

Project on Strengthening Manufacturing Enterprises through Quality and Productivity Improvement (KAIZEN) in the United Republic of Tanzania

Project Completion Report

February 2022

Japan International Cooperation Agency (JICA)

UNICO International Corporation
Japan Productivity Center (JPC)

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List of Abbreviations

AKT	Advanced KAIZEN Trainer
BDS	Business Development Service
BRELA	Business Registrations and Licensing Agency
CBE	College of Business Education
COVID-19	Coronavirus disease 2019
CRDB	Cooperative Rural Development Bank
CRT	Classroom Training
CTI	Confederation of Tanzania Industries
DART	Dar Rapid Transit Agency
DID	Department of Industrial Development
DSM	Dar es Salaam
EPZA	Export Processing Zone Authority
ERMS	Enterprise Resource Management Suite
FKM	Framework for Quality and Productivity Improvement (KAIZEN) Promotion in Manufacturing Sector
FYDP2	National Five-Year Development Plan 2, FY2016/17 - FY2020/21
GDP	Gross Domestic Product
ICT	Information and Communication Technology
IIDS	Integrated Industrial Development Strategy
JCC	Joint Coordinating Committee
JICA	Japan International Cooperation Agency
JPY	Japanese Yen
KC	In-house KAIZEN Coordinator
KT	KAIZEN Trainer
MECI	Metal Engineering Cluster Initiative
MIIT	Ministry of Investment, Industry and Trade

MIT	Ministry of Industry and Trade (Current MIIT)
MITI	Ministry of Industry, Trade and Investment (Current MIIT)
MRG	Morogoro Rice Group
NIP	National Institute for Productivity
MUSE	Mfumo wa Ulipaji Serikalini (Government Payment System)
NMB	National Microfinance Bank
OJT	On the Job Training
PDM	Project Design Matrix
RAS	Regional Administrative Secretary
R/D	Record of Discussions
SIDO	Small Industries Development Organization
SIDO-RO	SIDO Regional Office
SME	Small and Medium Enterprises
SNS	Social Networking Service
TADB	Tanzania Agricultural Development Bank
TAMISEMI	<i>Tawala za Mikoa na Serikali za Mitaa</i> (President Office Regional Administration and Local Government: PO-RALG)
TBS	Tanzania Bureau of Standards
TCCIA	Tanzania Chamber of Commerce, Industry and Agriculture
TIB	Tanzania Investment Bank (TIB Development Bank)
TICAD	Tokyo International Conference on African Development
TKU	Tanzania KAIZEN Unit
TOKT	Trainer of Training for KAIZEN Trainers
TOT	Trainer of Trainers
TPSF	Tanzania Private Sector Foundation
TZS	Tanzania Shilling
UWAZAMAM	<i>Ushirika wa Wakulima wa Zabibu na Masoko Mpunguzi</i>
VETA	Vocational and Educational Training Authority

Currency Conversion Table (Yearly Average)

	TZS → JPY	JPY → TZS
2017	0.050502	19.805781
2018	0.048751	20.520091
2019	0.047517	21.048416
2020	0.046394	21.564494
2021	0.047323	21.150769
2022	0.049930	20.028039

	TZS → USD	USD → TZS
2017	0.000453	2,209.90
2018	0.000442	2,263.56
2019	0.000435	2,300.78
2020	0.000434	2,305.21
2021	0.000433	2,308.94
2022	0.000435	2,296.70

Note: Figures for 2017 are the average from July to December.

Figures for 2022 are of January only.

Source: JICA website

Chapter 1 Project Overview

1.1 Project Background

The government of the United Republic of Tanzania (hereafter, "Tanzania") formulated and has implemented policies and strategies, including the Integrated Industrial Development Strategy (IIDS) 2025, to promote industrial development with the aim of becoming a middle-income country by 2025. IIDS 2025, which was announced in 2011, set a goal of increasing the gross domestic product (GDP) share of the manufacturing sector in Tanzania to 23% by 2025. However, as of 2015, the manufacturing sector represented only 6% of GDP, and was not a major driver of the Tanzanian economy. Other key issues included expanding the business of the large enterprises that make up a minority of the manufacturing sector, and nurturing the micro, small and medium-sized enterprises that make up the majority of the manufacturing sector.

Furthermore, the National Five-Year Development Plan 2, FY2016/17 - FY2020/21 (FYDP2), which was launched in July 2016, set a target of 10% annual growth in the manufacturing sector by 2020, based on three cornerstone policies: 1) industrialization; 2) human development; and 3) improving operational effectiveness. In order to become a quasi-industrial nation by 2025, Tanzania has been moving ahead with the development of industrial technology while nurturing its manufacturing capabilities and strengthening its export capabilities in a sustainable manner. The FYDP2 positioned KAIZEN initiatives as part of the overall national strategy, prioritizing KAIZEN as a way to achieve the goals, including improving the competitiveness of the Tanzanian manufacturing sector.

Recognizing the need to strengthen support for improving the quality and productivity of manufacturing enterprises, the Tanzanian government, in cooperation with Japan International Cooperation Agency (JICA), implemented the "Project on Strengthening Manufacturing Enterprises through Quality and Productivity Improvement (KAIZEN)" (hereinafter, "Phase 1") from 2013 to 2016 by utilizing Japanese experience in promoting quality and productivity improvement to enhance support for industries in Tanzania

In Phase 1, certain results were achieved in building a system for KAIZEN promotion, developing contents of KAIZEN training, training trainers, and providing KAIZEN guidance to private enterprises. Based on these results, Japan received a request to cooperate with expanding KAIZEN activities, strengthening the implementation system, and making these activities sustainable. The current project was implemented in response to this.

1.2 Project Framework

This project was implemented within the following framework.

(1) Overall goal:

Tanzanian KAIZEN Movement is progressed toward a nationwide expansion.

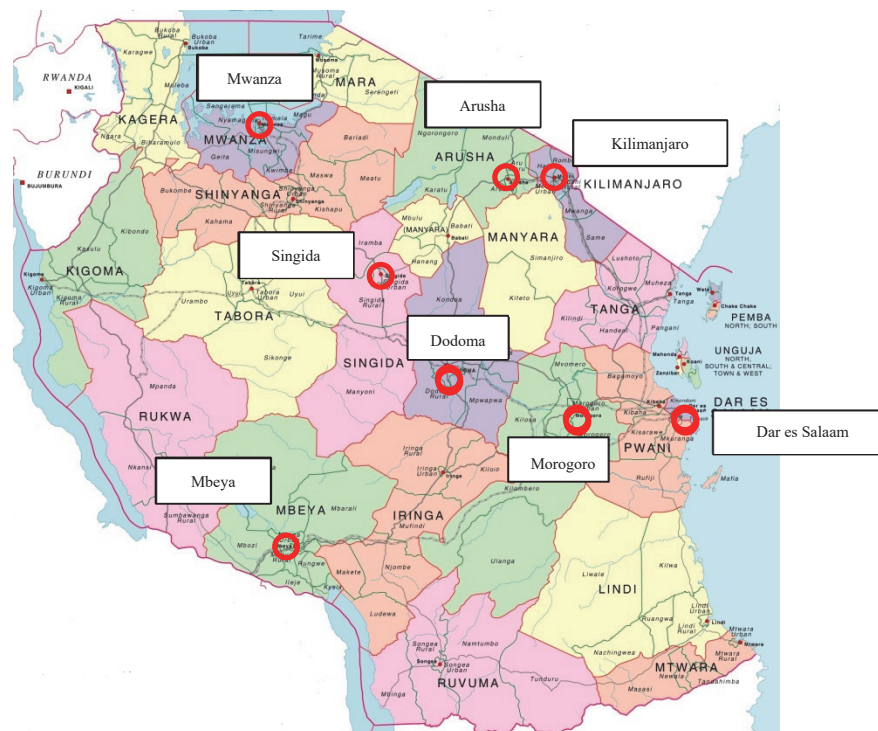
The number of private enterprises which practice KAIZEN is increased and the competitiveness of the enterprises is improved.

(2) Project purpose

Capacity of the Ministry of Investment, Industry and Trade (MIIT)¹/Tanzania KAIZEN Unit (TKU) and KAIZEN service providers (Small Industries Development Organization: SIDO, College of Business Education: CBE and Private Consultants) to promote KAIZEN to private enterprises in a sustainable manner is strengthened.

(3) Project sites

A total of eight regions: Dar es Salaam, Dodoma, Morogoro, Arusha, Kilimanjaro, Mwanza, Mbeya, and Singida (See Figure 1-1)



Source: Excerpted and edited from Tanzania. Digital National Atlas: Tanzania. Administrative Division (<http://www.lahistoriaconmapas.com/atlas/map-cities/Tanzania-cities-map.htm>)

Figure 1-1 Project Sites

¹ The name was changed from the Ministry of Industry, Trade and Investment (MITI) to the Ministry of Industry and Trade (MIT), then from MIT to the Ministry of Investment, Industry and Trade (MIIT). In this report, MIIT is used in principle regardless of the time of the event described.

(4) Beneficiaries (target groups)

- 1) Direct beneficiaries:
 - Personnel of the MIIT, TKU, SIDO and CBE
 - KAIZEN trainers developed through the Project
- 2) Indirect beneficiaries:
 - Private enterprises under the guidance of KAIZEN trainers

(5) Project period

July 2017 - March 2022²

1.3 System of Implementation

(1) Implementing agency (Tanzanian side)

The implementing body for this project on the Tanzanian side has centered on MIIT, SIDO and CBE, comprising the following members. They have played a central role in promoting KAIZEN-dissemination activities and managed the entire project in cooperation and collaboration with relevant organizations on the Tanzanian and Japanese sides.

- Project Director (Permanent Secretary of the MIIT)
- Project Manager (Director of Industrial Development, MIIT)
- Deputy Project Managers (Head of the TKU, Director General of SIDO and Rector of CBE)
- Focal Point of SIDO (Director for Technology Development and Planning)
- Focal Point of CBE (Director of Postgraduate Studies)
- Personnel of the MIIT, SIDO and CBE
- KAIZEN Master Trainers/KAIZEN Trainers/KAIZEN trainer candidates

TKU, established within the Department of Industrial Development (DID) at MIIT, took the lead in implementing the project.

² Although the project was initially planned to end in July 2020, it has been extended twice to March 2022. The first extension was made by one year to May 2019 due to the delay in strengthening the TKU's capacity and organization caused by repeated transfers of senior MIIT officials, staffing delays, disrupted collaboration and coordination between the TKU and Japanese experts. The second extension was made in March 2021 by further eight months to address the limitation of activities due to the global epidemic of the new coronavirus disease (COVID-19) to achieve project outputs and improve the self-sustaining development after its completion.

(2) JICA Project Team

The JICA Project Team provided technical guidance, advice, and recommendations deemed necessary to MIIT/TKU, SIDO, CBE and partner organizations, as well as providing guidance and education to the enterprises implementing the pilot projects. With the Chief Advisor as the overall project manager, the team was composed of seven Japanese experts in charge of each field, as indicated below.

- Chief Advisor (long-term expert)
- Team Leader/KAIZEN Framework Strengthening
- Quality and Productivity Improvement (KAIZEN) 1
- Quality and Productivity Improvement (KAIZEN) 2
- Quality and Productivity Improvement (KAIZEN) 3
- Business Development
- Training Plan/Project Coordinator

Following the structural change caused by the expiration of the Chief Advisor's term of service (in July 2019), the Project Team appointed a Deputy Team Leader/Inter-organizational Coordinator (long-term expert) to promote cooperation and collaboration with the Tanzanian side. The composition is as indicated below.

- Team Leader/KAIZEN Framework and BDS Enhancement
- Deputy Team Leader/Inter-organizational Coordination (long-term expert)
- Advisor on KAIZEN Framework Enhancement
- Quality and Productivity Improvement (KAIZEN) 1
- Quality and Productivity Improvement (KAIZEN) 2
- Quality and Productivity Improvement (KAIZEN) 3
- Business Development
- Training Plan/Project Coordinator
- Industrial Cluster Development
- Coordinator for Africa Kaizen Annual Conference

(3) Joint Coordination Committee (JCC)

The JCC was to meet at least once a year in accordance with the Record of Discussions (R/D) on the Intergovernmental Technical Cooperation Project to review the progress, revise the overall plan when necessary, approve an annual work plan, conduct evaluation of the project, and exchange opinions on major issues that arose during the implementation of the project. The JCC chairperson and members were as follows.

< Chairperson >

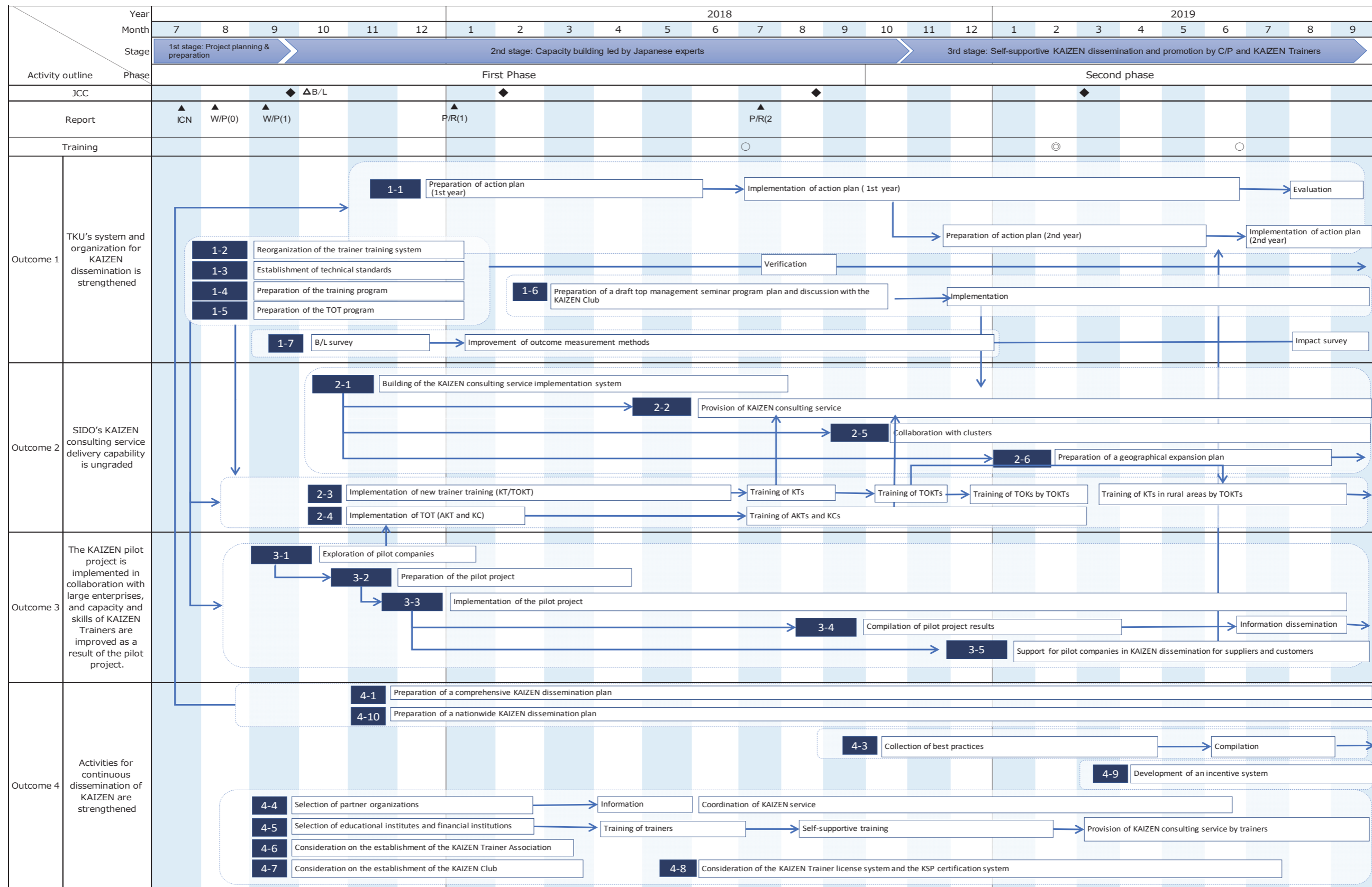
Permanent Secretary, MIIT

< JCC Members >

- Director of Industrial Development, MIIT
- Head of the TKU
- Director of Small and Medium-sized Enterprise Development, MIIT
- Director General of SIDO
- Rector of CBE
- Tanzania Bureau of Standards (TBS) representative
- Confederation of Tanzania Industries (CTI) representative
- Tanzania Chamber of Commerce, Industry and Agriculture (TCCIA) representative
- Tanzania Private Sector Foundation (TPSF) representative
- Project Counterparts
- Chief Representative, JICA Tanzania Office
- JICA experts (JICA Project Team)
- Other stakeholders deemed necessary by the Chairperson (on the Tanzania side) or JICA (on the Japan side)

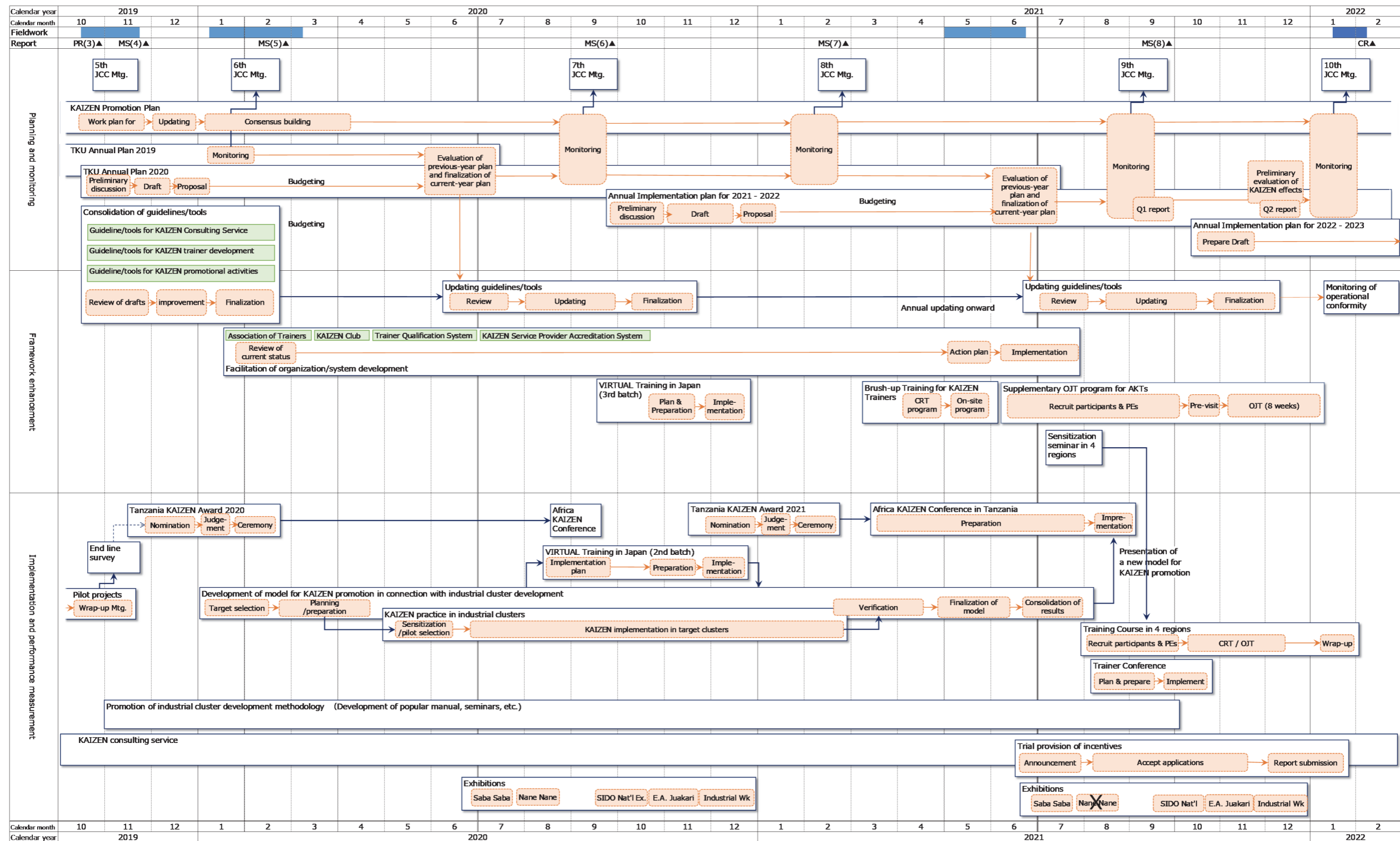
1.4 Implementation Process

Figure 1-2 and Figure 1-3 show the project implementation flowcharts.



Note: W/P: Work Plan P/R: Progress Report ICN: Inception Note ◎: Training in Japan ○ Training in Third Country KSP: KAIZEN Service Provider B/L: Baseline Survey
 Source: Prepared by the JICA Project Team

Figure 1-2 Project Implementation Flowchart (July 2017 - September 2019) .



Note: PR(3): Progress Report (3) MS(4): Monitoring Sheet Ver. 4 MS(5): Monitoring Sheet Ver. 5 MS(6): Monitoring Sheet Ver. 6 MS(7): Monitoring Sheet Ver. 7 MS(8): Monitoring Sheet Ver. 8 CR: Project Completion Report
 Source: Prepared by the JICA Project Team

Figure 1-3 Project Implementation Flowchart (October 2019 - February 2022)

Chapter 2 Activities and Results

This chapter describes the results of activities undertaken during the project period.

2.1 Actual Inputs

2.1.1 Human Inputs

For the first 15 months of the project, the TKU, the key organization for the project's management, had no more than three staff members. In November 2018, five additional officers were assigned concurrently with other duties, bringing the total number of staff members to seven combined with the existing full-time staff. Since then, the number of concurrent staff has increased by one but decreased by one, while a full-time staff member was added in November 2021, such that by the project's end, there were eight staff members: three full-time and five concurrent. SIDO and CBE had a designated contact who attended the JCC meetings, under which relevant departments and staff were involved depending on the activities in question. Attachment 1-1 shows a list of people involved.

Inputs of the JICA Project Team were as shown in Table 2-1, except for the long-term expert. During the project period, 12 experts engaged in 11 areas of responsibility. From April 2020 until the project's end, travel for fieldwork was restricted due to the global outbreak of novel coronavirus 2019 (COVID-19), and remote support through online meetings and other means became the dominant mode of the project.

In addition, one local project assistant was hired by the Japanese side, who took on responsibility for much of the administrative and general work involved in TKU project activities.

Table 2-1 Human Inputs of JICA Project Team (excl. long-term expert)

Area of responsibility	Assignment period	Person-months		
		In Tanzania	In Japan	Total
Leader/KAIZEN Framework Strengthening	August 2017 - October 2019	8.97	0.15	9.12
Team Leader/KAIZEN Framework and BDS Enhancement	October 2019 - February 2022	3.70	6.30	10.00
Support for strengthening KAIZEN framework	October 2019 - January 2021	0.40	2.00	2.40
Quality and productivity improvement (KAIZEN) 1	August 2017 - April 2021	14.70	2.80	17.50
Quality and productivity improvement (KAIZEN) 2	August 2017 - November 2019 August 2021 - February 2022	15.73	2.35	18.08
Quality and productivity improvement (KAIZEN) 3	August 2017 - February 2022	12.17	5.32	17.49

Area of responsibility	Assignment period	Person-months		
		In Tanzania	In Japan	Total
Business Development	August 2017 - March 2019	5.53	0.15	5.68
Training Management/Coordination	August 2017 - November 2019 June 2020 - February 2022	6.70	7.00	13.70
Cluster Development Plan	October 2019 - February 2022	2.50	5.55	8.05
Support for Africa Kaizen Annual Conference	January 2021 - August 2021	0.57	1.10	1.67
Training operations in Japan	February 2019 December 2020 - January 2021	0.00	1.65	1.65
Total		70.97	34.37	105.34

Source: Prepared by the JICA Project Team

2.1.2 Financial Inputs

At the start of the project, the MIIT budgeted 100 million Tanzanian Shillings (TZS) for the 2017 fiscal year, but it was not executed until the end of that year. In the 2018 fiscal year, TZS 200 million was allocated, and approximately US\$600, or less than 1 % of the allocation, was spent on domestic travel expenses for the TKU staff. Throughout the project period, there was no change in the situation—the Japanese side paid for most activity expenses, and the Tanzanian side paid only for expenses that the Japanese side could not pay, such as media allowances and emergency reserve to drivers on business trips. However, during the Africa Kaizen Annual Conference in August 2021, the Tanzanian side paid for all expenses related to public relations activities conducted in Tanzania.

