



STANDARDS REQUIREMENTS FOR OUTCOME BASED INCLUSIVE TVET SYSTEM IMPLEMENTATION FOR TVET TRAINING PROVIDERS



PROGRAM ACCREDITATION DIRECTIVES

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Preface

The Technical and Vocational Education and Training Agency has developed a Standard Requirements for Outcome Based Training TVET System Implementation with the aim of accrediting TVET programs and to provide information to the training providers and stakeholders about the standards. It provides standards to ensure quality delivery of TVET training programs which would also guide training providers on what to do and expect from accreditation.

The Federal TVET Agency hopes for the users to gain from the informations as provided for in this document.

Acknowledgment

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Finally, we express special thanks to Regional experts and FENAPD in setting the last inclusive standard requirements and the FTVETA's special acknowledgement to the support of ECDD organizations in providing per diem for the participants.

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Acronyms

- DPO - Organization of Persons with Disabilities
- ECDD – Ethiopian Center for Disability and Development
- EOS Ethiopian Occupational Standard
- FENAPD-Federation of Ethiopian National Associations of Persons with Disabilities
- FTA Federal TVET Agency
- ILO International Labor Organization
- MoU Memorandum of Understanding
- MSE Micro and small enterprise
- NQC National Qualification Certificate
- OHS Occupational Health And Safety
- OS Occupational Standard
- TESDA Technical Educations and Skill Development Authority
- TMA Training Methodology for level A
- TMB Training Methodology for level B
- TMC Training Methodology for level C
- TTLM Teaching, Training and Learning Material
- TV/ET/D Technical and Vocational and Enterprise Development Bureau
- TVET Technical, Vocational and Educational Training
- UNESCO United Nations Educational, Scientific and Cultural Organization
- UNEVOC United Nations Educational and Vocational Organization Center

Operational Definitions

- **Competence:** possession and application of knowledge, attitudes and skills to perform work activities to the standard expected in the workplace
- **Enterprise:** a commercial company, organized business activities aimed specifically at growth and profit readiness to put effort into new, often risky, ventures or activities. It refers to micro, small, medium and large business enterprises.
- **TVET Institutions:** refers to in this document the category of Technical and Vocational Education and Training institutions, colleges, polytechnics and sector institutes that deliver TVET programs.
- **Sector Institutes:** refers to training institution that delivers specialized sector occupation program and manage by the industry sector.
- **Formal TVET Training:** refers to the regular programs that TVET institutions are offering; delivered by public and non-public providers, enterprises, as cooperative training, etc.
- **Non-formal TVET Training:** refers to any form of training for which the content and learning aims have been defined. This usually means training is based on well-defined curricula, either within or without an institution.
- **Informal TVET Training:** refers to one of three forms of training that occurs in a variety of places, such as at home, work, and through daily interactions and shared relationships among members of society.
- **Informal Learning:** refers to widely used form of learning that takes place independently of instructor-led programs: books, self-study programs, performance support materials, and systems.
- **Cooperative Training:** refers to a form of training that needs two venues: one at a TVET institution and one at an enterprise. These two venues must be secured and assigned for the program by both parties; cannot be done at one site only.
- **Occupation:** refers to the type of work an individual does to earn a living, often defined in terms of the broad range of competences or duties required to do it.
- **Unit of Competence:** is a component of the competence standard stating a specific key function or role in a particular job or occupation serving as a basis for training an individual to gain specific knowledge, skills, and attitude needed to satisfy the special demands or requirements of a particular situation.
- **Industry:** refers to the production of goods and services in an economy, a group of enterprises (private businesses or government-operated corporations) that produce a specific type of good or service considered medium and large based on the amount of capital and the number of human resources.
- **19 typology** -refers to the building design of MSE in the Federal MSE Development Agency
- **Company/industry MSEs:** refers to a business entities/area of work/ production identified as capable enough and greed with a TVET sector and categorize as micro and small enterprises based on the amount of capital and number of human resource.
- **Trainer:** refers to someone who train/educates and is charged with the instruction and guidance of another, is an instructor, facilitator or supervisor who is qualified to facilitate specific occupations and should possess at least a trainer qualifications level certification C (level IV completed) and who has training methodology certificate.
- **Disability:** the interaction between persons with impairment and attitudinal and environmental barriers that hinders their full and effective participation in society on an equal basis with others. Disability is a result of the negative reaction of society towards persons with impairments that restricts their participation and access to services and opportunities available to all.
- **Impairment:** an absence or loss of functioning of a body part.
- **Reasonable Accommodation:** in the context of TVET refers to any adjustment or modification made to the learning environment, certification requirements, training delivery or assessment method in order to help trainees with disabilities to access and participate in education and training on the same basis as those without disabilities.
- **Disability Inclusive Education and Training (DIET):** is a principle, strategy, approach and goal for the training of persons with disabilities. It recognizes and supports the diversity of learners to meet the widest range of needs and remove barriers in accessing and participating in mainstream education and training.
- **Technical Support:** the provision of capacity building activities (including trainers training / training methodology), training materials and other resources.

I. Introduction

The present Technical and Vocational Education and Training implements an *outcome-based system*, where not only the inputs, process or output of the training system is important but also the outcome, the overall result of the training matches the local and national labor market demand. Thus, setting of standard requirements for TVET training providers becomes a necessity to ensure the quality delivery of training programs. On the other hand, capacitating existing workforce in various industries is also being given emphasis as part of the country's development program, thus, cooperative training is being used as a delivery method as practice in many countries in the world..

The standards set forth for TVET institutions, Sector institutions and Enterprise (Cooperative Training) or other training providers includes **TVET curriculum; trainees/students; trainers/teachers; building workshops/laboratories and lecture areas; machines, tools and equipment; supplies and materials; assessment; administrative support; and the accreditation processes**. These standards are identified and adopted based on benchmarked practices of other countries that have been implementing the standards regulations and have been very successful in its implementation such as the Philippines Technical Education and Skills Development Authority (TESDA) and the Asia Pacific Accreditation and Certification Commission (APACC). Some standards were identified from the existing system documents and publication of International Labor Organization (ILO) and UNESCO-UNEVOC and from other international sources. It also considers the EOS, TVET Strategy Document, National TVET Qualification Framework, Registration and Accreditation of TVET Programs directive.

The TVET program providers are expected to meet the standards to ensure the quality delivery of training and to produce graduates matching the demand of the regional and national labor-market.

The standards will be used for the purpose of accrediting programs that the training providers would like to implement utilizing checklist to determine compliance of the standards. It can also be used as tools in establishing institutional awards for training providers who can consistently demonstrate compliance of the required standards and high percentage of employment of graduates as indicated in this document.

The regional TVET authorities are the authorized bodies responsible to implement according to the requirements of these standards.

II. Purpose of the Standard

1. To serve as the requirements for accrediting TVET programs for implementation.
2. To set cross cutting standard common to all TVET training providers.
3. To develop the quality of the institution and its products, and measure its performance.
4. The standard strengthens societal confidence in quality TVET training and institutional services.
5. The standard provides quality information to trainees.
6. The standard provides information to parents, companies and government regarding institutional mechanisms and enhances transparency, equity, and accountability in training for public and private institutions.
7. The standard is also been designed for TVET providers and the enterprises/industries to jointly implement cooperative training.
8. To serve as the requirements for accrediting TVET B level Trainers programs for implementation.

III. Standard Requirements

1. Curriculum

1.1 Standard Definition of Standard Curriculum

Curriculum - describes the *training* that a person with or without impairment needs to take in order to perform the work described in the Ethiopian Occupational Standards (EOS).

Characteristics:

- It must be derived from the Occupational Standards.
- It must be focused on outcomes (competencies) that are linked to workforce needs, as defined by employers and the profession.
- It must be dependent upon the local, national and international labor market demand (Analyzing the government development direction/plan, investment trends in the region/nation).
- It must address inclusive training.

Note: The standard curriculum must be the basis of the TVET providers such as TVET institutions, Sector institutions and the Enterprise Based (Cooperative Training) in offering and implementing programs.

1.2 Standard in Assuring Quality of Curriculum

The quality of the curriculum must be sustained and covers the following two important elements:

1.2.1 Standard TVET Program Design that must include the following:

- 1.1.1 TVET-Program Title
- 1.1.2 TVET-Program Description
- 1.1.3 TVET-Program Learning Outcomes
- 1.1.4 Duration of the TVET-Program
- 1.1.5 Qualification Level and Certification
- 1.1.6 Target Groups
- 1.1.7 Entry Requirements
- 1.1.8 Mode of Delivery
- 1.1.9 TVET-Program Structure
- 1.1.10 Institutional Assessment
- 1.1.11 Teacher's Profile
- 1.1.12 Learning Modules
- 1.1.13 Resource Requirements

1.2.2 Learning Module Design that must include the following:-

- 1.2.1 TVET-Program Title
- 1.2.2 Module Code and Title
- 1.2.3 Nominal Duration
- 1.2.4 Module Description
- 1.2.5 Learning Outcomes
- 1.2.6 Module Contents
- 1.2.7 Learning Methods
- 1.2.8 Assessment Methods and Criteria
- 1.2.9 Resource Requirements
- 1.2.10 Standard of training duration (Nominal)

1.3 Standard in Ensuring Relevance and Currency of the Curriculum

The quality and effectiveness of the Curriculum can be measured by meeting the current and future demands of the labor-market, thus, needs to be **reviewed and revised** periodically based on the customer's feedback and when OS is revised as initiated by the industry.

2. Standard Trainee/Student

2.1 Standard Definition of Trainee/Student

Trainee - refers to a person with or without impairment that qualified to undergo the training system for the purpose of acquiring and developing job qualifications.

Formal Trainee – refers to a person with or without impairment registered and enrolled in regular program in different levels I-V TVET programs at TVET training institutions and sector institutions.

Non-Formal Trainee – refers to a person with or without impairment registered and enrolled in short-term programs provided by training providers.

Informal Trainee - refers to a person with or without impairment engaged in any forms of the training that occurs in a variety of places, such as at home, work, and through daily interactions and shared relationships among members of society.

2.2 TVET Trainees Standard

2.2.1 Standard For TVET Programs

The TVET programs shall have the standard type of trainees as specified in the table below:

TVET Institution	Sector Institution	Enterprise/Industry (Cooperative Training)
Regular Program Trainees Must Be:		
<ul style="list-style-type: none"> 10th or 12th Grade Completers 		<ul style="list-style-type: none"> The trainees has been trained in the regular program of TVET Institutions (by 30-TVET Institution/70-Industry ratio) The trainees with disabilities must be given special attention
Short-Term Program Trainees Must Be:		
<ul style="list-style-type: none"> Any interested person or group of persons who are able to read and write Any interested person with or without impairment <p>Note: (Expressed in TVET Policy Document)</p>	<ul style="list-style-type: none"> Drop-Outs- of 10th or 12th or university graduates who are employed by industry. Any interested person or group of persons who are able to read and write (endorsed by Industry) Graduates of regular programs for upgrading with endorsement from the employer/industry. Any interested person with or without impairment <p>Note: Expressed in TVET Policy Document, (Need Based).</p>	<p>Informal and Non-Formal Programs</p> <ul style="list-style-type: none"> School dropouts – means 10th or 12th or University Any interested person or group of persons including persons with disabilities <p>Note: (Expressed in TVET Policy Document)</p>

2.2.2 Standard For Regular Degree Program Trainees

The Degree programs must include trainees as specified in the table below:

Legal Basis	Federal TVET Institute (FTVETI)	Sector Institution/s (SIs)	TVET Institution/s (Tis)
1st Degree Program			
Proclamation 245/2011	<ul style="list-style-type: none"> • In-service TVET C-level trainer/teacher • Pre-Service 12th Grade • Industry Practitioners who satisfied requirements • Priority to persons with impairment with minimum requirements/fulfilment 		
By Memorandum of Understanding (MoU) with the TVETI or Higher Learning Institutions		<ul style="list-style-type: none"> • In-service TVET C-level trainers • In-service industry C-level trainers • Priority to persons with impairment with minimum requirements/fulfilment 	<ul style="list-style-type: none"> • In-service TVET C-level trainers Priority to persons with impairment with minimum requirements/fulfilment
2nd Degree Program			
Proclamation 245/2011	<ul style="list-style-type: none"> • In-service TVET B-level trainers • In-service TVET B level leader • Priority to persons with impairment with minimum requirements/fulfilment 		
By Memorandum of Understanding		<ul style="list-style-type: none"> • In-service TVET B-level 	<ul style="list-style-type: none"> • In-service TVET B-

(MoU) with the TVETI or Higher Learning Institutions		trainers <ul style="list-style-type: none"> • In-service industry B-level trainers • Priority to persons with impairment with minimum requirements/fulfilment 	level trainers <ul style="list-style-type: none"> • Priority to persons with impairment with minimum requirements /fulfilment
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2.3 Requirements for TVET Trainees' Qualification

2.3.1 Standard For TVET Trainees Qualification Requirements

The trainees for TVET institutions, Sector institutions and the Enterprises (Cooperative Training Providers) must have the following requirements for trainees' qualification.

