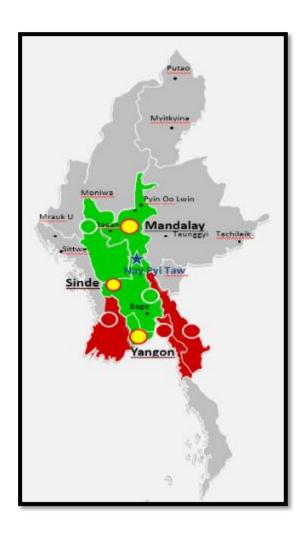






# Assessment Report Workshop Management System NSSA Testing Centers



Presented by: Ms. Naing Yee Mar (Deputy Head of Project "Promotion of

TVET"), NSSA Workshop Management Assessment Service

Team (GIZ), Christian Volker Ide (GIZ Volunteer)

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#### 1. Forward

The project aims at improving the provision of vocational training and certification facilities for employment in selected regions of Myanmar. This is a follow-on measure to the project, Strengthening the TVET System in Myanmar implemented from September 2012 to December 2016. The project makes up a module component of the development cooperation programme, Sustainable Economic Development in Myanmar. The lead executing agency is the Ministry of National Planning and Finance (MoNPF). The main implementing partners at ministerial level are MoE, MoLIP and MoI. The project involves the following 4 main fields of activities for implementation from January 2017 to December 2019: 1) Policy Advice; 2) Standards and certification; 3) Vocational training personnel; and 4) Training courses geared to labour-market needs.

This NSSA Assessment Center Workshop Management Assessment concerns with the Fields of Activity 2) Standards and certification which aims to enable the National Skill Standards Authority (NSSA) under the Ministry of Labour, Immigration and Population (MoLIP) to institutionalize and manage an effective and efficient system for the assessment and certification of occupational skills. The Field of Activity 2) is expected to improve the capacities of NSSA for effectively conducting procedures for skills assessment and certification, and thus the achievements are measured by the following indicators:

- A concerted scheme has been drawn up for developing and implementing a functional organizational and operational structure for NSSA.
- Based on the revised regulations, NSSA has set 30 standards with related assessment and certification tasks.

In addition, the Activity 2) will include:

- To provide an advice to NSSA/MOLIP in setting standards, assessment tasks and classifying occupational standards (nomenclature).
- To support NSSA/MOLIP to enhance in cooperation with employer associations through public private partnership programme.







#### 2. Background of the Workshop Management pilot project:

The Field of Activity 2) is expected to improve the capacities of the National Skill Standards Authority (NSSA) for effectively conducting procedures for skills assessment and certification, and thus one of the achievements is measured by the indicator, i.e. Based on the revised regulations, NSSA has set 30 standards with related assessment and certification tasks. One particular task for implementing this indicator is to support NSSA for printing national occupational competency standards (NOCS) booklets after concerned Technical working group had drafted and an official approval has been received. As these NOCS booklets will be used for skills assessments and trainings, NSSA requested GIZ to print these booklets on high-quality paper with a professional finish.

NSSA comprised of various stakeholders (Government Ministries and private organizations) has been launched in 2007, with the aim to support the skill development of Myanmar workforce and facilitate the free flow of skilled labour within ASEAN region. As one of the key components of the German-Myanmar project, NSSA is currently taking a series of activities in order to strengthen its organizational capacity in the area of laying down policies, regulations and quality assurance programs for workers and job seekers. NSSA has already offered the skills certifications Level 1 and Level 2 for over 7000 workers in 25 occupation areas since 2014 with the approach of Recognition of Prior learning (RPL) by referencing NOCSs developed by NSSA.

In 2018-2019 FY, MOLIP has planned to further carry out the skills assessment in demanded occupation areas for 9000 workers who are those in the workforce and have already acquired their occupational skills through experience and learning on-the-job. In order to scale up the RPL based skills assessments and but also to provide skills oriented modular short courses/ trainings, there is a need to develop more NOCSs by concerned sectorial committees, at the same time there is a need to improve the quality and performance of the NSSA accredited Assessment centers. Currently, there are total 92 Accredited assessment centers for skills assessment all over countries.

Overall, this TOR supports the institutional development of National Skills Standards Authority (NSSA) for better fulfilling its role as regulatory body for skilled workforce development envisaged in the 2013 Employment and Skills Development Law.







#### 3. Assignment:

In order to be able to efficiently implement the skills assessment of workers in selected priority occupations, an effective workshop management system with a sustainable usage of the NSSA Testing Center facilities and a continuously improvement of the assessment Centers quality, hast to be strengthened.

Through the GIZ and NSSA jointly assessment team, it is expected to overview the actual status and the challenges faced by the Assessment centers (selected 8 centers for the pilot phase) and find ways for improving the Quality and efficiency of the accredited centers.







#### **List of Abbreviations:**

WMAC Workshop Management Assessment Checklist

WMACC Workshop Management Assessment Criteria Catalog

NSSA WMAST NSSA Workshop Management Assessment Service Team

NSSA National Skill(s) Standards Authority

**MoLES** Ministry of Labor, Employment and Social Security

**Mol** Ministry of Industry

GIZ Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

**BMZ** Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung

**ESDL** Employment and Skills Development Law

AQRF ASEAN Qualification Reference Framework

**ILO** International Labor Organization

ITC Industrial Training Center

**CESR** Comprehensive Educations Sector Review

NQF National Qualifications Framework

**NVQF** National Vocational Qualifications Framework

**TVET** Technical and Vocational Education and Training







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#### Introduction

The activities outlined in this report relate to NSSA Testing Center Workshop Management Systems tool development and assessment of the centers. Within the context of supporting NSSA chaired by the Ministry of Labour, Employment and Social Security (MoLES). GIZ In order to be able to efficiently implement the skills assessment of workers in selected priority occupations, an effective workshop management system, as the centers quality assurance for an sustainable usage of the NSSA Testing Center facilities and a continuously growth of the Testing Centers quality, hast to be established.

With the implementation of this pilot project, a workshop management assessment tool and the assessment of 8 NSSA Assessment Centers in Yangon, Sinde and Mandalay was developed and carryout.

It is expected to improve the capacity of the NSSA Assessment Centers Quality and the external and internal assessment possibilities, for all Assessment Centers under NSSA. A capacity development plan, who tackles the root causes of the actual testing center situation, will be elaborated. Furthermore a quality management tool as basis for continuous development of the centers will be handed over to the Ministry of Labor, Employment and Social Security (MoLES).

The gained pilot project experiences are evaluated and can be immediately fed into the next steps of the NSSA Testing Centers development processes and the quality assurance of the QM MoLES system.