Table 2-2 shows actual expenditures on project activities by the JICA Project Team. During the period when travel for fieldwork was suspended due to the outbreak of coronavirus disease 2019 (COVID-19), expenses for activities were paid via the local project assistant.

Table 2-2 Financial Inputs of JICA Project Team
(excl. inputs channeled through long-term expert)

	Unit: JPY				
	Fiscal 2017	Fiscal 2018	Fiscal 2019	Fiscal 2020	Fiscal 2021
Local activities	8,318,002	15,156,568	10,110,626	22,426,725	22,071,558
Training in Japan	0	1,458,000	0	2,730,084	0

Note: Based on Tanzania's administrative year system (July to June). However, the results for 2017 are from August 2017, and the results for 2021 are until January 2022.

Source: Prepared by the JICA Project Team

2.1.3 Loan of Equipment for Project Use

Items procured and loaned for project activities were shown in Table 2-3, with the total amount coming to 9.67 million Japanese yen (JPY). After completion of the project, items for project use will be transferred to the Tanzanian side. Attachment 1-5 summarizes the equipment procurement.

In 2021, as an additional input to facilitate the response to COVID-19, equipment support was provided to partially accomplish the plan SIDO was pursuing to connect each office to an optical fiber network, establish an organization-wide network among the headquarters and regional offices, and introduce an integrated business management system (Enterprise Resource Management Suite: ERMS).

The purpose was to promote the development of an environment that would help extend and manage KAIZEN promotion activities in remote areas based on the FKM and help continue SME support services even under the epidemic of infectious diseases such as COVID-19. In addition, the video conference system was introduced in the TKU, SIDO, and the CBE so that it could be used for meetings with partner organizations in newly covered regions.

Table 2-3 Inputs of Materials and Equipment by JICA Project Team

Items loaned	Loan start date and quantity					Total quantity
	2017	2018	2019	2020	2021	
Laptop computers	4	1	7		16	28*
Headphones					12	12
Network equipment					9	9
Sets of video conferencing system					3	3
Digital cameras	3					3
Video cameras		3				3
Projectors	1		1			2
Books	36		11			47

Note: *Includes two replacement units purchased by the Tanzanian side (in 2019 and 2021) due to loss. The laptop computers were stolen out of carelessness of the TKU staff members who were using the equipment, and the JICA Tanzania Office issued a written request that urged the MIIT to heighten management of loaned equipment and prevent recurrence of such an incident. The JICA Project Team newly collected signed declarations from each user of the loaned equipment. The TKU had established an internal rule that the lost equipment must be replenished by the user, which provided the basis for the purchase of replacement units by the staff members.

Source: Prepared by the JICA Project Team

2.2 Activities Implemented

The content and results of implementation will be described in accordance with the Project Design Matrix (PDM).

All Outputs Project planning, management, and training programs in Japan and third countries

Activity 0-1 Preparation and discussion of Work Plan

In August 2017, working-level discussions were held between the JICA Project Team and the Tanzanian side to build consensus on the Work Plan, which was then approved by the Permanent Secretary of the MIIT at the first JCC meeting on 26 September 2017.

Activity 0-2 Support for organizing Joint Coordination Committee (JCC) meetings

Ten JCC meetings were held during the project period. Table 2-4 shows the schedule. The minutes are provided in Attachment 4.

Table 2-4 JCC Meetings Convened

Meeting number	Dates	Chair
First JCC meeting	26 September 2017	Dr. Adelhelm James Meru, Permanent Secretary, MITI
Second JCC meeting	7 February 2018	Dr. Ludovick Nduhiye, Deputy Permanent Secretary, MITI
Third JCC meeting	30 August 2018	Dr. Isack A. Legonda, Director of Industrial Development, MITI
Fourth JCC meeting	8 March 2019	Dr. Edwin P. Mhede, PhD., Deputy Permanent Secretary, MIT
Fifth JCC meeting	11 November 2019	Prof. Joseph R. Buchweishaija, Permanent Secretary, MIT
Sixth JCC meeting	28 February 2020	Mr. Ludovick J. Nduhiye, Deputy Permanent Secretary, MIT
Seventh JCC meeting	30 September 2020	Eng. Ramson A. Mwilangali, Director of Industrial Development, MIT
Eighth JCC meeting	5 March 2021	Eng. Ramson A. Mwilangali, Director of Industrial Development, MIT
Ninth JCC meeting	9 September 2021	Eng. Ramson A. Mwilangali, Director of Industrial Development, MIT
Tenth JCC meeting	20 January 2022	Dr. Lugano Wilson Director of Industrial Development, MIIT

Source: Prepared by the JICA Project Team

Activity 0-3 Conducting baseline and end line surveys

The baseline survey was conducted at the start of the project to confirm the structural and functional capacity of the implementing organizations, as well as the status of KAIZEN trainer candidates and existing trainers. Data on pre-KAIZEN indicators in pilot enterprises were also measured, and a needs

survey or questionnaire survey was conducted on companies participating in seminars. These surveys were completed by the end of December 2017. Attachment 2-4 shows a summary of the baseline survey results.

The end line survey was conducted in October-November 2019 with the aim of measuring KAIZEN effects in the pilot enterprises. Attachment 2-5 shows the results of the survey as reported to the sixth JCC meeting in February 2020.

Activity 0-4 Implementation of training programs in Japan and third countries

The first two-week training course in Japan was conducted in February 2019 for nine KAIZEN trainers and two Regional Administrative Secretaries (RAS). The second training course in Japan were held in December 2020 using a hybrid format in which trainees met at the training site in Dar es Salaam and were connected to Japan online, since it was difficult for trainees to visit Japan due to the global outbreak of COVID-19.

The third-country training took the form of participation in the Africa Kaizen Annual Conference. Three participants attended the third Annual Conference held in South Africa in June 2018, and eight participants attended the fourth Annual Conference held in Tunisia in June 2019. The third-country training was not conducted in 2020 when the Annual Conference was held online due to COVID-19 nor in 2021 when Tanzania was the host country.

Attachment 1-4 presents the outline of implementation of the training programs in Japan and third countries.

Output 1: The implementation structure and institution of TKU to promote KAIZEN are strengthened.

Activity 1-1 TKU prepares, implements and evaluates the annual action plan for KAIZEN promotion based on the Strategy and Policy Actions for Promoting KAIZEN (PDCA).

The JICA Project Team assisted preparation of the 2018-2019 annual action plan which assumed a project budget of TZS 200 million and the 2019-2020 annual action plan assuming TZS 322 million in May 2018 and 2019, respectively. A proposal was prepared by the TKU to allocate TZS 1.39 billion for the 2020-2021 fiscal year and TZS 1.08 billion for 2021-2022, but due to the spread of COVID-19, travel for fieldwork was suspended and Japanese experts were unable to be present for the finalization process. Toward 2022-2023, the TKU prepared an annual action plan with a budget proposal for TZS 686 million and submitted it to the DID.

Following the enactment of the Framework for Quality and Productivity Improvement (KAIZEN) Promotion in Manufacturing Sector (FKM), the TKU established a tripartite consultation forum in September 2020 to further the establishment of collaboration among the TKU, SIDO, and the CBE in accordance with the FKM promotion framework. As a result, it was agreed that each of the three parties should formulate its own annual action plan for the second half of the 2020-2021 fiscal year

and thereafter and integrate it into a FKM annual implementation plan, but this did not materialize. If there had been a leadership of the MIIT management who had control over the TKU, SIDO, and the CBE that report to three different departments of the ministry, the result might have been different. Nevertheless, the annual action plan of the TKU for the 2021-2022 fiscal year and beyond has been based on the FKM logical framework, which has led to more efficient planning work and systematization of plans.

Activity 1-2 TKU reviews the existing system and competencies required for a KAIZEN Master Trainer and a KAIZEN Trainer, and restructures the exiting two-step system to a new one type system with diagnosis, 5S and basic KAIZEN.

The approach and methodology of implementation were agreed in the Work Plan in September 2017. Subsequently, having achieved some success with practical application in KAIZEN train-the-trainer courses that were led by the Japanese experts, the overall operation was reviewed and documented with the TKU in November 2019. This constituted the first edition of the Technical Guidelines. The specifics of trainer development are described in Section 2.3. Attachment 2-2 shows the latest version of the Technical Guidelines.

Activity 1-3 TKU sets up technical standard for KAIZEN trainers.

Discussions were made in combination with the subject of Activity 1-2, and the competency requirements, training completion requirements, and registration requirements for each category of KAIZEN trainer were described in the Technical Guidelines. The first edition of the Technical Guidelines was completed in November 2019, and there were no subsequent revisions to the competency requirements or any other requirements.

On the other hand, assessment of the competency of existing trainers has not yet been developed in terms of both the assessor and the assessment criteria. As of the end of the project, established as part of actual operations are a multiple-choice written exam to evaluate theoretical knowledge and the criteria for evaluation of the final reports prepared by each trainee (or trainer candidate) at the end of OJT program. In addition, a standard of measuring KAIZEN results has been developed (see Table 2-17), and methods to evaluate enterprises implementing KAIZEN have been imparted to principal trainers. Building on such achievements, a system to evaluate the competency of trainers need to be constructed.

The framework of KAIZEN trainer development, including competency requirements, is described in Section 2.3. Attachment 2-2 shows the latest version of the Technical Guidelines.

Activity 1-4 TKU prepares a training program for a new training system (textbook, materials, OJT system, etc.).

After consensus was reached on the Work Plan in September 2017, it was applied in practice in KAIZEN train-the-trainer courses let by the Japanese experts. The first edition of the Technical

Guidelines was completed in November 2019, after the overall status of training operations, materials, and other resources were reviewed by the TKU. In addition, amid the full-scale implementation of training by Tanzanian trainers, classroom training materials were restructured in September 2021. Lectures were made easier to deliver by eliminating contents duplicated across modules and thus reducing the overall volume of the material.

Attachment 2-3 presents an overview of training materials.

Activity 1-5 TKU prepares a Training of Trainers (TOT) program by which a Tanzanian trainer develop a new trainer without support from Japanese experts.

The approach and methodology of implementation were agreed in the Work Plan in September 2017. A training curriculum for Trainers of Training for KAIZEN Trainers (TOKTs) was formulated and applied, and 15 TOKTs were trained by June 2020. TOKTs conducted training courses in Dodoma, Singida, Dar es Salaam, Kagera, Mtwara, Pwani, and Tanga, and trained a total of 32 KAIZEN trainers.³ The training curriculum is presented in Section 2.3, and Attachment 1-2 summarizes the training courses implemented and provides information about the Trainers developed.

Activity 1-6 TKU prepares a Top Management Seminar program.

A KAIZEN seminar was organized in Dar es Salaam in November 2017 with 39 participants from the private sector and 33 participants from government agencies and international organizations. Its purpose was to share information on the results achieved by enterprises that implemented KAIZEN in the past and the available support for implementing KAIZEN. Since then, similar seminars have been organized in each target region (see Attachment 1-2). However, these seminars were held for the purpose of seeking new enterprises to introduce KAIZEN. Top management seminars as means for developing an organization of the top management of enterprises already implementing KAIZEN did not materialize during the project period. Since multiple seminars targeting the top management of the private and public sectors had been conducted already, this Activity was given a lower priority in view of the persisting challenge in workforce of the TKU.

However, as the importance of promoting understanding among decision-makers in the national and regional government agencies became keenly recognized, the need increased for sensitization seminars aimed at the top management of such public agencies. In January 2019, a seminar was held in Dodoma for senior officials of the MIIT. It was attended by about 30 people, including Members of Parliament and the Deputy Minister of Investment, Industry and Trade.

As a result, the first stakeholder sensitization seminars held in regions newly covered were organized as seminars for business executives and local dignitaries, such as the Regional Commissioner and the RAS. The program and procedures for holding stakeholder sensitization seminars were defined in the Technical Guidelines.

³ As of 31 January 2022. The figure includes tentative numbers of KAIZEN Trainers expected to be certified after the courses in Dar es Salaam, Kagera, Mtwara, Pwani, and Tanga.

Activity 1-7 TKU improves and systematizes the method for measuring KAIZEN results.

After consensus on the approach and methodology of implementation was reached in September 2017 in the Work Plan, the method for measuring KAIZEN results was refined by December 2017 but had not yet been systematized. Observations from the end line survey conducted from October to November 2019, which provided clues to the status of management by figures and disclosure of management data on the company side and the degree of understanding of numerical indicators on the KAIZEN trainer side, laid the basis for establishing a standard method of measuring KAIZEN effectiveness. Basic indicators were established as part of compiling the first edition of the Technical Guidelines. Suitable indicators for measurement are listed under each theme of KAIZEN activities (5S, productivity improvement, and quality improvement), and KAIZEN trainers are required to obtain data on at least one of these indicators before and after implementation of KAIZEN. In the KAIZEN Trainer Registration System introduced in September 2021, one of the requirements for renewal of registration every three years is reporting the results of KAIZEN consulting service in a prescribed report form. The form includes data on measuring KAIZEN effectiveness using basic indicators. The same form was also used for selecting outstanding trainers at the Tanzania KAIZEN Award Competition to encourage measurement of effectiveness using basic indicators.

In November 2020, the JICA Project Team produced and provided video materials explaining the method of measuring KAIZEN effectiveness (see Attachment 2-3). The video was shown at the second KAIZEN Trainer Conference in November 2020, and as part of the classroom training program for subsequent KAIZEN train-the-trainer courses.

Output 2: Capacity of SIDO to provide KAIZEN consulting service is strengthened.

Activity 2-1 SIDO establishes the implementation system to provide KAIZEN consulting service.

KAIZEN was identified in the SIDO Corporate Strategic Plan for fiscal 2017-2020 as one of the technical support services for small and medium-sized enterprises (SMEs) to encourage industrial advancement and help further industrialization. Seeking to establish KAIZEN consulting service as an element within SIDO's business development service (BDS) provision rather than as an independent service, the JICA Project Team conducted a needs survey for the consulting service in October 2018 and an awareness survey on fee setting in March 2019. In February 2020, in-house KAIZEN trainers of SIDO held a retreat workshop to discuss the implementation system, roadmap, and promotional materials for the KAIZEN consulting service. It was agreed that the fee structure was generally appropriate, as was the draft version used for the March 2019 awareness survey. Also, the validity of the same fee structure was confirmed at the workshop held in April 2021 to compile the trial results of the "KAIZEN x Cluster" model.

On the other hand, how to allocate consulting service income among the headquarters, the regional office, and the staff member (KAIZEN trainers) has been an issue. Guidelines to sort this out were developed and proposed internally by SIDO, which was approved by the Board of Directors by May

2021. In addition, the Consulting and Advisory Unit was newly established to approve and coordinate the consulting service provided by SIDO.

However, at the end of the project, tracking each regional office’s performance information relies heavily on paper-based reporting, making it difficult to compile information in a timely manner. SIDO planned to launch the Enterprise Resource Management Suite (ERMS) in July 2021, which was expected to make it easier to track the performance of KAIZEN consulting services. However, integration of the Government Payment System (*Mfumo wa Ulipaji Serikalini*, or MUSE) was given priority and the introduction of ERMS was postponed.

Activity 2-2 SIDO implements KAIZEN consulting services by KAIZEN Master Trainers and KAIZEN Trainers.

In Arusha, Morogoro, and Dodoma, KAIZEN Master Trainers⁴ began providing KAIZEN consulting services shortly after the project started. In other regions, following the progress made in the training of KAIZEN trainers, KAIZEN consulting services became possible to be provided by the newly trained trainers. While actual performance is difficult to know, an officer at the SIDO headquarters estimates they have provided KAIZEN consulting services to about 30 companies annually.

Activity 2-3 SIDO implements trainings to develop new trainers.

From September 2017 to the end of the project, 31 KAIZEN train-the-trainer courses were conducted in 12 regions. Tanzanian TOKTs conducted KAIZEN train-the-trainer courses under Tanzanian management in Dodoma and Singida out of the eight target regions as well as in four extended regions (Kagera, Mtwara, Pwani, and Tanga). Table 2-5 summarizes the results. Attachment 1-2 provides a list of training courses conducted and a list of registered KAIZEN trainers.

Table 2-5 Results of KAIZEN Train-the-Trainer Courses

No.	Dates	Venue	Number of certifications				
			KT	AKT	TOKT	KC	PE
1	September - October 2017	Dar es Salaam	5	4	-	7	6
2		Dar es Salaam	1	8	-	7	5
3		Arusha	0	7	-	5	2
4	January - February 2018	Dar es Salaam	3	-	-	3	2
5		Dar es Salaam	7	-	-	5	2
6		Arusha	1	-	-	2	1
7		Kilimanjaro	9	-	-	4	4

⁴ KAIZEN Master Trainer is a title of trainer developed in the preceding “Project on Strengthening Manufacturing Enterprises through Quality and Productivity Improvement (KAIZEN) Phase 1” (2013-2016), which was positioned as equivalent to the Basic KAIZEN Trainer (KT) in the current project.

No.	Dates	Venue	Number of certifications				
			KT	AKT	TOKT	KC	PE
8	May - June 2018	Dar es Salaam	10	3	-	9	4
9		Dar es Salaam	3	1	-	4	3
10		Arusha	1	0	-	1	3
11		Kilimanjaro	4	0	-	1	1
12	August - September 2018	Dar es Salaam	3	-	4	6	3
13		Dar es Salaam	3	-	4	4	4
14		Arusha	2	-	0	2	4
15		Kilimanjaro	6	-	2	0	3
16	October - November 2018	Dar es Salaam	5	-	0	8	4
17		Arusha	2	-	0	0	5
18		Kilimanjaro	4	-	0	1	3
19	January - February 2019	Dar es Salaam	2	4	1	13	5
20		Mbeya	8	2	0	2	5
21		Mwanza	4	1	0	0	6
22	March 2019	Dodoma	2	-	-	1	1
23	May - June 2019	Dar es Salaam	9	-	1	10	6
24		Mbeya	8	-	2	3	4
25		Mwanza	2	-	1	0	3
26	September 2020	Singida	8	-	-	7	5
27	March 2021	Dar es Salaam	2	-	-	0	3
28	October - November 2021	Kagera	4	-	-	3	2
29		Mtwara	0	-	-	1	3
30		Pwani	12	-	-	3	4
31		Tanga	6	-	-	3	4

Note: As of 31 January 2022. No. 22 and Nos. 26-31 were conducted by Tanzanian TOKTs.

KT: KAIZEN Trainer AKT: Advanced KAIZEN Trainer TOKT: Trainer of Training for KAIZEN Trainers

KC: In-house KAIZEN Coordinator PE: Pilot Enterprise

Source: Prepared by The JICA Project Team

Activity 2-4 SIDO implements TOTs.

Based on the training curriculum developed in Activity 1-5, 15 TOKTs were trained during the project period. Four of them were SIDO personnel. Attachment 1-2 shows a list of trained TOKTs.

Activity 2-5 SIDO provides KAIZEN consulting service in collaboration with the relevant project such as Cluster Development and Business Development Services.

In December 2019, SIDO completed a popular version of the Industrial Cluster Development Operational Manual for dissemination. After a hiatus due to the spread of COVID-19, an awareness-raising and information event for stakeholders was held in August 2020 in conjunction with the

announcement of the FKM (details will be presented later). In addition, SIDO Regional Offices in various regions were called upon to plan seminars and workshops that initiate cluster development, and their implementation was supported. Table 2-6 shows the results.

Table 2-6 Results of Cluster Development Initiation Support

Dates	Venue	Event details
10 March 2020	Tanga	Sensitization workshop for stakeholders within the region (40 participants)
16 October 2020	Simiyu	Sensitization workshop for stakeholders within the region (48 participants)
20 November 2020	Katavi	Sensitization workshop for stakeholders within the region (28 participants)
27 January 2021	Pwani	Sensitization workshop for stakeholders within the state (39 participants)
29 January 2021	Kilimanjaro	Sensitization workshop for stakeholders within the region
4 March 2021	Singida	Workshop to promote understanding of sunflower oil cluster formation in Iramba District
16 April 2021	Manyara	Sensitization workshop for stakeholders within the region (25 participants)
28 April 2021	Arusha	Sensitization workshop for stakeholders within the region (35 participants)

Source: Prepared by the JICA Project Team based on the report of SIDO Regional Offices

In the fiscal year 2020-2021, The "KAIZEN x Cluster" model was developed and verified through trial implementation, the aim of which was to promote the spread of KAIZEN and improve the competitiveness of industrial clusters by introducing KAIZEN. SIDO took the lead and the TKU also partially participated in implementing the draft model. The clusters targeted for the trial were selected in February 2020, a training-of-trainer program on KAIZEN implementation was provided in April 2020, and specific interventions for the target clusters started in June 2020. Following a sensitization seminar for members, individual KAIZEN consultation services were provided to pilot enterprises, and a gathering for presentations of the results (wrap-up workshop) was held in April 2021 to conclude the introduction of KAIZEN in each cluster. Table 2-7 summarizes the trial implementation in each target cluster. The list of pilot enterprises is provided in Attachment 1-2.

Table 2-7 Overview of "KAIZEN x Cluster" Model Implementation

Target Cluster <Region>	Sensitization Seminar	Pilot Enterprise	Wrap-up Workshop
Grape cluster (UWAZAMAM) <Dodoma>	1) 1-2 June 2020 2) 3-4 June 2020 3) 8-9 June 2020 4) 10-11 June 2020 (31 participants in total)	2 enterprises	16 April 2021 (50 participants)

Target Cluster <Region>	Sensitization Seminar	Pilot Enterprise	Wrap-up Workshop
Rice milling cluster (MRG) <Mbeya>	17-18 September 2020 (63 participants)	1 enterprise	14 April 2021 (39 participants)
Metal processing cluster (MECI) <Morogoro>	1) 1-2 June 2020 2) 3-4 June 2020 3) 5-6 June 2020 4) 8-9 June 2020 (55 participants in total)	16 enterprises	9 April 2021 (50 participants)

Note: UWAZAMAM: Ushirika wa Wakulima wa Zabibu na Masoko Mpunguzi

MRG: Mbeya Rice Group MECI: Metal Engineering Cluster Initiative

KAIZEN trainers' regular visits for monitoring and advice were provided to a furniture cluster in Kagera, too.

Source: Prepared by the JICA Project Team

Japanese KAIZEN experts had been scheduled to attend the trial run of the model but was unable to travel due to the global outbreak of COVID-19. Remote support was provided through video conferencing (Zoom) and social networking service (SNS) (WhatsApp), through which issues related to the practical skills of KAIZEN trainers became apparent. To address the issues, a supplementary training course was conducted for existing KAIZEN trainers in April and May 2021. The program consisted of two days of online classroom training and two days of face-to-face company visit practical training, with 61 participants in classroom training and 58 in practical training. Table 2-8 shows an overview of implementation of this Brush-up Course.

Table 2-8 Overview of Implementation of Brush-up Course for KAIZEN Trainers

Course Objective	This Brush-up Course for KAIZEN Trainers will help existing KAIZEN trainers gain better understanding and skills of problem solving and thereby improve practical ability for on-site KAIZEN consulting service.			
Target Participants	The Course is intended for certified KAIZEN trainers (KTs, AKTs, TOKTs, and Master Trainers) who wish to strengthen practical knowledge and skills for KAIZEN consulting			
Course Period	The course will be organized as a four-day program consisting of online classroom lectures (Part I) and on-site exercise (Part II). Participants are expected to attend both Part I and Part II programs, while the Part II program will strictly accept Part I attendees only.			
	Phase	Dates	Venue	Number of Participants
	Part I (Online lectures) 8:30-13:00	Tuesday 13 - Wednesday 14 April 2021	DSM	6
			Mwanza	10
		Thursday 15 - Friday 16 April 2021	Kilimanjaro	9
			Singida	7
		Tuesday 20 - Wednesday 21 April 2021	DSM	9
			Morogoro	2
Thursday 22 - Friday 23 April 2021		Arusha	7	
		Dodoma	7	
		Mbeya	4	

	Part II (On-site exercise) 9:00-16:00	Tuesday 18 - Wednesday 19 May 2021	DSM	18
		Thursday 20 - Friday 21 May 2021	DSM	12
		Monday 24 - Tuesday 25 May 2021	Morogoro	9
		Thursday 27 - Friday 28 May 2021	Dodoma	19

Source: Prepared by the JICA Project Team

In May 2021, a workshop was held with the KAIZEN trainers responsible for providing KAIZEN consulting services to the target clusters to reflect on the implementation process and to finalize the model. This model was introduced at the sixth Africa Kaizen Annual Conference (August 2021) as a KAIZEN promotion model originated in Tanzania. Attachment 2-4 shows the presentation material for this event. Section 2.4 describes the "KAIZEN x Cluster" model.