Program	TVET Institution	Sector Institution	Industry (Cooperative Training)
1. Regular Program	The regular trainees must: 1.1 Have <u>entry requirements</u> of the TVET agency or of the regional government based on the labor-market demand. <u>Note:</u> The entry requirement refers to the piece of document being issued by the TVET Agency and/or regional government to the trainees that ensure appropriate distribution of the trainees to TVET programs based on prioritize labor-market demand and with emphasis on gender ratio and disabilities.		
	TVET Institution	Sector Institution	Industry (Cooperative Training)
Additional Requirements	Note: May add additional requirements of the sector based on particular occupational needs and demands.	Sectoral Requirements may be needed to get the right trainee/student for a particular needs of the sector industry	Note: May add additional requirements of the sector based on particular needs and demands. Special attention should be given for persons with impairments

	TVET Institution	Sector Institution	Enterprise/Industry (Cooperative Training)
2.Short-Term Program	The short-term trainees must be: Any interested person or group of persons		
	<ul style="list-style-type: none"> Any interested person with or without impairment 	<ul style="list-style-type: none"> who are drop outs of 10th or 12th or university and employed who are able to read and write (endorsed by industries) who are graduates of regular programs for upgrading and endorse by the industry 	<ul style="list-style-type: none"> Any interested person with or without

2.3.2 For Degree Programs Trainees Qualification Requirements

The Degree programs trainees/students standard qualification requirements as specified in the table below:

Legal Basis	Federal TVET Institute (FTVETI)	Sector Institution/s (Sis)	TVET Institution/s (Tis)
1 st Degree Program			
Proclamation 245/2011	Must be: <ul style="list-style-type: none"> In-service TVET C-level trainers Pre-service grade 12 complete (entry requirement of MoE/higher education) Holder of at least National Level IV (Level I - IV) Certificate Industry practitioners who satisfied requirements 		

	<ul style="list-style-type: none"> • Endorsed by the Regional TVET Authorities • Passers of the Entrance Examination being administered by the TVETI. • Special attention shall be given to disabled candidates for upgrading 			
By Memorandum of Understanding (MoU) with the TVETI or Higher Learning Institutions		<p>Must be:</p> <ul style="list-style-type: none"> • In-service TVET C-level trainers or Industry C-level Trainer/s. • Holder of at least National Level IV Certificate • Endorsed by the Regional TVET Authorities (Not applicable to Industry Trainer) • Endorsed by the industry who employed. (Not applicable to TVET trainer) • Passers of the Entrance Examination being administered and/or supervised by the TVETI. • Special attention shall be given to disabled candidates for upgrading 	<p>Must be:</p> <ul style="list-style-type: none"> • In-service TVET C-level trainers • Holder of at least National Level IV Certificate • Endorsed by the Regional TVET Authorities • Passers of the Entrance Examination being administered and/or supervised by the TVETI. • Special attention shall be given to disabled candidates for upgrading 	

2 nd Degree Program			
Proclamation 245/2011	<p>Must be:</p> <ul style="list-style-type: none"> • In-service TVET B-level trainer/teacher • Holder of at least National Level IV (Level I - IV) Certificate • Endorsed by the Regional TVET Authorities • Passers of the Entrance Examination being administered by the TVETI. • Special attention shall be given to disabled candidates for upgrading 		
By Memorandum of Understanding (MoU) with the TVETI or Higher Learning Institutions		<p>Must be:</p> <ul style="list-style-type: none"> • In-service TVET B-level trainer/teacher or Industry Trainer/s. • Holder of at least National Level IV (Level I - IV) Certificate • Endorsed by the Regional TVET Authorities (Not applicable to Industry Trainer) • Endorsed by the industry who employed. (Not applicable to TVET trainer) • Passers of the Entrance Examination being administered and/or 	<p>Must be:</p> <ul style="list-style-type: none"> • In-service TVET B-level trainer/teacher • Holder of at least National Level IV (Level I - IV) Certificate • Endorsed by the Regional TVET Authorities • Passers of the Entrance Examination being administered and/or supervised by the TVETI. • Special attention shall be given to disabled candidates for upgrading

		supervised by the TVETI. • Special attention shall be given to disabled candidates for upgrading	
<p>Notation:</p> <p>Must be selected based on intake capacity of TVET institutions to offer 1st and 2nd degree program by MoU with the Federal TVET Institute.</p> <ul style="list-style-type: none"> ○ Must have the qualified and available trainer, workshops, machines, tools and equipment compliant with the curriculum requirements. ○ Must use the existing and current curriculum being used by the Federal TVET Institute. ○ If no available curriculum, development must be undertaken by joint partnership and cooperation by the Federal TVET Institute and the selected sector/TVET institution/s ○ Must follow the types of trainees/students being accepted in the TVET Institute and in case of the Sector Institute/TVET institutions can accept industry trainers. ○ Must be supervised by the TVET Institute <p>The requirements are consistent with the Federal TVET Institute. The sector institutions and selected capable TVET institutions/s is/are empowered to offer 1st and/or 2nd degree program by MoU with the Federal TVET Institute and/or other Institute of Higher Learnings after careful evaluation of its capacity to meet the competency requirements of the TVET trainers/teachers competencies.</p>			

2.3.3 Standard trainees for each different category of institutions.

2.3.3.1 TVET Institutions

Trainees who met entry requirement of Federal TVET agency/ regional government for **level I** and **level II** occupations and short term training.

2.3.3.2 TVET Colleges

Trainees who met entry requirement of Federal TVET agency/ regional government for **level I** up to **level IV** occupations and short term training.

2.3.3.3 TVET Polytechnics

Trainees who met entry requirement of Federal TVET agency/

regional government for **level I** and **level V** occupations and short term training.

2.3.3.3 Sector Institutes

Trainees who met the entry requirements of the Federal TVET Agency and industry for level 1 and level V occupations and short-term training.

2.4 Standard Role of Trainees

N o.	Trainees Role	TVET Institutions	Sector Institutions	Enterprise /Industry/ Cooperative Training
1	Acquire occupational competences necessary to complete the objectives of their training program.	✓	✓	✓
2	Carefully perform the tasks entrusted to them as part of their training program.	✓	✓	✓
3	Take part in training activities and measures	✓	✓	✓
4	Follow the Institution's rules and regulations	✓	✓	
5	Follow the instruction given and directed by the employers, trainer or any persons entitled to train or supervise them.			✓
6	Obey the rules and regulations of the enterprise/industry			✓
7	Use tools, machineries, safety materials and other equipment with due care and exercise safety.	✓	✓	✓
8	Exercise confidentiality of any business or trade secret.			✓
9	Undertake training and assessment as set out in the training plan.	✓	✓	✓
10	Maintain their Training Record Book	✓	✓	✓
11	Attend at least 95% of the training time as planned and if not the trainee is obliged to repeat the unit of competence.	✓	✓	✓

2.5 Standard Number of Trainees Per Class

The Standard Size of class per student ratio is based on the Growth and Transformation Plan (GTP) indicator as shown in the table below. Though, the indicator for Enterprise Cooperative Training is based on other sources.

No	SECTOR	Category	STANDARD NUMBER OF TRAINEES PER CLASS					
			TVET Institution	Sector Institution	Enterprise (Cooperative Training) Per Machine			
					Micro	Small	Medium	Large
1	Industry Development	Ideal	1:15-20	1:15-20	1:3	1:3	1:3	1:3
		Tolerable	1:25	1:25	1:4-5	1:4-5	1:4-5	1:4-5
2	Economic Infrastructures	Ideal	1:15-20	1:15-20	1:3	1:3	1:3	1:3
		Tolerable	1:30	1:30	1:4-5	1:4-5	1:4-5	1:4-5
3	Construction	Ideal	1:15-20	1:15-20	1:3	1:3	1:3	1:3
		Tolerable	1:30	1:30	1:4-5	1:4-5	1:4-5	1:4-5
4	Business and Finance	Ideal	1:15-20	1:15-20	1:3	1:3	1:3	1:3
		Tolerable	1:50	1:50	1:4-5	1:4-5	1:4-5	1:4-5
5	Health	Ideal	1:15-20	1:15-20	1:3	1:3	1:3	1:3
		Tolerable	1:30	1:30	1:4-5	1:4-5	1:4-5	1:4-5
6	Hotel and Tourism	Ideal	1:15-20	1:15-20	1:3	1:3	1:3	1:3
		Tolerable	1:30	1:30	1:4-5	1:4-5	1:4-5	1:4-5
7	Culture	Ideal	1:15-20	1:15-20	1:3	1:3	1:3	1:3
		Tolerable	1:30	1:30	1:4-5	1:4-5	1:4-5	1:4-5
8	Textile and Garments	Ideal	1:15-20	1:15-20	1:3	1:3	1:3	1:3
		Tolerable	1:30	1:30	1:4-5	1:4-5	1:4-5	1:4-5
9	Agriculture	Ideal	1:15-20	1:15-20	1:3	1:3	1:3	1:3
		Tolerable	1:35	1:35	1:4-5	1:4-5	1:4-5	1:4-5
10	Sports	Ideal	1:15-20	1:15-20	1:3	1:3	1:3	1:3
		Tolerable	1:40	1:40	1:4-5	1:4-5	1:4-5	1:4-5
11	Municipality	Ideal	1:15-20	1:15-20	1:3	1:3	1:3	1:3
		Tolerable	1:30	1:30	1:4-5	1:4-5	1:4-5	1:4-5
12	Labor and Social Affairs	Ideal	1:15-20	1:15-20	1:3	1:3	1:3	1:3
		Tolerable	1:30	1:30	1:4-5	1:4-5	1:4-5	1:4-5

Note:

- Class size should be reduced by three trainees in a class where there is a trainee with impairment
- Front side of the class and sufficient space should be reserved for trainee with impairment

2.6 Standard Gender Equity for Each Occupational Area

The gender equity ratio is provided on GTP document, however, the tolerable percentage ratio is based on other source as shown in the table below:

SECTOR	Category	STANDARD GENDER EQUITY FOR TVET TRAINEES					
		TVET Institution	Sector Institution	Enterprise (Cooperative Training)			
				Micro	Small	Medium	Large
All sectors with developed curriculum	Ideal	50:50	50:50	50:50	50:50	50:50	50:50
	Tolerable	At least Minimum of 25% women of the total class size	At least Minimum of 25% women of the total class size				

Note: Special attention should be given to female with impairment

2.7 Standard Working Uniform for Each Occupational Area

Working uniform for all occupational areas must be as prescribed by the EOS, curriculum and the workplace and other occupational standards as required.

SECTOR	Category	STANDARD WORKING UNIFORM/SHOES					
		TVET Institution	Sector Institution	Enterprise (Cooperative Training)			
				Micro	Small	Medium	Large
All Occupations	Ideal	<ul style="list-style-type: none">• As prescribed by the Occupational Standard• As prescribed in the curriculum (adapt for inclusive training)• As prescribed standard by the OHS – Occupational Health and Safety for each occupation• As prescribed by the Cooperative Enterprise/ Industry workplace.					
	Tolerable	-	-	-	-	-	-

2.8 Standard Personal Protective Equipment (PPE)

The trainees must fulfill the standard PPE in compliance with workplace occupational Health and Safety as stated in OHS standards, EOS and curriculum and as other occupational standards required.

SECTOR	Category	STANDARD PERSONAL PROTECTIVE EQUIPMENT (PPE)					
		TVET Institution	Sector Institution	Enterprise (Cooperative Training)			
				Micro	Small	Medium	Large
All occupations	Ideal	<ul style="list-style-type: none">As prescribed by the Occupational StandardAs prescribed in the curriculum (adapt for inclusive training)As prescribed standard by the OHS for each occupationAs prescribed by the Cooperative Enterprise/Industry workplace.					
	Tolerable	-	-	-	-	-	-

3. Standards for TVET Trainer

3.1 Standard Definition of TVET Trainer

TVET Trainer - refers to someone who train/educates and is charged with the instruction and guidance of another; is an instructor, facilitator or supervisor who is qualified to facilitate specific occupations and should possess at least a trainer qualifications level certification C (level IV completed) and who has training methodology certificate.

Industry Trainer – refers to a person who works in the industry and possesses occupation competences and have acquired relevant experiences in his/her position that engages in various productive activities in industries/enterprises and have both the national certification and trainer's methodology certificate.

Note: Teaching and training methodology should incorporate inclusive training.

3.2 TVET Trainer Standard

TVET Trainer standard must possess as stated in the table below:

Requirements	TVET TRAINER STANDARD					
	C-Level Trainer		B-Level Trainer		A-Level Trainer	
	TVET & Sector Institutes	Enterprise (Cooperative Training)	TVET & Sector Institutes	Enterprise (Cooperative Training)	TVET & Sector Institutes	Enterprise (Cooperative Training)
Educational Level	Graduate of TVET Program/s		Graduate of 1 st Degree (Bachelor Degree)		Graduate of 2 nd Degree (Master's Degree)	
Competence Level (NQC Certification)	Level I-IV National Qualification Certificate Level I-V National Qualification Certificate		Level I-IV National Qualification Certificate		Level I-V National Qualification Certificate	
Methodology	Certified in Trainers' Methodology (TMC)		Certified in Trainers' Methodology (TMB)		Certified in Trainers' Methodology (TMA)	
Industry Experience (Optional for TVET and Sector Institutes)	Not Required	(Ideal) 3-year Experience	(Ideal) 2-Years Industry Experience		(Ideal) 1-Year Industry Experience	
		(Tolerable) 2-year Experience	(Tolerable) 1-Year Experience		(Tolerable) 6-months Experience	
Type of TVET Providers	Minimum for TVET Institutions		Mandatory for TVET Colleges		Mandatory for TVET Polytechnics	
Types of Workplace		Employed in enterprise/industry		Employed in enterprise/industry		Employed in enterprise/industry
Confirmation of Expertise		Ethically acknowledge by the industry		Ethically acknowledge by the		Ethically acknowledge

		relating to his/her work		industry relating to his/her work		by the industry relating to his/her work
Level to teach	Level I-II		Level I-IV		Level I-V	
Orientation	Attended and completed Induction Program		Attended and completed Induction Program		Attended and completed Induction Program	

3.3 Role and Responsibility of TVET Trainer

The role and responsibility of TVET trainer is shown in the table below:

Scope of Work	ROLE AND RESPOINSIBILITY OF TVET TRAINER					
	C-Level		B-Level		A-Level	
	TVET & Sector Institutes	Enterprise (Cooperative Training)	TVET & Sector Institutes	Enterprise (Cooperative Training)	TVET & Sector Institutes	Enterprise (Cooperative Training)
Role	Trainer		Trainer/ Developer		Trainer/ Developer/ Supervisor	
Function	• Must train Level I- II trainees		• Must train Level I-IV trainees		• Must train Level I-V trainees	
	• Must deliver Project Based Training utilizing the institution training facilities	• Must deliver training utilizing the facilities of the enterprise	• Must train TVET C-Level trainers in Skills Upgrading		• Must train TVET C & B Level trainers in Skills Upgrading	
			• Must train TVET C-Level trainers on TMC		• Must train TVET C & B-Level trainers in TMC and TMB	
			• Must develop OBT Curriculum			
	C- level trainer must be		• Must develop TTLM			
		• Must develop Assessment Tools in his/ her area				

	supported by B or A level trainers		of expertise ✓ Make allowable adjustment for disabilities			
	• Facilitate and Deliver Industry Extension Service					
	• Must deliver Project Based Training by copying technologies 100% utilizing the training facilities of the institutions (in group)		• Must deliver Project Based Training by copying technologies 100% utilizing the training facilities of the institutions	• Must deliver training utilizing the facilities of the enterprise • Must deliver project based training by copying / improvements technologies 100%	• Must deliver project based training by copying / improvements technologies 100% utilizing the training facilities of the institutions	• Must deliver training utilizing the facilities of the enterprise
				Produce Technology transfer from institutions to enterprise	• Must perform coaching, supervisory or leadership role for subordinate levels.	
Responsibility	• Must be aware of the TVET strategy and other support guiding instructions					
	• Must have mastery of the topics/unit of competence being delivered					
	• Must prepare the readiness of instructional support and materials					

Note:

- During industry extension service a trainer with impairment should be provided reasonable accommodation
- Operators with impairment should be given priority during industry extension service