#### **Pilot Project implementation phases**

The pilot project was implemented in two phases:

Project phase	Focus	Timeframe
Pilot Phase One – NSSA Workshop Management Assessment Service Team (NSSA WMAS) setup, criteria catalogue development	Project Team and Workshop Management Criteria setup and development	Sep - Nov. 2018
Pilot Phase Two – Assessment, Results and successions for the establishment of a sustainable quality workshop management system	Workshop Quality Management System	Nov. 2018

# Phase one – NSSA Workshop Management Assessment Service Team (NSSA WMAST)

#### NSSA Workshop Management Assessment Service Team

For the project an NSSA Workshop Management Assessment Service Team (NSSA WMAST) was established with representative membership drawn from participating sections and organizations. The group performed the NSSA Testing Center Workshop Management Criteria Catalogue development, with separation of evaluation indicators based on the following criteria's, Occupation Type, Machine related or Non Machine related, Center Type and Region Type, Private and Remote, Government and City, Factory and City and Public Private Partnership.

The development of a Planning and Communication Document based on A3 format basis. External Workshop Quality Assessment of 8 NSSA Testing Centre Facilities. Participation in workshops at GIZ and Ministry of Labor to present the deliverables.







The members also undertaking operational tasks within their individual jurisdictions to fulfil the objectives and deliverables of the project. Their valuable contribution to the outcomes of this project is acknowledged.

Position, functions, of participants of the NSSA Testing Center Workshop Management Criteria Catalogue and the followed assessment of 8 NSSA Testing Center Workshop Management Systems development and implementation project are:

- Ms. Naing Yee Mar (Deputy Head of Project "Promotion of TVET").
- Ms. Ei Ei Khin, Assistant Technical Advisor at GIZ, Head of project.
- Ms. Lai Zarni Khaing. GIZ Project Assistant, 5S expert, implementation support.
- Mr. Tun Ko, Ministry of Labour, Staff officer, implementation support.
- Mr. Christian Volker Ide, GIZ Volunteer, coach and implementation support.

#### Agreed plan of the project team

According to the agreed plan of the project team and to the Terms of Reference, given to the Volunteer by GIZ, the task of the recent mission was to:

- Development of the NSSA Testing Center Workshop Management Assessment Report, for all NSSA Testing Centers
- Separation of evaluation indicators based on the following criteria's, Occupation Type, Machine related or Non Machine related, Center Type and Region Type, Private and Remote, Government and City, Factory and City and Public Private Partnership.
- Development of a Planning and Communication Document based on A3 format.
- External Workshop Quality Assessment of 8 NSSA Testing Centers Facilities, by the NSSA Workshop Management Assessment Service Team (NSSA WMAST). GIZ, Ministry of Labor and Organizations
- Coaching of the volunteer during the assessment and development phases.
- Participate in workshops at GIZ and Ministry of Labor to present the deliverables

The implementation for 8 pilot assessment centers, and the documentation development took place from 16 October 2018 to 31 of December 2018. The respective technical evaluation was completed by end of November 2018.







#### Assessment Criteria's used for the analyses

The main criteria's was set, and agreed of the NSSA WMAST team, into the following main areas, as reference for an efficient workshop management system.

Module 1 - Health and Safety, Module 2 - Waste Disposal and Environmental Protection, Module 3 - Order and Cleanliness, Module 4 - Maintenance and care of equipment and tools, Module 5 - Warehousing and administration and tool issue, Module 6 - Structure and Organization, Module 7 - Public Private Partnership PPP

#### Module 1 - Health and Safety

- 1. The persons responsible, are familiar with the current rules and regulations in the areas of health and safety.
- 2. Appropriate operating instructions are available for the implementation of health and safety regulations.
- 3. The responsible persons are familiar with the current accident prevention regulations.
- 4. The participants are instructed regularly and before every training module in the accident prevention regulations.
- 5. Participants wear the necessary protective equipment (safety shoes, etc.) during their stay in the training workshop
- 6. Sources of danger are marked with the help of appropriate mandatory signs and prohibition signs.
- 7. For first aid in case of occupational accidents first aid equipment is available.
- 8. The fire protection equipment (fire extinguisher, fire blanket, etc.) are marked and available in sufficient numbers.
- 9. The escape routes are marked accordingly. An escape and alarm plan has been created.

#### Module 2 - Waste Disposal and Environmental Protection

- 1. The persons responsible are familiar with the rules and regulations in the areas of waste management and environmental protection.
- 2. The resulting waste types are determined on the basis of the relevant processes and are sensibly separated.
- 3. All employees are instructed for waste separation and following it
- 4. For the storage of the respective types of waste sufficient disposal containers are placed.







- 5. Disposal partners are found and disposal intervals are defined for the removal of the waste.
- 6. Hazardous waste is stored separately from other types of waste and is labeled separately.
- 7. A competent person is identified for the control of disposal containers and the issues for proper disposal.
- 8. A waste management concept is available.
- 9. The participants are regularly instructed in dealing with frequently occurring hazardous substances (such as cooling lubricants).

#### Module 3 - Order and Cleanliness

- 1. The concept "Safety through cleanliness and order" is implemented by the responsible persons and participants alike.
- 2. For the order and cleanliness in the workplace and in the training workshop rules are agreed.
- 3. At regular intervals, all unnecessary items are sorted out and removed at the respective workplaces.
- 4. The cleaning up of the respective workplaces is planned and systematic.
- 5. Appropriate standards have been agreed according to which all tools and work equipment are assigned with fixed spaces.
- 6. At the end of each working day, the respective workplaces are cleaned up and swiped.
- 7. At regular intervals, we check by those responsible, whether the agreed cleanliness is maintained.
- 8. For the areas of hazardous substances regulations are established.

#### Module 4 - Maintenance and care of equipment and tools

- 1. The participants are regularly encouraged to handle the tools and machinery with care.
- 2. The participants carry out a visual inspection for obvious defects before each commissioning of a machine or system.
- 3. Maintenance schedules for machines and systems have been prepared with reference to the respective manufacturer's instructions.
- 4. At specified times, inspections are carried out to detect signs of wear on machinery and equipment.
- 5. Repairs are planned in good time to minimize downtime for machines and plants.
- 6. Condition-dependent maintenance is performed when it is directly or indirectly measurable.







- 7. An interval-dependent maintenance is carried out if the failure times of components are known.
- 8. On the basis of the maintenance work on the respective machines and plants, improvement measures are carried out.
- 9. As part of a maintenance plan, the maintenance of individual machines and systems is coordinated.

