive
13	Degehabur TVETC	<ul style="list-style-type: none"> • Water • ICT • Electrical
14	Management Institute	<ul style="list-style-type: none"> • Accounting • Human resource management

Source: SRS Education, Vocational, Technical and Science Bureau

► **Table 21. Private colleges and their training programmes in the SRS**

	Name of college	Occupation
1	Ilays	ICT
		Human resource management
		Accounting
2	Liban Health Science College	Pharmacy
		Clinical
		Accounting
3	East Africa	Clinical nurse
		Human resource management
4	Horn	Healthcare giving
		Nursing assistant
		Nurse
		Human resource management
5	Liberty	ICT
6	Rift Valley	Health
		Business

Source: SRS Education, Vocational, Technical and Science Bureau.

► **Table 22. TVET colleges and training centres in the North-Western zone of the TRS**

	Name	Location	Levels provided	Ownership	Type
1	Oxford College	Shire	I–IV	Private	Formal
2	Soloda College	Shire	I–IV	Private	Formal
3	Ethio-Lens College	Shire	I–IV	Private	Formal
4	Lolik College	Shire	I–IV	Private	Formal
5	Sun Daero College	Shire	I–IV	Private	Formal
6	Miracle College	Adi-Daero	I–IV	Private	Formal
7	Dedebit College	Sheraro	I–IV	Private	Formal
8	New Line Training Centre	Mai-Tsebri	I–II	Private	Formal
9	Wuqyanos Training Centre	Shire	I–II	Private	Formal
10	Blessed Nimeshiawumen Training Centre	Shire	I–II	Private	Short
11	Hair Styling Shire-Addis	Shire	II	Private	Short
12	Innovative Humanitarian Solutions	Shimelba (refugee camp)	I–II	NGO	Short
13	Teklehiwot Garment and Textile Training Centre	Shire	I–II	Private	Short
14	Adi-Harush Training Centre	Adi-Harush (refugee camp)	I–II	NGO	Short
15	HITSETS Training Centre	HITSETS (refugee camp)	I–II	Private	Short
16	Mai-Ayni Training Centre	Mai-Ayni (refugee camp)	I–II	NGO (NRC)	Short
17	Habesha Video and Fild Training Centre	Shire	CB ¹⁰	Private	Short
18	Tsega Kahsay Beauty Training Centre	Sheraro	II and CB	Private	Short
19	Samrawit Beauty Training Center	Sheraro	II and CB	Private	Short
20	Hiwot Beauty Training Centre	Sheraro	II and CB	Private	Short
21	Sole Garment Training Centre	Shire	II	Private	Short
22	Tamene Beauty Training Centre	Sheraro	II	Private	Short
23	Amanuel Welding Training Centre	Shire	II	Private	Short
24	Kibrom Beyene Leather Training Centre	Shire	II CB	Private	Short
25	Yodit Tesfu Beauty Training Centre	Shire	II CB	Private	Short
26	Ni Wedey Food Preparation Training Centre	Shire	II CB	Private	Short
27	Kibrom Beyene Construction Training Centre	Shire	II CB	Private	Short
	Amanuel Construction Finishing Training Centre	Sheraro	CB	Private	Short
28	Ashenafi Amare Construction Finishing Training Centre	Shire	CB	Private	Short
29	Solomon Garment Training Centre	Shire	I CB	Private	Short
30	Sayat Hair Styling Training Centre	Shire	II CB	Private	Short
31	Tsegay Hair Styling Training Centre	Shire	II CB	Private	Short
32	Solomon Hailu Food Preparation Training Centre	Shire	I CB	Private	Short
33	Solomon Gebreselassie Garment Training Centre	Shire	I CB	Private	Short

Source: Tigray TVET Bureau.

¹⁰ CB refers to competence-based



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