3.4 Standard Numbers of Occupation Required Per Trainer

The number of trainer for every occupation must be as required in the table below:

Example (Automotive) Standard Ratio of Occupation Per

Trainer

No	Occupation	Category	STANDARD NO. OF TRAINER PER OCCUPATIONAL CLASS					
			TVET Institution	Sector Institution	Enterprise (Cooperative Training)			
					Micro	Small	Medium	Large
1	Automotive							
1.1	Auto Engine Servicing	Ideal	1:2	1:2	1:4-5	1:4-5	1:4-5	1:4-5
		Tolerable	1:1	1:1	1:3	1:3	1:3	1:3
1.2	Auto Electrical Servicing	Ideal	1:2	1:2	1:4-5	1:4-5	1:4-5	1:4-5
		Tolerable	1:1	1:1	1:3	1:3	1:3	1:3
1.3	Under chassis Servicing	Ideal	1:2	1:2	1:4-5	1:4-5	1:4-5	1:4-5
		Tolerable	1:1	1:1	1:3	1:3	1:3	1:3
1.4	Auto Body Repair	Ideal	1:2	1:2	1:4-5	1:4-5	1:4-5	1:4-5
		Tolerable	1:1	1:1	1:3	1:3	1:3	1:3
1.5	Auto Body Painting	Ideal	1:2	1:2	1:4-5	1:4-5	1:4-5	1:4-5
		Tolerable	1:1	1:1	1:3	1:3	1:3	1:3

3.5 Standard Trainer to Trainee Ratio

The standard trainer to trainee ratio must be as shown in the table below:

No	Occupation	STANDARD TRAINER TO TRAINEES RATIO						
		Category	TVET Institution	Sector Institution	Enterprise (Cooperative Training)			
					Micro	Small	Medium	Large
1	Automotive							
1.1	Auto Engine Servicing	Ideal	1:15-20	1:15-20	1:10	1:10	1:10	1:10
		Tolerable	1:30	1:30				
1.2	Auto Electrical Servicing	Ideal	1:15-20	1:15-20	1:10	1:10	1:10	1:10
		Tolerable	1:30	1:30				
1.3	Under chassis Servicing	Ideal	1:15-20	1:15-20	1:10	1:10	1:10	1:10
		Tolerable	1:30	1:30				
1.4	Auto Body Repair	Ideal	1:15-20	1:15-20	1:10	1:10	1:10	1:10
		Tolerable	1:30	1:30				
1.5	Auto Body Painting	Ideal	1:15-20	1:15-20	1:10	1:10	1:10	1:10
		Tolerable	1:30	1:30				

Note:

- Trainers-trainees in ratio should be reduced in a class where there is a trainee with impairment
- Front side of the class and sufficient space should be reserved for trainee with impairment
- There should be an assistant for disabled trainees

4. Standards for Training Facilities (Workshops, Laboratories and Classrooms)

4.1 Definition of Training Facilities (Workshops, Classrooms, Library)

Training Facilities – refers to a place equipped to fulfil a special function.

Training Workshop – refers to a room or building in which theoretical and practical training are provided which is sufficiently furnished with the machineries, instruments, hand tools, charts and consumables that can help the trainees acquire the necessary skills.

Trainees Classroom – refers to a room or building where theoretical instructions is done, sufficiently furnished with tables, chairs, white and black boards, charts, audio-video aids, projector and consumables as prescribed by the curriculum that can help the trainees acquire the necessary attitude and knowledge.

Library – refers to a building or room containing a collection of books, news, video records, computers, instructional materials, journals, periodicals and other valuable materials for use by the members of an institution.

4.2 Standard Facilities

A training facility must have flexible and technologically-advanced learning environments that are:

- Safe
- Healthy
- Comfortable
- Aesthetically-pleasing
- Maintain universal accessibility (for trainees with or without impairment)

It must be able to accommodate the specific space and equipment needs of the training program and curriculum.

TVET INSTITUTIONS, COLLEGES & POLYTECHNICS	SECTOR INSTITUTIONS	ENTERPRISE (COOPERATIVE TRAINING)
1. General Requirements		
<p>The buildings that are suitable for the specific trainings, regarding the occupations they offer.</p> <p>Need to be made of hollow blocks, bricks, stones or the like, depending upon the local (regional) reality.</p> <p>Include appropriate accessibilities (entrance, doors, toilets, ramp, stairs, ...etc) for persons with impairments</p> <p>The training campus must be located in a wholesome environment, safe from transportation, sufficiently free from noise, dust, smoke and other polluting and destructing elements.</p>	<p>Accessible to persons with disabilities</p> <p>With emergency exit/stairwell and signs</p> <p>With access to road (for vehicles) and parking lot</p>	<p>Enterprise/ industry must create a conducive training environment including accessibility to persons with impairment (Workshops, roads, stairs, toilets, chair, etc)</p> <p>Full infrastructure (water, lightening system, ventilator)</p> <p>Electrical installation for each occupational area based on design.</p> <p>Standard color code based on kaizen philosophy.</p>
2. Required Standard Training Facilities		
<p>It should be free from any distraction, barriers and suitable for training</p> <p>The Necessary Instructional Room, Workshop, Laboratories, Computer Centre (Well Furnished)</p> <p>Library With Relevant Books and alternative formats (audio software, brail, large print forms),</p>	Same	Based on industry standard requirements

<p>And In Sufficient Copies</p> <p>Fully Furnished IT Rooms With Internet Access.</p> <p>Offices For Both Outcome Based Training Staff And Administrative Staff</p> <p>Multi-Purpose Hall.</p> <p>Stores</p> <p>Sufficient, separate and accessible (to persons with disabilities) toilets for male and female</p> <p>First Aid Kit In Every Workshop</p> <p>Fire Extinguisher For Each Workshop</p> <p>Sport facilities, when applicable. Sporting facilities are mandatory for institutions offering occupations in sports, but optional for others (ring ball for persons with visual impairment).</p> <p>Provision for access and facilities for people with disabilities, particular attention shall be paid to toilet facilities, accessible entrance, door sizes and swings, floor finishes, hand rails, and other services.</p> <p>Availability of resource center for persons with impairments</p>		
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3. Standard Buildings		
<p>When selecting (or constructing) a building for a training institutes, their lighting, the ventilation and heat condition, the load bearing considered.</p> <p>It must have its own fences (compound).</p> <p>Access to road (for vehicles)</p> <p>It should be accessible to persons with disabilities (accessible: elevator, toilet, signage, ... etc)</p> <p>Access to electric power, telephone, and water</p> <p>Landscape not susceptible for damages from flooding, wind, sewerage and the like.</p> <p>Training facility separated from facilities of general education/ and other facilities which are not related to the Training</p> <p>TVET institution's campus and resources should be used entirely for TVET programs. (Separated from general education and higher education)</p> <p>If a TVET institution has two compounds which are more than 300 m apart, they will be considered as two campuses and hence each need to have its own</p>	<p>Signage in every parts of the building</p>	<p>Based on industry standard requirements</p>

physical facilities like library, workshops, etc.		
With the above mentioned considerations, TVET institutions should consider the space standards shown in the table below		

4.3 Standard Size of Training Facilities/ Workshops/ Classrooms and Others

A. For TVET Institutions

Training Facilities/Workshops/ Classrooms and others)	Area Needed Per Trainee (m2)				
	TVET Institutions, College and Polytechnics	Sector Institutions	Enterprise (Cooperative Training)		
Instructional Room	1.2	1:4-5	1:4-5	1:4-5	1:4-5
Computer Room	1.7				
Hall	* (426)				
Technical Drawing Room	4				
Library	*** 105 – 180				
Cafeteria	0.6				
Industrial Technology					
• Electrical Technology	4.5				
• Electronics Technology	4.0				
• Machine Technology	5				
• General Metal Fabrication and Assembly	6				
• Automotive Technology	6				
• Textile Technology	6				
Construction Technology					
• Building Construction	6				
• Road Construction	4				
• Wood Construction	6				
• Drafting	4				
• Surveying	3				
Business and Services					
• Accounting	1.2				
• Secretarial Science	1.7				
• Information	1.7				

Technology			
• **Sports and Physical	Based on the standards set by local and international Sports Committee		
Fitness□			
Foot Ball			
Volley Ball			
Basket Ball			
Hand Ball			
Sport and Trainings Hall			
• Art (Painting)	6		
• Music	2.7		
• Hair Dressing	3		
• Food Preparation	3.5		
• Housekeeping	* (60)		
• Hotel Services	* (60)		
• Bakery	3.5		
• Dress Making/ Tailoring	3		
• (****) Other sectors that not described here above			

Note: Training room area should be adjusted according to requirements for persons with impairment

Annotation:

(*) Very general standard and may be subject to change for specific uses

(**) According to the standard from the Federal Youth sports and culture

(***) Considering 25% of the total number of trainees. If an institution exceeds 280 trainees, the library should be 1.7 m2 per trainee.

(****) For other occupations that are not described on the table above, the regional

TVET agencies/bureaus shall develop their own checklist for the non-indicated OS based on the procedures of Federal TVET Agency allowed for sectors or regions setting of standards and back for Federal TVET Agency for validation to as national standards.

B. Standard Table for Sector Institutes

Category of building/ rooms	Ratio				
	Area needed per trainee (m2)	Lighting per m ²	Fire extinguisher per	First Aid Kit per	Electrical system per institute
Workshop	6	* 540 lumens	2	2	3 phase
Class room	1.2	*100–160 lumens	1	1	
Library	1.7	*100–160 lumens	2	1	
IT room	1.7	*100–160 lumens	2	1	
Hall	*426	*100–160 lumens	2	1	
Sport facilities	**	*100–160 lumens	NA	2	
Language lab (for Hotel and Tourism institute)	2.2	*100–160 lumens	1	1	
Dormitory with lounge	5	*100–160 lumens	2 per floor	1 per floor	
Cafeteria	0.6	*100–160 lumens	1	1	
(***) Other sectors that not described here above		* 540 lumens			

Note: Training room area should be adjusted according to requirements for persons with impairment

Annotation:-

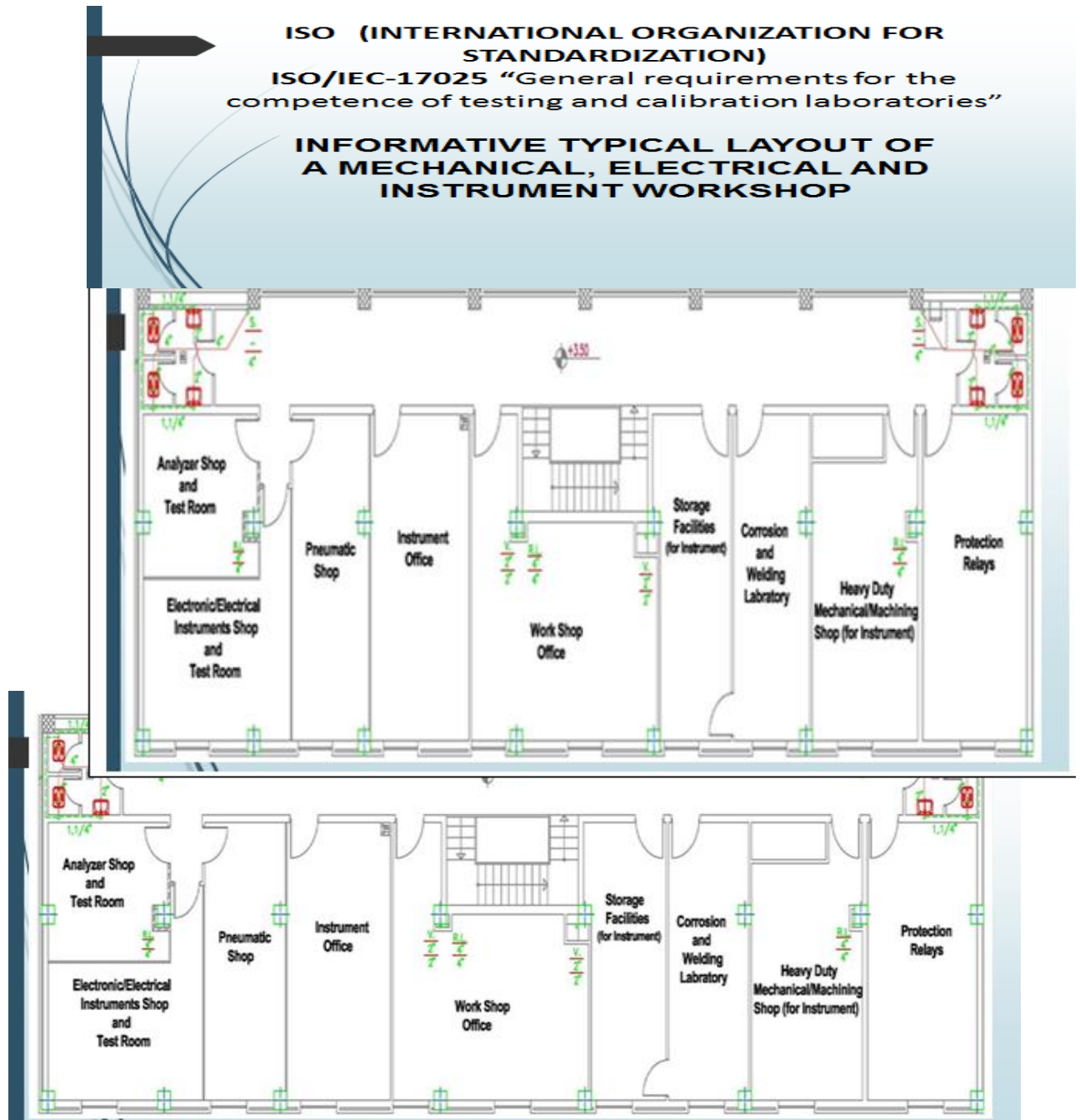
(*) very general standard and may be subject to change for specific uses

(**) According to the standard from the Federal Youth sports and culture.

(***) For other occupations that are not described on the table above, institutions shall develop their own check list based on the requirements listed on the Occupational Standards.

C. Standard Example of International Standards Workshops

Standard Example of ISO Workshop Lay-out



Utilities

- The instrument workshops shall be provided with steam, water and plant air, etc., from the plant for workshop utilities system, and an instrument air supply, as appropriate
- Electricity for power and lighting shall be installed in accordance with the requirements. Voltages that may be required are for example, 110/230/400 Volts AC at 50 Hz, 24/110 Volts DC. The voltages required shall be indicated in the project specification and the requisitions.

Workshop Buildings

2 Floor finish

The floors in the workshop building should be finished in accordance with the requirements of the above standard and with the following exceptions:

- All rooms with concrete finish shall be sealed with a dustproof epoxy resin.