In the fiscal year following the trial, SIDO selected five new target clusters and held sensitization seminars in various locations in August and September 2021, applying the "KAIZEN x Cluster" model. However, at the end of the project, individual KAIZEN consultation services have not commenced. According to SIDO, no company paid the consulting service fee. On the other hand, a business operator in Morogoro, who received an individual KAIZEN consulting service from July to August 2020 during the trial implementation of the "Kaizen x Cluster" model, took advantage of the trial incentive system described in Activity 4-9 and made contract with SIDO to receive a fee-based KAIZEN consulting service from November 2021 to January 2022. However, the company's production was hit by many power outages due to insufficient rainfall, and the KAIZEN consulting service was forced to be postponed.

Activity 2-6 SIDO prepares a regional expansion plan of KAIZEN consulting service.

SIDO had not prepared its own regional expansion plan, but with the establishment of the FKM in April 2020, the cycle of selecting new target regions on an annual basis came in place. TKU takes the lead in coordinating with SIDO, which is in charge of KAIZEN consulting services, and CBE, which is in charge of KAIZEN train-the-trainer courses, to propose new target regions for approval by MIIT. The four regions of Kagera, Mtwara, Pwani and Tanga were selected as the target regions for fiscal 2021-2022, while the seven regions of Iringa, Kigoma, Lindi, Mara, Pemba North, Ruvuma, and Shinyanga were selected as the target regions for fiscal 2022-2023. The FKM plans to cover all 31 regions, including Zanzibar regions, is scheduled for completion by the end of fiscal 2024-2025.

Also, SIDO independently selects target clusters to which the "KAIZEN x Cluster" model will be applied, separately from those intended for expanded coverage based on the FKM. The KUNAMO flour milling cluster (Morogoro), SIMUSOPA sunflower oil cluster (Singida), KICHAWAMA paddy rice cluster (Mwanza), furniture cluster (Dar es Salaam), and handloom cluster (Dar es Salaam) were selected as target clusters for fiscal 2021-2022, and the sensitization seminars described in Activity 2-5 was implemented in these clusters.

Output 3: Pilot KAIZEN activities in collaboration with leading enterprises are implemented, through which skills of KAIZEN trainers are upgraded.

Activity 3-1 TKU identifies potential enterprises for pilot KAIZEN activities.

Aiming to engage large enterprises, a KAIZEN seminar was held in Dar es Salaam in November 2017. A list of nearly 1,000 enterprises was obtained from the Export Processing Zone Authority (EPZA), the Tanzania Bureau of Standards (TBS), the Confederation of Tanzanian Industries (CTI), SIDO Arusha Regional Office, and SIDO Dar es Salaam Industrial Estate, which was used to discover enterprises for cooperation. Private consultants and staff of partner organizations identified prospective candidate enterprises, and the TKU staff visited the candidates directly to confirm their suitability. In the end, 25 large enterprises participated in the pilot project, 15 of which completed pilot KAIZEN activities.

Activity 3-2 KAIZEN service providers prepare the plans for the pilot KAIZEN activities with the target enterprises.

Activity 3-3 KAIZEN service providers implement the pilot KAIZEN activities which include OJTs for KAIZEN trainers.

The pilot KAIZEN implementation in collaboration with leading enterprises was a six-month (23-week) program that was integrated with an Advanced KAIZEN Trainer (AKT) training program. For each company, KAIZEN themes were selected at the beginning through a site visit and an interview with the management, and a plan of pilot implementation was prepared. During the period from October 2017 to November 2019, when this activity was implemented, 15 companies completed the pilot KAIZEN implementation and 30 AKTs were trained. Attachment 1-2 shows the list of pilot enterprises.

As an example of collaboration with Japanese companies, KAIZEN guidance was provided to a mosquito net manufacturing plant in Arusha, which is a joint venture between a Japanese company and a local company. The improved yield and increased production led to a reduction in raw material costs equivalent to USD 22,000 per month in terms of market prices.

Activity 3-4 TKU and KAIZEN service providers compile the results of the pilot project and present them through KAIZEN seminars.

Wrap-up meetings were held at the completion of the pilot KAIZEN activities and KAIZEN train-the-trainer courses in each region, and the results of KAIZEN activities in the pilot enterprises were shared with regional enterprises, local government authorities, and BDS-related organizations. Table 2-9 shows the record of wrap-up meetings. In addition, the results of the pilot KAIZEN activities were utilized in various seminars held to raise awareness of KAIZEN and to promote adoption of KAIZEN. Attachment 2-2 shows the results of seminars and other events.

Table 2-9 Record of Wrap-up Meetings

No.	Dates	Venue	Number of Participants *
1	10 May 2018	Arusha	40
2	24 May 2018	Dar es Salaam	40
3	5 June 2018	Dar es Salaam	37
4	9 August 2018	Kilimanjaro	50
5	10 August 2018	Arusha	115
6	7 November 2019	Mwanza	42
7	8 November 2019	Mbeya	33
8	8 November 2019	Dar es Salaam	43
9	30 January 2020	Dodoma	31
10	26 February 2021	Singida	26
11	31 August 2021	Dar es Salaam	25
12	11 January 2022	Kagera	25
13	25 January 2022	Pwani	60
14	26 January 2022	Mtwara	35
15	26 January 2022	Tanga	33

Note: The programs on 25 January 2022 and thereafter present planned numbers of participants.

Source: Prepared by the JICA Project Team

In the Technical Guidelines, wrap-up meetings were positioned as the final process of the training of KAIZEN trainers, and the contents and procedures for implementation were also defined. By doing this, the Project aimed to keep disseminating KAIZEN results generated in pilot enterprises, and to help discover the next enterprises to introduce KAIZEN.

Activity 3-5 KAIZEN service providers support KAIZEN promotion from the pilot enterprises to their suppliers and client enterprises.

Some pilot enterprises have introduced KAIZEN to their group companies and business partners. However, except for cases where a group company was selected as a new pilot company, SIDO and the TKU have not systematically supported the spread of KAIZEN by the pilot enterprises themselves. TKU staff members, when consulted by an enterprise, gave advice as necessary, which was the range of support provided for cascading KAIZEN through enterprises.

Output 4: Activities toward sustainable KAIZEN promotion are enhanced.

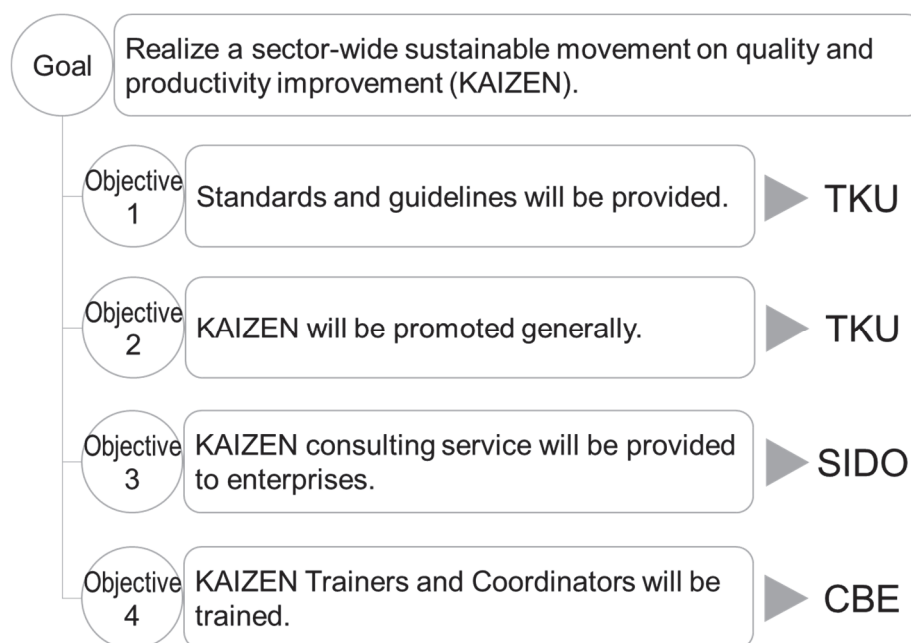
Activity 4-1 TKU prepares a comprehensive plan of KAIZEN promotion activities which includes a marketing strategy.

A comprehensive KAIZEN promotion plan was proposed to the DID in May 2019 as the Tanzania Countrywide KAIZEN Promotion Plan (2020–2030), but consensus-forming did not proceed. The re-

drafting process started at the end of 2019, and after preliminary consultations by the TKU with relevant organizations through individual visits, the draft was submitted to the sixth JCC meeting in February 2020 and approved. This was submitted to the MIIT management meeting on 16 March of the same year, and after comments were collected and responded to, it was forwarded by the DID to the Permanent Secretary for approval on 27 March with a new title that read "Framework for Quality and Productivity Improvement (KAIZEN) in Manufacturing Sector 2020-2030" (FKM 2020-2030). Full approval by the Minister of Industry and Trade was received on 2 April.

The FKM launching event was scheduled for April 2020 but had to be postponed due to the spread of COVID-19. It was held on a reduced scale in Dodoma on 19 August 2020. The event, called National KAIZEN Day, became an annual event as an opportunity to create a sense of unity among a wide range of stakeholders, and from the second year onwards, it was integrated with the Tanzania KAIZEN Award Competition and Ceremony.

The FKM is a 10-year plan starting in July 2020. In the first five years, the introduction of KAIZEN will be completed in 31 regions across the country, and in the latter five years, KAIZEN will be extended within each region. The FKM targets the manufacturing sector and was designed to be implemented under the supervision of MIIT. The TKU, SIDO and the CBE share the responsibility of implementing the planned activities. The goal, objectives, and the implementing agencies by objective are as shown in Figure 2-1. Attachment 2-1 shows the full text of the FKM.



Source: Prepared by the JICA Project Team based on the FKM

Figure 2-1 Goal, Objectives, and Implementing Agencies of FKM

Activity 4-2 TKU and KAIZEN service providers implement and evaluate the plan of KAIZEN promotion activities.

The TKU, SIDO, and the CBE collaborated to implement KAIZEN in Singida in the first year of FKM, and in Kagera, Mtwara, Pwani, and Tanga in the second year. Inter-organizational meetings were held in September 2020, May 2021, and January 2022 for the purpose of coordinating tripartite collaboration on implementation of the FKM.

The annual action plan of TKU reflects its responsibilities toward the FKM, and implementation of the FKM is monitored through quarterly performance reports. Similarly, for SIDO and the CBE, monitoring of the FKM needs to be incorporated as part of existing performance reporting.

Activity 4-3 TKU and KAIZEN service providers collect, compile and share KAIZEN best practices.

The third to sixth Tanzania KAIZEN Award Competition were held in March 2019, February 2020, February 2021, and February 2022, respectively. To honor enterprises implementing KAIZEN, a total of around 15 enterprises across two categories (large enterprises and small and medium-sized enterprises) were invited to participate in the final selection, and the top three enterprises in each category were selected based on their presentations. The awards for KAIZEN trainers were divided into two categories (basic and advanced), and self-reporting of achievements was requested. The top three trainers in each category were awarded through review of documents.

The top enterprises in each category were nominated for the Africa Kaizen Award. At the first Africa Kaizen Award held in Tunisia in June 2019, a nominee from Tanzania in the large enterprise category received the highest prize. The company's In-house KAIZEN Coordinator (KC) was invited to the seventh Tokyo International Conference on African Development (TICAD) held in Yokohama in the same year as a supplementary prize to make a presentation on the results of KAIZEN. The company's award became a big topic in Tanzania and contributed to the growing interest of high-rank government officials in promotion of KAIZEN.

Up to the fourth Tanzania KAIZEN Award Competition and Ceremony in 2020, it was a one-day program with presentations in the morning and an award ceremony in the afternoon. Starting from the fifth KAIZEN Award in 2021, it has become a two-day program combined with National KAIZEN Day, with presentations held on the first day and the award ceremony and various KAIZEN Day programs on the second day. Attachment 1-3 shows an outline of the Tanzania KAIZEN Award Competition and the list of winners.

Tanzania was scheduled to host the sixth Africa Kaizen Annual Conference (AKAC) held on 24–26 August 2021, but due to the uncontrolled outbreak of COVID-19, all visits from outside Tanzania were cancelled. The AKAC secretariat and the JICA Project Team were also unable to travel. Nevertheless, a cross-agency task force led by the TKU took charge of the local side of the program and set up a venue in Dar es Salaam to conduct the in-country program in a face-to-face format with a limited number of participants. Furthermore, by connecting with the online program, the Africa Kaizen Annual Conference was realized on a hybrid form for the first time. As for the results in Tanzania, apart from

attracting attention from the mainstream media, various ideas to promote the nationwide spread of KAIZEN were drawn from discussions among stakeholders.

In addition to disseminating and sharing best practices directly to participants through these events and through media coverage, newsletters and leaflets introducing best practices were produced and distributed at seminars, training sessions, and exhibitions. Attachment 2-3 shows a summary of the promotional materials. Participating in exhibitions such as the Dar es Salaam International Trade Fair (commonly known as Saba Saba) and the Agricultural Exhibition (commonly known as Nane Nane) offered useful opportunities to raise the profile of KAIZEN promotion activities not only among the general public, but also among ministers and senior officials of relevant ministries and agencies, as well as other exhibitors. While formulating the FKM, five leading exhibitions were selected, and a system was developed to ensure that the TKU would participate in exhibitions in a planned manner.

Activity 4-4 TKU coordinates with partner organizations such as CTI, TPSF, TCCIA, EPZA in sensitization of KAIZEN and access to KAIZEN service providers.

There was also collaboration with partner organizations on outreach to enterprises: to help find pilot enterprises, the CTI, the TBS, and the EPZA provided a list of candidate enterprises, and the EPZA and the CBE published introductory articles about KAIZEN in their PR media. Also, in May 2019, the EPZA submitted a proposal on KAIZEN introduction activities for enterprises based in export processing zones, and the CBE submitted a proposal for a KAIZEN essay competition by students. However, since revisions were required with respect to the relevance and budget size, these efforts were not realized during the project period, although the organizations were urged several times to resubmit the proposals after discussing directions for revision.

At the end of the project, the TKU decided that high-priority partner organizations for collaboration and cooperation would be identified and that efforts to promote collaboration would be concentrated on a few selected partners. The targets are SIDO and CBE as the implementing bodies of FKM; the RAS offices, which supports local activities in newly covered regions, and as their central organization, TAMISEMI⁵ or the Regional Administration and Local Government under President's Office (PO-RALG); and the CTI and the TPSF in terms of strengthening outreach to enterprises. The CTI organized a KAIZEN sensitization seminar for its members in cooperation with the TKU in November 2021.

Activity 4-5 TKU provides support for training providers at educational institutions and financial institutions, etc. to incorporate KAIZEN components into their existing services.

The activity commenced by training staff from educational and financial institutions to become KAIZEN trainers. By March 2020, 15 KAIZEN trainers (either KT or AKT) had been trained at the CBE, four at the Vocational Education and Training Authority (VETA), and one at the University of

⁵ TAMISEMI stands for *Tawala za Mikoa na Serikali za Mitaa*.

Dar es Salaam, while at financial institutions, four had been trained at the Cooperative Rural Development Bank (CRDB) and 3 at the Tanzania Investment Development Bank (TIB).

The CBE incorporated KAIZEN into its public relations materials and some education curriculum by March 2019,⁶ while offering short courses such as "Industrial methods and standardization." Furthermore, it has been responsible for the KAIZEN train-the-trainer courses from fiscal 2020 onwards, and construction of training operations proceeded in accordance with the existing short course system. On the other hand, VETA, CRDB, and TIB did not end up with any specific activities to incorporate KAIZEN into existing services. Even if several staff members are trained as KAIZEN trainers, no action will be taken as an organization unless the management is strongly encouraged. In this respect, follow-up activities by the TKU and the JICA Project Team was inadequate. The TKU started studying measures to strengthen collaborative relationships with partner organizations in February 2020 but was unable to complete or implement a concrete action plan, overwhelmed by other activities.

As described in Activity 4-1, the FKM is focusing on the manufacturing sector and aiming to achieve outcomes by disseminating KAIZEN to manufacturing companies. A future vision was shared with the TKU that the manufacturing sector, the health sector, and other sectors would promote KAIZEN within the sector independently, while loose linkages would be established among the main actors in each sector. The CBE and VETA are expected to drive the spread of KAIZEN in the education sector.

Activities 4-6 TKU and KAIZEN service providers support the establishment of KAIZEN trainer association.

To establish a KAIZEN trainers' association, approaches were explored as to set up the KAIZEN committee of SIDO headquarters as the secretariat of the association, or to participate in the launch of the BDS Providers Association planned by the TPSF. In June 2018, the KAIZEN Master Trainers who were trained in Phase 1 of the project took the lead and announced plans to establish an association, but none of these plans materialized.

The first KAIZEN trainer's retreat workshop was held in February 2020. The purpose was to uplift abilities and motivation through mutual experience-sharing and information exchange among trainers, and to convey trends and policies such as TKU's plans for KAIZEN promotion. Since then, this has become a regular event as the KAIZEN Trainer Conference, with the second conference held in October 2020 and the third in October 2021. At the third KAIZEN Trainer Conference, participants discussed ways to continue with KAIZEN promotion after the completion of current Project, which generated enough motivation to establish a KAIZEN Trainer Association, and the leaders were elected on the spot.

Among the over 100 KAIZEN trainers already trained, a group of leaders to serve as a driving force needed to be formed and strengthened. For this purpose, an intensive OJT program was conducted from October to December 2021, mainly for AKTs. The original plan was to start the training in late August and conduct 15 weeks of company visits, but due to the resurgence of COVID-19, the start

⁶ Reported by the CBE to the fourth JCC meeting in March 2019.

was delayed until the period of company visits was shortened to 8 weeks. Even so, the Japanese experts' visits to Tanzania were restricted, and they were forced to provide remote guidance via Zoom video conference and WhatsApp. Table 2-10 shows an overview of the implementation of intensive OJT program. Attachment 1-2 shows a list of participants.

Table 2-10 Summary of Intensive OJT Training for AKTs

Course Objective	Through this Intensive OJT Program , AKTs will upgrade their practical skills to provide advanced KAIZEN Consulting Services.											
Target Participants	This program is designed for certified AKTs who wish to upgrade their practical skills to provide advanced KAIZEN Consulting Services. Certified TOKTs and KTs may be accepted when AKTs alone do not fill the capacity, although the AKTs have priority.											
Course Outline	<p>1) Two teams of three participants will be formed in each training site. A coordinator will be selected in each team to facilitate team activities.</p> <table border="1"> <thead> <tr> <th>Team</th> <th>Days of weekly visits to companies</th> </tr> </thead> <tbody> <tr> <td>Dar es Salaam - 1</td> <td>Mondays and Tuesdays</td> </tr> <tr> <td>Dar es Salaam - 2</td> <td>Thursdays and Fridays</td> </tr> <tr> <td>Arusha</td> <td>Mondays and Tuesdays</td> </tr> <tr> <td>Moshi</td> <td>Thursdays and Fridays</td> </tr> </tbody> </table> <p>2) Each team will provide advanced KAIZEN Consulting Services for two pilot companies. The team should select a scope/theme suitable for advanced KAIZEN activities.</p> <p>3) While the participants should be able to guide KAIZEN activities on their own, each team will be supervised by a KAIZEN expert who will correct and supplement the participants' practice as required.</p>		Team	Days of weekly visits to companies	Dar es Salaam - 1	Mondays and Tuesdays	Dar es Salaam - 2	Thursdays and Fridays	Arusha	Mondays and Tuesdays	Moshi	Thursdays and Fridays
Team	Days of weekly visits to companies											
Dar es Salaam - 1	Mondays and Tuesdays											
Dar es Salaam - 2	Thursdays and Fridays											
Arusha	Mondays and Tuesdays											
Moshi	Thursdays and Fridays											
Course Period	The course was organized as a combination of an 8 week-long on-site training and interim and final workshops within the period from late October to mid December 2021. Participants were expected to attend all the sessions throughout the period.											
	Dates (weekly)	Training Program										
	18-22 Oct.	Week 1 Gemba inspection, management interview, and theme setting										
	25-19 Oct.	Week 2 Actual state analysis, target setting, and target issue selection										
	1-5 Nov.	Week 3 Root cause analysis and exploration of countermeasures										
	8-12 Nov.	Week 4 Selection of countermeasures and implementation planning										
	15-19 Nov.	Week 5 Implementation of countermeasures										
	22-26 Nov.	Interim Workshop (on Tuesday 23 November; in Arusha-Moshi)										
	29 Nov. - 3 Dec.	Week 6 Implementation of countermeasures										
	6-10 Dec.	Week 7 Implementation of countermeasures and monitoring of effects										
	13-17 Dec.	Week 8 Measurement and summarization of results										
	20-24 Dec.	Final Workshop (on Tuesday 21 December; in DSM)										

Source: Prepared by The JICA Project Team

Activity 4-7 TKU and KAIZEN service providers support the establishment of Tanzania KAIZEN Club and its activities.

Three enterprises which were actively engaged in KAIZEN as of November 2017 were identified, and the establishment of a KAIZEN Club assisted by the CEOs of these enterprises was planned. In May and June 2018, the CEOs of the cooperating enterprises explained the proposal to establish a KAIZEN Club to the enterprises having implemented KAIZEN, but this did not develop into concrete action subsequently.

Activity 4-8 TKU prepares drafts of certification system of a KAIZEN trainer and of accreditation system of a KAIZEN service provider.

The qualification system for KAIZEN trainers is outlined in the Technical Guidelines, which define the qualifications of KT, AKT, and TOKT and provides the requirements for completion of training course and registration with MIIT. The curriculum and completion requirements for the training were established at the start of the project, while the registration system was newly introduced in September 2021. The registration system was developed because there was an increasingly recognized need for KAIZEN trainers' qualifications to expire after a term of validity, as not all the trainers maintain and improve their knowledge and skills through continuous engagement in KAIZEN activities after completing the train-the-trainer course. Also, to transfer KAIZEN train-the-trainer course operations from the TKU to the CBE based on the FKM, the training completion and qualifications were divided to ensure a stable system.

At the end of the project, the accreditation system for KAIZEN service providers was not yet in place. As SIDO was effectively the only KAIZEN service provider that offered KAIZEN consulting services to enterprises as an organization, and as the spread of KAIZEN consulting services beyond pilot enterprises was limited, there was little need for an accreditation system.

Activity 4-9 TKU explores an incentive system for the private enterprises to receive KAIZEN consulting services.

Recognition by the Tanzania KAIZEN Award and nomination to the Africa Kaizen Award were positioned as non-monetary incentives to encourage enterprises to implement KAIZEN, which were highlighted at sensitization seminars. Seeking to enhance incentives through awards, the Project also asked a few Regional Administrative Secretaries for their opinions about holding KAIZEN award competition at the regional level, but due to budget constraints, this idea was unable to be implemented.

From July to December 2021, a financial incentive system was introduced on a trial basis for paid KAIZEN consulting services with the JICA Project Team paying part of the reimbursable costs. However, the trial system was applied for in only two cases, of which one was completed to receive incentive payment. Therefore, it was difficult to verify the effectiveness of the system. The reason it was not fully utilized was that the number of trainers who could acquire a client company and provide KAIZEN consulting service independently was limited, and those relatively experienced trainers were occupied with the KAIZEN train-the-trainer courses in the four regions and the Intensive OJT Program

for AKTs. In addition, it took time for the announcement of the trial incentive system via TKU and SIDO to reach Trainers. The presentation made at the Trainer Conference in October became the starting point, and the application period became rather short. On the other hand, the trainer who utilized the incentive program commented that he had a good opportunity to learn from practice. For ensuring the effectiveness of both the spread of KAIZEN among companies and the accumulation of experience of trainers, it is advisable to announce the system well in advance, set a period considering other assignments, and, if possible, assist company-trainer matching.

Activity 4-10 TKU prepares an action plan for a nation-wide KAIZEN promotion.

Since the FKM, a plan for nationwide dissemination of KAIZEN, was approved by the Minister in April 2020, TKU's activity plan has been developed in line with the FKM. Section 2.5 describes the status of activities involved in promoting KAIZEN. In addition, SIDO and CBE, which are both responsible for the implementation of the FKM, held a series of meetings at the management and working levels to build a functioning system for collaboration among the three parties.

2.3 Status of Achievement of Training of KAIZEN Trainers

This section summarizes the status of the development of KAIZEN trainers at the end of the project.

2.3.1 Framework for Kaizen Trainer Development

Table 2-11 shows the types of KAIZEN trainers in Tanzania. In-house KAIZEN Coordinators (KC), who promote KAIZEN activities within their own enterprises, group companies, and business partners, are also involved in promoting KAIZEN; however, they are excluded from the discussion in this section. There was no systematic follow-up on the continuation of KAIZEN activities and their spread to other departments and companies after the pilot project was completed, and as a result, the level of attention paid to KCs was relatively low.