#### Module 5 - Warehousing and administration and tool issue

- 1. A storage area for raw materials and supplies is set up in the workshop.
- 2. Warehousing is based on a corresponding storage method / storage concept
- 3. The warehouse is organized according to bin assignment system.
- 4. The organization of the warehouse is reviewed at regular intervals so that existing storage capacities can be used more effectively..
- 5. In order to determine order times, minimum stocks, reporting stocks and maximum stocks are specified for the respective goods.
- 6. An appropriate inventory system is defined.
- 7. For the systematic assessment and selection of suitable suppliers, appropriate criteria are defined.
- 8. To ensure that the ongoing training operation is not impaired due to material bottlenecks, appropriate suppliers have been selected.
- 9. A separate list is kept for the output of tools. The participants confirm receipt of the tools.
- 10. Damaged tools are replaced. If necessary, the participants will be instructed again in the correct use.
- 11. When the tools are returned, they are checked for damage and the return is noted in the output list.

#### Module 6 - Structure and Organization

- 1. All tasks are in writing as job descriptions.
- 2. The respective positions are assigned competencies, decision-making powers, authority and corresponding employees.
- 3. The organization of the workshop is based on a hierarchical structure and the positions are structured accordingly.
- 4. To bridge staff shortages, an appropriate substitution regulation has been defined on the basis of existing competences.
- 5. Meetings are held weekly to improve internal collaboration and discuss current topics.
- 6. For external communication, contact persons are designated for the respective areas and are communicated to the outside world.







- 7. For the organizational management of the participants, a person is named who acts as the first contact for the participants.
- 8. All participant-related data are collected, merged and stored in the intended subscriber files.
- 9. Participant-related irregularities (delays, etc.) are recorded and communicated promptly to the appropriate locations.

#### Module 7 - Public Private Partnership PPP (not a part of the WM QM System later)

- 1. Industry or institutional representatives believe that the strength of relationships with training institution or vice versa brings a benefit for everyone.
- 2. Institutional or industrial managers want a long-term relationship with an institution or industry.
- 3. Strategies are developed to implement a public private partnership program.
- 4. An evaluation has been done, or is in planning, which shows and identified the potential for partnerships and specific partners?
- 5. Encouragement to identify particular individuals to manage the formal workplace or teaching experience is in place or in implementation.
- 6. Activities have been done in partnership, with priority industries and institutions, but not continuously.
- 7. A trained cooperation program coordinator, able to liaise between the school and the firm and vice versa, to coordinate activities is in place or in planning.
- 8. An long term industry or institutional partnership, with different programs, is existing and under operation.
- 9. Industry or institutional representatives can identify teachers or staff that have good relationships with industry or institutions.
- 10. Individuals within training institutions or industries, who have a good understanding about business culture or training culture, are identified.
- 11. Individuals which are motivated to learn about business and business culture, or training and training culture are existing in the organization.
- 12. Does people received training, seen as necessary, in developing relationships and networks.
- 13. Promotion of the benefits and opportunities of technical vocational education and training partnerships is existing.







## Phase Two - Analyzes and Results

Results of the NSSA Workshop Management Assessment Service Team, overview on stepwise establishment of the assessments.

#### Yangon:

- 0. Glory Training Center, Occupation: Automotive.
- 1. CCTC Thewunna, Construction Central Training Center, Occupation: Brick Layer, Carpenter, Tiler.
- 2. Arbourfield, Occupation: Welding GMAW, MMAW.
- 3. MGHRDC, Occupation: Garment Sewing Machine Operator.
- 4. Uniteam Training Center, Occupation: Welding GMAW, MMAW.

#### Sinde:

5. Nr. 1 Industrial Training Center (Sinde)
Occupation: Machinist, Welding, Automotive.

#### Mandalay:

- 6. Nr. 2 Industrial Training Center (Mandalay), Occupation: Welding GMAW, MMAW, Small Engine Machinist.
- 7. STG Mandalay, Occupation: Aircon Installer, Electrician.







#### **Assessment Results**

- 0. Brief Report of Glory Career Training Centre
  - a. Inspection date 16.8.2018, inspection time (from 11:00 am to 16:00 pm)
  - b. Members of Inspection Team:
    - Mr. (Name Principal of the institution), Principal
    - Ms. Ei Ei Khin, Assistant Technical Advisor at GIZ, Head of project.
    - Ms. Lai Zarni Khaing. GIZ Project Assistant, 5S expert, implementation support.
    - Ms. (Name position and function of our GIZ colleague)
    - Mr. Tun Ko, Ministry of Labor, Staff officer, implementation support.
    - Mr. Christian Volker Ide, GIZ Consultant, coach and implementation support.
  - c. Occupation areas of Glory Career Training Centre for NSSA accreditation
    - 1) Automotive Mechanic (Level- 1)
  - d. Methods and criteria's used by inspection team for NSSA Testing Centers Workshop Management System Assessment
    - Methods used: Interview, Observation, Photos, Document review, Unobtrusive measures
    - The NSSA WMAST inspection team used the checklist, modules and criteria's in accordance with the NSSA Testing Center Workshop Management Criteria Catalogue.







Evaluation Date:							
Module		Criteria numbers	Need for action	Effectiveness (% workshop managen			
Module 1 - Health and Safety		9		61			
Module 2 - Waste Disposal and Env	ronmental Protection	9		77			
Module 3 - Order and Cleanliness		8		75			
Module 4 - Maintenance and care of	9		66				
Module 5 - Warehousing and administration and tool issue		13		77			
Module 6 - Structure and Organizat	Module 6 - Structure and Organization		and Organization 9	9		100	
Notes for evaluation:			Overall results (%):	<b>76</b>			
a. Overall result greater than 90%:	, ,						
b. Overall result between 75 % - 90%:							
c. Overall result under 75%:  Workshop management inel significant deficits exist		ineffective,					

Assessment results in percent and need for action possibilities

#### e. Modul PPP - Public Private Partnership PPP

Cooperation with Japanese companies are existing, even a Japanese long term expert was based within the institute to support the development processes of the center, which is a clear advantage also for the NSSA assessment facilities. A well-structured and organized cooperation or a started PPP program could not be seen or evaluated. The possibilities for further company or industry relation will be implemented and managed by the Japanese expert.

#### f. Other Findings and comments

It was visible that the center has knowledge about workshop management. The center manager / principal implemented several methods, with support from a Japanese organization, as for e.g. documentation, sorting and set up materials, tools and equipment.

A strong drive for further development could be recognized, especially in the field of workshop management, maintenance and safety. A whole understanding about a workshop management methods, with its different coherent modules, was not to observe.