The floors of analyzer rooms shall be finished with acid-resistant tiles, in the same way as Analyzer Houses

Construction

- The building shall be designed in accordance with the general requirements of Standard Drawings IPS-D-CE-210 to 222.

Satellite Workshop

Satellite workshop is a small workshop under the control of the main instrument workshop.

Instrument Workshop

This place dedicated to provide services such as test, calibration and repair of instrument equipment.

Test Bench

Equipment specifically designed to provide a suitable work surface for testing a unit in a particular test setup under controlled conditions

Plant Air

Plant air or tool air or service air is used for utility purposes, pneumatic tools, pumps, blowing down hoses, etc. and usually not cleaned /filtered and dried as instrument air.

Simulator

A device or program used for test purposes which simulates a desired system or condition providing proper inputs and terminations for the equipment under test.

- The equipment contained in a modern instrument workshop shall be of sufficient quality to ensure that all repaired and re-calibrated instruments will meet the original manufacture's specifications.
- The offices, shops and rooms of the workshop considered in this Standard are equipped with a proposed inventory of furniture, equipment, machines and tools.

Planning office

This office will be equipped with normal office furniture and specialized planning equipment. A computer network shall be located in this office to provide:

- maintenance assistance;
- storage of instrument inspection and maintenance records;
- availability and requisitioning details for instruments, parts and spares, etc.;
- Internet.

General

- Typical size 1750 (or 2000) × 750 mm, overall height 1630 mm.

Work top

- beech wood, plastic faced with aluminum angle sides, - 50 mm thick.

Drawer-cabinet/supports

- each cabinet to have 4 large capacity drawers with a locking system
- 2 drawers to be fitted with compartments
- constructed in heavy gage sheet steel

Shelf

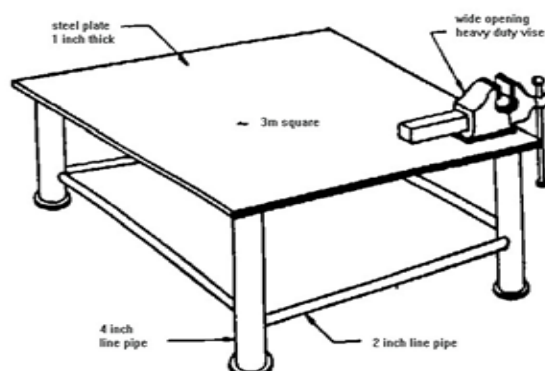
- fitted between the cabinets complete with back cover constructed in heavy gage sheet steel

Base - of hardwood or equivalent

Accessories

- a light source
- a parallel jaw vice

Extra heavy duty work-bench

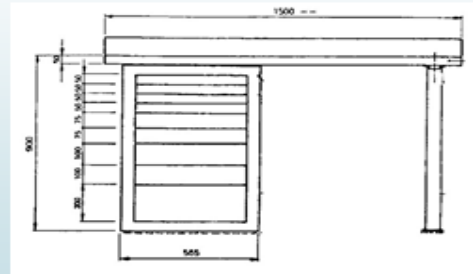
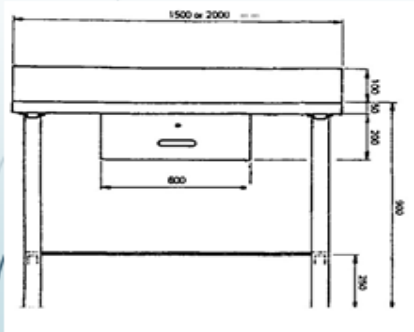


Extra Heavy Duty work-Bench

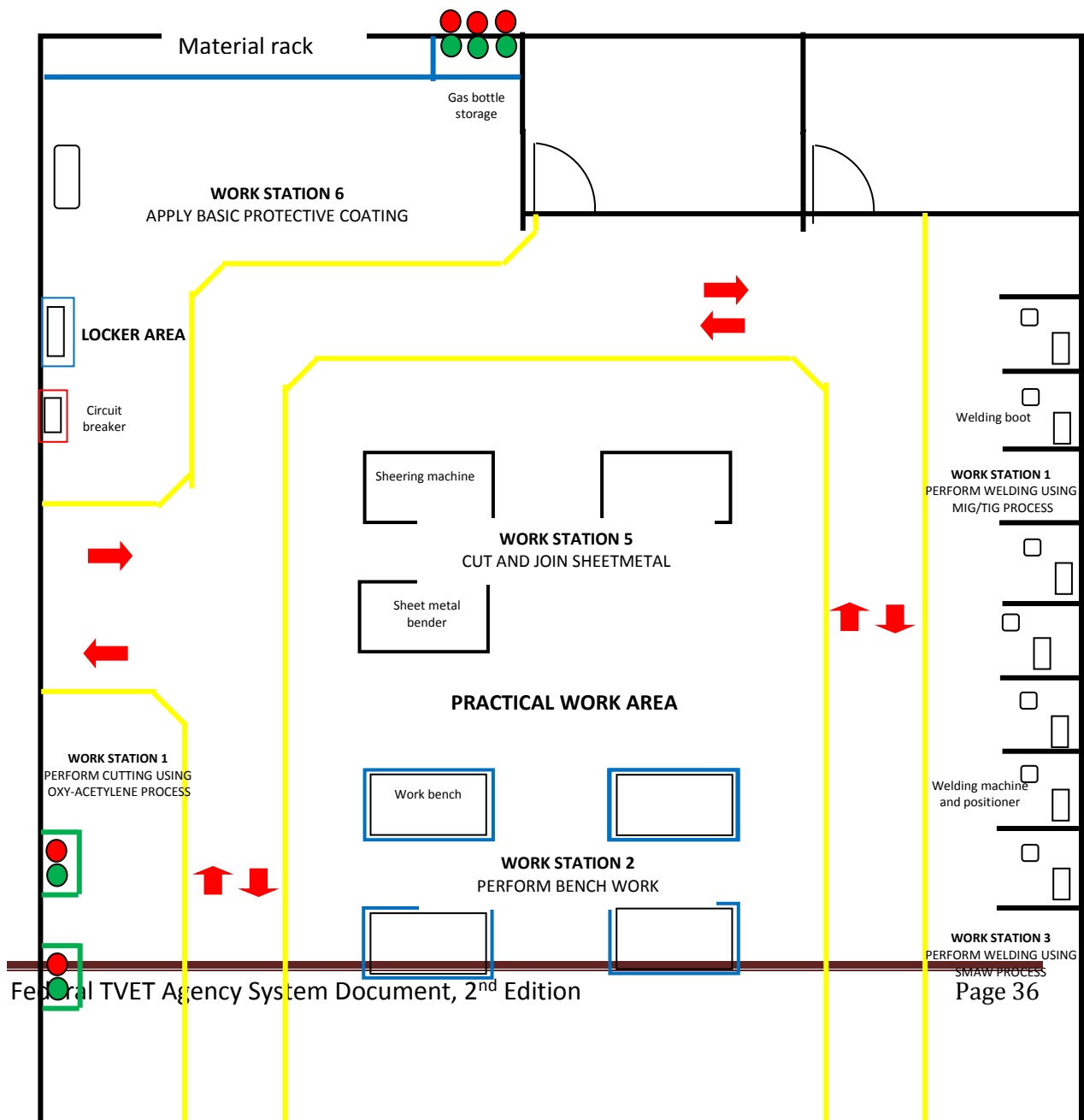
- Size 2000 × 1500 × 900 mm, high with 25 mm thick steel top and steel pipe supports Complete with wide opening heavy duty vise.
- To be fabricated in The site workshop, or by local manufacturer

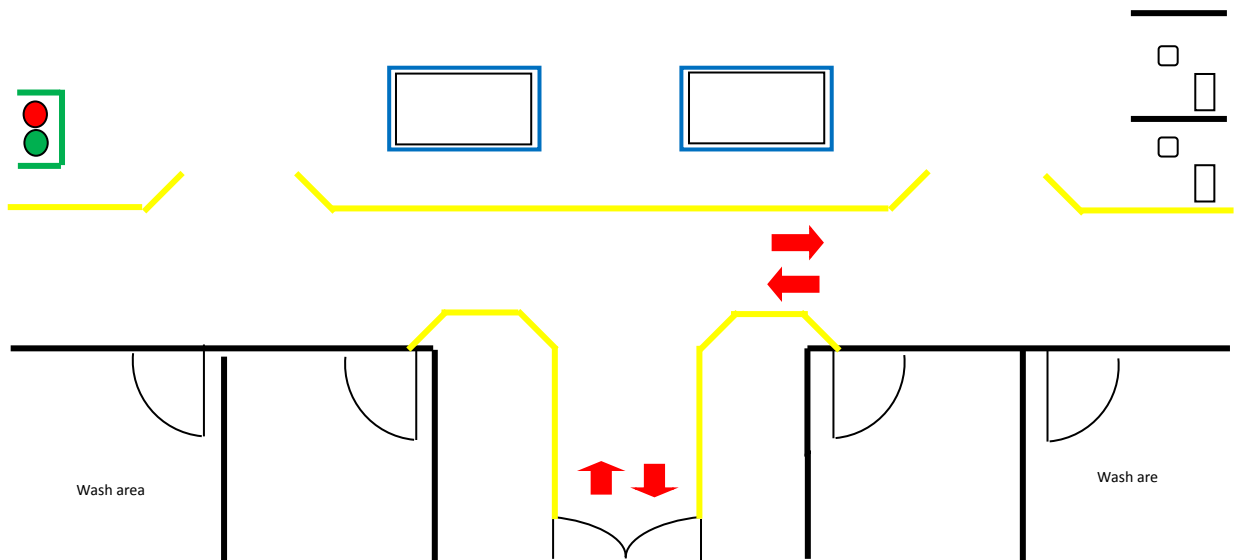
TYPICAL WORK-BENCH AND TEST-BENCH REQUIREMENTS

Light Duty Work Bench



STANDARD METALS AND ENGINEERING WORK SHOP





Note:

- The workshop must have at least 20 m length, 20 m width and not less than 6 m height from the floor to the ceiling.
- Workshop layout, equipment and machinery accessibility should be according to the requirement (standard measurement) for trainees with impairments

4.4 Standard Size of Instruction Rooms

An instructional room, for theoretical instructions, should be sufficient for the number of trainees as prescribed by the national standards. Considering a 1.2 m² per trainee standard and a well ventilated and well illuminated room, rooms for instruction should satisfy the following requirements.

A. Standard Furniture for Instructional Room

Note:

- Furniture must be accessible to the persons with disabilities
- Office furniture must be designed to reduce stress on eyes, wrists, lower back and etc.

	Item	Qty	Length Cm	Depth Cm	Height Cm	Remark
1.	Desk/ armchair	1	55	100	74	trainee
2.	Table	1	80	120	74	Trainer
3.	Chair	1	40	56	78	Trainer

4.	Chair	Per trainee	35	35	77	Trainee
5.	Black/white board	1	240	---	120	Per room
6.	Notice board	1	120	---	100	Per room

4.5 Standard Library

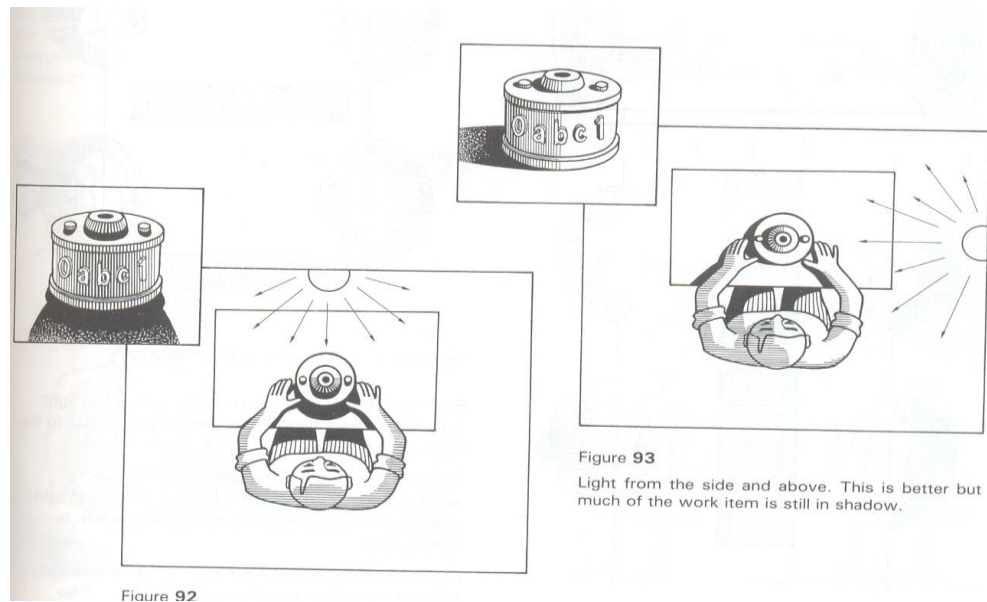
1. Should be organized in such a way to accommodate 25% of the total trainees at a time with chair ratio of 1:1.
2. The books and journals should not be outdated, assuming their age to be less than a decade, thus guaranteeing availability of modern technology and findings.
3. Embrace 50% of books of respective programs.
4. Libraries should be managed by trained librarians.
5. Libraries service should be supported by high speed internet connection wi-fi access, computers, and audio-video materials for trainers, trainees and other supportive staff.
6. Be furnished with adequate and comfortable furniture for all users.
7. Have e-book system access of books through digital dialogue.
8. With a minimum of 10 computers loaded with e-books.