Table 2-11 Types of KAIZEN Trainers

Title (acronym)	Roles
[1] Trainer of Training for KAIZEN Trainer (TOKT)	- Training of KAIZEN Trainers (KTs) - KAIZEN guidance at basic level for companies
[2] Advanced KAIZEN Trainer (AKT)	- Provide advanced-level KAIZEN consulting service mainly to LEs
[3] KAIZEN Trainer (KT)	- Provide basic-level KAIZEN consulting service mainly to MSMEs

Source: Excerpt from Technical Guidelines, Second Edition (January 2022)

The training program consists of classroom lectures, a multiple-choice written exam, on-the-job training, and a wrap-up meeting. The basic level (KT) training course is a program of four days of classroom training (CRT), a 50-question written exam, and six weeks of On-the-Job Training (OJT)

(for one company).⁷ The advanced level (AKT) adds two days of CRT and a 32-question written exam to the basic level, with 23 weeks of OJT (for one company). TOKTs are trained by completing the KT training program and then serving twice as basic-level CRT lecturers and OJT instructors under the supervision of Japanese experts. Table 2-12 shows the requirements for completion of training.

Table 2-12 Requirements for Completion of KAIZEN Train-the-Trainer Courses

	TOKT	AKT	KT
Enrollment	<ul style="list-style-type: none"> ✓ Application form ✓ KT certification 	<ul style="list-style-type: none"> ✓ Application form ✓ College/university graduate or equivalent capability proved 	<ul style="list-style-type: none"> ✓ Application form ✓ College/university graduate or equivalent capability proved
Classroom Training (CRT)	<ul style="list-style-type: none"> ✓ 100% attendance as a lecturer at 2 batches of 4-day basic-level program 	<ul style="list-style-type: none"> ✓ 100% attendance at a 6-day advanced-level program (Waived for advanced-level KC certificate holders) (First 4 days waived for KT or basic-level KC certificate holders) 	<ul style="list-style-type: none"> ✓ 100% attendance at a 4-day basic-level program (Waived for KC certificate holders)
Written examination	Not required	<ul style="list-style-type: none"> ✓ 70% or higher score (Resitting allowed one time only) 	<ul style="list-style-type: none"> ✓ 70% or higher score (Resitting allowed one time only)
On-the-Job Training (OJT)	<ul style="list-style-type: none"> ✓ 70% or more attendance as a instructor at 2 batches of 6 on-site sessions at an SME ✓ Independent final report of acceptable quality 	<ul style="list-style-type: none"> ✓ 70% or more attendance at 23 on-site sessions at an LE ✓ Independent mid-term report of acceptable quality ✓ Independent final report of acceptable quality 	<ul style="list-style-type: none"> ✓ 70% or more attendance at 6 on-site sessions at an SME ✓ Independent final report of acceptable quality

Source: Excerpt from Technical Guidelines, Second Edition (January 2022)

Those who complete the training may officially call themselves KAIZEN trainers by registering with MIIT within three years. The opportunities provided by TKU for KAIZEN trainers, such as KAIZEN Trainer Conferences, refresher courses, referral of potential clients for KAIZEN consulting services, and assignment to publicly funded KAIZEN consulting services, are available only to registered trainers. The registration is valid for three years, and the requirements for renewing registration involve both attending a refresher course to supplement the knowledge and practicing KAIZEN consulting services. Table 2-13 shows the registration and renewal requirements. Anyone who has been certified as KAIZEN Master Trainer or KAIZEN Trainer in Phase 1 may register as a KT.

⁷ In the January 2022 revision of the Technical Guidelines, one day was added to CRT and one week was added to OJT. All the train-the-trainer courses conducted during the project period was based on the pre-revision curriculum (3 days of CRT, 5 weeks of OJT).

Table 2-13 Requirements for KAIZEN Trainer Registration and Renewal of Registration

	TOKT	AKT	KT
Registration	<ul style="list-style-type: none"> ✓ Registration data sheet ✓ Certificate of completion of TOKT training course issued by the CBE 	<ul style="list-style-type: none"> ✓ Registration data sheet ✓ Certificate of completion of AKT training course issued by the CBE 	<ul style="list-style-type: none"> ✓ Registration data sheet ✓ Certificate of completion of KT training course issued by the CBE
Renewal	<ul style="list-style-type: none"> ✓ Registration data sheet ✓ Attendance at one refreshing seminar in the current registration period (3 years) ✓ KAIZEN Consulting Service Record submitted for at least 5 client enterprises served in the current registration period (3 years) ✓ Delivery of at least 1 training course for KAIZEN trainers in the current registration period (3 years), endorsed by the CBE 	<ul style="list-style-type: none"> ✓ Registration data sheet ✓ Attendance at one refreshing seminar in the current registration period (3 years) ✓ KAIZEN Consulting Service Record submitted for at least 5 client enterprises served in the current registration period (3 years) ✓ Provision of advanced-level KAIZEN consulting service (in terms of enterprise size or KAIZEN theme/methods) to at least 2 of the abovementioned client enterprises 	<ul style="list-style-type: none"> ✓ Registration data sheet ✓ Attendance at one refreshing seminar in the current registration period (3 years) ✓ KAIZEN Consulting Service Record submitted for at least 5 client enterprises served in the current registration period (3 years)

Source: Excerpt from Technical Guidelines, Second Edition (January 2022)

The CBE conducts the KAIZEN train-the-trainer course. The CBE is responsible for issuing certificates of completion. On the other hand, the TKU manages registration, and it issues the proof of registration on behalf of the MIIT.

2.3.2 Status of Trained KAIZEN Trainers

Table 2-14 shows the numbers of persons who completed training and registered as of the end of the Project.

Table 2-14 Numbers of Persons Completing KAIZEN Train-the-Trainer Courses and Registered

	KT	AKT	TOKT
Completed	138	30	15
Completed (Phase 1)	20	-	-
Registered	74	24	11

Note: As of 31 January 2022. Since some people completed and registered for more than one category of KAIZEN trainer, there is a slight overlap in the numbers of those completing and registering for each category of trainer. The net number of registrants is 89. The breakdown of those completed in Phase 1 was 11 KAIZEN Master Trainers and 9 KAIZEN Trainers.

Source: Prepared by The JICA Project Team

When the registration process was completed after the system was introduced in September 2021, 24 fewer KT's had completed the train-the-trainer course than are shown in Table 2-14. Nevertheless, it is evident that a certain number of people did complete the training but are now not positioned to continue their activities as KAIZEN trainer.

The attributes of the 89 registered KAIZEN trainers as of the end of the Project are as follows.

- The gender ratio was 60 men (67.4%) to 29 women (32.6%).
- Table 2-15 shows the percentage of respondents by the region where they are based (residence or work). One-third of the total number is concentrated in Dar es Salaam.

Table 2-15 Locations of Registered KAIZEN Trainers

Region (place of residence or work)	No. registered (% of total)	Type of registration		
		KT	AKT	TOKT
Dar es Salaam	30 (33.7%)	23	11	3
Mwanza	11 (12.4%)	11	1	1
Mbeya	9 (10.1%)	6	3	2
Kilimanjaro	9 (10.1%)	9	0	1
Dodoma	9 (10.1%)	7	3	3
Singida	7 (7.9%)	7	0	0
Arusha	6 (6.7%)	5	2	0
Morogoro	3 (3.4%)	2	2	0
Pwani	2 (2.2%)	2	1	1
Tabora	1 (1.1%)	1	0	0
Songwe	1 (1.1%)	1	0	0
Manyara	1 (1.1%)	0	1	0
Total	89 (100.0%)	74	24	11

Source: Prepared by the JICA Project Team

- Table 2-16 shows their affiliations, with the overwhelming majority being government agency employees.

Table 2-16 Affiliations of Registered KAIZEN Trainers

Affiliation	No. registered (% of total)
National Governmental Organization	38 (42.7%)
<i>SIDO</i>	24 (27.0%)
<i>EPZA</i>	3 (3.4%)
<i>MIIT</i>	2 (2.2%)
<i>Other</i>	9 (10.1%)
Regional/Local Governmental Organization	10 (11.2%)
<i>RAS Office</i>	4 (4.5%)
<i>Other</i>	5 (5.6%)

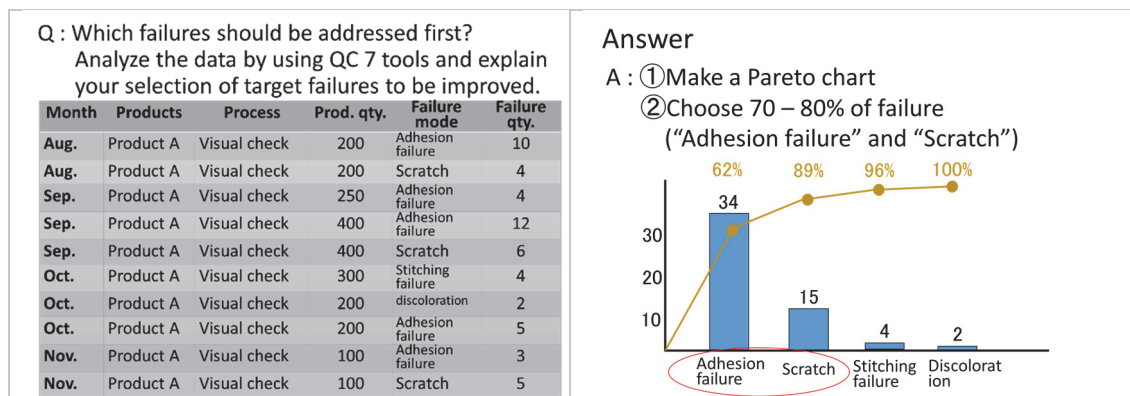
Affiliation	No. registered (% of total)
Educational Institution	21 (23.6%)
<i>CBE</i>	16 (18.0%)
<i>VETA</i>	2 (2.2%)
<i>Other</i>	3 (3.4%)
Other Non-Profit Organization	3 (3.4%)
Commercial Banks	2 (2.2%)
Consulting and Other For-Profit Company and Individuals	15 (16.9%)

Source: Prepared by the JICA Project Team

Systematic measurement and evaluation of the KAIZEN consulting skills of KAIZEN trainers who are registered or have completed training have not been conducted. For this reason, attempts are made to estimate the ability of KAIZEN trainers based on observations made through remote support for local KAIZEN trainers providing KAIZEN consulting services, as well as the results of selection tests for training participants.

Suspension of travel due to the spread of COVID-19 created a situation in which, during the pilot project to develop the "Kaizen x Cluster" model implemented from June 2020 to February 2021, only local KAIZEN trainers provided on-site guidance to enterprises, while the content and results of the training were shared with Japanese experts immediately before and after the training. This provided a good opportunity to track the real abilities of KAIZEN trainers in practice. As a result, it was observed that the trainers did not have a level of understanding that would have allowed them to practice problem-solving in proper steps in line with the QC story and to use the basic tools appropriately in the process. In many cases, the scope of activities was expanded without any connection to the KAIZEN theme selected, or measures were implemented in a single leap without objective analysis of causes.

In July 2021, a written test was conducted on the applicants for the Intensive OJT Program as the number of applicants exceeded the course capacity. The question was a basic one asking the applicants to identify the types of defects that need to be dealt with, based on the data for frequency of occurrence by type of defect (see Figure 2-2).



Source: Prepared by the JICA Project Team

Figure 2-2 Selection Test Question and Model Answer

Thirty of the thirty-seven trainers who received the question submitted answers. Of these, only 15, or half, were able to correctly draw a bar graph and a line graph of the Pareto chart and indicate the values in both graphs. Only nine trainers (30%) were able to correctly identify the two types of defects that required KAIZEN. On the other hand, six trainers (20%) did not seem to have an idea of using a Pareto chart. Considering that the Pareto chart is a basic tool frequently used in KAIZEN activities for productivity and quality improvement, these results did not instill confidence.

2.3.3 Future Challenges

The following issues remain to be addressed in the training of KAIZEN trainers.

a. Improving the environment for renewal registration

Following the introduction of the KAIZEN trainer registration system, the registration of the first 89 registrants will expire in January 2025. At that time, the TKU must ensure that no situation arises in which the renewal process cannot be completed for reasons not attributable to the individual. Specifically, the CBE needs to be supported to ensure that the refresher course, which is yet to be realized, is consistently conducted every year. For smooth verification of renewal requirements, it would also be effective to keep consolidated records of who took the course and when. Likewise, in cooperation with SIDO, it is important to establish performance reporting for KAIZEN consulting services and uniform management of reported performance information.

b. Expansion of the leading group of KAIZEN trainers

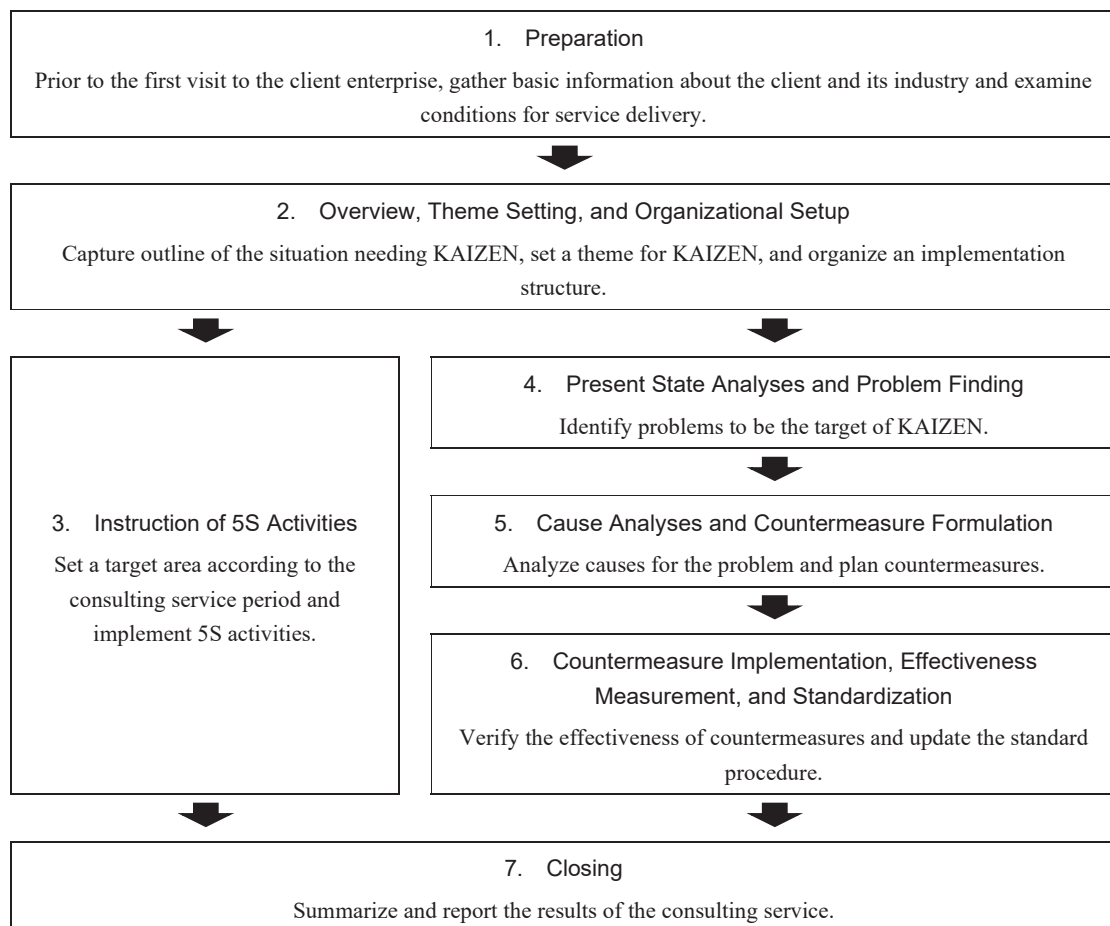
The Technical Guidelines outline a principle for the training of new AKTs and TOKTs, enabling AKTs and TOKTs who have achieved a certain level of practical experience to train their respective successors. Although this method has not yet been systematically established, it is important for the TKU to secure KAIZEN trainers that meet the same requirements for the self-sustaining operation of KAIZEN human resource development in Tanzania. In addition to encouraging trainers to practice as induced by the registration and renewal system, it is necessary to increase the effectiveness of information-sharing and promotion activities to create and provide opportunities for practice. In specific terms, this means operating a cycle of gathering inquiries through exhibitions, media coverage, and introductions by partner organizations, converting these inquiries into projects, and passing these projects on to the appropriate KAIZEN trainer without delay. Contrary to the tendency to be satisfied with simply exhibiting at trade shows or holding events that gain media coverage, the TKU needs to devote its efforts to subsequent conversion into projects.

2.4 Status of Achievement in Provision of KAIZEN Consulting Services

This section summarizes the status of the provision of KAIZEN consulting services at the end of the project.

2.4.1 Framework for KAIZEN Consulting Services

The implementation guidelines for KAIZEN consulting services are presented in the Technical Guidelines. The relevant sections of the Technical Guidelines were also used as OJT program materials for KAIZEN train-the-trainer courses. The basic flow of this process is as shown in Figure 2-3.



Source: Excerpt from the Technical Guidelines, Second Edition (January 2022)

Figure 2-3 Basic Flow of KAIZEN Consulting Services

When setting performance indicators in the second stage of the procedure, "Overview, Theme Setting, and Organizational Setup," at least one of the indicators shown in Table 2-17 must be included as a performance indicator. After KAIZEN consulting services are provided, the implementation details should be reported to the TKU using the prescribed "KAIZEN Consulting Service Record" form. The form requires the before-KAIZEN and after-KAIZEN data for the performance indicators to be filled.

Table 2-17 KAIZEN Effect Measurement Indicators

	Indicator	How to measure
5S	Free space rate (%)	$Free\ space\ (m^2) \div Total\ space\ (m^2) \times 100$ Do not just measure the free space but measure both occupied and unoccupied spaces to know the percent unoccupied.
	Time required for picking an item (sec.)	Measure the time length taken to search and fetch a certain item (tool, material, part, etc.).
	5S score	Examine the status of target workplace by using the 5S check sheet.
Quality	Defective rate (%)	$Quantity\ of\ defective\ units \div Quantity\ of\ units\ processed \times 100$ "Quantity of defective units" includes both damped and reworked units. Do not just count the number of defective units per unit time but compare it with the total number of units (both rejected and accepted units) processed/produced.
	Yield rate (%)	$Volume\ of\ good\ units\ produced \div Volume\ of\ main\ material\ input \times 100$ Measure the volumes of production and input by using the same unit (piece/carton, kg/ton, liter/m ³ , etc.).
Productivity	Production volume per unit time (pieces/hour, tons/day, etc.)	Count the number of units actually produced/processed within a certain period of time.
	Production lead time (hours, days, etc.)	Measure the time length from inputting materials at the factory until making them into finished products.

Source: Excerpt from Technical Guidelines, Second Edition (January 2022)

The lineup and fee structure of SIDO's KAIZEN consulting services was compiled in March 2019 based on a fact-finding survey, which has been repeatedly agreed upon by KAIZEN trainers within SIDO. However, no significant attempt has been made to apply this fee schedule uniformly and market KAIZEN consulting services in the form of packaged services. The fee schedule is positioned as a reference price only, based on the understanding that the details of support and the fees will be adjusted to meet the circumstances of individual enterprises. Figure 2-4 shows the fee schedule.

Incidentally, some private sector consultants have stated that they are unable to offer services under this range of fees, and that they do not wish this structure to be the standard of KAIZEN consulting fees.⁸ It should also be noted that enterprises will bear only a portion of the cost, due to the public support provided by SIDO. However, the cost of the service was not calculated when compiling the fee schedule listed above.

⁸ As of 2020, the remuneration for private consultants was estimated to be around TZS 400,000 to 500,000 per day.



Small Industries Development Organization (SIDO)

In cooperation with

Tanzania KAIZEN Unit (TKU) in

Ministry of Industry and Trade

SIDO Business Development Service (BDS) and KAIZEN Package

Standard Condition

Customer can select the service from Package/Service Menu

Fees for assignments may differ according to the Company size, the scope of business and the degree of difficulty, etc.

Please consult with SIDO officers regarding the fees and service details.

	Package	Service Menu	Fees(TSh)
1	Guidance	-Provision of public support information	Free
		-Advice on preparation for application forms	Free
2	Pre-Company Diagnosis	-Current Situation Analysis (recommended for first-time customers)	Free
		-Advice on Improvement Policy	Free
3	Marketing	-Marketing Survey	40,000-120,000
		-Marketing Strategy	80,000-200,000
		-Sales Plan	80,000-200,000
		-New Market Development	80,000-200,000
		-Advice on Sales Increase	120,000-240,000
4	Business Administration	-Business Plan	80,000-300,000
		-TQM Guidance	80,000-240,000
		-Human Resource Development Plan	40,000-120,000
5	Financial Management	-Financial Analysis	Free
		-Cash Flow Management	Free
		-Loan Application Form	Free
6	Factory Management (Genba KAIZEN)	-5S	80,000-300,000
		-Improvement of Workplace	80,000-300,000
		-Quality Control	80,000-300,000
		-Production Management	120,000-240,000
		-Reduction of Defective Production	80,000-160,000
		-Cost Reduction	80,000-160,000
		-Plant Layout	80,000-160,000
		-Line Balance	80,000-160,000
		-Standardization, Manuals	80,000-160,000
		-Technical Information	40,000-80,000
		-New Product Development	40,000-80,000

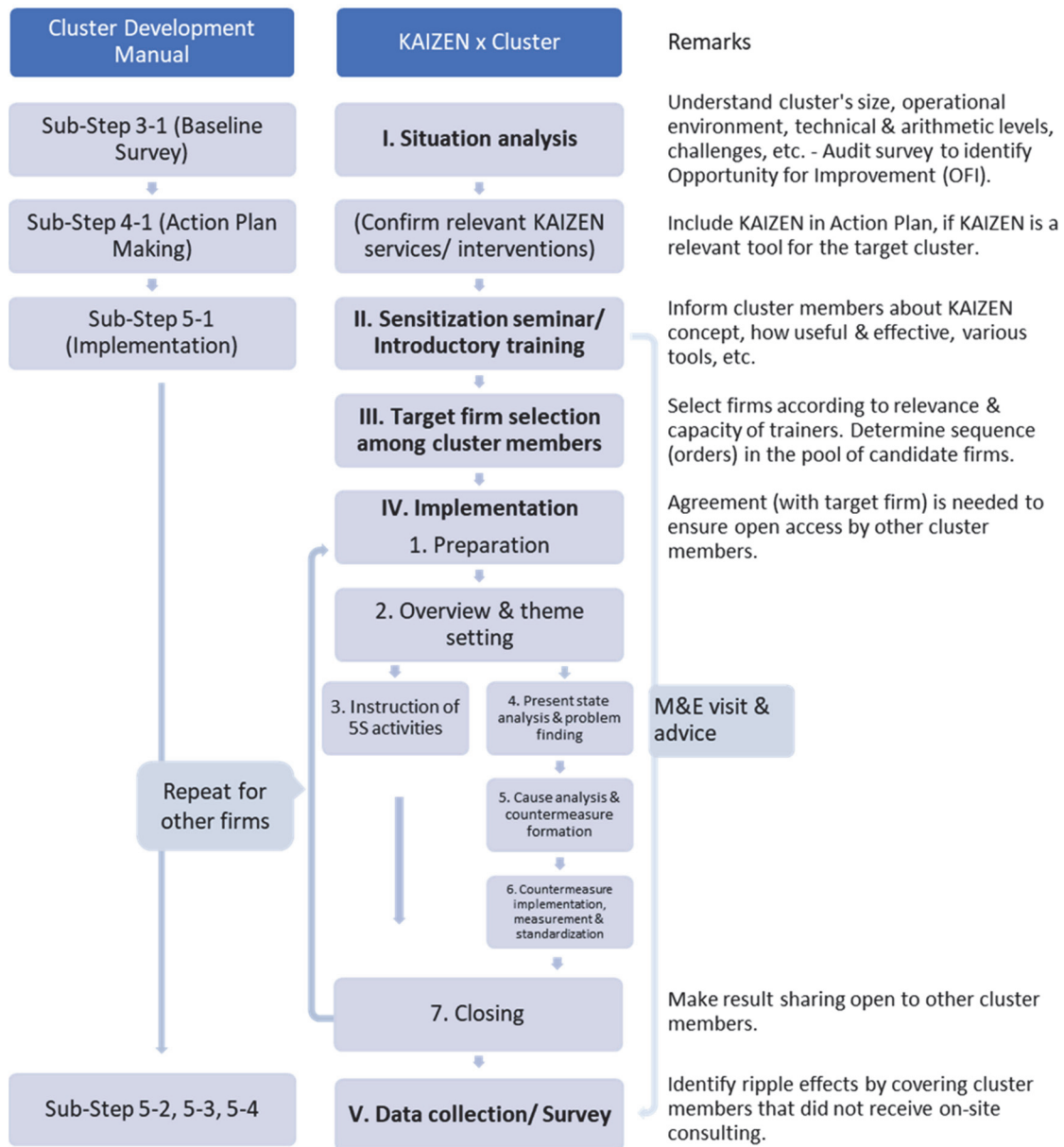
Source: Prepared by the JICA Project Team

Figure 2-4 Reference Fee Schedule for SIDO's KAIZEN Consulting Services

2.4.2 "KAIZEN x Cluster" Model

The "KAIZEN x Cluster" model was developed with the following objectives in mind: 1) to spread KAIZEN by promoting it through industrial clusters rather than just individually to enterprises; and

2) to use KAIZEN as a tool supporting cluster development for the purpose of strengthening the competitiveness of industrial clusters. Figure 2-5 shows an overall flow of the model. Attachment 2-4 shows the presentation material used to introduce the final version of "KAIZEN x Cluster" model at the sixth AKAC in August 2021.