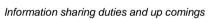






 g. Appendix- Photos of inspection process on NSSA Assessment Center, workshop management assessment







Material are mostly stored in a structured way



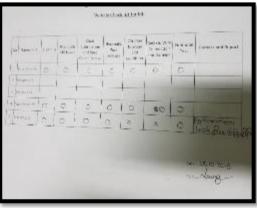
Storage of Hazardous Material



No firefighting equipment available



Cleaning materials are stored visibly



Cleaning duties and responsibilities are written down







- 1. Brief Report of CCTC Thuwunna, Construction Central Training Center
  - a. Inspection date 08.11.2018, inspection time (from 10:00 am to 12:00 pm)
  - b. Members of Inspection Team:
    - Mr. (Name Principal of the institution), Principal
    - Ms. Ei Ei Khin, Assistant Technical Advisor at GIZ, Head of project.
    - Ms. Lai Zarni Khaing. GIZ Project Assistant, 5S expert, implementation support.
    - Mr. Tun Ko, Ministry of Labor, Staff officer, implementation support.
    - Mr. Christian Volker Ide, GIZ Consultant, coach and implementation support.
  - c. Occupation areas of CCTC Thuwunna for NSSA accreditation
    - 2) Occupation: Brick Layer, Carpenter, Tiler
  - d. Methods and criteria's used by inspection team for NSSA Testing Centers Workshop Management System Assessment
    - Methods used: Interview, Observation, Photos, Document review, Unobtrusive measures
    - The NSSA WMAST inspection team used the checklist, modules and criteria's in accordance with the NSSA Testing Center Workshop Management Criteria Catalogue.







Evaluation Date:				
Module	,	Criteria numbers	Possibilities	Effectiveness (%) workshop managem
Module 1 - Health and Safety		9		44
Module 2 - Waste Disposal and Envi	ronmental Protection	9		88
Module 3 - Order and Cleanliness	Module 3 - Order and Cleanliness			87
Module 4 - Maintenance and care of	9		66	
Module 5 - Warehousing and administration and tool issue		13		72
Module 6 - Structure and Organizati	9		100	
Notes for evaluation:			Overall results (%):	76
a. Overall result greater than 90%:	Workshop management	effective		
b. Overall result between 75 % - 90%:	Workshop management there are shortcomings	effective, but		
c. Overall result under 75%:  Workshop management inef significant deficits exist		ineffective,		

Assessment results in percent and need for action possibilities

#### e. Modul PPP - Public Private Partnership PPP

A well-structured and organized cooperation or a started PPP program could not be seen or evaluated. The possibilities for further company or industry relation will be implemented and managed by the Ministry.

#### f. Other Findings and comments

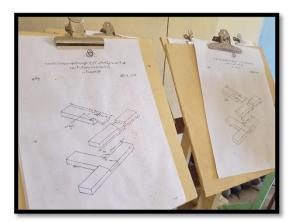
The assessment center has basic knowledge about workshop management. and did not implement some technics, as documentation, only sorting and set up of materials, tools and equipment could be observed. A strong will to develop could be recognized, especially in the field of quality management, workshop management and safety. A whole understanding about a workshop management methods with it different coherent modules as quality measure and continuous development tool couldn't be observed.







 g. Appendix- Photos of inspection process on NSSA Assessment Center, workshop management assessment



Training Document data sheet



Material is mostly stored in a structured way



Storage of Training Material



Information Sharing



Storage of Hazardous Material



Firefighting and First Aid equipment not available







#### 2. Brief Report of Arbourfield Training Center

- a. Inspection date 08.11.2018, inspection time (from 13:00 am to 16:00 pm)
- b. Members of Inspection Team:
  - Mr. (Name Principal of the institution), Principal
  - Ms. Ei Ei Khin, Assistant Technical Advisor at GIZ, Head of project.
  - Ms. Lai Zarni Khaing. GIZ Project Assistant, 5S expert, implementation support.
  - Mr. Tun Ko, Ministry of Labor, Staff officer, implementation support.
  - Mr. Christian Volker Ide, GIZ Consultant, coach and implementation support.
- c. Occupation areas of Arbourfield for NSSA accreditation
  - 3) Occupation: Welding GMAW, MMAW
- d. Methods and criteria's used by inspection team for NSSA Testing Centers Workshop Management System Assessment
  - Methods used: Interview, Observation, Photos, Document review, Unobtrusive measures
  - The NSSA WMAST inspection team used the checklist, modules and criteria's in accordance with the NSSA Testing Center Workshop Management Criteria Catalogue.







Module	, 	Criteria numbers	Need for action	Effectiveness (% workshop manager
Module 1 - Health and Safety		9		77
Module 2 - Waste Disposal and Environmental Protection		9		88
Module 3 - Order and Cleanliness	8		100	
Module 4 - Maintenance and care of	9		88	
Module 5 - Warehousing and admin	13		92	
Module 6 - Structure and Organizat	Module 6 - Structure and Organization			100
Notes for evaluation:			Overall results (%):	91
a. Overall result greater than 90%:	Workshop management e	effective		
b. Overall result between 75 % - 90%:	Workshop management of there are shortcomings	effective, but		
c. Overall result under 75%:  Workshop management ine significant deficits exist		neffective,		

Assessment results in percent and need for action possibilities

#### e. Modul PPP - Public Private Partnership PPP

Cooperation with companies is sustainable, the training center is part of a company.

#### f. Other Findings and comments

It was visible that the center has knowledge about workshop management. The center manager / principal learned methods from his former work places, as well trough the support of a Thai company cooperation. Abourfield could implement some technics used for a workshop management system as for e.g. documentation, sorting and set up materials, tools and equipment and basic safety measures. A strong willing to develop further could be recognized, especially in the field of maintenance, workshop management and safety. A whole understanding about a workshop management methods with it different coherent modules as quality measure and continuous development tool was not to observe.







 g. Appendix- Photos of inspection process on NSSA Assessment Center, workshop management assessment



Training exercise example tree



Material stored in a structured way



The Store is mostly proper arranged



Training tools stored in a structured way



Proper storage of Safety Material



Material is stored in a structured way







- 3. Brief Report of MGHRDC Myanmar Garment Human Resource Development Center
  - a. Inspection date 09.11.2018, inspection time (from 13:00 am to 16:00 pm)
  - b. Members of Inspection Team:
    - Mr. (Name Principal of the institution), Principal
    - Ms. Ei Ei Khin, Assistant Technical Advisor at GIZ, Head of project.
    - Ms. Lai Zarni Khaing. GIZ Project Assistant, 5S expert, implementation support.
    - Mr. Tun Ko, Ministry of Labor, Staff officer, implementation support.
    - Mr. Christian Volker Ide, GIZ Consultant, coach and implementation support.
  - c. Occupation areas of Arbourfield for NSSA accreditation
    - 4) Occupation: Welding GMAW, MMAW
  - d. Methods and criteria's used by inspection team for NSSA Testing Centers Workshop Management System Assessment
    - Methods used: Interview, Observation, Photos, Document review, Unobtrusive measures
    - The NSSA WMAST inspection team used the checklist, modules and criteria's in accordance with the NSSA Testing Center Workshop Management Criteria Catalogue.