Note:

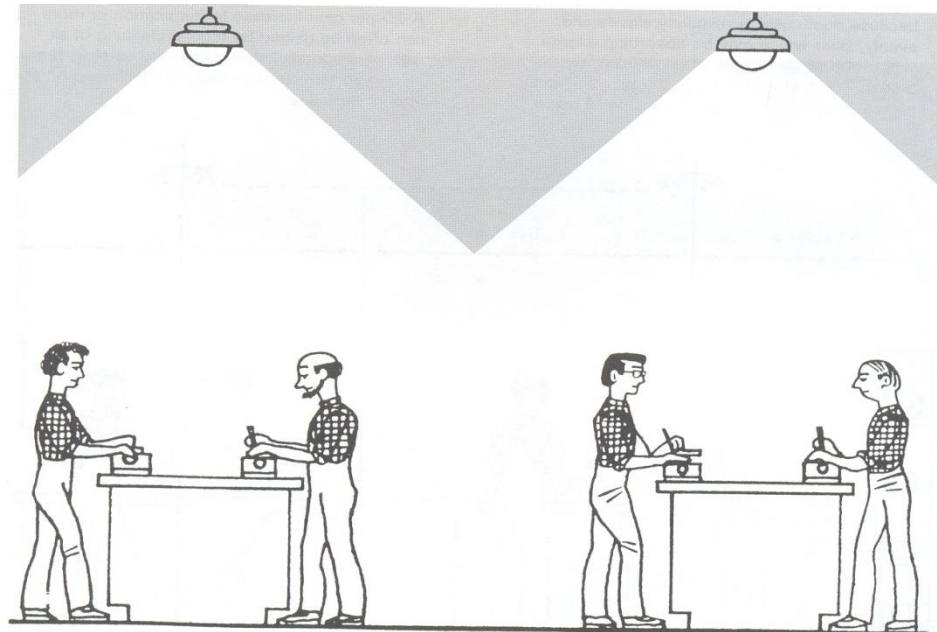
- Training for the librarians should be inclusive of disability
- The Library should be accessible to persons with disabilities

4.6. Standard Lighting and Ventilation Requirements of Workshop and Classrooms for Each Occupational Area

1. Workshops, classrooms and libraries should be well lighted (natural and artificial) and ventilated.



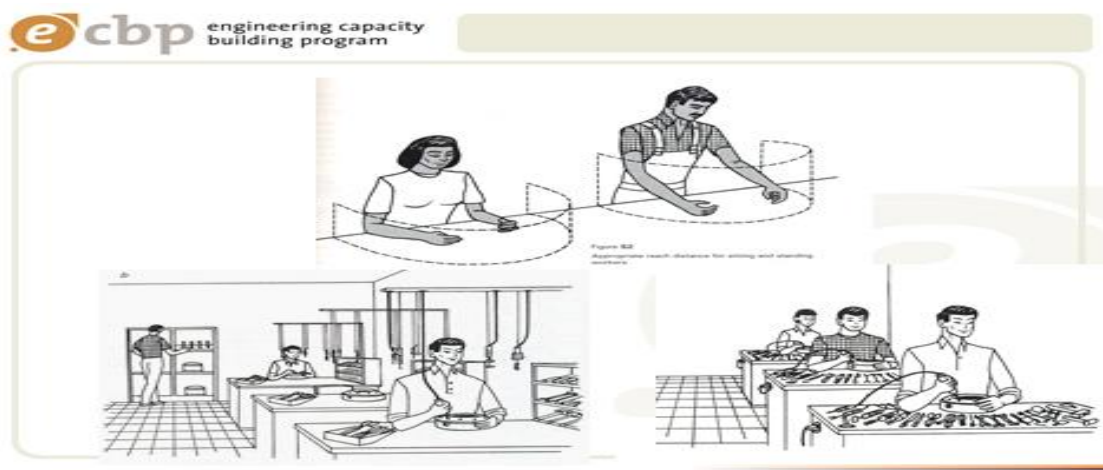
2. To achieve reasonable natural light, windows and/or skylight shall be provided to all and the glazed area shall be minimum 10% of floor area of the room.
3. To promote natural cross habitable room design for use by more than 15 occupants shall have external windows/doors skylights with a minimum open-able area of 10% floor area.
4. If open-able area of 10% of floor area cannot be achieved practically through windows and doors, airflow shall be assisted by mechanical ventilation systems.
5. Lighting must be placed to minimize glare and reflection.



6. The training environment must be free from polluted air.

7. Heat dissipating electronics equipment must be provided in the office for cooling and ventilation systems

Example of Good Lighting Installation:



4.7. Standard for Workshop Area

The workshop must be arranged based on the kaizen philosophy (8 work Outcome Based Training Stations) Note: Distance Learning Station is used when organized program for Distance Learning has been developed and prepared if not the space provided for Distance Learning can be utilized for other purpose.

A. Workshop Standard for TVET Institutions

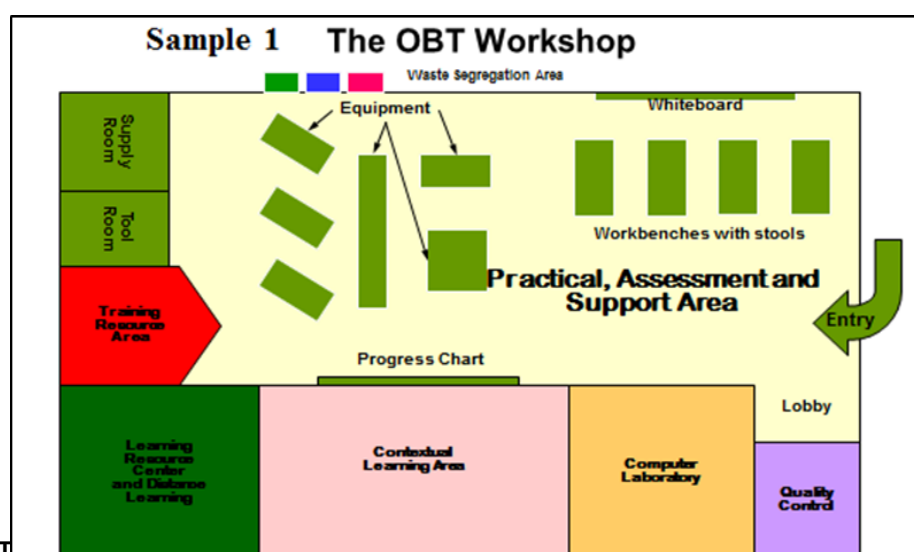
OBT Work Stations	LEARNING RESOURCE Provides the learner with the knowledge requirements in the modules responding to the competencies using multimedia materials. (Linked to the TRC)	COMPUTER LAB. Provides opportunity in acquiring IT competencies as prescribed in the OS/OBC. Computer units are in a LAN environment hooked to an ISP for internet access.
	CONTEXTUAL LEARNING Ensures that the underpinning knowledge (science, math and communication) principles as applied to the technology are provided to the learner.	PRACTICAL WORK AREA Venue where learner acquire the competencies prescribed by the standard. It satisfies the conditions needed in the learning outcomes.
DISTANCE LEARNING Answers the issue of learning accessibility and flexibility. It enables the acquisition of competency regardless of time and space thru multimedia.	ASSESSMENT A computer-based facility that provides mechanism in assessing the completion of competencies and RPL. Manages individual portfolio assessment records.	QUALITY CONTROL Ensures orderliness/maintenance of training delivery inputs. Manages and facilitates implementation of the developed QA System towards Accreditation.
TRAINING RESOURCES CENTER The area where coursewares and cut-aways are produced. It Houses TTLMs, OSs, Exemplars and Training Aids.		SUPPORT AREA The component provides value-adding competencies in the DAC as per the identified underpinning skills.

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Module 4, managing Training Facilities
23 May, 2011

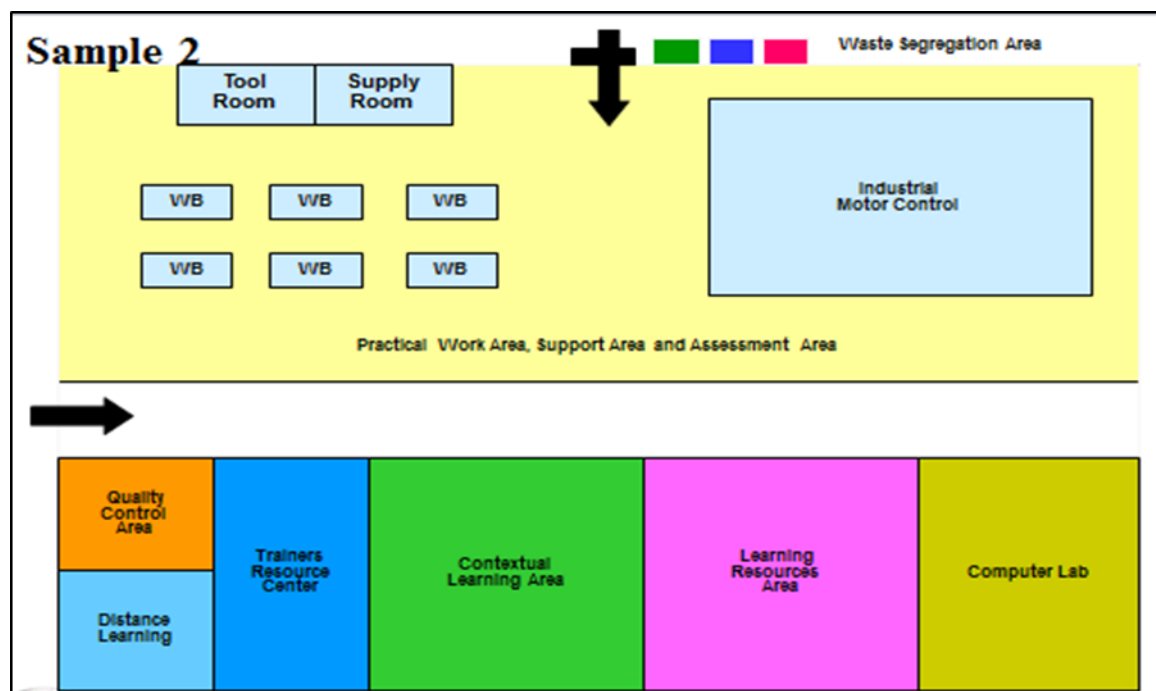
Source: TESDA and Distinctive Area of Competence (DAC) Guidelines

The Outcome Based Training must be managed where trainees/students can be able to be located in the 8 areas at a time occupied in various aspects of learning. It means some trainees maybe in the practical area or others would be on the assessment or in the support area which in a sense also deal with individual differences as there are trainees who are fast and others slow.

B. Example of Outcome Based Workshop Lay-out



Module 4, managing Training Facilities
23 May, 2011



C. Standard Workshops for Enterprise/Industry (Cooperative Training)

1. The workshop of MSE, Medium, & Large-Scale Industry

The workshop size of small, micro medium and large industry comply with the design that approved by professional consultant and follow their industry practice and it must fulfill:

- Learning Resource Area
- Mini Meeting Hall
- Quality Control Area/Finished Good Area
- Raw Materials
- Working/Production/Service Area
- Assessment Area
- Tools and Equipment Area
- Support area for persons with or without disabilities

NB: In addition to the above listed requirements, the workshop of MSE must fulfill the '19 Typology' (Design) of Federal MSE Development Agency (see table below)

S.No.	Types of the Typology	Floor No.	Type of Sub Section	Work Size in m ²
1.	Typ-1	G+0	Wood work	31.07x15.13
2.	Typ-2	G+0	Shemma-weaving	26.66x15.13
3.	Typ-3	G+2	Shemma-weaving	26.66x15.13
4.	Typ-4	G+4	Shemma-weaving	26.66x15.13
5.	Typ-5	G+0	Garment, tailoring	26.66x15.13
6.	Typ-6	G+2	Garment, tailoring	26.66x15.13
7.	Typ-7	G+4	Garment, tailoring	26.66x15.13
8.	Typ-8	G+0	Knitting	26.66x15.13
9.	Typ-9	G+2	Knitting	26.66x15.13
10.	Typ-10	G+4	Knitting	26.66x15.13
11.	Typ-11	G+0	Leather & leather products	26.66x10.92
12.	Typ-12	G+2	Leather & leather products	26.66x10.92
13.	Typ-13	G+4	Leather & leather products	26.66x10.92
14.	Typ-14	G+0	Food processing	26.66x15.13
15.	Typ-15	G+2	Food processing	26.66x15.13
16.	Typ-16	G+0	Fruits & vegetables processing	26.66x15.13
17.	Typ-17	G+2	Fruits & vegetables processing	26.66x15.13
18.	Typ-18	G+0	Metal works	31.07x15.13
19.	Typ-19	G+0	Shop	31.07x15.13

2. Levels of Enterprise in Human and Capital Resources

Human and Capital Resources in Enterprise/Industry must contain:

Type of Enterprises	Sector	Human Power	Total Asset
Micro Enterprise	Industry	≤ 5	≤ birr 100,000.00
	Service	≤ 5	≤ birr 50,000.00
Small Enterprise	Industry	6-30	Birr 100,001-1.5 million
	Service	6-30	Birr 50,001-500,000.00
Medium Scale Industry*	Industry	30-100	Birr 1,500,001-20,000,000.00
	Service	50-100	> Birr 500,001.00-8,000,000.00
Large Scale Industry*	Industry	>100	> Birr 20,000,000.00
	Service	>100	> Birr 8,000,001.00

***Annotation:**

Industry: refers to the production of goods and services in an economy in government,

non-government, and private organizations.

4.7 Standard Height of Window and Door Panels, Pathways

1. Full advantage should be taken of natural lighting through maximum window area.
2. Bilateral and overhead lighting north and east are preferable.
3. High windows with sills 6 feet above the floor provide wall space for tool boards and wall displays, *yet* a few low windows are needed for an outside view.
4. All shops should have at least two *exit* doors. Some shops require overhead or double-type doors to allow entrance of large equipment or projects. These large doors may be considered as one of the exits, if not contrary to local fire regulations.
5. Open spaces near exits and entrances eliminate congestion.
6. For future expansion and development, plans should be adjusted to provide flexibility and adaptability.
7. Allowances should be made for changes due to new technical developments and new techniques of production.

Note: All the above mentioned points should consider the inclusion of persons with impairments

4.8 Standard Color Code for Danger, Hallway, Work Area and Lecture Area

Provide color and texture in surface treatment of access paths, pavements, walls to identify hierarchy of spaces and circulation:

- Distinctive pathway and corridor leading from the main public entry point to the administration block to assist visitors and reduce risk of an authorized access to other parts of the site.
- Color coded feature pathway and corridor junctions or signage to assist in a way finding to particular building zones.