Source: Prepared by The JICA Project Team

Figure 2-5 Overall Flow of "KAIZEN x Cluster" Model

The procedure "IV. Implementation" involves KAIZEN guidance for individual businesses conducted in accordance with the implementation guidelines for KAIZEN consulting services outlined in the Technical Guidelines. Before and after this implementation, a sensitization seminar and a wrap-

up workshop are arranged for all cluster members. In this way, KAIZEN activities at the target firms are used as model cases to spread KAIZEN throughout the cluster. In addition to this standard model, an alternative method has been prepared that is applicable 1) when it is difficult for KAIZEN trainers to visit the site frequently to offer guidance or 2) when the cluster is made up of a large number of micro-businesses and is unsuitable for implementing individual KAIZEN consulting services. The alternative method provides that KAIZEN trainers visit the cluster every few months to monitor KAIZEN activities while conducting group training or traveling guidance. SIDO selects which model should be applied after a preliminary assessment of the target cluster (I. Situation Analysis).

For individual KAIZEN consulting services, contracts are to be signed with the target enterprises based on the fee schedule shown in Figure 2-4.

2.4.3 Future Challenges

The following issues remain to be addressed in the provision of KAIZEN consulting services.

a. Expanding the number of enterprises implementing KAIZEN

Other than the pilot KAIZEN activities (i.e., the OJT program in KAIZEN train-the-trainer course), the adoption of KAIZEN by enterprises has been sluggish. If each registered KAIZEN trainer independently provides KAIZEN consulting services to "five companies in three years," which satisfies the requirements for renewal, one would estimate that KAIZEN should be implemented in about 150 companies annually. A system needs to be developed to access at least that many enterprises willing to implement KAIZEN. It is essential that KAIZEN trainers take action to acquire clients on their own, rather than wait for projects to land in their lap. It is expected SIDO and TKU support promotional activities by KAIZEN trainers by providing tips for preparing proposals, promotional materials, creating buzz through media coverage, and subsidizing the cost of promotional activities where possible.

b. Tracking the performance of KAIZEN consulting services

Although required in the Technical Guidelines, it is difficult to ensure that individual KAIZEN trainers report their performance without any contractual relationship or financial incentive. Even though the reporting of performance is encouraged by making it the basis for winning the Tanzania KAIZEN Award for Outstanding Trainer, or the basis for confirming renewal registration requirements, it will be impossible to ensure complete reporting.

For this reason, it is important for SIDO as an organization to accurately tabulate the results of the KAIZEN consulting services provided by in-house KAIZEN trainers. Since the introduction of ERMS has been postponed, it is necessary to reconsider and construct mechanisms for collecting results, and to properly accumulate data to serve as the basis for taking the next steps, such as tabulating the effects of KAIZEN and creating a database of enterprises that have implemented KAIZEN.

2.5 Status of Achievement in Promoting Spread of KAIZEN

This section summarizes the status of KAIZEN promotion activities at the end of the project.

2.5.1 Framework for KAIZEN Promotion Activities

Activities to promote the spread of KAIZEN can be broadly divided into two categories: efforts to expand the target area to introduce KAIZEN in 31 regions nationwide, and efforts to increase awareness and promote the spread of KAIZEN regardless of the target area.

The FKM contains a planned schedule for the nationwide extension of KAIZEN. Target regions for expansion are selected each year, and central support is received up to the point where one term of the KAIZEN train-the-trainer course is held in the target regions, after which SIDO regional offices take the lead in promoting KAIZEN locally. Table 2-18 shows the cycle of spreading KAIZEN to the target regions. Implementation procedures for each stage are provided in the Technical Guidelines.

Table 2-18 Cycle of Spreading KAIZEN to New Target Regions

Year 0 (preparation)	Year-round	Formation of local implementation structure
	May - June	Preparatory visit to target region
Year 1 (actual expansion)	July - August	Stakeholder Sensitization Seminar (Top Management Seminar)
	August - September	Recruitment of candidate KAIZEN trainers and pilot enterprises
	October - November	Training Course to develop local KAIZEN trainers Pilot KAIZEN activities at selected local enterprises
	January	Wrap-up Meeting
Year 2	Year-round	Continuation of KAIZEN promotion

Source: Technical Guidelines, Second Edition (January 2022)

At a working-level meeting of TKU, CBE and SIDO in May 2021, the three parties agreed on the division of roles in implementing a series of activities in new target regions. TKU will take the lead in organizing sensitization seminars, while CBE will be responsible for the training of KAIZEN trainers. The SIDO regional office will take care of the local side, including coordination of pilot enterprises to participate in the OJT program and making various arrangements for seminars and training.

On the other hand, general KAIZEN promotion activities have been incorporated into the FKM, such as holding a booth at five exhibitions per year, producing and updating promotional materials, and holding the Tanzania KAIZEN Award Competition and Ceremony, with the implementation procedures for each of these provided in the Technical Guidelines. Starting with the fifth Tanzania KAIZEN Award in February 2021, on-site evaluation of candidate companies by KAIZEN trainers in each region were introduced as primary selection criteria. In response to the expansion of target areas, the intention is to shift to using KAIZEN trainers instead of the TKU doing everything directly. A new evaluation form was created, which was consistent with the evaluation criteria of the Africa Kaizen

Award, and preparatory training for KAIZEN trainers to conduct company visit and evaluation was also introduced for the sixth Tanzania KAIZEN Award in 2022. Table 2-19 shows the company selection process.

Table 2-19 Selection Process for Tanzania KAIZEN Award Winner Enterprises

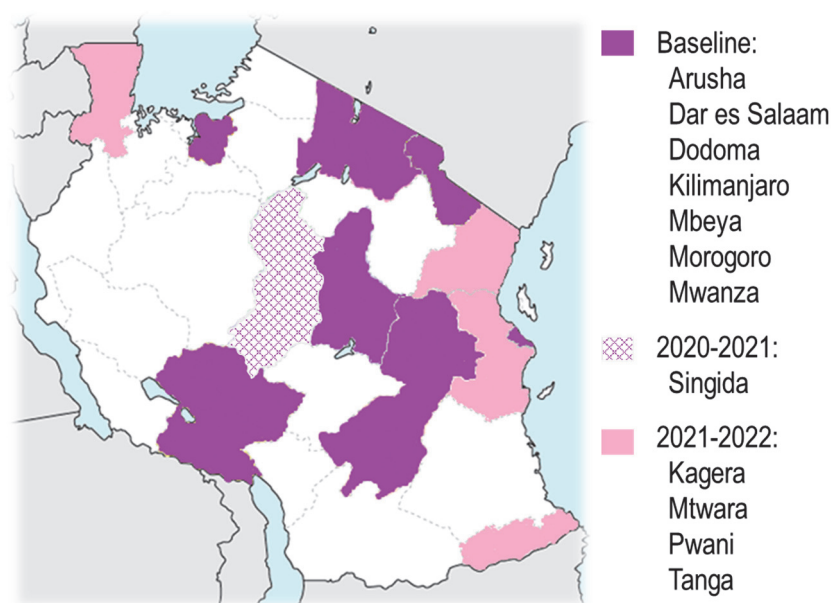
Step	Description
1. Evaluator Training /Distribution of Evaluation Form	The TKU presents and explains the Evaluation Form for on-site inspection and evaluation at the Evaluator Training Program to be organized in conjunction with the KAIZEN Trainer Annual Conference.
2. Confirmation of Eligibility	Evaluators confirm eligibility of candidate companies; companies which implemented KAIZEN activities in recent two years, regardless of when they started applying KAIZEN, are eligible. KAIZEN trainers consult the TKU when they are not sure about the eligibility of a particular company.
3. On-site inspection and evaluation	Evaluators, under the leadership of SIDO Regional Offices (SIDO-ROs), conduct on-site inspections of prospective companies by using the Evaluation Form.
4. First Selection to Nominate Candidates	Evaluators, under the leadership of SIDO-ROs, select up to three (3) best companies based on the results of on-site inspections, and then nominate them to national competition by sending the filled-out Evaluation Forms to the TKU.
5. Online Interview with Nominee Companies	The TKU organizes web-meeting or telephone interviews with the companies nominated. The nominee Trainers may join the interview session.
6. Second Selection to Identify Finalists	The TKU selects up to fifteen (15) finalist companies based on the documents (Evaluation Forms) submitted and results of online interviews. The TKU then notifies the selection results to all companies nominated and their nominators. The TKU provides guidelines/templates for the presentation to be prepared.
7. Final Presentation and Selection of Winners	The finalist companies make presentation in front of the Team of Judges. The Judges score the performance based on the documents (presentation materials) and the presentations, which will be combined with the results of on-site evaluation to determine the winners.

Source: Technical Guidelines, Second Edition (January 2022)

2.5.2 Status of Expansion of KAIZEN

By the end of the project, KAIZEN had already been rolled out to 12 regions beyond the project's eight target regions. Figure 2-6 shows the coverage by year in the FKM.

In addition to this, a KAIZEN sensitization seminar was held in Zanzibar in June 2021. KAIZEN was also introduced at a seminar held by the Business Registrations and Licensing Agency (BRELA) in Lindi in June 2019. Both regions are expected to be selected as target regions for dissemination of KAIZEN in fiscal 2022-23.



Source: Prepared by the JICA Project Team

Figure 2-6 End-of-Project Coverage of KAIZEN Promotion

Regarding exhibition participation, goals were set to acquire prospective enterprises and trainer candidates for Nane Nane in 2020 and beyond, and results have been monitored. Table 2-20 shows the outputs of participation in exhibitions in 2021.

Table 2-20 Outputs of Exhibitions in Fiscal 2021–22

	Saba Saba 29 Jun - 7 Jul. 2021	SIDO National Exhibition 21-30 Sep. 2021	East African Juakari 2-12 Dec. 2021	SIDO Industrial Week 2-9 Dec. 2021
Creating KAIZEN awareness to pavilion visitors	155	130	84	106
Soliciting for pilot companies willing to pay for KAIZEN consulting services	6	13	4	10
Recruiting candidates willing to participate in upcoming KAIZEN training	37	26	11	28
Visiting and presenting KAIZEN philosophy to public and private institutions	All MI affiliated institutes	Kasulu DC, MATI-Mubondo, TARI, NSSF Kigoma, TEMDO, WMA, BRELA	-	TASAC, TPA, ZURA, BOT, NSSF, ZSSF, SIMIDA

Note: The Agricultural Exhibition (Nane Nane) was cancelled due to the spread of COVID-19.

Source: Prepared by the JICA Project Team based on the reports compiled by the TKU.

2.5.3 Future Challenges

The following issues remain to be addressed in KAIZEN promotion activities.

- a. Timely and appropriate response to prospective enterprises and trainer candidates encountered at exhibitions and other channels.

A system is needed for promptly introducing appropriate KAIZEN trainers to enterprises that wish to receive KAIZEN consulting services. Conversely, attention must also be paid to ensuring fair opportunities and transparency for registered KAIZEN trainers. There are several ways to achieve this --- for example, showing all trainers information about inquiries without identifying the enterprise and inviting them to respond, or always introducing multiple trainers to each enterprise so that they can choose one.

Contact information of prospective trainer candidates needs to be managed in an integrated manner so that they will be informed of any plans to hold a training course, since the exhibition location will not necessarily be in a target region for expansion of KAIZEN promotion. Especially after 2025, when the round of KAIZEN train-the-trainer courses in newly covered regions will have been completed, the CBE will be planning the venues and timing of training that should be coordinated with promotion activities of the TKU. For example, if the number of applicants for training in a particular area reaches a certain number, it might be decided that training will be conducted there. Appropriate management of candidate information is also essential for such arrangements.

- b. Establishing follow-up processes

After the first year of KAIZEN promotion activities in the newly targeted regions, systems and procedures must be established to promote KAIZEN in the region on a continuous basis and to secure financial resources. As we enter the phase of providing KAIZEN consulting services using trained local KAIZEN trainers, the SIDO regional office will play the lead role. SIDO regional managers, who are familiar with their local communities, are expected to take appropriate action to ensure that the interest sparked in the first year does not disappear. Confirming the KAIZEN promotion activity plans for the next year between SIDO headquarters and regional offices at the time of the wrap-up meeting could be an effective method.

Chapter 3 Achievement of Goals

Table 3-1 summarizes the degree of achievement of the project purpose and outputs as of the end of the Project in January 2022. Attachment 3-2 provides specific data used for the verification of achievements. The status of achievement is explained below.

Table 3-1-1 Status of Achievement of Overall Goal, Project Purpose and Outputs (January 2022)

	Objectively Verifiable Indicators	Achievement (based on indicators)	Achievement Level	Remarks
Overall Goal	<ul style="list-style-type: none"> (1) More than five hundred (500) private enterprises practice KAIZEN activities. (2) KAIZEN activities are practiced in more than fifteen (15) regions. (3) More than fifty (50) % of enterprises which practiced KAIZEN provided by the Project show positive impact in business. 	<ul style="list-style-type: none"> (1) 131 enterprises directly participated in the Project (of which 107 were certified for recognition). Approx. 30 were trained additionally by a KAIZEN trainer's own initiative. (2) KAIZEN Train-the-Trainer Courses were held in 12 regions. (3) Data has not been measured (although 58% of pilot enterprises reported positive impacts) 	<ul style="list-style-type: none"> △ ○ ○ 	To achieve the goal (1) of 500 private enterprises practicing KAIZEN, further measures are needed to ensure that each Trainer undertakes activities by their own initiative to implement KAIZEN. Regarding (2), KAIZEN train-the-trainer courses are planned to be held in 7 more regions in FY 2022-2023.
Project Purpose	<ul style="list-style-type: none"> (1) More than 50 (30 SIDO and 20 others) KAIZEN trainers are developed. (2) More than 100 private enterprises practice KAIZEN on a continuous basis. (3) Sustainable development of KAIZEN trainers. (4) KAIZEN framework is expanded with the participation of new partner organizations. 	<ul style="list-style-type: none"> (1) 183 KAIZEN trainers were developed in total (including 33 SIDO) (2) 107 enterprises certified for recognition (3) Training by Trainers of Training for KAIZEN Trainers (15 TOKTs) was conducted in Dodoma, Singida, Dar es Salaam, Mtwara, Kagera, Pwani, and Tanga. (4) Wide interest has been generated among industry-related organizations, academies, banks, and regional governments. 	<ul style="list-style-type: none"> ◎ ◎ ◎ ◎ 	Although not subject to certification under (2), on-site training at the "KAIZEN x Cluster" was provided to 19 enterprises.
Outputs	<ul style="list-style-type: none"> 1-1 TKU prepares annual action plan and annual report for KAIZEN promotion. 1-2 Trainer development system is revised and Top Management Seminars are prepared. 1-3 The system of KAIZEN results measurement is prepared. 	<ul style="list-style-type: none"> 1-1 The annual report for 2019-2020, the annual action plan for 2020-2021 and the annual action plan for fiscal year 2021-2022 have been submitted by TKU to MIT. 1-2 The trainer development system has been revised and applied. Top Management Seminars have already been conducted for senior management of MIT, Arusha Region RAS Office and SIDO Headquarters as well as the Singida Region Awareness Seminar. 1-3 Data collection for the KAIZEN pilot project has been conducted. 	<ul style="list-style-type: none"> ◎ ◎ ○ 	The FKM was prepared with SIDO and CBE. Video materials explaining data collection methods was produced.

	Objectively Verifiable Indicators	Achievement (based on indicators)	Achievement Level	Remarks	
2: Capacity of SIDO to provide KAIZEN consulting service is strengthened	2-1 Thirty (30) or more KAIZEN trainers are developed at SIDO.	2-1 A total of 33 KAIZEN trainers have been developed at SIDO. 22 KTs, 7 AKTs, 4 TOKTs	◎		
	2-2 SIDO provides KAIZEN service to more than one hundred (100) enterprises per year.	2-2 KAIZEN service has been provided to about 30 enterprises.	×	Promotion through the trial of the incentive subsidy program for enterprises was executed.	
	2-3 More than fifty (50) % of enterprises which received KAIZEN service provided by SIDO show positive impacts in business.	2-3 Data has not been measured (although 58% of pilot enterprises reported positive impacts)	○		
	3: Pilot KAIZEN activities in collaboration with leading enterprises are implemented, through which skills of KAIZEN Trainers are upgraded.	3-1 More than thirty (30) pilot KAIZEN activities are implemented.	3-1 The KAIZEN pilot project has been implemented with 28 large enterprises (and 103 SMEs).	×	It has been agreed with JICA to remove the number of leading enterprises receiving OJT from the goal indicators. Advanced KAIZEN training is currently being provided to 8 enterprises (including 4 large enterprises) in intensive OJT training for advanced trainers.
		3-2 More than fifteen (15) KAIZEN Trainers are equipped with advanced KAIZEN skills through the pilot KAIZEN activities.	3-2 30 Advanced KAIZEN Trainers have been developed.	◎	
		3-3 More than fifty (50) % of pilot enterprises show positive impacts in business.	3-3 Of the 52 enterprises surveyed in the end line survey, 30 (58%) responded with positive impacts.	◎	
	4: Activities toward sustainable KAIZEN promotion are enhanced.	4-1 Comprehensive plan of KAIZEN promotion activities is prepared.	4-1 Approved by MIIT Permanent Secretary and Minister in April 2020 after agreement at the 6th JCC meeting (28 February 2020).	◎	English and Swahili versions were created. A launch event was held on 19 August 2020.
		4-2 KAIZEN promotion seminars in each region and KAIZEN Award Ceremony are conducted every year.	4-2 KAIZEN seminars were organized in every target region except for Morogoro. The KAIZEN Award Ceremony has been held three times.	○	The next event of KAIZEN Award Ceremony is expected in February 2022, which will be the fourth time in the project period.
		4-3 Drafts of certification system of a KAIZEN Trainer and of accreditation system of a KAIZEN service provider are prepared.	4-3 TKU recognizes the Technical Guideline as a trainer certification system.	○	A training and registration system for KAIZEN trainers has been drafted.
		◎ Achieved, ○ Expected to be achieved, △ There are risks relating to achievement, × Expected to be difficult to achieve			

Source: Prepared by the JICA Project Team

Outputs

3.1 Status of Achievement of Outputs

Each of the outputs has been achieved in general. This section will explain the status of the achievement of each output.

Output 1: The implementation structure and institution of TKU to promote KAIZEN are strengthened.

Output 1 was almost completely achieved. The annual report for 2019 - 2020, the annual action plan for 2020 - 2021 and the annual action plan for 2021 - 2022 were developed and submitted to MIIT. The trainer training system has been summarized in the Technical Guideline, revised, and applied. Top Management Seminars have already been conducted for senior management of MIIT, Arusha-RAS Office and SIDO Headquarters, as well as the Sensitization Seminar in Singida. The record of the Top Management Seminars and Sensitization Seminars is as shown in Attachment 1-2. The system of KAIZEN results measurement has been prepared and data was collected for some of the pilot enterprises. However, there are few cases where the KAIZEN trainers voluntarily take and record data. For this reason, the JICA Project Team created a video on data collection to encourage the trainers to collect data.

Furthermore, as part of the organizational restructuring of the Ministry following the establishment of the MIIT as of January 2022, the Department of Human Resources and General Affairs has proposed to MIIT that the TKU be formally placed on the organizational structure chart. Becoming a permanent organization is expected to strengthen the implementation of TKU's activities, making it easier to secure budget and staffing.

Output 2: Capacity of SIDO to provide KAIZEN consulting service is strengthened.

Regarding Output 2, two Indicators, namely 2-1 "Thirty (30) or more KAIZEN trainers are developed in SIDO" and 2-3 "More than fifty (50) % of enterprises which received KAIZEN service provided by SIDO show positive impacts in business" were achieved. On the other hand, 2-2 "SIDO provides KAIZEN service to more than one hundred (100) enterprises per year" was not achieved. Firstly, regarding the number of KAIZEN trainers trained in SIDO (Indicator 2-1), a total of thirty-three (33) trainers were trained: 22 KTs, 7 AKTs and 4 TOKTs. Secondly, regarding Indicator 2-3, fifty-eight (58) % of the pilot projects that received the KAIZEN service provided by SIDO reported a positive impact. The results of the end line survey that revealed the impact on the pilot enterprises are shown in Attachment 2-6. With regard to Indicator 2-2 that was not achieved, the number of enterprises that received consulting services from SIDO by the end of the project was estimated as only about thirty (30) per year. In particular, the special subsidy program was introduced in July 2022 to facilitate the provision of consulting services by KAIZEN trainers. However, the JICA Project team only received two applications, of which only one completed the service provision to receive a financial subsidy. The reasons for having not received enough applications are inferred to include insufficient announcement to the public to

stimulate demand for paid KAIZEN consulting service, an insufficient timespan by the need to complete from the contract to service delivery in approximately six months⁹, and limited sales and customer acquisition activities on the part of KAIZEN trainers.

Output 3: Pilot KAIZEN activities in collaboration with leading enterprises are implemented, through which skills of KAIZEN trainers are upgraded.

Regarding Output 3, Indicator 3-1 "More than thirty (30) pilot KAIZEN activities are implemented" was not achieved, however, the other two indicators were achieved. With regard to Indicator 3-1, KAIZEN consulting services were provided to only twenty-eight (28) large enterprises, falling short of the target of thirty (30). Pilot projects at large enterprises were to be arranged for the Intensive OJT Program for AKTs conducted from October to December 2021, although the project team had difficulties in gaining cooperation from large enterprises. Four of the eight pilot enterprises were large enterprises. This was due to the fact that Japanese experts were unable to travel to the area due to the spread of COVID-19, which resulted in insufficient coordination of the selection of enterprises. Furthermore, it takes time for large enterprises to decide if they accept the pilot project or not. Some candidate enterprises were not able to decide in time. Another factor is that SIDO, which was in charge of selecting the enterprises, mainly provides service to SMEs and thus has a limited network with large enterprises. In order to expand the provision of KAIZEN consulting services to leading enterprises, it is significant for SIDO to explain carefully to gain the understanding from enterprises, to expand SIDO's network of large enterprises and build relationships with them, as well as to take into account the time that leading enterprises require for decision making when selecting enterprises. In addition, strengthening their links with the TPSF and CTI, many of whose members are leading enterprises, is essential to expanding KAIZEN consulting services to leading companies. TKU also recognizes the importance of the linkage with them and has plans to develop links with partner organizations, including the TPSF and CTI. For Indicator 3-2, thirty (30) Advanced KAIZEN trainers have been developed. A list of developed trainers is attached in Attachment 1-2. For Indicator 3-2, thirty (30) of the fifty-two (52) pilot enterprises (58%) covered in the end line survey responded with positive impacts. A summary of the results of the end-line survey is shown in Attachment 2-6.

Output 4: Activities toward sustainable KAIZEN promotion are enhanced.

Output 4 was almost completely achieved. Regarding Indicator 4-1, a KAIZEN promotion plan has been prepared as FKM, and after being agreed upon at the sixth JCC meeting (28 February 2020), it was approved by the Permanent Secretary and Minister of MIIT in April 2020. It was then widely shared with stakeholders at the KAIZEN Day event held on 19 August 2020.

⁹ The KAIZEN Trainer who was not able to complete the KAIZEN service claimed additional one to two months of program period was needed. According to the Trainer, time to reach an agreement with the company before signing the contract was not enough.