Module		Criteria numbers	Opportunity	Effectiveness (% workshop managen
Module 1 - Health and Safety		9		44
Module 2 - Waste Disposal and Environmental Protection		9		88
Module 3 - Order and Cleanliness	8		75	
Module 4 - Maintenance and care of	9		100	
Module 5 - Warehousing and admin	13		46	
Module 6 - Structure and Organization		9		100
Notes for evaluation:			Overall results (	%): <b>75</b>
a. Overall result greater than 90%:	Workshop management e	effective		
b. Overall result between 75 % - 90%:	ult between 75 % - 90%: Workshop management el there are shortcomings			
c. Overall result under 75%:  Workshop management ine significant deficits exist		neffective,		

Assessment results in percent and need for action possibilities

#### e. Modul PPP - Public Private Partnership PPP

Cooperation with companies seems to be sustainable, the training center is part of a company and for e.g. maintenance duties are operated by an external institute.

#### f. Other Findings and comments

The maintenance part was completely covered by a company in a systematic way. It was visible that the center has only very limited knowledge about workshop management and its quality processes. The center manager/principal learned methods from training courses offered by GIZ and other donors. A systematic constructed process and modules, covering the whole thematic were not to observe; but a strong willingness to develop could be recognized, especially in the field of store management, workshop management and safety. A whole understanding of workshop management methods with it different coherent modules as a quality measure and continuous development tool was not to observe.







 g. Appendix- Photos of inspection process on NSSA Assessment Center, workshop management assessment



Firefighting equipment is enough



Information and knowledge sharing simple



Working way are clear marked



Workplace seems in good condition



Proper theory training room is available



Documentation of processes was not available







#### 4. Brief Report of Uniteam, Kabar Training Center

- a. Inspection date 09.11.2018, inspection time (from 12:00 am to 16:00 pm)
- b. Members of Inspection Team:
  - Mr. (Name Principal of the institution), Principal
  - Ms. Ei Ei Khin, Assistant Technical Advisor at GIZ, Head of project.
  - Ms. Lai Zarni Khaing. GIZ Project Assistant, 5S expert, implementation support.
  - Mr. Tun Ko, Ministry of Labor, Staff officer, implementation support.
  - Mr. Christian Volker Ide, GIZ Consultant, coach and implementation support.
- c. Occupation areas of Uniteam Training Center for NSSA accreditation
  - 5) Welding GMAW, MMAW
- d. Methods and criteria's used by inspection team for NSSA Testing Centers Workshop Management System Assessment
  - Methods used: Interview, Observation, Photos, Document review, Unobtrusive measures
  - The NSSA WMAST inspection team used the checklist, modules and criteria's in accordance with the NSSA Testing Center Workshop Management Criteria Catalogue.







Evaluation Date:		Criteria		Effectiveness (%)
Module		numbers	Need for action	workshop managem
Module 1 - Health and Safety		9		100
Module 2 - Waste Disposal and Envi	ronmental Protection	9		100
Module 3 - Order and Cleanliness		8		100
Module 4 - Maintenance and care of	9		100	
Module 5 - Warehousing and administration and tool issue  Module 6 - Structure and Organization		13		100
		9		100
Notes for evaluation:			Overall results (%):	100
a. Overall result greater than 90%:	Workshop management	effective		
b. Overall result between 75 % - 90%:  Workshop management effethere are shortcomings  c. Overall result under 75%:  Workshop management ine significant deficits exist		effective, but		
		ineffective,		

Assessment results in percent and need for action possibilities

#### e. Modul PPP - Public Private Partnership PPP

The cooperation with companies seems to be sustainable, the training center is part of a company who has several operating units, as for e.g. production, maintenance, and even quality management consultancy service.

#### f. Other Findings and comments

All areas and settings of the training center are imbedded into company operations. The company has a strong integration and focus on quality management fields as, a QM training section, QM ISO certificate and ISO consultant service, and a running assessment or audit system. All the QM activities within the center lets us set this assessment center as a role model on all levels. The strong relation of the center on quality management concepts, well trained staffs on QM measures and technical knowledge sets this institute on the pole position of the assessment. This center can be seen as a role model for every modules and measures in operating a workshop management system.







g. Appendix- Photos of inspection process on NSSA Assessment Center, workshop management assessment



Storage of Hazardous Material



Material is mostly stored in a structured way



Storage of Training Material



Firefighting and First Aid equipment available



Safety Information on all machines



Material seventy data sheet







- 5. Brief Report of Nr. 1 Industrial Training Center (Sinde)
  - a. Inspection date 09.11.2018, inspection time (from 12:00 am to 16:00 pm)
  - b. Members of Inspection Team:
    - Mr. (Name Principal of the institution), Principal
    - Ms. Ei Ei Khin, Assistant Technical Advisor at GIZ, Head of project.
    - Ms. Lai Zarni Khaing. GIZ Project Assistant, 5S expert, implementation support.
    - Mr. Tun Ko, Ministry of Labor, Staff officer, implementation support.
    - Mr. Christian Volker Ide, GIZ Consultant, coach and implementation support.
  - c. Occupation areas of Nr. 1 Industrial Training Center (Sinde) for NSSA accreditation
    - 2) Machinist, Welding, Automotive
  - d. Methods and criteria's used by inspection team for NSSA Testing Centers Workshop Management System Assessment
    - Methods used: Interview, Observation, Photos, Document review, Unobtrusive measures
    - The NSSA WMAST inspection team used the checklist, modules and criteria's in accordance with the NSSA Testing Center Workshop Management Criteria Catalogue.







Evaluation Date: 15.11.2018						
Module		Criteria numbers	Need for	r action	Effective workshop r	
Module 1 - Health and Safety		9	Escape routes mis	sing.	88	
Module 2 - Waste Disposal and Envi	Module 2 - Waste Disposal and Environmental Protection			Hazardous waste is not stored separately		38
Module 3 - Order and Cleanliness	8	No regulations for h substances	azardous	88		
Module 4 - Maintenance and care of	9			1	00	
Module 5 - Warehousing and admini	13			1	00	
Module 6 - Structure and Organizati	Module 6 - Structure and Organization				1	00
Notes for evaluation:	Notes for evaluation:			sults (%):	9	4
a. Overall result greater than 90%:	Workshop management	effective				
b. Overall result between 75 % - 90%:	Workshop management there are shortcomings	effective, but				
c. Overall result under 75%:	ineffective,					

Assessment results in percent and need for action possibilities

#### e. Modul PPP - Public Private Partnership PPP

A well-structured and organized cooperation or a started PPP program could not be seen or evaluated, this training center is in absolute need to development a structured and quality based more mutual cooperation with the private sector, interventions are highly needed. The possibilities for further company or industry relation is huge.