Recommended Workshop Color

Color	Items
Orange	Tool Cabinets
	Machine Safeguard
	Machine Part Open Guard
	Hazardous Machinery and Equipment
Red	Danger Zone
	Exits and Directions
	Fire Fighting Equipment
	Equipment Perimeter Lines
	Machine Electrical Switches
Light Olive Green	Movable Stationery Equipment

4.9 Standard Electrical Requirements for Each Occupational Area

- All power outlets and lighting circuits shall be protected by residual current devices (earth leakage safety switching).
- Emergency shut off buttons to power supply shall be provided in workshops and practical class rooms.
- Dust fumes proof electrical switches and sockets for occupational workshops like textile, chemical and garments to avoid fire.
- Adequate electrical power must be supplied according to the requirements of the workshop design
- Backup generator must be provided to solve power interruptions

Note: Electrical installation, related safety requirements and related information should be accessible to persons with impairments

4.10 Standard Physical Facility for Different Categories of Institutions.

- Physical facilities of TVET institutions, colleges and polytechnics like the building, training classrooms, workshops, libraries and laboratories should accommodate the number of trainees with or without impairments as planned.
- The minimum area of TVET institutions/colleges/polytechnics must be **70,000 m² (7 hectares).**

Example: Agricultural Crop Production and Automotive Engine Rebuilding

A. Agricultural Crop Production

STANDARD TRAINING FACILITIES

SPACE REQUIREMENT	SIZE IN METERS	AREA IN SQ. METERS	TOTAL AREA IN SQ. METERS
A. Building (permanent)			170.30
• Student/Trainee Working Space	2.00 x 2.00 per student/trainee	4.00 per student	100.00
• Learning Resource Center	3.00 x 5.00	15.00	15.00
• Facilities/Equipment/Circulation (30% of teaching accommodation)			39.30
• Store Room	4.00 x 4.00	16.00	16.00
B. Experimental Land Area			
	5 sq m/trainee	125.00	125.00

B. Auto Engine Rebuilding (Servicing)

STANDARD TRAINING FACILITIES

SPACE REQUIREMENT	SIZE IN METERS	AREA IN SQ. METERS	TOTAL AREA IN SQ. METERS
• Building (permanent)	26.00 x 28.00	728.00	728.00
• Trainee Working Space	3.50 x 3.50 per student/trainee	12.25 per student	306.00
• Lecture Room	9.00 x 10.00	90.00	90.00
• Learning Resource Center	5.00 x 8.00	40.00	40.00
• Facilities/Equipment/Circulation Area	-	-	291.75

4.11 Standard Maintenance of Workshops and other Learning Facilities

The standard to be practiced in maintaining the workshops and other training facilities must be adherence to the principles of **KAIZEN** and **5S** as its part. An orderly workshops and training facilities leads to safety practices, effective organizations of operations, avoid wastes and become productive environment.

The following shall be observed and demonstrated in maintaining the

workshops and other training facilities:

4.12.1 Standard Definition of KAIZEN and 5S

KAIZEN – refers to continuous improvement.

5S - refers to a systematic approach to organize work areas, keep rules and standard, maintaining the discipline needed to do a good job.

It also refers to good housekeeping and workplace organization.

It is also a part of KAIZEN.

4.12.2 Focus of KAIZEN and 5S

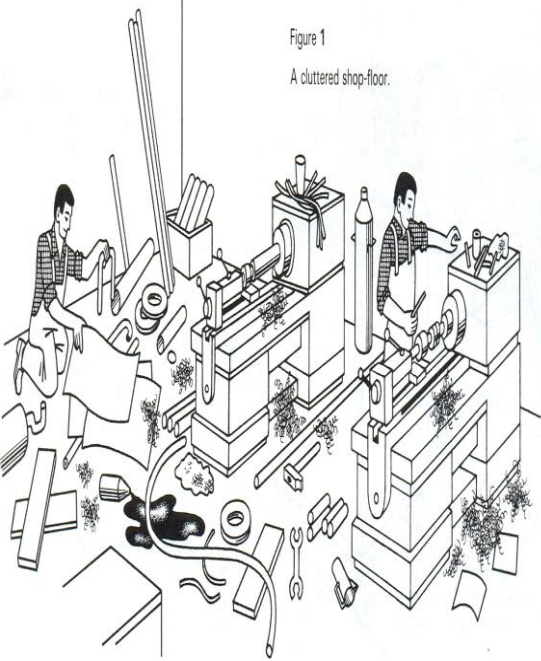
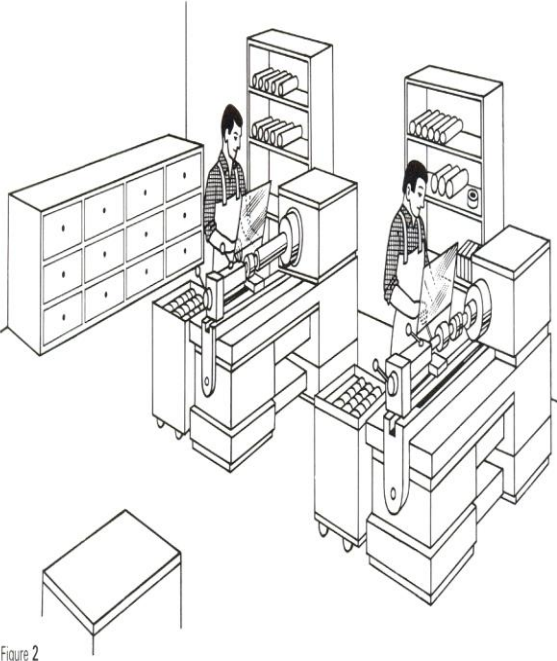
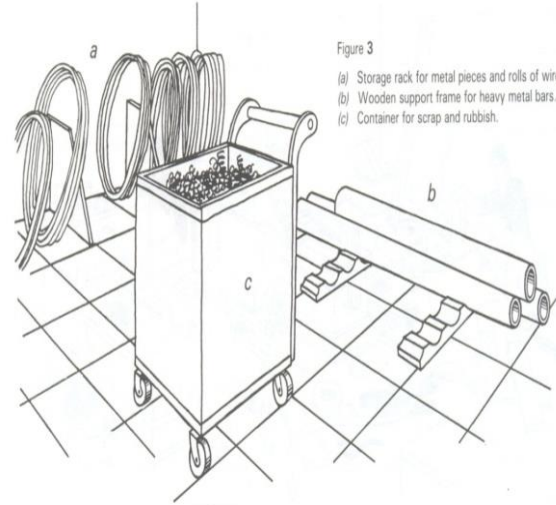
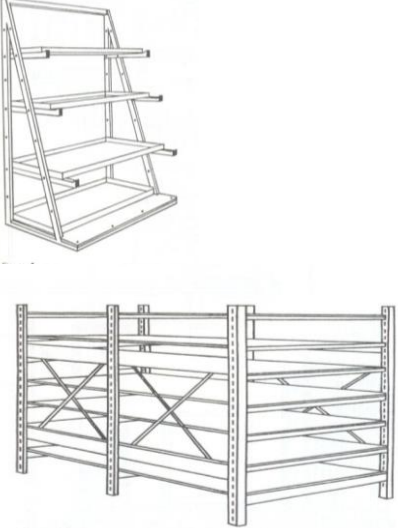
Focus and Advantage/s of KAIZEN and 5S		
Standard Tools for Workshop Maintenance	Focus of Improvements	Advantage/s
KAIZEN	<ul style="list-style-type: none"> • Product Quality • Production Capacity • Use of Capital • Safety • Space Utilization • Effective Communications • Employee Retention 	<ul style="list-style-type: none"> • Reduction of Waste
5S	<ul style="list-style-type: none"> • Visual Order • Organization • Cleanliness • Standardization <ul style="list-style-type: none"> ➤ Should consider persons with impairments 	<ul style="list-style-type: none"> • Improved Profitability • Efficiency • Service • Safety

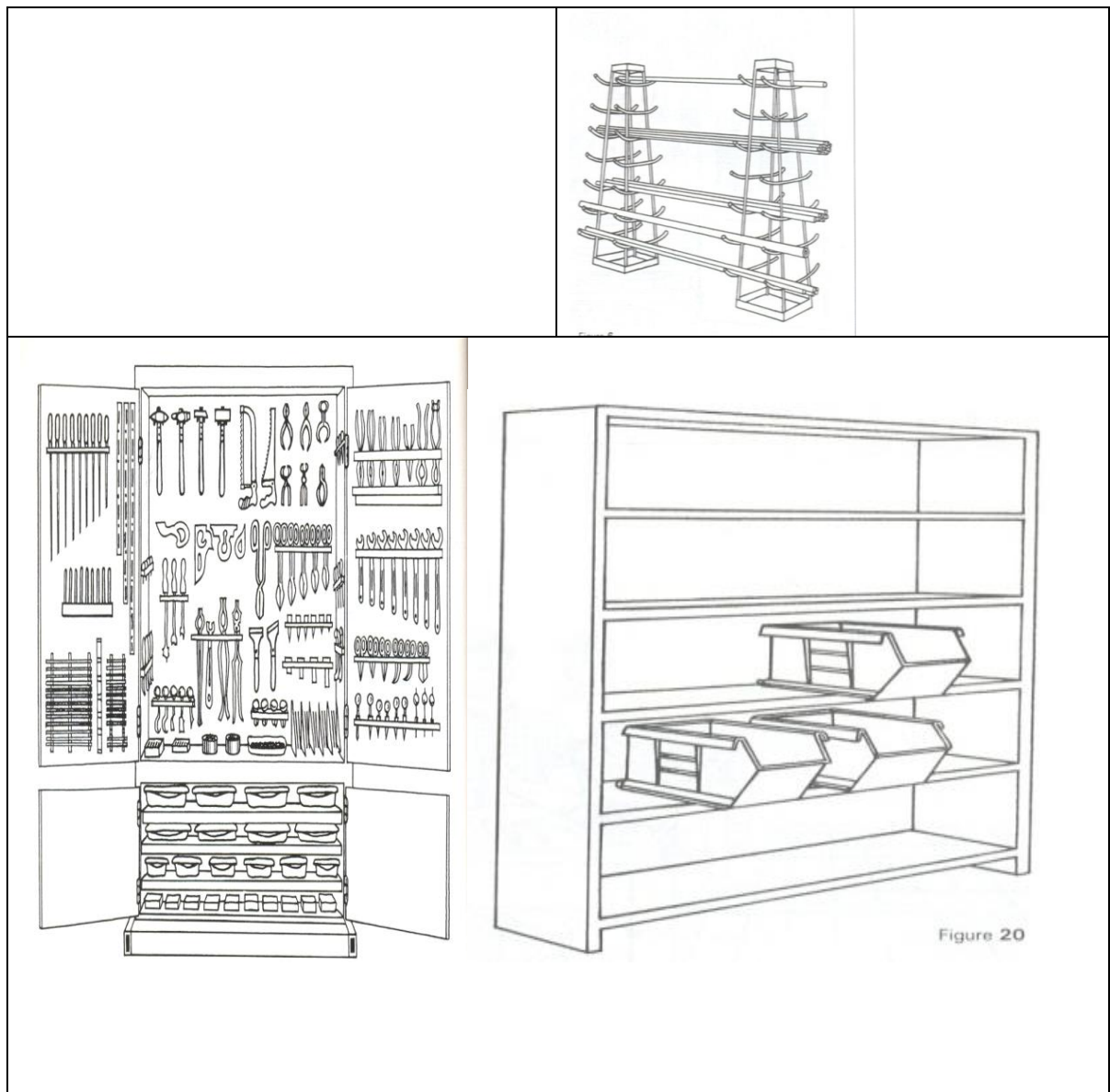
The 5S Philosophy		
System	Meaning	Results
SEIRI (Sort)	Taking out unnecessary items in the workshops	<p>Unneeded items are thrown away or properly disposed.</p> <p>Things that clutter the workplace that may not be needed should be taken out. They usually occupy space that restricts physical movement. Further this</p>

		condition has a psychological effect that usually clutter one's mind and cloud one's attitude
SEITON (Systematize, Stabilize/Straighten))	Organization of necessary items in good order and easy access	<p>Items in the workplace are arranged for ease of access and repeated use.</p> <p>Assigned a place for everything. The most often used item should be nearest and ergonomically situated, meaning – there should be little effort required in accessing, using and returning the equipment, tools and parts, even documents.</p>
SEISO (Sweep/Shine)	Cleaning of the workplace (Always)	Cleaning even if things are not DIRTY. A regular cleaning schedule prevents things from having the chance to get dirty.
SEIKETSU (Sanitize/ Standardize)	Maintaining the workplace in high standard of housekeeping	Everything must be sanitized and standardized and no turning back. Everything is systematic and must be sustained.
SHITSUKE (Sustain/ Self-Discipline)	Doing things spontaneously without being told. “Teach by doing”)	Everything becomes a “culture” and reach a certain level of discipline.

Note: KAIZEN should involve persons with impairments

Example:

Not Organized	Organized, Clean and Safe
<p>Figure 1 A cluttered shop-floor.</p> 	 <p>Figure 2 The same shop-floor after removal of all unnecessary items</p>
<p>Figure 3 (a) Storage rack for metal pieces and rolls of wire. (b) Wooden support frame for heavy metal bars. (c) Container for scrap and rubbish.</p> 	 <p>Figure 7</p>



5 Standard for Tools/ Machines/Equipment

5.1 Standard Definitions for Tools/ Machines/Equipment

Tool – refers to a hand-held device that used to carry out TVET training in an occupation.

Machine – refers to an apparatus using or applying mechanical power and having several parts, each with a definite function and together performing a particular task associating with TVET training for each occupational area.

Equipment - refers to the items/tools/machines needed to performing a particular task associating with TVET training for each occupational area.

5.2. Standard Tools, Machines and Equipment for Each Occupation

Tools, machines and equipment should be sufficiently fulfilled as prescribed in every unit of occupational standards, curriculum and TTLM

SECTOR	Category	STANDARD TOOLS, MACHINES AND EQUIPMENT					
		TVET Institution	Sector Institution	Enterprise (Cooperative Training)			
				Micro	Small	Medium	Large
All occupations	Ideal	<ul style="list-style-type: none">As prescribed by the Occupational StandardAs prescribed in the inclusive curriculumAs prescribed standard by the OHS for each occupationAs prescribed by the Cooperative Industry workplace.					
	Tolerable	-	-	-	-	-	-

5.3. Standard Ratio of Tools, Machines, and Equipment Per Trainee

A. Standard For TVET Institutions

Description	Required Ratio Per Trainee		
	Ideal	Tolerable	Not tolerable
• Tools			
Basic	1:1	1:2	1:3 or more
Advanced	1:1	1:4	1.5 or more
• Machines			
Basic (ordinary) *	1:1	1:2	1:3
Moderate (ordinary)**	1:5	1:6-10	1:11 and above
Special (high tech)***	1:15	1:16-20	1:21 and above
• Equipment			
Basic (ordinary) *	1:1	1:2	1:3 and above
Moderate (ordinary)**	1:5	1:6-10	1:11 and above
Special (high tech)***	1:15	1:16-20	1:21 and above

ion:

(*) Machines which are important to deliver training and easily accessed for all trainees.