Regarding Indicator 4-2, KAIZEN sensitization seminars have been organized in all target regions except Morogoro. In addition, seminars on the introduction of the KAIZEN x Cluster model and sensitization seminars are being held in Morogoro. The record of the KAIZEN sensitization seminars is shown in Attachment 1-2. Regarding Indicator 4-3, a certification system of KAIZEN trainers has been incorporated in the Technical Guidelines. An accreditation system of KAIZEN service providers has not been deemed necessary among the project members, as SIDO is the sole provider of KAIZEN service organizationally and it is expected to remain so for some years. Accordingly, Indicator 4-4 can be evaluated as achieved.

As a result of the above, the objectively verifiable indicators for this project have been achieved, other than 2-2 "SIDO provides KAIZEN service to more than one hundred (100) enterprises per year" and 3-1 "more than thirty (30) pilot KAIZEN activities are implemented."

3.2 Achievement of Project Purpose

The project purpose of "KAIZEN provided by MIIT/TKU and KAIZEN service providers (SIDO, CBE and Private Consultants) to private enterprises is promoted in a sustainable manner" has been achieved.

Regarding the development of KAIZEN trainers, the target of fifty (50) trainers has been greatly exceeded, with a total of one hundred eighty-three (183) trainers were certified. Regarding the implementation of KAIZEN in the private sector, one hundred seven (107) enterprises have also been recognized. In addition, training by 15 TOKTs has been conducted in Dodoma, Singida, Dar es Salaam, Kagera, Mtwara, Pwani and Tanga, which enables the continuous development of KAIZEN trainers.

Regarding the participation of new partners, in addition to the KAIZEN promotion plan being submitted to TKU by EPZA and VETA,

Top Management Seminars or KAIZEN seminars have been held in collaboration with the Local Government Authority offices of each region, Tanzania Agricultural Development Bank (TADB), Zanzibar government, and the Dar Rapid Transit Agency (DART). Furthermore, TKU has promoted the participation of partner organizations, such as by inviting representatives of these partners to the Africa KAIZEN Annual Conference held in Tanzania in August 2021.

3.3 Estimated Achievement of Overall Goal

If we assume that the deadline for achieving the overall goal is March 2025, three years after the end of the project, achieving some parts of the overall goals of "Tanzanian KAIZEN Movement is progressed toward a nationwide expansion" and "The number of private enterprises which practice KAIZEN is increased and the quality and productivity of the enterprises are improved" is expected to be challenging.

Specifically, it is expected to be difficult to achieve Indicator (1) "More than five hundred (500) private enterprises practice KAIZEN activities." By the end of the project (January 2022), KAIZEN

had been implemented in one hundred thirty-one (131) enterprises, and it has been confirmed that there are cases where KAIZEN guidance was provided by KAIZEN trainers' own initiatives. However, the fact that not many enterprises tried to introduce KAIZEN and not many KAIZEN trainers tried to progress guidance even with the special subsidy program. This indicates that the progress of independent KAIZEN activities in the future will not be enough if the situation remains unchanged. Therefore, in addition to stimulating demand for KAIZEN consulting services to increase the number of enterprises willing to pay for such services, it is also suggested to encourage trainers to actively provide services with their own initiative. For instance, the Tanzania Kaizen Award Competition gives awards to companies as well as to trainers. In the process of awardee selection of KAIZEN trainers, a system that highly evaluates the provision of KAIZEN consulting services to enterprises with their own initiative should be introduced.

In addition, the number of enterprises that are interested in KAIZEN is steadily increasing through sensitization seminars and trade fairs. However, the problem is that no concrete action is often taken after TKU receives such inquiries. A mechanism to transfer inquiries from TKU to SIDO is currently under consideration, and it is expected that TKU and SIDO will further deepen their collaboration to actively implement KAIZEN activities for enterprises interested in implementing KAIZEN. It is also important for KAIZEN trainers themselves to gain experiences and improve the quality of their KAIZEN consulting services in order to expand the number of enterprises that introduce KAIZEN. The FKM also identifies a target of providing KAIZEN consulting services to seven hundred (700) enterprises by the end of the 2024-2025 year; to achieve this goal, it is crucial for TKU, SIDO and CBE to work together even more to accelerate the spread of KAIZEN.

KAIZEN dissemination activities have been implemented in twelve (12) regions by the end of the project, and it has planned to implement in seven (7) more regions in the fiscal year of 2022-2023. While Japanese experts were unable to travel to Tanzania due to the outbreak of COVID-19, the JICA Project Team conducted training and workshops online. Although the Tanzania side has shown interest in introducing the online method in training and seminars, it seems that they need more time to prepare the curriculum and framework of online training as well as need a more stable internet environment. Even so, since online training and e-learning can be a strong tool in KAIZEN promotion by reaching a wider range of people, it is suggested that it implement promotion activities in various ways by combining conventional and online methods. The impact on the overall business of enterprises that have implemented KAIZEN was not measured, although fifty-eight (58) % of the pilot enterprises reported a positive impact. A video explaining data collection methods were produced and data collection by trainers is expected.

As described above, if the situation continues as is, the overall goal is expected to be achieved at about 70%. Furthermore, there is a risk that it will be difficult to continue the planned activities after the completion of the project due to a lack of budget and personnel. In terms of funding, charging fees for KAIZEN train-the-trainer courses, KAIZEN consulting services, and a trial of collecting fees for attendance at KAIZEN Trainer Conference was conducted during the project period. However, the contribution of participants was limited so that it is predicted that they will have to rely heavily on the

budgets of MIIT, SIDO, and CBE in the future. Further, activities are currently being performed by eight TKU staff and one secretary employed for the project. In the future, the number of TKU staff may be reduced because the project assistant will resign after the project is completed and almost half of the staff are seconded from organizations other than MIIT and are expected to return to their original organizations. In addition, the development of the next generation of leaders at TKU has not kept up to pace. As such, it is important to continue to promote understanding among the top management of MIIT and the related organizations. As for external factors, planned activities could be delayed if the spread of COVID-19 becomes more serious and the opportunity to hold meetings or for staff to go to work or on business trips is restricted.

Chapter 4 Lessons Learned and Recommendations

This chapter will describe the lessons learned from the implementation and management of the project activities and recommendations for achieving the overall goal, using the status of achievement at the end of the project as the starting point.

4.1 Lessons Learned from Project Implementation and Management

Despite the prolonged suspension of the JICA Project Team's travel to Tanzania due to the spread of COVID-19, the project was able to proceed with its activities almost as planned except for the limitations caused by temporary movement restrictions in Tanzania. This contributed significantly to the achievements of the outputs. Accordingly, lessons will be extracted through a discussion of the factors that made it possible to continue the activities through remote support. While the primary success factors were the deep understanding and efforts of the Tanzanian counterparts and the cooperation within the Japanese side in their response during this time of emergency, this chapter will focus on the features of the project implementation and management.

Lesson 1: Clarify and share medium- and long-term basic plans and short-term action plans as early as possible

The suspension of travel due to COVID-19 occurred at a time when the FKM had been agreed on at the JCC meeting and only internal MIIT procedures remained, and when the Six-Month Plan¹⁰ that was introduced to facilitate project activities went into full operation. The FKM was read and finalized by all TKU staff, who discussed it together and formulated an annual implementation cycle. With these plans in place as a common language, steady progress could be made without divergences in the understanding of what needed to be done at that time within the overall picture. In particular, the fact that an implementation plan had been well developed with SIDO for the pilot implementation of the "KAIZEN x Cluster" model led the setting of the tone to proceed with activities according to the plan even remotely, from immediately after the suspension of travel.

The lesson to be drawn from the experience above is to "clarify and share medium- and long-term basic plans and short-term action plans as early as possible." National promotion plans such as the FKM are often put together at the end of the project with the intention of paving the way for independent development after the project is completed. In this project, the project period was extended by almost two years from the original plan, and the JICA Project Team had the chance to support the implementation process after the FKM was approved. As a result, it was observed that the FKM facilitated the implementation of the project activities themselves as described above, and that

¹⁰ Six-Month Plan: A rolling plan that is updated through discussion with the TKU at every fieldwork period to clarify activities in the next six months. It was mainly introduced because of the need to ascertain project expenditures during the JICA Project Team's absence in Tanzania, however, it also had a certain effect on the activities themselves because the procedures for each activity were confirmed and the person in charge within TKU was decided in the process of formulating the plan.

it became easy to have well-grounded discussions as the medium- and long-term goals were defined in the FKM. Since the framework of TKU's annual plan was set on the approval of the FKM, and the annual cycle had also been prepared, the operating plan became clear to the TKU staff. Therefore, it would be highly effective if it is possible to agree on a medium- to long-term plan for the post-project period at an early stage, and to overlap the project activities with support for the implementation of that plan so that the project period also proceeds as a support period for independent development. This is a lesson that can be applied to projects that are at the stage of promoting independent development.

Lesson 2: Assist local implementation by adapting to the nature of remote support

As the suspension of travel to Tanzania continued, various methods and tools were used to support the implementation of local activities remotely. For the web conferencing tool, after conducting a connection test between Tanzania and Japan with Google Meet and Zoom, which had a simple interface for participants to operate, Zoom was selected in April 2020 for smaller data usage and has been used since then. Although relatively more people seem not to be good at operating various apps intuitively in Tanzania, consistently using the same tool made them familiar with the operation, master the functions such as screen sharing and chat features, and start using Zoom for meetings among local members. However, the internet connection in Tanzania was unstable and of low quality compared even to other African countries, and it was an inefficient and burdensome communication method for both Tanzanian and Japanese sides. WhatsApp was among the most used online communication tool in Tanzania, and project-related communications on WhatsApp was responded well. Emails were less frequently read and mostly unanswered, which made it difficult to know if the message was read, and it was not read in many cases. Online survey tools, namely Google Form and Microsoft Form, were used to collect routine information. Specifically, activity logs of company visits in KAIZEN consulting services, inventory check of loaned equipment, and application for registration of KAIZEN trainers were collected through online forms. The Tanzanian counterparts did not have any trouble in sending the answers using these online forms, but they were unfamiliar and reluctant to create online forms themselves or download the data received through online forms.

The lesson learned from the experience of providing remote support while utilizing these online tools is that it is more effective for remote support to focus on understanding the local situation rather than telling something to the local counterparts. When remotely supporting the implementation of local activities, one tends to focus on conveying knowledge, techniques, procedures, and tips. However, it is more effective to devise communication tools with the intention of knowing the local situation as closely as possible. Such attempts to gather information often resulted in technology transfer. For example, in the Intensive OJT Program for AKTs conducted from October to December 2021, the Excel book named "KAIZEN Note" was created and utilized as a tool to accurately grasp the implementation status in the company and control the KAIZEN consulting process. Local KAIZEN trainers conducted data collection and analysis to fill in the fields provided in the KAIZEN Note and report the implementation status to Japanese experts, which made them follow the well-ordered

process of KAIZEN implementation. At the weekly online progress meeting, questions were asked to understand exactly what the local Trainers were trying to do, what was done, and what was observed as a result. These questions immediately served as advice and corrective intervention on shortages and weaknesses. They also worked as an exercise by having the Trainers to answer them. Furthermore, by knowing the process and results of the independent implementation by the Trainers, it was possible to identify the weak spots to be strengthened and plan additional technical transfer. Although it is premised that the local side already has a certain level of knowledge and experience to conduct the task by themselves, the lesson can be referred to when providing remote support.

Lesson 3: Develop a manual that reflects practice

While the FKM was almost complete at the time that COVID-19 began to affect project activities, the Technical Guidelines were partially established but still in the process of being systematized as a complete set. The three guidelines for KAIZEN promotion activities, KAIZEN consulting services and KAIZEN human resource development were integrated into the current form in November 2020. They were subsequently continued to be fleshed out by conducting several revisions. Amid continued remote field support and reduced communication efficiency, the repeated read-through and discussion of the Technical Guidelines with TKU at regular intervals provided a good opportunity to focus the attention of all concerned on the overall picture of KAIZEN promotion and to stimulate a sense of purpose. In addition, the methods and results of independent implementation by the Tanzanian counterparts were reflected in the Technical Guidelines to strengthen their feasibility.

The lesson to be drawn from this experience is not to create a detailed manual beforehand, but to "develop a manual that reflects practice." The basic process of manual creation, which is to visualize what is already being done on-site, add necessary improvements, and standardize it, can also be effectively conducted in technical cooperation projects. With the MIIT Minister's approval of the FKM, what is to be accomplished by when, and what is to be done for that purpose, are set as immovable goals. It was also specified in the FKM that specific implementation methods were to be defined in the Technical Guidelines. Under such circumstances, the Technical Guidelines were gradually developed on how to conduct the tasks involved, using the method of articulating experiences while implementing such tasks. This enabled both the Tanzanian and Japanese sides to devise new implementation methods through necessity under COVID-19, and insights and learnings from such practice to be incorporated in the Technical Guidelines. Therefore, by distinguishing between the matters that should be fixed at an early stage to remain unchanged and those that should be elaborated step by step to flexibly reflect changes over time, the manuals would be developed effectively through capturing the practice.

Lesson 4: Secure means to pay for activity expenses

It is clear by looking at the input results that, even with the facilitating factors above in place, things would not have moved without the expenditure of project funds. The project established a weekly

payment and receipt collection cycle and continued to pay local expenses through the local project assistant. The time and effort required to remotely manage one-by-one the numerous payments of tiny amounts to many parties and the collection of the original receipts were enormous, and the risk of making large temporary payments was also large. Although it was necessary to continue paying expenses for keeping the local side active in Tanzania, this payment method must not become the norm.

The lesson to be drawn from the experience above is that for projects where the Japanese side bears most of the project costs, it is important to "secure means to pay for activity expenses" that can be operated remotely with minimal risk. The cooperation of the local counterparts is also essential for the proper furnishing of receipts. Although the experts are not always motivated for setting up a full-fledged expense payment system as it is not their primary job, it would be useful to prepare procedures and rules and smoothen the operation in normal times.

4.2 Recommendations for Achieving Overall Goal

This section proposes the medium-term initiatives to achieve the overall goal as follows. The issues to be addressed in the short term are as described in Sections 2.3 to 2.5 of Chapter 2.

Recommendation 1: Flexibly consider commercialization of KAIZEN consulting services (SIDO)

There is a growing need to take substantive measures under the leadership of SIDO to address the situation where the use of KAIZEN consulting services is not progressing in comparison to the number of KAIZEN trainers. The true value of developed KAIZEN trainers will be realized only when they produce concrete KAIZEN effects in enterprises. Their guidance capabilities, or in other words, the quality of their consulting services, will improve through the accumulation of practical experience. Expanding the range of enterprises using KAIZEN consulting services is the key to sustaining and expanding the project's achievements. Therefore, from the viewpoint of having more enterprises use the KAIZEN consulting services, it is recommended to package the services into units that are easy to promote.

While it is a legitimate approach to provide a complete KAIZEN consulting service that is customized to the individual enterprise and follows the procedure, it may not necessarily be an accessible form of service for enterprises that are adopting KAIZEN for the first time. For example, instead of providing a full service from the beginning, a method for clients to experience the essence of KAIZEN would be to provide an introductory service for a fixed fee, such as an on-site diagnosis and the preparation of a KAIZEN implementation plan in about three visits, or only implementing the first S (sorting). The service fees can be reduced by limiting the number of visits and lowering the costs. A fixed fee simplifies the contracting process and makes it easier for many KAIZEN trainers to provide the same service. After the clients have realized the value and expected effects of KAIZEN in this way, they can be encouraged to utilize the full-scale consulting services. By addressing the concerns that enterprises have, such as "we don't know if it is suitable for our enterprise (even though we have heard that it was effective at other enterprises)," "we don't know the capability of the KAIZEN

Trainer," and "we are unsure if the effect will be worth the service fee," it may be possible to increase the number of enterprises using the service.

In addition, it is worth considering making the trial package described above free of charge via government support. As a reference, expert dispatch programs for SMEs in Japan in most cases provide the first three visits at no cost to the enterprise (fully subsidized by the government). In view of promoting KAIZEN as a policy tool for industrial development and strengthening the competitiveness of the manufacturing industry in Tanzania, it makes sense to use the government budget to provide support for creating opportunities for many enterprises to adopt KAIZEN. Of course, it would also be desirable to implement an incentive system (partial subsidy for the fees of KAIZEN consulting services) as trialed in the project, but from a procedural aspect, it would be easier to make the trial package free of charge.

KAIZEN consulting services that follow the Technical Guidelines will remain as the primary focus. The idea is to promote the use of the full service by providing a "popular version" of the service; KAIZEN trainers will have an alternative approach that considers the psychological and financial hurdles of the clients, instead of always proposing adequate visits to the enterprise for the trainer to complete their KAIZEN consulting service. Some private consultants may already be implementing such sales promotion strategies. A flexible consideration by SIDO is expected.

Recommendation 2: Facilitate KAIZEN trainer apprenticeships (TKU)

Since the OJT program in KAIZEN train-the-trainer courses provides an experience of KAIZEN implementation at one enterprise only, new trainers require opportunities to gain practical experience. Therefore, it is recommended to create an environment in which they can accompany experienced senior trainers to their KAIZEN consulting services and learn from their implementation. Specifically, a program could be devised that allows new trainers to build a network of contacts at Trainer Conferences and other opportunities, appoint a mentor to take charge of new trainer development and provide monetary or non-monetary rewards, or support the expenses such as transportation costs to accompany a trainer to enterprise visits up to a certain number of times. Non-monetary rewards for mentors could include giving high recognition for accompanying newcomers in the selection process for the Outstanding Trainer Award at the Tanzania KAIZEN Award, double-counting toward the requirements to be certified as a TOKT or AKT instructor, and double-counting toward the requirements for renewal registration.

The establishment and operation of such an apprenticeship program could be made one of the functions of the KAIZEN Trainer Association once it gets off the ground. At least until then, the TKU would be expected to design and operate a system from the standpoint of overseeing the entire KAIZEN promotion process.

The 12 participants of the Intensive OJT Program for AKTs are a relatively skilled group in terms of both their ability to obtain contracts for KAIZEN consulting services and their ability to provide KAIZEN consulting services in the field. They can be expected to serve as mentors.

Recommendation 3: Devise variations of KAIZEN train-the-trainer courses (CBE)

KAIZEN train-the-trainer courses are being established and are to be implemented by TOKTs based on the experience in the project target areas. In addition, a registration system has been introduced and the definitions of qualifications and competency requirements should not be changed easily in the future. On the other hand, performing timely reviews of the form of implementation to adapt it to the anticipated future implementation environment will support the maintenance and development of the system. Therefore, it is recommended that CBE be central to devising an implementation form that meets the environmental requirements while maintaining the competency requirements for the purpose of trainer development.

As the nationwide expansion of KAIZEN nears completion, there is a risk that the training may not be viable in some regions where the manufacturing industry is less significant and the number of KT candidates is less than the required minimum. At the same time, most regions will have been covered already and the accumulation of experience should be progressing in the initial target regions. At such a stage, it may be more reasonable to set a base region for each area and gather training participants to the base region to conduct the training. Candidates as base regions are Dar es Salaam, Dodoma, Kilimanjaro, Mbeya, and Mwanza, where TOKTs already exist. In the same way, after all regions are covered, it may be appropriate for KAIZEN train-the-trainer courses to be conducted in the form of holding the CRT program and the wrap-up meeting in the base region with participants from surrounding regions and organize only the OJT program in each region. In addition, it may also be promising in the future to make the CRT program and written exam available on demand and conduct the OJT program in an ad hoc form when the number of those who have passed the written exam reaches a certain number. Especially after the completion of the nationwide expansion, the key is to somehow gather training participants, so it is important to design and operate the course with attention given to the participants' convenience and reasonable price.

Even though the standard of competence to be developed remains the same, the form of training to achieve it can and must be adapted to the environment. It is expected that CBE will not consider the current KAIZEN train-the-trainer courses to be absolute, but that it will devise and prepare a form that better suits the needs in coming years.

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- Attachment 1-2 Record of Seminars and Training Courses
- Attachment 1-3 Record of Tanzania KAIZEN Award Competition
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Attachment 2 Deliverables of Project

- Attachment 2-1 Framework for Quality and Productivity Improvement (KAIZEN) in Manufacturing Sector (FKM)
- Attachment 2-2 Technical Guidelines
- Attachment 2-3 Outline of Training and Promotion Materials
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Attachment 3 Project Design Matrix (PDM)

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Attachment 4 Minutes of Joint Coordination Committee (JCC) Meetings

Attachment 1 Record of Project Results

Attachment 1-1 List of Members

Attachment 1-1 List of Members

1. Ministry of Investment, Industry and Trade (MIIT)/Tanzania KAIZEN Unit (TKU)

No.	*	Name	Designation	Remark
1		Adelhelm James Meru	Permanent Secretary	
2		Elisante Ole Gabriel	Permanent Secretary	
3		Joseph R. Buchweishaija	Permanent Secretary	
4		Riziki Shemdoe	Permanent Secretary	
5		Doto M. James	Permanent Secretary	
6	*	Godius Kahyarara	Permanent Secretary	
7		Edwin P Mhede	Deputy Permanent Secretary	
8		Ludvick Nudhiye	Deputy Permanent Secretary	
9		Hashil Abdallah	Deputy Permanent Secretary	
10		Obadiah Nyagiroti	Director of Industrial Development	
11		Isack A. Legonda	Director of Industrial Development	
12		Cleophas Ruhumbika	Director of Industrial Development	
13		Leo Lyayuka	Director of Industrial Development	
14		Ramson Mwilangali	Director of Industrial Development	
15	*	Lugano Wilison	Director of Industrial Development	
16	*	Juma Mwanbapa	Acting Director of Industrial Development	
17	*	Jane Lyatuu	Head of TKU	
18	*	Emmanuel Zakayo	Senior Technical Officer, TKU	Secondment from SIDO ⁽¹⁾
19	*	Kamara Gombe	University of Dodoma	
20	*	Pius Methew	Technical Officer, TKU	
21	*	Estaroda Mwangi	Technical Officer, TKU	
22	*	Richard Benaya	Technical Officer, TKU	Secondment from CBE ⁽²⁾
23	*	Sileja Lushibika	Technical Officer, TKU	Secondment from TBS ⁽³⁾
24	*	Juma Mantakara	Technical Officer, TKU	
25	*	Richard Pweleza	Technical Officer, TKU	
26		Juliet Lema	Technical Officer, TKU	
27	*	Khadija Hassani	Project Assistant, TKU/JICA Project Team	

Note: * Members as of project completion

(1) SIDO: Small Industries Development Organization

(2) CBE: College of Business Education

(3) TBS: Tanzania Bureau of Standards

Source: Prepared by the JICA Project Team

2. Small Industries Development Organization (SIDO)

No.	*	Name	Designation	Remark
1	*	Sylivester Mpanduji	Director General	
2		Emmanuel Saiguran	Director of Technology Development and Innovation	
3	*	Stephen Bondo	Acting Training Manager, SIDO-HQ	
4	*	Kalumna P. Benedicto	Manager of Technical Service, SIDO-HQ	
5	*	Lupakisyo J. Mwasalanga	IT Manager, SIDO-HQ	

No.	*	Name	Designation	Remark
6	*	Abraham Mlay	SIDO-HQ	
7	*	Allen Mhidze	SIDO-Morogoro	
8	*	Sempeho Manongi	SIDO-Dodoma	
9	*	Crispin Joseph Kapinga	SIDO-Dodoma	
10	*	Nina Nchimbi	SIDO-Arusha	
11	*	Arthur Ndedya	SIDO-Kilimanjaro	
12	*	Joel Daniel Tangai	SIDO-Singida	
13	*	Peter Kilima	SIDO-Kagera	
14	*	Francis Stewart	SIDO-Mbeya	
15	*	Emmanuel W. Ngoyoinde	SIDO-Mwanza	

Note: * Members as of project completion

Source: Prepared by the JICA Project Team

3. College of Business Education (CBE)

No.	*	Name	Designation	Remark
1	*	Emmanuel A. Mjema	Rector	
2	*	Dickson Pastory	Director of Postgraduate Studies	
3	*	Mariam Ally Tambwe	Lecturer, CBE-DSM	
4	*	Robert Zembazemba	Lecturer, CBE-DSM	
5	*	John Meku Lelo	Lecturer, CBE-Mwanza	
6	*	Baraka Israel	Lecturer, CBE-Mbeya	