#### f. Other Findings and comments

The center was ISO 9001 – 2015 certified and has therefore an excellent quality management system running. The structured workshop management system could be recognize up to the institutes policies. The workshop, safety, project and quality management can be seen as excellent example in how to manage workshops on all levels of the institute. Further more could be seen that a quality and project management knowledge on many levels, is a very effective way to create values on a long run.

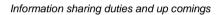






g. Appendix- Photos of inspection process on NSSA Assessment Center, workshop management assessment







Hazardous material not proper stored in a structured way



Storage of Material and documents



Firefighting equipment available



Cleaning materials are stored visibly



Cleaning duties and responsibilities are written down







- 6. Brief Report of Nr. 2 Industrial Training Center (Mandalay)
  - a. Inspection date 16.11.2018, inspection time (from 10:00 am to 12:00 pm)
  - b. Members of Inspection Team:
    - Mr. (Name Principal of the institution), Principal
    - Ms. Ei Ei Khin, Assistant Technical Advisor at GIZ, Head of project.
    - Ms. Lai Zarni Khaing. GIZ Project Assistant, 5S expert, implementation support.
    - Mr. Tun Ko, Ministry of Labor, Staff officer, implementation support.
    - Mr. Christian Volker Ide, GIZ Consultant, coach and implementation support.
  - c. Occupation areas of Nr. 2 Industrial Training Center (Mandalay) for NSSA accreditation
    - 3) Welding GMAW, MMAW, Small Engine Machinist
  - d. Methods and criteria's used by inspection team for NSSA Testing Centers Workshop Management System Assessment
    - Methods used: Interview, Observation, Photos, Document review, Unobtrusive measures
    - The NSSA WMAST inspection team used the checklist, modules and criteria's in accordance with the NSSA Testing Center Workshop Management Criteria Catalogue.







Module		Criteria numbers	Opportunity	Effectiveness (% workshop manager	
Module 1 - Health and Safety		9		66	
Module 2 - Waste Disposal and Env	Module 2 - Waste Disposal and Environmental Protection			66	
Module 3 - Order and Cleanliness	8		63		
Module 4 - Maintenance and care of	Module 4 - Maintenance and care of equipment and tools			100	
Module 5 - Warehousing and admin	13		63		
Module 6 - Structure and Organization		9		100	
Notes for evaluation:			Overall results (%):	76	
a. Overall result greater than 90%:	Workshop management	effective			
b. Overall result between 75 % - 90%:	Workshop management there are shortcomings	effective, but			
c. Overall result under 75%:  Workshop management in significant deficits exist		ineffective,			

Assessment results in percent and need for action possibilities

#### e. Modul PPP - Public Private Partnership PPP

Cooperation with Chinese and Myanmar companies are existing, even a Chinese term expert was based within the institute, to support the development processes of the center, which is a clear advantage also for the NSSA assessment facilities. A well-structured and organized cooperation or a started PPP program could not be seen or evaluated. The possibilities for further company or industry relation will be implemented and managed by the Ministry of Industry and the principal.

#### f. Other Findings and comments

Half of the NSSA facilities have to move to a different section of the center, was the reason for a not as good as usual result. It was visible that the center has knowledge about workshop management, specially a 5S pilot area was established but not transferred to other areas. This 5S system can be used as a role model. The principal learned methods from MoI, and could implement some technics, as documentation, sorting and set up materials, tools and equipment. A strong willing to develop further could be recognized, especially in the field of workshop management and safety. A whole understanding about a workshop management methods with it different coherent modules as quality measure and continuous development tool was to observe.







g. Appendix- Photos of inspection process on NSSA Assessment Center, workshop management assessment



Assessment facilities planned to move to a different place



Material is proper stored but not with systematic approach



Assessment tools are in clean and good condition



Information sharing duties and up comings



Material is stored in a proper way



5S Knowledge is available but could not be transferred







#### 7. Brief Report of STG Mandalay

- 1. Inspection date 16.11.2018, inspection time (from 13:00 am to 16:00 pm)
- 2. Members of Inspection Team:
  - Mr. (Name Principal of the institution), Principal
  - Ms. Ei Ei Khin, Assistant Technical Advisor at GIZ, Head of project.
  - Ms. Lai Zarni Khaing. GIZ Project Assistant, 5S expert, implementation support.
  - Mr. Tun Ko, Ministry of Labor, Staff officer, implementation support.
  - Mr. Christian Volker Ide, GIZ Consultant, coach and implementation support.
- 3. Occupation areas of STG Mandalay for NSSA accreditation
  - 4) Occupation: Aircon Installer, Electrician
- 4. Methods and criteria's used by inspection team for NSSA Testing Centers Workshop Management System Assessment
  - Methods used: Interview, Observation, Photos, Document review, Unobtrusive measures
  - The NSSA WMAST inspection team used the checklist, modules and criteria's in accordance with the NSSA Testing Center Workshop Management Criteria Catalogue.







Module		Criteria numbers	Opportunity	Effectiveness (% workshop manager
Module 1 - Health and Safety		9		77
Module 2 - Waste Disposal and Environmental Protection		9		100
Module 3 - Order and Cleanliness	8		87	
Module 4 - Maintenance and care of	9		100	
Module 5 - Warehousing and admin	Module 5 - Warehousing and administration and tool issue			55
Module 6 - Structure and Organization		9		100
Notes for evaluation:			Overall results (%):	86
a. Overall result greater than 90%:	Workshop management	effective		
b. Overall result between 75 % - 90%:	Workshop management there are shortcomings	effective, but		
c. Overall result under 75%: Workshop management in significant deficits exist		ineffective,		

Assessment results in percent and need for action possibilities

#### 5. Modul PPP - Public Private Partnership PPP

Cooperation existing, continuous exchange of assessment possibilities and needs are communicated continuously. A well-structured and organized long term cooperation or a started PPP program could not be seen or evaluated. The possibilities for further company or industry relation will be implemented and managed by the Ministry itself.

#### 6. Other Findings and comments

It was visible that the center has knowledge about workshop management. The principal learned methods from his former work places, and could implement some technics, as documentation, sorting and set up materials, tools and equipment. A strong willing to develop further could be recognized, especially in the field of workshop management and safety. A holistic understanding of a workshop management system, with it different coherent modules as quality measure and continuous development tool, was not to observe.







7. Appendix- Photos of inspection process on NSSA Assessment Center, workshop management assessment



Testing areas are clearly marked and protected



First aid warning signs and first aid material is available



Information sharing duties and up comings



Assessment facilities are clean and well handled



Material and tool are mostly stored in a proper way



Storage of Material and documents







## **Counter Measures for NSSA workshop management activities**

#### Current situation of Workshop Management at the NSSA Testing Centers

Since high growth and speed in NSSA, a potential for the NSSA Assessment Centers development towards a quality management system was identified, the focus is the goal to become a certified ISO 9001-2015 member of NSSA. The Workshop Management System was selected to strengthening the assessed development opportunities.