(**) Machines which are important to deliver training but hard to access for all trainees

(***) Machines which are important to deliver training but very hard to access

for all trainees

Note: Priority should be given to trainees with impairments

B. Standard For Enterprise/Industry (Cooperative Training)

The enterprises and industries must fulfill:

- Tools, machines, furniture and equipment for each occupation areas as stated in the respective curriculum that bases the occupational standard.
- Ratio of tools, machines, and equipment per trainee for each occupational area as stated in the respective curriculum that bases the occupational standard.
- Maintenance and installation schedule of machines and equipment
- Follow kaizen philosophy

The Ratio of Tools/equipment/machines per trainee/student must be as shown in the table below:

No.	Tools/ Machines/Equipment	Required Ratio		
		Ideal	Tolerable	Not Tolerable
1	Machines			
	➤ Basic (ordinary) *	1:1	1:2	1:3
	➤ Moderate (ordinary)**	1:3	1:4	1:5 and above
	➤ Special (high tech)***	1:6	1:7-10	1:11 and above
2	Equipment			
	➤ Basic (ordinary) *	1:1	1:2	1:3 and above
	➤ Moderate (ordinary)**	1:2	1:3	1:4 and above
	➤ Special (high tech)***	1:5	1:6	1:7 and above
3	Tools	1:1	1:2	1:3

Note:

- Hand tools should be used 1:1 for trainees with impairments
- In the case of machines and equipments priority should be given trainees with impairments

Annotation

- (*) Machines which are important to deliver training and easily accessed for all trainees
- (**) Machines which are important to deliver training but hard to access for all trainees
- (***) Machines which are important to deliver training but very hard to access for all trainees

C. Standard For Sector Institutes

Items		Ratio to Trainee/Student			Remark
		Ideal	Tolerable	Not Tolerable	
Tools	Basic	1:1	1:2	1:≥3	Depending on the type and use of the tools, machines and equipment in different institutions
	Advanced	1:2	1:3-5	1:≥6	
	Specialized	1:3	1:4-10	1:≥11	
Machines	Basic	1:1	1:2	1:≥3	
	Advanced	1:2	1:3-5	1:≥6	
	Specialized	1:3	1:4-10	1:≥11	
Equipment	Basic	1:1	1:2	1:≥3	
	Advanced	1:2	1:3-5	1:≥6	
	Specialized	1:3	1:4-10	1:≥11	

Note:

- Hand tools should be used 1:1 for trainees with impairments
- In the case of machines and equipments priority should be given trainees with impairments

5.4. Standard Color Coding for Machines and Equipment

Color coding of machines and equipment must be done separately coded for each occupational area as prescribed by the :

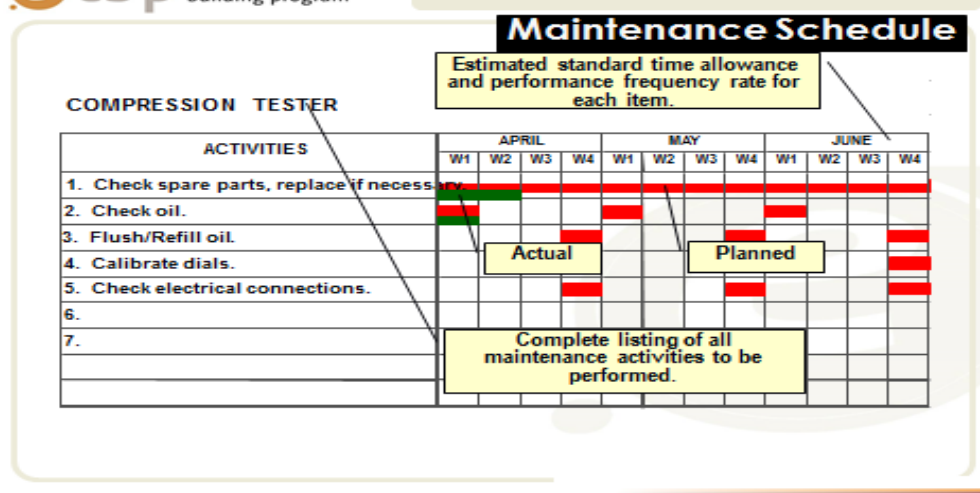
Recommended Machine and Equipment Color

Color	Items
Orange	Machine Safeguard
	Machine Part Open Guard
	Hazardous Machinery and Equipment
Red	Danger Zone
	Exits and Directions
	Fire Fighting Equipment
	Equipment Perimeter Lines
	Machine Electrical Switches
Light Olive Green	Movable Stationery Equipment

Note: When possible, support persons with impairments with appropriate signs

5.5. Standard Maintenance of Tools, Machines and Equipment

- Standards maintenance of machines and equipment must be based on industry manufacturer's standards requirements, procedures and regulations.
- All training providers must have trainers' maintenance team to maintain and repair machines and equipment those which are not functioning.
- All training providers must have a responsibility to empower trainers how to operate machines and equipment appropriately.
- Inventory for machines and equipment must be conducted 2 times in a year.
- All machines and equipment must have a machine history.
- All machines and equipment must have periodical repaired date attached.
- Preventive maintenance needs to be taken routinely before each procedure and corrective maintenance as per the manufacturer's instructions.



- If possible **Facility Equipment Maintenance Information System (FEMIS)** must have been established and operational.
- When possible in each occupational area additional reserved machines and equipment should be available.
- Machines and equipment which are unable to repair and non-functional must be separately stored and tagged in a safe place.
- In each workshop there shall be an **Operational Manual** for each machines and equipment.

5.6. Standard Installation of Machines

- Installation of machines must be as prescribed by the **Operational Manual** of machines standards as provided by the industry manufacturers.
- There must be a responsible body that monitors and evaluates the actual installation process based on manufacturer's standards.
- The installation of machines should consider the inclusion of persons with disabilities

6. Standard for Supplies and Materials

6.1. Standard Definition of Supplies and Materials

Supplies – refers to the items that are needed and consumed while delivering TVET training for each occupational area.

Materials – refers to the items that are needed to a particular activity while delivering TVET training for each occupational area.

6.2. Standard Supplies and Materials for Each Occupational Area

Supplies and materials must be available for each trainee in each occupational area as prescribed by the curriculum as shown in the table and sample below.

SECTOR	Category	STANDARD SUPPLIES AND MATERIALS					
		TVET Institution	Sector Institution	Enterprise (Cooperative Training)			
				Mic	S	M	L
All occupations	Ideal	<ul style="list-style-type: none">• Supplies and materials must be fulfilled according to the supplies and materials listed in the respective curriculum• Technical specifications for quality supplies and materials must be prepared according to the curriculum• Quantity of supplies and materials per trainee/student ratio must fulfill the criteria listed in the curriculum• Storage system , distribution and inventory of supplies and materials must follow the regulation of procurement and logistics administration system• Supplies and materials procurement should be based on disability inclusive curriculum					
	Tolerable	-	-	-	-	-	-

Example: Agricultural Crop Production and Automotive Engine Rebuilding

A. Agricultural Crop Production

STANDARD TOOLS, EQUIPMENT & MATERIALS

TOOLS		EQUIPMENT		MATERIALS	
QTY		QTY		QTY	
2 sets	Box wrench	1 pc.	• Parts cleaning tank	2 copies	• SDS (Service Data Specification)
2 sets	• Open end wrench	1 pc.	• High-pressure cleaner/heated	2 copies	• Service Manual
2 sets	• Socket wrench	1 pc.	Work bench - 2000mm	2 copies	• Engineering Drawing
2 pcs.	• Adjustable wrench	1 pc.	Work bench - steel top	2 sets	• Overhauling gasket
2 sets	• Screw driver (T-handle)	1 pc.	• Engine stand	2 sets	- Gas engine - Diesel engine
					• Piston rings (1 set)

TOOLS		EQUIPMENT		MATERIALS	
QTY		QTY		QTY	
2	• Step ladder	5	• Reference manuals (first aid kit with reference manual)	5 sacks	• Propagating media (garden soil, sawdust, sand, composted, coconut coir)
2	• Storage tools/cabinet	5	• Data (Data on result of soil analysis)	3 sacks	• Rice hull
25 pcs	• Transplanting tools	5	• Procedural manuals	3 rolls	• Rope, (small, med. Large)
25 pcs	• Trowel	•	• Soil samples analysis	3 boxes	• Rubber band
		•	• Examples of farm standard operating procedures (SOPs)	25 pairs	• Rubber boots

TOOLS		EQUIPMENT		MATERIALS	
QTY		QTY		QTY	
				25 sacks	• Rubber knots
					• Sacks
					• Sample of matured vegetable crops
				5 boxes	• Seed box
					• Seedlings, assorted
				2 packs per crop	• Seeds
				5	• Soil auger
				5 rolls	• String
				5 bottles	• Tetrazolium chemical
					• Transplanting supplies
				5 pcs.	• Detergent, liquid and powder soap
				5 pcs.	• Brush

STANDARD TOOLS, EQUIPMENT & MATERIALS

TOOLS		EQUIPMENT		MATERIALS	
QTY		QTY		QTY	
2 sets	Box wrench	1 pc.	• Parts cleaning tank	2 copies	• SDS (Service Data Specification)
2 sets	• Open end wrench	1 pc.	• High-pressure cleaner-heated	2 copies	• Service Manual
2 sets	• Socket wrench	1 pc.	Work bench - 2000mm	2 copies	• Engineering Drawing
2 pcs.	• Adjustable wrench	1 pc.	Work bench - steel top	2 sets	• Overhauling gasket - Gas engine - Diesel engine
2 sets	• Screw driver (T-handle)	1 pc.	• Engine stand	2 sets	• Piston rings (1 set)

STANDARD TOOLS, EQUIPMENT & MATERIALS

TOOLS		EQUIPMENT		MATERIALS	
QTY		QTY		QTY	
2 sets	Box wrench	1 pc.	• Parts cleaning tank	2 copies	• SDS (Service Data Specification)
2 sets	• Open end wrench	1 pc.	• High-pressure cleaner-heated	2 copies	• Service Manual
2 sets	• Socket wrench	1 pc.	Work bench - 2000mm	2 copies	• Engineering Drawing
2 pcs.	• Adjustable wrench	1 pc.	Work bench - steel top	2 sets	• Overhauling gasket - Gas engine - Diesel engine
2 sets	• Screw driver (T-handle)	1 pc.	• Engine stand	2 sets	• Piston rings (1 set)

4 pcs.	• Hammer (ball peen)	1 pc.	• Hydraulic press – 1000KN	2 sets	• Magnaflux powder - Chemical spray - Kerosene
4 pcs.	• Hammer (plastic faced)	1 pc.	• Cylinder boring m/c – 130mm	2 btls.	• De-waxing, Detergent
4 pcs.	• Feeler gauge	1 pc.	• Cylinder boring m/c – 60mm	2 btls.	• Special purpose agent
2 pcs.	• Snap ring pliers (internal)	1 pc.	• Static balancing device	2 pcs.	• Plastigage
2 pcs.	• Snap ring pliers (external)	1 pc.	• Line boring bar	10 liters	• Engine oil
1 set	• Puncher (hollow)	1 pc.	• Precision honing machine	10 liters	• Gasoline oil

TOOLS		EQUIPMENT		MATERIALS	
QTY		QTY		QTY	
2 pcs.	• Piston ring compressor	1 pc.	• Welding unit – AC/DC	10 pcs.	• Gloves
2 pcs.	• Torque wrench (dial type)	1 pc.	• Gas welding & cutting set	10 pcs.	• Goggles
2 pcs.	• Valve spring remover	1 pc.	• Con-rod reconditioning machine	10 pcs.	• Clean rags
2 pcs.	• Dial gauge	1 pc.	• Arbor press – 20 KN	10 pcs.	• Clean brush
2 pcs.	• Bore gauge	1 pc.	• Honing bar	2 pcs.	• Oil filter
2 pcs.	• Depth gauge	1 pc.	• Bench storage cabinet	2 pcs.	• Fuel filter
2 pcs.	• Straight edge	1 pc.	• Pillar drilling machine	2 pcs.	• Air filter
2 pcs.	• Micrometer (inside)	1 pc.	• Oil dispenser - portable		
2 pcs.	• Micrometer (outside)	1 pc.	• Lubricating pump		

TOOLS		EQUIPMENT		MATERIALS	
QTY		QTY		QTY	
	• Special service tool (SST) – refer to service manual	1 pc.	• Valve & clutch spring tester		
1 set	• Taps and die	1 pc.	• Clutch assembly fixture – 80mm	Training Materials:	
1 set	• Drills and bits	1 pc.	• Connecting rod aligning jig		• Reference books
2 pcs.	• Hacksaw w/ blade	1 pc.	• Pedestal grinder – 200mm		• Manuals
		1 pc.	• Engine valve grinder		• Catalogs
		1 pc.	• Valve seat turning kit		• Brochures
		1 pc.	• Storage for reconditioned motors		• Modules/LEs

6.4. Standard Preparation of Technical Specifications for Quality Supplies and Materials

Preparation of technical specifications is the responsibility of trainers as prescribed by the OS, disability inclusive curriculum and the manufacturer's standards.

6.5. Standard Quantity of Supplies and Materials Per Trainee/Student Ratio

Sufficient quantity of supplies and materials must be allotted for each trainee as prescribed by the disability inclusive curriculum.

6.6. Standard Storage System, Distribution and Inventory of Supplies and Materials (see 4.12.2 Cabinet storage and open cabinets)

- Supplies and materials must be stored appropriately utilizing the kaizen principles.
- There must be a systematic fair distribution as per required by training and the number of trainees with or without impairments.
- There must be a regular inventory schedule for supplies and materials.

7. Standard for Training Instructional Materials (Instructional Aid/Library)

7.1. Standard Definition of Training and Instructional Materials

Training, Teaching and Learning Materials (TTLM) – refers to:

- trainer-made printed instructional aid that supplements the trainer's oral and visual instructions.
- well-designed and carefully developed learning aid that provides detailed instructions to the trainee.
- self-instructions to guide the trainee in learning and progressing at a rate comfortable to them.
- as support in acquiring the learning outcomes reflecting the competence requirements of the particular occupation addressed by the program curriculum.
- Instructional media that facilitates individualized learning.

Note: All points stated above should consider disability inclusive TTLM.

7.2. Standard Types of Training and Instructional Materials

There must be the 'Resource-Based' and 'Self-Contained' TTLM which includes **Information Sheets, Operation Sheets and Lap Test.**

- The resource-based uses additional materials available internally or externally of the organization or institute such as textbook, journals, periodicals, handouts or manuals to provide the needed information leading to acquisition of the intended learning outcome.
- The self-contained TTLM provides all the necessary information needed to understand and acquire the identified learning outcome. The trainee does not need to access additional reference material.

7.3. Standard Bases and Ratio of Training and Instructional Materials

Bases of training, teaching and learning material must be:

- Directly related to the occupational standards and the curriculum
- Designed by the trainer to fit local condition and appropriate to intended trainees
- Designed in a way addressing the learning for all the learning outcomes within one learning module.