Note: * Members as of project completion

Source: Prepared by the JICA Project Team

4. Other JCC Participants

No.	Name	Designation	Remark
1	JAMES MKUWA	CBE	1 st JCC
2	SALOME KITOMOIN	Nipashe	1 st JCC
3	VENERANDA SUMILA	Tanzania Private Sector Foundation (TPSF)	1 st , 2 nd , 8 th , and 9 th JCC
4	LEPHENIC SHAIKI	Confederation of Tanzania Industries (CTI)	1 st JCC
5	MAGDULNG SADNALA	Tanzania Bureau of Standards (TBS)	1 st JCC
6	JOSEPH NGOWI	COET UDSM	1 st JCC
7	JESSE CHONDE	Government Communication Unit (GCU), MIIT	1 st JCC
8	EMMANUEL MATRONA	TBS	1 st JCC
9	HASSAN JUMA ABINAGA	TBS	2 nd and 3 rd JCC
10	EMMANUEL J. MUNISH	CBE	2 nd JCC
11	MUSSA WANGOTI S.	CPCT	2 nd JCC
12	GEOFREY KANYOSSA	MIIT	2 nd JCC
13	BARUTI MWAIGAGA	MIIT	2 nd JCC
14	ALICIA V. RUGUMAMU	MIIT	2 nd JCC

No.	Name	Designation	Remark
15	ESTARODA MUANYA	MIIT	2 nd JCC
16	GRACE LUMUNGE	Export Processing Zone Authority (EPZA)	2 nd JCC
17	VERONICA NCHANGO	MIIT	2 nd JCC
18	OBADIAH M. NYAGIRO	MIIT	2 nd JCC
19	CHRISTOPHER J. MGIFI	MIIT	2 nd JCC
20	STELLA P. LUGONGO	MIIT	2 nd JCC
21	Nyamizi Singu	Tanzania Chamber of Commerce, Industry and Trade (TCCIA)	2 nd and 6 th JCC
22	Neema Mhodo	CTI	2 nd , 3 rd , and 5 th to 9 th JCC
23	Caroline Valerian	MIIT	3 rd JCC
24	Patrick Magai	TCCIA	3 rd JCC
25	Thobias G, Mkenga	MIIT	3 rd JCC
26	Perego Gumbo	CTI	4 th JCC
27	Anna Kimaro	CTI	4 th JCC
28	Raspichius Casmir	CBE	4 th JCC
29	Et Luoga	CBE	4 th JCC
30	Nyango Mbogora	MIIT	4 th JCC
31	Cleophas Luhumbika	MIIT	4 th JCC
32	Novatus Msemwa	National Institute for Productivity (NIP)	5 th and 6 th JCC
33	Hamisi Sudi	TBS	5 th and 8 th JCC
34	Joseph Matara	EPZA	5 th and 8 th JCC
35	Frederick Mushi	Vocational and Educational Training Authority (VETA)	5 th JCC
36	Leah Dotto Lukindo	VETA	6 th and 7 th JCC
37	Prisca S Kisela	TBS	6 th and 7 th JCC
38	Nakadongo Fares	EPZA	6 th and 9 th JCC
39	Haphsa Hinch	NIP	7 th , 8 th , and 9 th JCC
40	Justin Marwa	TCCIA	7 th JCC
41	Grace J Lemunge	EPZA	7 th JCC
42	Mackdonald Maganga	SIDO	9 th JCC
43	Amanda Blasius	CBE	9 th JCC
44	Fihili Chalange	VETA	9 th JCC
45	Consolata Ishebabi	MIIT	9 th JCC
46	Suzana Mshakangoto	GCU-MIIT	9 th JCC

Source: Prepared by the JICA Project Team

Attachment 1 Record of Project Results

Attachment 1-2 Record of Seminars and Training Courses

Attachment 1-2 Record of Seminars and Training Courses

1. Lists of Training and Seminars

(1) KAIZEN Train-the-Trainer Courses

No.	Date	Venue	Number of Certifications*	Remarks
1	September 2017	Dar es Salaam (DSM)	16	
2		DSM	16	
3		Arusha	12	
4	January to February 2018	DSM	6	
5		DSM	12	
6		Arusha	3	
7		Kilimanjaro	13	
8	May to June 2018	DSM	22	
9		DSM	8	
10		Arusha	2	
11		Kilimanjaro	5	
12	August to September 2018	DSM	13	
13		DSM	11	
14		Arusha	4	
15		Kilimanjaro	8	
16	October to November 2018	DSM	13	
17		Arusha	2	
18		Kilimanjaro	5	
19	January to February 2019	DSM	20	
20		Mbeya	12	
21		Mwanza	5	
22	March 2019	Dodoma	3	
23	May to June 2019	DSM	20	
24		Mbeya	13	
25		Mwanza	3	
26	September 2019	Singida	15	
27	March 2020	DSM	30	
28	October to December 2021	Kagera	7	
29		Mtwara	1	
30		Tanga	9	
31		Pwani	15	

Note: As of January 2022

*The total number of KAIZEN Trainers, Advanced KAIZEN Trainers, TOT KAIZEN Trainers and KAIZEN Coordinators

Source: Prepared by JICA Project Team

(2) KAIZEN Brush-Up Course

No.	Date	Venue	Number of Participants	Remark
1	13, 14 April 2021	DSM	6	Part 1 (Online CRT)
2		Mwanza	10	
3	15, 16 April	Kilimanjaro	9	
4		Singida	7	
5	20, 21 April 2021	DSM	9	
6		Morogoro	2	
7	22, 23 April 2021	Dodoma	7	
8		Arusha	7	
9		Mbeya	4	
10	18, 19 May 2021	DSM	17	Part 2 (OJT)
11	20, 21 May 2021	DSM	13	
12	24, 25 May 2021	Morogoro	9	
13	27, 28 May 2021	Dodoma	19	

Source: Prepared by the JICA Project Team

(3) Intensive OJT Program for AKTs

No.	Date	Venue	Number of Participants	Remark
1	October to December 2021	DSM	3	
2		DSM	3	One participant dropped out
3		Arusha	3	
4		Kilimanjaro	3	

Source: Prepared by the JICA Project Team

(4) Wrap-Up Meetings

No.	Date	Venue	Number of Participants	Remark
1	10 May 2018	Arusha	52	
2	24 May 2018	DSM	40	
3	5 June 2018	DSM	34	
4	9 August 2018	Kilimanjaro	50	
5	10 August 2018	Arusha	115	
6	7 November 2019	Mwanza	42	Exam and presentation on achievements of 7 pilot companies
7	7 November 2019	Mbeya	33	
8	8 November 2019	DSM	51	Exam and presentation on achievements 10 pilot companies
9	30 November 2019	Dodoma	31	Exam and presentation on achievements 4 pilot companies

No.	Date	Venue	Number of Participants	Remark
10	26 February 2020	Singida	26	
11	9 April 2021	Morogoro	50	Presentation on achievements of KAIZEN x Cluster activities
12	14 April 2021	Mbeya	39	
13	16 April 2021	Dodoma	50	
14	31 August 2021	Dar es Salaam	25	
15	11 January 2022	Kagera	25	
16	25 January 2022	Pwani	60	
17	26 January 2022	Mtwara	35	
18	26 January 2022	Tanga	33	

Source: Prepared by the JICA Project Team

(5) KAIZEN Top Management Seminars/ Sensitization Seminars

No.	Date	Venue	Number of Participants	Remark
1	24 July 2018	DSM	84	
2	31 July 2018	Dodoma	83	For the first time, SIDO Dodoma Office took initiative in implementing the seminar.
3	9 August 2018	Kilimanjaro	74	The seminar included a certificate awarding ceremony for those who completed training.
4	10 August 2018	Arusha	116	The seminar included a certificate awarding ceremony for those who completed training. The governor clearly declared, "Arusha will be the KAIZEN champion."
5	16 August 2018	Mbeya	124	Assistant RAS participated.
6	29 - 31 August 2018	DSM	28	
7	29 October 2018	DSM	26	
8	8 December 2018	Mwanza	80	CBE and TKU took initiative in implementing group discussion. Three RAS officers and the SIDO Regional Manager from a neighboring region Simiyu also voluntarily participated.
9	7 January 2019	Dodoma	30	A member of parliament and the deputy minister of industry and trade attended.
10	17 May 2019	Arusha	27	Based on the KAIZEN promotion plan draft of the region, which is the result of training in Japan, the training participants took the lead in planning and operation.
11	13 June 2019	Singida	9 enterprises (at least 9 persons)	Singida Kaizen trainer who previously attended KAIZEN training in Kilimanjaro plans and manages the seminar voluntarily.

No.	Date	Venue	Number of Participants	Remark
12	13 June 2019	DSM	12 enterprises (at least 12 persons)	Organized by GIZ. A private sector KAIZEN trainer attended the meeting of the GIZ project “Creating Perspectives: Business for Development” and gave a presentation.
13	24 June 2019	Lindi	166	A KAIZEN presentation was given at a seminar held by BRELA (Business Registrations and Licensing Agency) which is under MIT. The first of four seminars.
14	29 June 2019	Mtwara	123	Second seminar out of 4 BRELA seminars.
15	2 July 2019	Pwani	191	Third seminar out of 4 BRELA seminars, held in Mkuranga and Pwani.
16	5 July 2019	Pwani	128	Fourth seminar out of 4 BRELA seminars, held in Kibaha and Pwani.
17	17 - 19 February 2020	DSM	17	SIDO top management attended.
18	24 - 26 February 2020	DSM	39	Heads of Regional Office, SIDO attended.
19	11 September 2020	Singida	90	
20	2 - 4 November 2020	DSM	12	TADB top management attended.
21	30 June 2021	Zanzibar	84	
22	9 - 11 June 2021	DSM	40	MIIT staff attended.
23	27 July 2021	Pwani	67	
24	27 July 2021	Mtwara	85	
25	27 July 2021	Tanga	83	
26	3 August 2021	Kagera	102	

Source: Prepared by the JICA Project Team

(6) KAIZEN x Cluster Introductory Training / Sensitization Seminars

No.	Date	Venue	Number of Participants	Remark
1	1 – 11 June 2020	Dodoma	31	Introductory Training
2	1 – 9 June 2020	Morogoro	55	Introductory Training
3	17, 18 September 2020	Mbeya	63	Introductory Training
4	18 August 2021	Mwanza	6	Sensitization Seminar
5	20 August 2021	Singida	17	Sensitization Seminar
6	30 August 2021	Morogoro	7	Sensitization Seminar
7	1 September 2021	DSM	9	Sensitization Seminar
8	2 September 2021	DSM	12	Sensitization Seminar

Source: Prepared by the JICA Project Team

(7) Cluster Development Seminars

No.	Date	Venue	Number of Participants	Remark
1	10 March 2020	Tanga	40	
2	16 October 2020	Simiyu	48	
3	20 November 2020	Katavi	28	
4	27 January 2021	Pwani	39	
5	29 January 2021	Kilimanjaro	19	
6	4 March 2021	Singida	25	
7	16 April 2021	Manyara	25	
8	28 April 2021	Arusha	35	

Source: Prepared by the JICA Project Team

(8) Other Seminars/ Training Courses

No.	Date	Seminar/ Training Courses	Venue/Location	Number of Participants
1	1 – 5 July 2018	1 st Training Program in Third Country: 3 rd Africa KAIZEN Annual Conference	Durban (South Africa)	3
2	3 – 16 February 2019	1 st Training in Japan	Kitakyushu (Japan)	11
3	1 March 2019	3 rd Tanzania KAIZEN Award	DSM	102
4	23 – 27 June 2019	2 nd Training Program in Third Country: 4 th Africa KAIZEN Annual Conference	Tunis (Tunisia)	8
5	14 – 15 November 2019	Workshop to prepare a simplified version of the cluster development manual	Morogoro	24
6	10 – 11 February 2020	1 st Trainer Conference	Morogoro	65
7	12 – 14 February 2020	SIDO KAIZEN Trainer Workshop	Morogoro	24
8	18 February 2020	4 th Tanzania KAIZEN Award	DSM	156
9	23 – 24 February 2020	TOT Training for KAIZEN x Cluster	Online	30
10	19 August 2020	Tanzania KAIZEN Day	Dodoma	191
11	14 – 15 September 2020	TOKT Workshop	DSM	25
12	24 – 25 November 2020	2 nd Trainer Conference	Morogoro	70
13	8 – 16 December 2020	2 nd Training in Japan (Group A)	DSM (Online)	14
14	16 – 18 December 2020	2 nd Training in Japan (Group B)	DSM (Online)	8
15	4 February 2021	5 th Tanzania KAIZEN Award	DSM	75
16	20 – 21 May 2021	Final workshop on KAIZEN x Cluster	DSM (Online)	24

No.	Date	Seminar/ Training Courses	Venue/Location	Number of Participants
17	24 – 26 August 2021	6 th Africa KAIZEN Annual Conference	DSM (Online)	Day 1: 118 Day 2: 137 Day 3: 83
18	20 – 21 October 2021	3 rd Trainer Conference	Morogoro	94

Source: Prepared by the JICA Project Team

2. List of Certified KAIZEN Trainers (As of January 2022)

No.	Name	Category			Region of Residence/ Work	Current Employer
		KT	AKT	TOKT		
KZ-00001	Mr. Richard P. Benaya	✓			Dodoma	CBE
KZ-00002	Mr. Laban Gasper Letema	✓			Mwanza	CBE
KZ-00003	Mr. JOHN MEKU LELO	✓	✓	✓	Mwanza	CBE - MWANZA
KZ-00004	Mr. BENY BENJAMIN MWENDA	✓			Mbeya	CBE
KZ-00005	Mr. NURAN MUSSA MWASHA	✓			Mwanza	CBE
KZ-00006	Mr. Seif Beny Peres	✓			Tabora	Private Candidate
KZ-00007	Mr. Kamara Emanuel Gombe	✓			Dodoma	The University of Dodoma
KZ-00008	Mr. Joseph Christopher Mwingira		✓		Manyara	SIDO
KZ-00009	Mr. STEPHEN GEORGE BONDO	✓			Dar es Salaam	SIDO
KZ-00010	Mr. ALLEN YOTHAM MHIDZE	✓	✓		Morogoro	SIDO
KZ-00011	Ms. NINA HILARY NCHIMBI	✓	✓		Arusha	SIDO
KZ-00012	Mr. Alex Alexander MASENENE	✓			Kilimanjaro	SIDO
KZ-00013	Mr. Crispin Joseph Kapinga	✓		✓	Dodoma	SIDO
KZ-00014	Ms. Arafa Muhidimi Mchomvu	✓			Kilimanjaro	MOSHI URBAN WATER SUPPLY AND SANITATION AUTHORITY
KZ-00015	Mr. Nyangusi Meitalami Mollel	✓		✓	Dodoma	SIDO
KZ-00016	Ms. MWANANDANI ALLY MTONYI	✓			Kilimanjaro	MOSHI URBAN WATER SUPPLY AND SANITATION AUTHORITY
KZ-00017	Ms. Joan Stephen Nangawe		✓		Morogoro	SIDO
KZ-00018	Mrs. Jeanette Yonazi Senkondo	✓	✓		Dar es Salaam	Individual/Self Employed
KZ-00019	Mr. FRANCIS STEWART FRANCIS		✓	✓	Mbeya	SIDO

No.	Name	Category			Region of Residence/ Work	Current Employer
		KT	AKT	TOKT		
KZ-00020	Ms. LJLIAN WILFRED MATERU	✓			Kilimanjaro	SIDO
KZ-00021	Mr. Allen Cassian Njau	✓			Dar es Salaam	Medical Stores Department
KZ-00022	Mr. HONEST JOACHIM MTUI	✓			Arusha	SIDO-ARUSHA
KZ-00023	Ms. RENATHA DOMINIC RUTAKWA	✓			Kilimanjaro	BRENY PROCUCTS
KZ-00024	Ms. BEATA AMBYELISYE MINGA	✓		✓	Pwani	SIDO
KZ-00025	Mr. JOEL DANIEL TANGAI	✓			Singida	SIDO
KZ-00026	Mr. PETER VEDASTUS MANOTI	✓			Dar es Salaam	Self employment
KZ-00027	Mr. EMMANUEL JACKSON ZAKAYO		✓	✓	Dar es Salaam	MIT
KZ-00028	Mr. Arthur Dunstan Ndedya	✓		✓	Kilimanjaro	SIDO
KZ-00029	Mr. IDRISA ATHUMAN SHEMMELA	✓			Singida	COMMISSION WEIGHTS AND MEASURES AGENCY
KZ-00030	Ms. HAPPINESS EDWARD RUGEIMUKAMU	✓			Singida	SINGIDA MUNICIPAL COUNCIL
KZ-00031	Dr. Alphonse Dotto Massaga	✓			Arusha	Alpha Associates Tanzania Limited
KZ-00032	Ms. Betty Charles Rweabura	✓			Dar es Salaam	SIDO
KZ-00033	Mr. Yusuph Ramadhani Ruhisso		✓		Dar es Salaam	Private
KZ-00034	Mr. ALFRED AKWILINI ASSENGA	✓			Mwanza	CBE
KZ-00035	Mr. Robert Deusdedith Zembazemba	✓	✓	✓	Dar es Salaam	The Rector, CBE
KZ-00036	Mr. Rutagwelera Godfrey MUTAKYAHWA		✓		Dar es Salaam	ROMME Centre
KZ-00037	Mr. MELKIADO MICHAEL JANUARY	✓			Dar es Salaam	SIDO
KZ-00038	Mr. Richard Mathias Pweleza	✓			Dodoma	MIT
KZ-00039	Mr. Jean Herald Njau	✓			Kilimanjaro	RAS Kilimanjaro
KZ-00040	Mr. Richard Jackson Ndila	✓	✓		Dar es Salaam	Richland Company Limited, a Private Business

No.	Name	Category			Region of Residence/ Work	Current Employer
		KT	AKT	TOKT		
					Consulting Firm	
KZ-00041	Dr. MESHACK LOISUJAKI SIWANDETI	✓			Mwanza	CBE-MWANZA
KZ-00042	Ms. LYDIA YOHANA YILIMA	✓			Mbeya	CBE
KZ-00043	Dr. Mariam Ally Tambwe	✓	✓		Dar es Salaam	CBE
KZ-00044	Ms. ROSE-SHUBI GODFREY MUTAKYAHWA	✓			Dar es Salaam	ROMME CENTRE
KZ-00045	Mr. MARTIN JEREMIAH KIDENYA	✓			Mbeya	DED - RUNGWE
KZ-00046	Mrs Ndudula Godfrey Kilewela	✓			Mwanza	TIB Development Bank Limited
KZ-00047	Ms. Kunda Sichele Sikazwe	✓			Dar es Salaam	Tanzania Industrial Research and Development Organization
KZ-00048	Ms. HUMILA IBRAHIM NGOLO	✓			Mbeya	SIDO
KZ-00049	Ms. AGNESS SEVERIN NGALLO	✓			Mwanza	CRDB
KZ-00050	Mr. JABIRI AWADHI MSUYA	✓		✓	Dodoma	TEMESA
KZ-00051	Mr. GERALD BAKARY MWAREKWA		✓		Dar es Salaam	EPZA
KZ-00052	Ms. Nakadongo Ahmed Fares		✓		Dar es Salaam	Export Processing Zones Authority
KZ-00053	Ms. Rose Gabriel Makoyola		✓		Dar es Salaam	Private
KZ-00054	Mr. Augustine Joachim May Kajembe		✓		Dar es Salaam	CBE
KZ-00055	Mr. WILLIAM MARTIN MSOFE	✓			Dar es Salaam	EPZA
KZ-00056	Ms. Lillian Godwin Kweka	✓	✓		Pwani	Private consultant
KZ-00057	Mr. Privanus Simon Katinhila		✓		Arusha	ARUSHA CITY CCOUNCIL
KZ-00058	Ms. Agnes Njau Mneney	✓			Dar es Salaam	Tanzania Medicines and Medical Devices Authority (TMDA)
KZ-00059	Ms. Enid Kebby Ernest	✓			Mwanza	Tanzania Institute of Accountancy (TIA)

No.	Name	Category			Region of Residence/ Work	Current Employer
		KT	AKT	TOKT		
KZ-00060	Mr. DISMAS K NZIKU	✓			Mwanza	CBE
KZ-00061	Ms. NEEMA GODWIN KIVUYO	✓			Dar es Salaam	JAYJEN ATTORNEYS
KZ-00062	Mr. RIDHIWANI RAMADHANI MATANGE	✓			Dar es Salaam	SIDO
KZ-00063	Mr. Baraka Kasara Israel		✓	✓	Mbeya	CBE
KZ-00064	Mr. ALEXANDER STANLEY MADINDA	✓			Mwanza	CBE
KZ-00065	Mr. Hamisi Salehe Mhindile	✓			Dar es Salaam	Pharmacy Council Tanzania
KZ-00066	Mr. Peter George Nkeka	✓			Songwe	DED Mbozi
KZ-00067	Mr. ABRAHAM ELIONA MAFURUNJA	✓			Arusha	EUPHRATES CONSULTING TANZANIA
KZ-00068	Mr. HUBERT MUJUNI MUTAKYAHWA	✓			Dar es Salaam	ROMME CENTRE
KZ-00069	Eng. Cosmas Guke Kinasa	✓			Mbeya	Sido
KZ-00070	Mr. Fihili Omary Challenge		✓		Dodoma	Vocational Education and Training Authority(VETA HQ)
KZ-00071	Mr. Jonathan G. Semiti	✓			Singida	Regional Administrative Secretary
KZ-00072	Ms. Renalda Godwin Lema	✓			Dar es Salaam	Freelance Consultant Trainer
KZ-00073	Mr. Stanslaus William Nyavanga	✓			Dar es Salaam	TIB DEVELOPMENT BANK LTD
KZ-00074	Ms. Idda Mkabahati Swai	✓			Dar es Salaam	Young Women christian Association of Tanzania
KZ-00075	Mr. Emmanuel A Mwakymembe	✓			Singida	Tanzania Commercial Bank
KZ-00076	Dr. Chacha Magasi Malengo	✓	✓		Dodoma	CBE
KZ-00077	Mr. JONATHAN JOHN MBAILUKA	✓			Dar es Salaam	SIDO
KZ-00078	Ms. Pamela John Chogo	✓			Arusha	Institute of Accountancy Arusha
KZ-00079	Mr. MWANGATA HAMID MAKAWA	✓			Mbeya	Commission for Mediation and Arbitration
KZ-00080	Mr. Samwel Paulo Sadiki	✓			Kilimanjaro	SIDO

No.	Name	Category			Region of Residence/ Work	Current Employer
		KT	AKT	TOKT		
KZ-00081	Ms. GRACE COSMAS MAKOYE	✓			Morogoro	SIDO
KZ-00082	Ms. VICTORIA A MKENGA	✓			Singida	IPAC ILONGERO
KZ-00083	Mr. Emmanuel Wilsoni Ngoinde	✓			Mwanza	SIDO
KZ-00084	Mr. BONIPHACE M KOSSI	✓			Singida	VETA
KZ-00085	Dr. ALLEN EMMANUEL MRINDOKO	✓			Dar es Salaam	CBE
KZ-00086	Ms. Lilian Frank Tarimo	✓			Dar es Salaam	Independent Project Consultant
KZ-00087	Mr. Sempeho Manongi Nyari		✓		Dodoma	SIDO
KZ-00088	Mr. STANLEY GODWIN KIBAKAYA		✓	✓	Mbeya	RS MBEYA
KZ-00089	Mr. James Lisungu Bwanali	✓			Kilimanjaro	Kilimanjaro Regional Administrative Secretary Office

Source: Prepared by the JICA Project Team

3. List of Certified Enterprises (As of January 2022)

(1) Pilot Enterprises Participating in KAIZEN Train-the-Trainer Courses

No.	Enterprise Name	Location	Size*	KAIZEN Theme	Recognition date
1	Open Sanit	DSM**	Large	5S + 1S, Productivity & Quality	04/06/2020
2	Tooku	DSM	Large	Productivity Improvement	31/05/2018
3	Kamal Steel	DSM	Large	Quality Improvement, 5S + 1S	31/05/2018
4	East African Cables	DSM	Large	Productivity Improvement,	31/05/2018
5	Tanzania Brush	DSM	Large	Productivity Improvement, Quality Improvement	31/05/2018
6	G&B Soap	DSM	Large	Productivity Improvement, Quality Improvement	31/05/2018
7	AtoZ/Sumitomo	DSM	Large	Productivity Improvement	31/05/2018
8	Banana Investment	DSM	Large	Productivity Improvement	31/05/2018
9	PPRB Department of A to Z Textile Mills Ltd.	DSM	Large	Productivity Improvement	
10	KIOO Limited	DSM	Large	Productivity Improvement	
11	AKM Glitters Company Ltd.	DSM	Medium	Quality Improvement	
12	Quality Pulse	DSM	Small	5S + 1S	31/05/2018
13	Temso	DSM	Small	5S + 1S	31/05/2018
14	Power Electronics	DSM	Micro	5S + 1S	31/05/2018
15	Star Natural Products	DSM	Micro	Productivity Improvement	31/05/2018
16	Manish Home Needs Industries Ltd	DSM	Medium	5S + 1S	31/05/2018
17	MCM Glass And Aluminum works	DSM	Small	5S + 1S	31/05/2018
18	Hugo Fabrication and Metal Work	Kilimanjaro	Small	5S + 1S	31/05/2018
19	Moshi Common Facility Co. Ltd.	Kilimanjaro	Small	Productivity Improvement	31/05/2018
20	Press, Forge & Metal Works 2000	Kilimanjaro	Small	5S + 1S	31/05/2018
21	Union Service Store Ltd.	Kilimanjaro	Medium	Productivity Improvement	31/05/2018
22	Med Food	Arusha	Small	Reduction of waste	31/05/2018
23	COTEX	DSM		5S + 1S	31/05/2018