During the pilot project, all assessed participants of the pilot project agreed that there is still a big need for improvement of workshop management. It could be seen that, the most Testing Center facilities are in needed of a sustainable implementation of systematic management of activities or processes. These are in first line, project and quality management measures, as fundament to set up a coherent assessment center management system and an efficient project implementation.

The picture below shows the assessment module and criteria results as basis for counter measures. What we see are the 8 NSSA assessment centers horizontally and the agreed modules, in percentage vertically. Furthermore the colours showing the need for action. The following classification of the criteria's are the workshop management is effective, 100% - 90%, mark with green colour. The workshop management is effective, but there are shortcomings, 90% - 75% marked in yellow colour and the workshop management is ineffective, significant deficits exist, 75% - 0% marked in red colour.

		Privat	Government	Privat	Government	Privat	Government	Government	Government
Priorety		GLORY	CCTC Thewunna	Arbourfield	MGHRDC	Uniteam Center	ITC Sinde	ITC Mandalay	STG Mandalay
69	Module 1 - Health and Safety	61	44	77	44	100	88	66	77
85	Module 2 - Waste Disposal and Environmental Protection	77	88	88	88	100	88	66	100
84	Module 3 - Order and Cleanliness	75	87	100	75	100	88	63	87
90	Module 4 - Maintenance and care of equipment and tools	66	66	88	100	100	100	100	100
74	Module 5 - Warehousing and administration and tool issue	77	72	92	46	100	100	63	55
100	Module 6 - Structure and Organization	100	100	100	100	100	100	100	100
		76	76	91	75	100	94	76	85
			•						
	a. Overall result greater than 90%: Worksh								
	b. Overall result between 75 % - 90%: Worksh								
	c. Overall result under 75%: Worksh	op go							

Assessment modules reached criteria points in percentage, colors to shows the need for action

The partner institutes clearly stated what kind of knowledge is needed to improve the workshop management system, which are, health and safety, quality and standard based structure of the assessment center, maintenance of devices and equipment.

Compiled by: Mr. Christian Volker Ide







Accordingly the mentioned problems and successions above, the counter measure activities has to conquer the existing needs, therefore a capacity development program with a strategic number of CBT based practical training courses should be organized. The focus to improve the workshop management system, in compliance with all the mentioned workshop management areas, should be laid with a holistic training sequence delivery, to the assessment center managers and staffs. The capacity building is proposed to take place for assessment center managers, management personal of the related institutions, and assessment center staff.

#### Proposed counter measures

At present, no strategy human resource development plan or a comprehensive training plan for assessment center managers or assessment center staff was found, furthermore no policies could be consulted.

Some assessment center managers benefitted from training interventions by different donors, but not in a systematic tailored way. According the needs of a systematic personal capacity development and assessment center development process, all assessment center managers should have a solid knowledge about quality and project management, as basis for the modern NSSA assessment center operations.

Missing knowledge in quality management and project management could be strongly noticed. The knowledge about how to run a system is a must have and a later guaranty for the efficient transfer of upcoming development measures, especially with the focus on the ISO 9001 2015 implementation. Furthermore training courses on Health and Safety, Waste and Environmental Protection, Order and Cleanness, ware Housing - Administration and Maintenance, is strongly recommended for all NSSA testing center managers and staffs.

The above-mentioned training measures serving the NSSA quality assurance line for any project development and implementation process as e.g. the workshop management system integration, or any other development measures. This capacity development program is a coherent training measure with several modules as the fundament for the competency-based workshop management or 5S LEAN training to set up the pilot area and transfer the system into all assessment centers, and all this combined with a strong steering process, realized by all stakeholders of the project.







#### Capacity development plan

Capacity Development, based on a training plan for assessment center managers or assessment center staff, will cover the fields and modules of project and quality management, environmental protection, maintenance and safety measures should be executed.

#### 1. Quality management training

Quality management training on improving processes, quality management, system quality management and its processes.

 4 days, introductory course in PDCA: Plan- Do-Check-Act for all assessment center managers provides a high-level overview of this processes, who are the basis for all management systems. Quality Management (QM), A Model of Quality Management for Institutions, documentation with A3 related reporting document, and introduce to its basic role in process, auditing for management systems.

#### 2. Project management training

Project management methods for assessment centers, where the participants can gain control over the running upcoming development projects and make sure that they are keeping on track with the focus on continuous development of NSSA and its assessment center development operation measures.

 4 days, project management training on fundamental knowledge and skills to successfully lead a project from beginning to end. Learn to leverage key project management concepts, implement effective project management processes, the needed for successfully planning, managing, and delivering projects of any size and scope.

#### 3. Safety management training

Assessment center managers have a responsibility, to provide a safe workshop or assessment center environment, in which the risk of personal injury is low. The knowledge of risks and the need for safe work practices are crucial.

• 5 days, introductory lesson about safety in shop settings. Alert to the health and safety issues that arise, the roles and responsibilities of everyone involved, as well as appropriate attitudes in the work place. Supply basic safety instruction on the general use of hand tools and the handling of industrial materials. Safety considerations and procedures that apply to the use of all stationary power tools and equipment. First Aid and signs and signals.







#### 4. Workshop Management or 5S LEAN system training

According the development of the participants, quality and project management courses, other modules as order an cleanness, ware housing, administration and tool issues, should close the gaps, of the mentioned modules, through counter measure activity, with the implementation of an effective for e.g. 5S LEAN or general workshop management system.

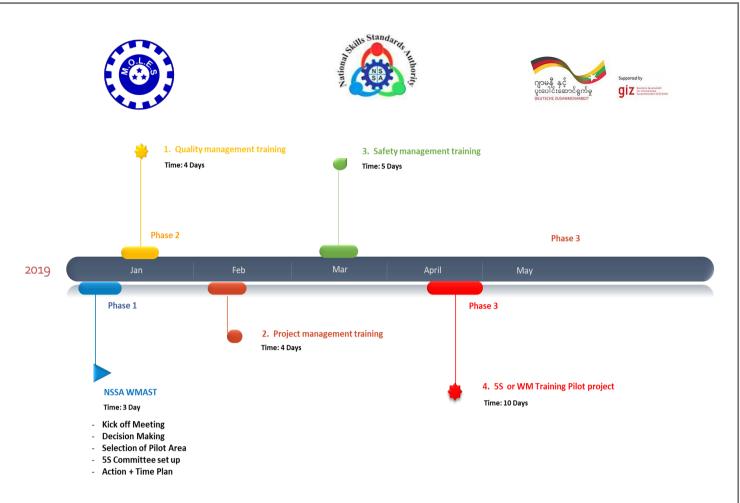
With the implementation of the 5S or workshop management system, the centers and never the less the participants gaining knowledge about fundamental quality and project management praxis in a real assessment center environment, this solid foundation feeds the quality and project management trainings of the capacity development program, to build the assessment centers operational processes to the expected outcome.