A. TVET Institutions and Enterprise/Industry (Cooperative Training)

No	Item	Ratio of Item: Trainees/student		
		Ideal	Tolerable	Intolerable
1	TTLM /Teaching, Training and Learning Materials/ (disability inclusive learning guide)	1:1	1:2	1:3
2	Modules (One Title) Related To The Occupation.	1:1	1:5	1:≥6
3	Reference Books Related To The Occupation.	1:1	1:5	1:≥6
4	Journals/Publication/Magazines Related To The Occupation.	1:3	1:10	1:≥11
5	Instructional Audio Video (In Library/Classroom Location)	1:1	1:5	1:6
6	Visual Training Media (LCD, OHP, Laptops) (Classroom)	1:30	1:40	1:41
7	Black Board, White Board, Flip Chart	1:30	1:40	1:41

Note: Priority should be given to trainees with impairments

7.4. Standard Component of Training Material's

The TTLM must be composed of three packages namely:

1. Trainer's Guide
2. Learning Guides and
3. Assessment Packet.

8. Standard for Assessment

8.1. Standard Definition of Assessment

Assessment is a process of collecting evidence and making judgments on whether competence has been achieved.

8.2. Standard Types of assessment

There must be both institutional (formative and summative) and national assessment

8.3. Standard Assessment Packet

The institutional assessment must have assessment packet that include:

- a) Evidence plan
- b) Demonstration checklist
- c) Oral question
- d) Acceptable answer for oral question
- e) Written test (Knowledge test)
- f) Answer key for written test
- g) Assessment summary result

A. Sample Format of Assessment Packet

- **(Formative Assessment)** The trainer must prepare the institutional assessment tools.

TVET Program:					
Learning Module Title:					
Learning Outcome(s) covered	<ul style="list-style-type: none">• —• —• —				
Ways in which evidence will be collected: The evidence must show that the trainee.....	Observation	Interview	Demonstration with Oral Questioning	Written Test	LAP Test
• (assessment criteria)					

•					
---	--	--	--	--	--

***Critical Aspects**

Prepared by:		Date:	
Checked by:		Date:	

B. Summative Assessment

<i>TVET Program:</i>					
<i>Batch Class:</i>					
<i>Learning Module UC (s) covered</i>	<ul style="list-style-type: none"> • — • — • — 				
Ways in which evidence will be collected: The evidence must show that the trainee.....		Observation	Interview	Demonstration with Oral Questioning	Written Test
					LAP Test
• (assessment criteria)					
•					
•					
•					
•					

C. *Critical Aspects of Competence

Prepared by:		Date:	
Checked by:		Date:	

Note: During the time of assessment reasonable adjustment should be made for persons with impairments

8.4. Standard National Assessment

- Trainees must take an outcome based assessment level by level.
- Short term training must be completed by assessment.
- Trainees who are not competent in any level shall not be transferred to the next level.

8.5. Standard Requirements for Trainee to be Considered Competent

- If he/she certified by national assessment.
- Every trainee/student to be considered competent, he/she should show the required knowledge, skills and attitude of the respective occupational standard and be able to demonstrate.

8.6. Standard Administration of an Assessment

- The national assessment must be administered according to assessment center operational manual.
- Assessors must be accredited professionals from industries eligible to conduct assessment.
- Assessors must be trained on disability inclusive assessment methodology

9. Standard for Administrative Support Component

The training providers must have appropriate support staff to facilitate the requirements of training, thus, it is necessary that standards shall also be set for administration support.

9.1. Standard Definition of Administrative Support

Administrative Support Staff – refers to a category of individuals who provides various kinds of administrative support service to the main objectives of TVET activities.

9.2. Standard Units of Administrative Support

- TVET institutions organizational structure, adequate administrative personnel should be employed for each position, with the necessary profile to carry out their duties.
- Administrative staff must be qualified, trained and experienced in their respective works and sufficiently fulfilled in accordance with the organizational structure.
- There must be awareness creation on disability to TVET institutes or supportive staffs

Some of administrative units are:

- ✓ Registrar Office for the admission and certification of trainees/students
- ✓ Finance and Procurement System
- ✓ Storehouse Unit
- ✓ Staff Development Unit
- ✓ Library Unit
- ✓ Laboratory Unit
- ✓ Workshop Unit
- ✓ Public Relations Unit
- ✓ Disability counselling unit

IV. Standard System and Procedures of Accreditation

1. Standard Definition of Accreditation

Accreditation - is a process of quality assurance through which accredited status of the program/s is/are granted to training provider, showing it has been approved by the relevant legislative or professional authorities and meeting pre-determined standard

2. Standard Systems and Accreditation Process

The whole Accreditation process includes the following:

- a) Registration
- b) Accreditation
- c) Renewal of accreditation

3. Standard Procedures for an Institution to be Accredited

3.1 Standard for Registration Procedure

- For the registration purpose, every TVET provider must apply for a registration of its programs (rather than institutions) to the accrediting body according to the registration and accreditation of programs in TVET directive (March, 2010 ministry of education).
- The TVET provider can start training only if it gets the registration license from the authority, after assessment of the necessary input standards (detailed checklist will be prepared by accrediting bodies based on the minimum standard for the occupation/program).
- It is the process whereby TVET providers' compliance with the minimum standard must be checked for the program to be accredited and as a result allowed or denied to start their training processes.

3.2 Standard Parameter Requirements for Registering Program/s:

- Local Labor Market Information
- Human Resource
- Training Facilities

3.3 Standard Application Requirements for Registration should include:

- Administrative Documents
- A report on local labor market
- Updated EOS of all programs
- Proof of building ownership or lease-contract of at least five years
- Composition of the Board
- Board resolution on the acceptance of the TVET program
- Strategic Plan (Institutional Development Plan- IDP)
- Memorandum of understanding with local company (In case of Cooperative Training)
- Disability inclusive Curricular Requirements
- Disability inclusive Curriculum derived from the Relevant EOS
- Relevant Instructional Materials
- Relevant Equipment, Material and other Inputs, as prescribed in the EOS.
- Profile of Certified TVET Trainers for the program and their qualifications
- Profile of management and supporting staff and their qualifications

- Contractual agreement of training staff at least for a year.
- Priority should be given to persons with disabilities

3.4 Standard Requirements on the following:

- Tuition and other fee
- Persons with impairment must be free from the tuition fee.
- Trainee evaluation system
- Entrance requirements complying with the regional minimum entrance requirements
- Attendance
- Code of conduct for both TVET trainers and their trainees

3.5 Standard Application and Registration Fees

- Application fee prescribed by the regional accrediting body.
- The registration certificate to be awarded by the accrediting body must include information on: name of the program/ occupation, its level, and the maximum number of trainees allowed.

3.6 Standard for Accreditation Procedure

- Local labor market and tracer study must be conducted.
- It must be done after the first batch graduated (maximum of 2 months) and before the second batch is enrolled.
- The success of that first batch will be considered. (A minimum requirement of the year (GTP II) those who sat for the occupational assessment should be competent and get certified in each program).
- A TVET institution which applies for accreditation must submit evidences related to the process and the output to the accrediting body.

4. Standard Requirements for Accreditation:

A. Process must include:

- Enrolment of trainees (with criteria)
- Curriculum development/ improvement (optional)/
- Training delivery management
- Suitability of the Instructional material
- Trainee assessment and certification by the institution
- Proper utilization of the resources considered during the registration
- Continuous assessment of local labor market demand

- TeCAT (Technology Capabilities Accumulation and Transfer) activities
- Industry linkage (Cooperative and in-company Training)
- Renewed Business License
- Documentation procedure for all the activities listed above

B. Output:

- The number and percentage of graduates who are competent on the national occupational assessment at every year in each level of occupation.
- The certificate of accreditation awarded by the accrediting body must mention the name of the accredited program, its level, and the number of trainees allowed for the particular program, considering all the inputs the institution has.

5. Standard Procedure for Renewal of Accreditation

- The renewal of accreditation must deal with the process and outcome of the TVET program.
- Renewal must take place within 3 years (depending upon the program duration) for the program and any institute that fails to comply with the following will be denied renewal of the particular program.
- There will be a random, un-announced supervision taking place the report of which should contribute to the renewal at last.
- The application for renewal must be submitted at least 3 (three) months before the expiry date of the institution's program accreditation.
- The accrediting body will give a warning time within six months for possible improvement of according to shortcomings it discovers.

6. Standard Requirements for Renewal of Accreditation

Must Include:

- Mandatory of a minimum requirement of the year (GTP II) success in the national assessment
- Most of the competent and complete trainees must be engaged in self-employed jobs or paid employment.
- Updated disability inclusive curriculum and TTLM, following updated OS (if there is any)
- Updated training facilities and their efficient utilization
- Implementation and actualization of the institution's strategic plan/ IDP (Institutional Development Plan)
- Report on tracer study

- Audit Report by Licensed Accountants
- Accumulated and Transferred Technologies
- Implemented memorandum of understandings signed with the local industry related to the program
- Number of competent trainees with or without impairments who organized in MSEs (with the help of the TVET institution)

7. Standard Fee for Accreditation

The fees payable in connection with Accreditation, Certification and other related services should be decided by the concerned regional TVET or related authorities.

8. Standard Inspection Procedures for Accreditation

There must be a random, un-announced inspection taking place the report of which should contribute to the accreditation (if it is necessary).

8.1 Inspection must include:

- Availability of a required EOS with disability inclusive curriculum and TTLM.
- Qualified trainers (NC + TM) who have appropriate level and profession related to the program
- An approved and disability inclusive campus or building suitable for TVET with access to road, water, electricity, and telephone.
 - Disability inclusive classrooms, workshops, laboratories, stores and computer center suitable for the occupation
 - Disability inclusive library with relevant books and references for the occupation and preferably with internet connection and e-library
 - Disability inclusive well furnished offices for training and administrative staff
 - Disability inclusive multi-purpose hall
 - Disability inclusive recreation / student center
 - Adequate, clean and accessible toilet service (separate for male and female) for persons with or without impairments
 - Disability inclusive safety materials (signs) and first aid kit in each workshop
 - Disability inclusive fire exit/fire escape in each building/workshop
 - Fire extinguisher in each building

- Safety gadgets necessary for the occupation (wears, goggles, shoe, cap, etc)
- Accessible and acceptable size of classrooms and workshops (according to the occupation and the standard)
- Accessible and acceptable natural lighting (according to the occupation and the standard)
- Acceptable ventilation (according to the occupation and the standard)
- Accessible and acceptable areas between machineries (according to the standard)
- In addition to the above inspection points, it must include the requirements related to the three processes of accreditation (registration, accreditation and renewal of accreditation).

9. Standard Compliance Audit

9.1 Qualification of the Performance Audit Member Team

- Must be a senior official at least first degree holder.
- At least 2 years of experience in TVET and/or industry.
- Must be computer literate.
- At least three members who have awareness on disability and one among them should be related to the program

9.2 Frequency of the Performance Audit

- Performance audit must be undertaken at least once a year.

10. Standard Authorizing Body for Accreditation

The Federal and Regional TVET Bureau/Commission/Agency

11. Standard Checklist for Accreditation

Checklist for accreditation must be prepared based on the inspection points that are mentioned under standard for inspection.

12. Standard for Cancellation of Accreditation

12.1. Definition of Cancellation

Cancellation - a measure taken by accrediting body to deny an institute when the institute violate/misuse/ of the stated standard.

12.2. Procedure of Cancellation

A TVET program can be cancelled for any reason mentioned below:

- Any **false information** given during the registration, accreditation and renewal process will lead to cancellation of the respective demand.
- Violation of any of the **requirements** during the registration, accreditation or renewal steps.
- Enrolling trainees not according to the **entrance criteria** and rule given by the respective region
- Any registered program that is **not accredited within the specified time** is cancelled.
- Any accredited program that is **not renewed every/within 3 years** will be cancelled
- The trainees fortune must be carefully handled when cancelling training programs

12.3 Voluntary Withdrawal

- If the accredited institutions voluntary withdrawal from the accreditation process, it must notify the accrediting body through letter.
- The voluntary withdrawal institution must submit all the necessary trainees' document (hard and soft copies) to the accrediting body prior to withdrawal.

13. Transparency

- Because the public needs to be made aware of all the registered and accredited training providers, the accrediting body will make available the current status of all TVET providers in the region through the use of print and broadcast media.
- This can better be made using the web page of the regional TVET agency (equivalent authority) where trainees can access and see the list of accredited programs of the training providers.
- A national database of TVET providers will be available with their current status at the Federal level, which will be updated and publicized annually.

- This will be open to the public in the web page of the Federal TVET authority.
- Any violation related to TVET strategy will lead to the cancellation of the program.

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Contributing Experts:

A. Developer

Facilitator :

Dr. Ricardo J. Mejia – Advisor/Expert, OBT, Assessment and Certification

Mihret Tigabe – Team Leader, Institutional Capacity Building Team (ICB)

Mekuannent – ICB Expert

Asnake Aychiluhim – ICB Expert

Regional Experts

1. Lemi Mosissa Sori - Supervisor
2. Alemu Shumi – Team Leader
3. Mesfin Leulseged - Supervisor
4. Dennebo Mekuria - Supervisor
5. Yonas Tolesa – Supervisor
6. Mamushet Admasu - Supervisor
7. Alemu Shume – Supervisor
8. Dereje Regassa - Supervisor
9. G/cherkos Yohanes – Supervisor
10. Nigussie Yizezu – Supervisor
11. Aschale Bosale – Supervisor

B. Validators

Facilitator :

Dr. Ricardo J. Mejia – Advisor/Expert, OBT, Assessment and Certification

Mihret Tigabe – Team Leader, Institutional Capacity Building Team (ICB)

Mekuannent – ICB Expert

Asnake Aychiluhim – ICB Expert

Regional Experts

1. Sisay Abrha
2. Surafer Yemane
3. Getahun Negash
4. Yonas Toresa
5. Ojulu Bach
6. Anina Edris
7. Milkiyas Tabor

8. Helina Mogesse
9. Jida Kuma

Jhpiego Expert

10. Equalanet - Expert

C. Developer of Inclusive Standard

Facilitator :

1. Mihret Tigabe – Team Leader, Institutional Capacity Building Team (ICB)
2. Asnake Aychiluhim – ICB Expert

Federal experts

1. Fitsum Tilahun
2. Simiret Merisha

Regional Experts

1. Getahun Negash
2. Abera Selemon
3. Asifaw Zeriay
4. Aginche Ayalew
5. Mamo Abidy
6. Etienesh Silesh

From Fenapd

1. Shitaye Asitawus (Fenapd presedant)
2. Bereket Umer

ECDD Expert

1. Tewodros Genetu - Expert