#### 5. What now? Workshop Management or 5S LEAN

It has to be mentioned that 3 options of a workshop quality management system can be used by NSSA assessment centers.

- 1. Option one, is a basic workshop management tool, which assesses the holistic situation within an assessment center (as used in this pilot project), not so much in detailed as 5S but with, maintenance, warehousing, stock and safety aspects included. This version of a quality management tool, has an impact on the whole institutional management as well. To focus in management issues only on the testing center itself is very difficult.
- 2. Option two, 5S Lean workplace and workshop management (5S LEAN) Tool can be used with the focus on a workshop or assessment center workplace management, it can be an example for the involved institutes as well. If the assessment center manager hast the power and backup to integrate and manage the measures separately, she/he can easily implement and run a system only focused on the assessment centers requirements and quality standards, on a small scale.
- Option three, is a combination out of both systems which can be a mixture of standards and criteria's, as quality assurance for the centers, out of a 5S LEAN system, combined with maintenance, warehousing and safety parts of the workshop management system.

Below you see a human resource development or comprehensive training possibility for assessment center managers or assessment center staff.



human resource development and comprehensive training possibility

The different capacity building measures will let the Assessment Centers gain a sense of ownership, involvement & responsibility, improved performance in project management, quality, workshop management and morale, which leads them into increased affectivity improved safety, a reduction of waste and ISO modern assessment centers quality requirements.

# **Workshop Management or 5S Project Implementation**

#### Example Implementation phases of a WMS System or 5S LEAN

5S is usually implemented gradually, often over one or two year's period of time toward Sustain. 5S implementation procedures can be categorized into the following four phases.

- (1) 5S Training Preparatory Phase
- (2) 5S Training Phase, training for assessment center leaders
- (3) 5S Training Implementation Phase
- (4) 5S Training Maintenance Phase







External interventions, as trainings and supervision shall be provided by the NSSA Workshop Management Assessment Service Team (NSSA WMAST), 5S assessment center leaders should be used later for 5S audits of clustered assessment centers.

Beginning: 5S Basic Introduction to NSSA Workshop Management Assessment Service Team. When MoLES considers to installing 5S activities in a bride scale for all assessment centers, the NSSA Workshop Management Assessment Service Team shall attend "5S Basic Introduction" designated by the Industrial Training Center Sinde in cooperation with a German Integrated CIM Expert. The NSSA WMAST should understand 5S principles and implementation procedures on all levels.

Clear formulate tasks for the different groups as NSSA Workshop Management Assessment Service Team (NSSA WMAST), 5S assessment center implementation leaders and 5S Audit Committee should be in place. It is necessary to established "5S assessment center implementation leaders and 5S Audit Committee" officially. At the same time, roles and responsibilities need to be defined and also shared with all stakeholders.

The duration of each phase are recommended for effective and efficient implementation of 5S activities. The details are shown in the time plan below.



Time Plan: Phases of 5S Implementation without other capacity development measures







Phase 1: 5S Training Preparatory Phase i

Recommended duration for preparatory phase is approximately two weeks. The 5S assessment center implementation leaders and the NSSA WMAST shall decide the installation of 5S officially, a work plan for should be defined and a strategy with operational planning developed and declared during a "kick off meeting". For the training pilot area, to install 5S should be the next step stone after the assessment, which was done in October to November 2018, these results should be one of the components of the kick off meeting as well.

In preparatory phase, it is important to convince everyone to install 5S based on the deep understanding and the concept of 5S implementation strategy developed and

steered by NSSA WMAST. The understanding and commitment of the Institutions and the NSSA Assessment Center Leaders is crucial for installation at different places and in a broader scale. The participants of 5S Basic Training are responsible to implement 5S in their own assessment centers.

Phase 2: 5S Training Phase (5S Training of Assessment Center Leaders)

Recommended duration for the TOT 5S Multiplicator Training Phase are 12 Days. In this phase, Sort, Set and Shine theoretical training and praxis activities are carried out in a selected pilot area, supported by the focal persons. During the 5S training phase, the NSSA WMAST should conduct "Supervision" of the 5S training; observe progresses of 5S installation and providing technical advices. Based on the achievement in the pilot areas and results of supervision, the NSSA WMAST shall decide how to expand 5S to all assessment centers or assessment center areas.

In the 5S Training Phase, participants have to learn 5S deeply from the practice in work places and accumulate their experience for expanding 5S into their own facilities. Moreover, it is necessary to be aware that "5S is not a Cleaning Campaign" but that "5S can be a management tools for improvement of working place by the assessment center staff" which includes different quality management practices, steering and auditing measures.

Before the expansion of 5S into centers, NSSA WMAST has to make sure that, focal person and another person in-charge for 5S, understand how to set up and 5S integration process into a assessment center structure and how conduct internal training of 5S for all centers staff at the place of implementation.







Phase 3: 5S Assessment Center Leaders Training Implementation Phase

Recommended duration for implementation phase is approximately 4 month up two 6 month or even more, regarding the size of the implementation area. Beginning of the implementation phase, the 5S training participants in cooperation with the NSSA WMAST shall established a 5S committee with responsible person officially. The implementation process of 5S into a factory or school structure should be done as explained above in the Integration Process Picture.

Internal introduction training of 5S shall be conducted from the 5S Assessment Center Leaders Training participants to the institutions management and, the result

should be a complete implementation of 5S into all the assessment center areas. The 5S transformed assessment center areas can later also be used as an example or role model for other areas within the institutions.

Furthermore 5S introduction trainings should be conducted for all assessment center areas staffs working there.

If the capacity of the 5S trainers is not enough to expand into the whole area at same time, 5S shall be expanded step by step continuously. After 5S is implemented into the pilot area and before the implementation and extension of the 5S program start, the pilot area have to be checked by NSSA WMAST to give development advise, if the standards are fulfilled as basis to extend 5S into the whole area, before the 5S implementation into other areas starts.

Phase 4: 5S Training Maintenance Phase

This phase is an on-going process and has no time limit. It is expected that within the time, all the necessary structures and accountability systems have to be in place. All the staff has to be trained to follow the 5S workplace rules, regulations, standards and habits. Sort, Set, Shine, Standardize and sustain activities will be the culture of all staff of the NSSA Testing Center facilities. In maintenance phase, external checks by NSSA WMAST team or area clustered NSSA Assessment Center leaders as auditors, to give development advice if the standards are fulfilled, has to be conducted, to evaluate the standards and keep the quality high several times.







#### Literature and sources consulted

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"Proposed Indicators for Assessing Technical and Vocational Education and Training", InterAgency Working group on TVET Indicators, April 2012

Compiled by: Mr. Christian Volker Ide