No.	Enterprise Name	Location	Size*	KAIZEN Theme	Recognition date
24	Waasili Asilia	DSM			31/05/2018
25	Pwani Hauliers	DSM		5S + 1S	31/05/2018
26	Centre for Agricultural Mechanisation and Rural Technology (CAMARTEC)	Arusha	Public	5S	09/03/2020
27	Rest Products	Arusha	Small	Productivity Improvement	09/03/2020
28	GRAND DEMAM	Arusha	Small	Productivity Improvement	09/03/2020
29	Penury Root-out Alliance Tanzania	Arusha	Small	Quality Improvement	09/03/2020
30	Halisi Products Limited	Arusha	Small	Productivity Improvement	09/03/2020
31	AGA NATURAL PRODUCTS	Arusha	Small	5S	09/03/2020
32	POLYFOAM (Group B)	Arusha	Large	Quality Improvement	09/03/2020
33	POLYFOAM (Group A)	Arusha	Large	Quality Improvement	09/03/2020
34	Micro Entrepreneurs development organization limited. (MEDO)	Arusha		Productivity Improvement	09/03/2020
35	AtoZ AGRO	Arusha	Large	Quality Improvement	09/03/2020
36	DEDO INVESTMENT	Arusha		Productivity Improvement	09/03/2020
37	Ibra Enterprise Ltd.	DSM	Large	Quality Improvement	09/03/2020
38	The Tanzania Electrical, Mechanical and Electronics Services Agency (TEMESA)	DSM		Productivity Improvement	09/03/2020
39	Malkia Investment Company	DSM	Large	Quality Improvement	09/03/2020
40	Zaidi General Enterprises	DSM		Productivity Improvement	09/03/2020
41	Euromax Limited	DSM	Large	Quality Improvement	09/03/2020
42	An-seki Ala Mode Tailoring	DSM	Small		09/03/2020
43	Profate Investments Ltd.	DSM	Small	5S	09/03/2020
44	Kazymate Company Limited	DSM	Small	5S	09/03/2020
45	Hansa Diamond Motors Limited	DSM	Large	5S	09/03/2020

No.	Enterprise Name	Location	Size*	KAIZEN Theme	Recognition date
46	Moltz Enterprises	DSM	Small	5S	09/03/2020
47	Swahili Recycling Limited	DSM	Small	5S	09/03/2020
48	Prive soap	DSM	Small	5S	09/03/2020
49	Starpeco Limited.	DSM	Small	5S	09/03/2020
50	Wazi la Wiki Group	DSM	Small	5S	09/03/2020
51	MERCIBEL CASSAVA FLOUR	DSM	Small	5S, Productivity Improvement	09/03/2020
52	Saint Parts Co. Ltd.	DSM	Small	5S	09/03/2020
53	Nandra Engineering	Kilimanjaro	Medium	Quality Improvement	09/03/2020
54	NATURAL EXTRACTS INDUSTRIES LTD. (NEI)	Kilimanjaro	Small	Productivity Improvement	09/03/2020
55	TRINITY CASTING SOLUTIN CO.Ltd	Kilimanjaro	Micro	Quality Improvement	09/03/2020
56	CHOICE COFFEE CO.LTD	Kilimanjaro	Small	5S	09/03/2020
57	JOSHI FEED MILLS	Kilimanjaro	Medium	Quality Improvement	09/03/2020
58	TANZANITE SPRINGS	Kilimanjaro	Micro	Quality Improvement	09/03/2020
59	KILIMANJARO MACHINE TOOLS	Kilimanjaro	Small	Productivity Improvement	09/03/2020
60	SuperDoll Trailer manufacturing Co.LTD	DSM	Large		09/03/2020
61	Quality Form LTD	DSM	Large		09/03/2020
62	BQ constructros Limited	DSM			09/03/2020
63	Cultural Craft Consultants & Design Co, LTD	DSM			09/03/2020
64	Future Century Limited	DSM			09/03/2020
65	VETA	DSM	Large/ Public		09/03/2020
66	KEKO Pharmaceutical Industries	DSM	Large	Productivity Improvement, Quality Improvement	09/03/2020
67	Shelys Pharmaceuticals Ltd.	DSM	Large		09/03/2020
68	TIRDO	DSM	Medium	5S + 1S	09/03/2020
69	EA Fruits Farm and Co. Ltd.	DSM			09/03/2020

No.	Enterprise Name	Location	Size*	KAIZEN Theme	Recognition date
70	Nature Ripe Kilimanjaro Ltd.	DSM			09/03/2020
71	PRINCE PHARMACEUTICAL	Mwanza	Medium		04/06/2020
72	FIDE INVESTMENT	Mwanza	Small	Productivity Improvement	04/06/2020
73	IKOHI ROPES	Mwanza	Small	Productivity Improvement	04/06/2020
74	ZAMZAM	Mwanza			04/06/2020
75	MWANZA FARU WINE	Mwanza		IMPLEMENTATION OF THE STANDARD PRODUCTION PLAN	04/06/2020
76	BATES NATIONAL	Mwanza	Small	Productivity Improvement	04/06/2020
77	MWANZA QUALITY WINE	Mwanza	Small	Reduction of defects	04/06/2020
78	Rohi Company	Mbeya	Small	Productivity Improvement	04/06/2020
79	Ivan Products (IGANZO)	Mbeya		Reduction of Production Cost	04/06/2020
80	Bale food And beverage (ITUJI)	Mbeya		Reduction of production cost	04/06/2020
81	Furaha Bakery	Mbeya		5S, Productivity Improvement	04/06/2020
82	Mushi & nelly Company	Mbeya		5S	04/06/2020
83	TAPCO (TRANS AUTO PARTS CO. LTD.)	Mbeya	Small	5S, Productivity Improvement	04/06/2020
84	Nyakusanja Mill	Mbeya		5S	04/06/2020
85	Herocean Enterprises LTD	Mbeya		Visualization	04/06/2020
86	Knew Kingdom	Mbeya	Medium	5S, 4Ms	04/06/2020
87	Tanzania Meat Company Ltd. (Dodoma Abattoir)	Dodoma			12/05/2021
88	MWENGE SUNFLOWER OIL MILLS CO. LTD	Singida			12/05/2021
89	SINGIDA WOMEN IR VICOBA	Singida			12/05/2021
90	MOUNT MERU MILLERS	Singida			12/05/2021
91	SINGIDA FRESH OIL MILL	Singida			12/05/2021
92	SINGIDA SUPER QUALITY OIL MILL	Singida			12/05/2021
93	MEDICAL STORES DEPARTMENT (MSD)	DSM			31/01/2022
94	SEASONING PALLETS	DSM	Small		31/01/2022

No.	Enterprise Name	Location	Size*	KAIZEN Theme	Recognition date
95	RWERU BEACHES AND RESORTS CO. LTD	Kagera		Space creation	31/01/2022
96	NYAKA FOOD ENTERPRISES	Kagera	Small	Lead time reduction	31/01/2022
97	TANZANIA DELICIOUS CASHEWS LTD	Mtwara		Space creation, layout improvement, & visualization	31/01/2022
98	MTWARA ENGINEERING WORKS	Mtwara			31/01/2022
99	ANKON BUSINESS SUPPLY (BAKERY INDUSTRY)	Mtwara	Micro	Layout improvement by using first 3S (Sort, Set and Shine) and visualization	31/01/2022
100	IRAMBA FURNITURE COMPANY	Pwani		5S and space maximization	31/01/2022
101	MTANGA POLYMACHINERY LIMITED	Pwani		Increase working space	31/01/2022
102	UDG FOOD PROCESSING ENTERPRISE (UPENDO)	Pwani		Visualization	31/01/2022
103	TANZANIA BIOTECH PRODUCTS LIMITED	Pwani		Elimination of MUDA	31/01/2022
104	AKIL'S BONNY PRODUCTS	Tanga	Small	Production capacity and productivity environment and increase working space	31/01/2022
105	TANGA PHARMACEUTICAL & PLASTICS LTD	Tanga	Large	Space creation and reduction of picking time	31/01/2022
106	GOFU MATS INDUSTRIES LTD	Tanga	Small	Reducing defects/waste of materials	31/01/2022
107	TANGA MINING CO. LTD	Tanga	Small	Production improvement	31/01/2022

Note: *Large: More than 99 employees Medium: More than 49 and less than 100 employees Small: More than 9 and less than 50 employees Micro: Less than 10 employees
Source: Prepared by the JICA Project Team

(2) Pilot Enterprises participating in Trial Implementation of "KAIZEN x Cluster" Model

No.	Enterprise Name	Location	Size*	KAIZEN Theme	Period of On-Site Guidance
1	E.B. Metia Engineering Works	Morogoro	Micro	Free space creation	11 Jul. – 14 Aug. 2020
2	Gama Metal Works	Morogoro	Micro	Production space expansion	2 – 31 Jul. 2020
3	Tanzim Enterprises Ltd.	Morogoro	Micro	Product defect rate reduction	30 Jun. – 30 Jul. 2020
4	Oak Workshop and General Supplies	Morogoro	Micro	Free space creation	11 Jul. – 15 Aug. 2020
5	Ugele Workshop and General Traders	Morogoro	Micro	Free space creation	1 Jul. – 24 Aug. 2020

No.	Enterprise Name	Location	Size*	KAIZEN Theme	Period of On-Site Guidance
6	C&F Workshop	Morogoro	Micro	Working space expansion	22 Sep. – 4 Nov. 2020
7	Dedu Nhimba	Morogoro	Micro	Working space expansion	24 Sep. – 5 Nov. 2020
8	MB Technology	Morogoro	Micro	Working space expansion	23 Sep. – 6 Nov. 2020
9	Wayango Technical Enterprise	Morogoro	Micro	Working space expansion	1 Oct. – 14 Nov. 2020
10	Dulla Workshop	Morogoro	Micro	Working space expansion	6 Dec. 2020 – 3 Feb. 2021
11	Mark Point Aluminum & Grass Works	Morogoro	Micro	Material picking time reduction	4 Dec. 2020 – 5 Feb. 2021
12	Milton S. Lyimo	Morogoro	Micro	Warehouse pathways and storage space creation	5 Dec. 2020 – 13 Feb. 2021
13	Morogoro Diocese Tech. Support	Morogoro	Micro	Free space creation	4 Dec. 2020 – 12 Feb. 2021
14	Morogoro Engineering Works	Morogoro	Micro	Tool picking time reduction	5 Dec. 2020 – 3 Feb. 2021
15	SE Furniture Workshop	Morogoro	Micro	Working space expansion	7 Dec. 2020 – 4 Feb. 2021
16	Vijana Furniture Workshop	Morogoro	Micro	Working space expansion	7 Dec. 2020 – 4 Feb. 2021
17	UWAZAMAM	Dodoma	Micro	Usable space creation	8 Jul. – 4 Aug. 2020
18	Dane Holdings	Dodoma	Micro	5S, layout improvement, and bottling process improvement	18 Nov. 2020 – 8 Feb. 2021
19	Abel C. (Mwang'onda) Rice	Mbeya	Micro	Space creation	16 Nov. – 3 Dec. 2020

Note: *Large: More than 99 employees Medium: More than 49 and less than 100 employees Small: More than 9 and less than 50 employees Micro: Less than 10 employees

Source: Prepared by the JICA Project Team

(3) Pilot Enterprises participating in Intensive OJT Program for AKTs

No	Enterprise Name	Location	Size*	KAIZEN Theme	Period of On-Site Guidance
1	SPEEDFLEX COMPANY LIMITED	DSM	Small	Productivity improvement	18 Oct. – 13 Dec. 2021
2	PRIME TEXTILE	DSM	Small	Increase production capacity	19 Oct. – 14 Dec. 2021
3	LINA MILLERS LTD	DSM	Medium	Productivity improvement	28 Oct. – 15 Dec. 2021
4	TANAFRICA GREEN COMPANY LTD	DSM	Medium	Increase production volume	29 Oct. – 16 Dec. 2021
5	TANELEC LIMITED	Arusha	Large	Productivity improvement	18 Oct. – 13 Dec. 2021

No	Enterprise Name	Location	Size*	KAIZEN Theme	Period of On-Site Guidanance
6	Tanzania Engineering and Manufacturing Design Organization (TEMDO)	Arusha	Large	Quality improvement	19 Oct. – 14 Dec. 2021
7	Kilimanjaro International Leather Industry	Kilimanjaro	Large	Decrease in defect rate	25 Oct. – 15 Dec. 2021
8	Natural Extracts Industries Ltd (NEI)	Kilimanjaro	Large	Increase production capacity	26 Oct.- 16 Dec. 2021

Note: *Large: More than 99 employees Medium: More than 49 and less than 100 employees Small: More than 9 and less than 50 employees Micro: Less than 10 employees

Source: Prepared by the JICA Project Team

5. Participants List for Intensive OJT Program for AKTs

No	Name	Category	Designation
1	JOAN STEPHEN NANGAWE	AKT	SIDO Morogoro
2	Joseph Christopher Mwingira	AKT	SIDO Manyara
3	Nina Hilary Nchimbi	AKT	SIDO Arusha
4	Allen Yotham Mhidze	AKT	SIDO Morogoro
5	Sempeho Manongi Nyari	AKT	SIDO Dodoma
6	Cosmas Kinasa (Drop Out)	KT	SIDO Mwanza
7	Baraka Israel	AKT	CBE Mbeya
8	JOHN MEKU LELO	AKT	CBE Mwanza
9	Emmanuel W. Ngoyinde	KT	SIDO Mwanza
10	Arthur Ndedya	KT	SIDO Kilimanjaro
11	Laban Gasper Letema	KT	CBE Mwanza
12	Beny Mwenda	KT	CBE Mbeya

Source: Prepared by the JICA Project Team

Attachment 1 Record of Project Results

Attachment 1-3 Record of Tanzania KAIZEN Award Competition

Attachment 1-3 Record of Tanzania KAIZEN Award Competition

	3 rd Tanzania KAIZEN Award Competition	4 th Tanzania KAIZEN Award Competition	5 th Tanzania KAIZEN Award Competition
Date	1 st March 2019	18 th February 2020	4 th and 5 th February 2021
Location	Dar es Salaam	Dar es Salaam	Dar es Salaam
Number of Participants	102 (Central/Local Governments, Public Institutions, Private Companies, KAIZEN Trainers, etc.)	156 (Central/Local Governments, Public Institutions, Private Companies, KAIZEN Trainers, Donors etc.)	75 (Central/Local Governments, Public Institutions, Private Companies, KAIZEN Trainers, Donors etc.)
Program	AM: Presentation by finalists and selection and selection of awardees PM: Award Ceremony (Enterprise/Kaizen Trainer)	AM: Presentation by finalists and selection and selection of awardees PM: Award Ceremony (Enterprise/Kaizen Trainer)	Day 1: Presentation by finalists and selection of awardees Day 2: Award Ceremony (Enterprise/Kaizen Trainer) and Tanzania KAIZEN Day
Finalists	<ol style="list-style-type: none"> 1. Med Foods Arusha 2. Banana Investment 3. A to Z Textile Mills 4. Union Service Stores 5. BSK Engineering 6. Jackma Investment 7. Glory Farm 8. TEMESA 9. Power Electronics 10. Picture and coffee break 11. East African Cable 12. Open Sanit 13. Cotex 14. Evolution Investment & General Supplies 15. G & B Soap 	<ol style="list-style-type: none"> 1. Evolution Investment and General Suppliers Ltd 2. Natural Extractor Industries Co. Ltd (NEI) 3. Glory Farm Co. Ltd (Heshima ya Jiko) 4. BSK Engineering Co. Ltd 5. OpenSanit Co. Ltd 6. Princes Pharmaceutical Co. Ltd 7. Tanzania Brush Co. Ltd 8. Group Photo and Coffee Break 9. Mbeya Dragón Co. Ltd 10. Super-doll Co. Ltd 11. G & B Soap Industries Ltd 12. Shelys Pharmaceuticals Co. Ltd 13. Harsho Packaging Co. Ltd 14. KIOO Co. Ltd 15. Raha Beverage (Banana Investment) 	<ol style="list-style-type: none"> 1. Malampaka Rice Mill 2. Union Store 3. Quality Foam 4. Euromax 5. Maswa Nutrition Food 6. Knew Kingdom 7. OpenSanit 8. Raha Beverage 9. OAK Workshop 10. Intermech Engineering 11. KIOO Co. Ltd 12. Glory farm (Heshima ya Jiko) 13. Diamond Motors 14. A to Z VHI 15. 1. Culturral Craft Consultants and Design Co. Ltd. 16. Superdoll Trailer Manufacturer 17. BSK Engineering 18. Tarmal Industries

Awardees	3 rd Tanzania KAIZEN Award Competition	4 th Tanzania KAIZEN Award Competition	5 th Tanzania KAIZEN Award Competition
	<p>【Enterprise】 <u>Large Enterprise</u></p> <ol style="list-style-type: none"> 1. A to Z Textile Mills (Arusha) 2. East African Cable (DSM) <p><u>Small and Medium Enterprise (two first prizes)</u></p> <ol style="list-style-type: none"> 1. Union Service Stores (Kilimanjaro) 1. Power Electronics (DSM) 	<p>【Enterprise】 <u>Large Enterprise</u></p> <ol style="list-style-type: none"> 1. Shelys Pharmaceuticals Co. Ltd. (DSM) 2. Kioo Limited (DSM) <p>1. Superdoll Trailer Manufacture Co. Ltd. (DSM)</p> <p><u>Small and Medium Enterprise</u></p> <ol style="list-style-type: none"> 1. Tanzania Brush Products Ltd. (DSM) 2. Natural Extract Industries Co. Ltd. (Kilimanjaro) 3. Prince Pharmaceuticals Co. Ltd (Mwanza) 	<p>【Enterprise】 <u>Large Enterprise</u></p> <ol style="list-style-type: none"> 1. KIOO Co. Ltd (DSM) 2. A to Z VHI (Arusha) 3. Superdoll Trailer Manufacturer (DSM) <p><u>Small and Medium Enterprise</u></p> <ol style="list-style-type: none"> 1. Cultural Craft Consultants and Design Co. Ltd. (DSM) 2. Maswa Nutrition Food (Simiyu) 3. Glory Farm
	<p>【KAIZEN Trainer】 <u>Advanced KAIZEN (AKT)</u></p> <ol style="list-style-type: none"> 1. Ms. Nina Nchimbi (SIDO-Arusha) 2. Mr. Allen Mizde (SIDO-Morogoro) 3. Ms. Joan Nangwe (SIDO-Morogoro) 4. Ms. Lilian Materu (SIDO-Kilimanjaro) <p><u>Basic KAIZEN (KT)</u></p> <ol style="list-style-type: none"> 1. Mr. Arthur Ndedya (SIDO-Kilimanjaro) 2. Ms. Betty Rweabura (SIDO-DSM) 3. Mr. Sempeho Manongi Nyari (SIDO-Dodoma) 4. Ms. Jamila Abdallah (Private) 	<p>【KAIZEN Trainer】 <u>Advanced KAIZEN (AKT)</u></p> <ol style="list-style-type: none"> 1. Mr. Sempeho Manongi Nyari (SIDO-Dodoma) 2. Ms. Lilian Godwin (Private) 3. Mr. Rutagwelera Mutakyahwa (Private) <p><u>Basic KAIZEN (KT)</u></p> <ol style="list-style-type: none"> 1. Mr. Yusuf Ramadhani (Private) 2. Ms. Mariam Tambwe (CBE-DSM) 3. Mr. Nyangusi Meitalami Mollel (SIDO-Dodoma) 	<p>【KAIZEN Trainer】 <u>Advanced KAIZEN (AKT)</u></p> <ol style="list-style-type: none"> 1. Ms. Nina Nchimbi (SIDO-Arusha) 2. Ms. Jeanette Senkondo (Private) 3. Ms. Lilian Godwin (Private) <p><u>Basic KAIZEN (KT)</u></p> <ol style="list-style-type: none"> 1. Mr. Arthur Ndedya (SIDO-Kilimanjaro) 2. Mr. Maneno Maporo (SIDO-Mwanza) 3. Ms. Lilian Materu (SIDO-Kilimanjaro)

Source : Prepared by the JICA Project Team

Attachment 1 Record of Project Results

Attachment 1-4 Training Programs in Japan and Third Countries

Attachment 1-4 Training Programs in Japan and Third Countries

1. Training Programs in Japan

The first training program in Japan was conducted in February 2019 in Kitakyushu-shi, Fukuoka Prefecture in Japan, to have had 11 Participants. The participants for the second training program in Japan could not travel to Japan due to the spread of Coronavirus disease 2019, so the training was conducted in December 2020 in a hybrid format on-site and online. The participants gathered at the training venue in Dar es Salaam and were connected by an online conference system with Japan.

1.1. First Training Program in Japan

(1) Overview

Course Name	KAIZEN Training in Japan
Period	From Sunday, 3 rd to Saturday 16 th February 2019
Purpose	Participants will learn about the background of KAIZEN by visiting Japanese companies that are practicing KAIZEN and deepen their understanding in order to accelerate KAIZEN promotion in Tanzania.

Source: Prepared by the JICA Project Team

(2) Schedule

Date (Feb. 2019)	Time	Form	Program
3 Sun		—	Arrival in Japan
4 Mon	9:40 ~ 12:00	Lecture	Briefing
	13:30 ~ 14:30	Lecture	Course Orientation
	14:30 ~ 16:30	Discussion	Extract of Tasks based on IAS
5 Tue	9:30 ~ 12:40	Lecture	Lecture on Action Plan
	14:00 ~ 16:40	Lecture/ Site-visit	KAIZEN Implementation in SMEs – 1 (Tobata Turret Co., Ltd.)
6 Wed	9:30 ~ 12:30	Lecture	Basics of Production Management, Productivity Improvement
	13:30 ~ 16:30	Lecture	How to proceed with Quality Control Activities
	16:45 ~ 17:15	Discussion	Flight Meeting
7 Thu	9:30 ~ 12:30	Lecture	Lecture on QC Method (1)
	13:30 ~ 16:30	Lecture	Lecture on QC Method (2)
8 Fri	9:00 ~ 12:00	Lecture/ Site-visit	Productivity improvement activities in practice (Murakami Seiki Mfg Co., Ltd.)
	14:00 ~ 16:30	Lecture/ Site-visit	KAIZEN Implementation in SMEs – 2 (Nakashima Turret Co. Ltd.)

Date (Feb. 2019)	Time	Form	Program
9 Sat	9:30 ~ 12:30	Discussion	Workshop
10 Sun			—
11 Mon	9:30 ~ 12:30	Lecture	QC Circle Activities in Practice
	13:30 ~ 16:45	Lecture	Policy and Routine Management
12 Tue	9:30 ~ 12:00	Lecture Site-visit	Case Study of Advanced Manufacturing (TOTO Aquatechno Ltd.)
	14:00 ~ 16:30	Lecture/ Site-visit	Policy Management in Practice(Techno State Co., Ltd)
13 Wed	9:00 ~ 11:50	Lecture	Production Activities at Robotic factory (Yasukawa Electric Corporation)
	13:30 ~ 15:00	Lecture	Policy of SME Support
	15:00 ~ 16:40	Lecture	Preparation for activities after return
14 Thu	9:30 ~ 12:30	Lecture	Guidance of KAIZEN Activities in Practice
	13:30 ~ 16:30	Lecture	Guidance on Creating Action Plans
15 Fri	9:00 12:00	Lecture/ Site-visit	Maintaining and Passing on Indigenous Skills (Kuwahara Electric Corporation)
	13:30 16:30	Presentation	Presentation of Action Plan
	17:00 17:30		Closing Ceremony
	17:30 18:30		Closing Party
16 Sat		—	Departure from Japan

Source: Prepared by the JICA Project Team

(3) Participants

	Name	Organization
1	Mr. Innocent Ndika	Director of SME Relation, CRDB
2	Mr. Robert Zembazemba	CBE-DSM
3	Mr. Rutagwelera Mutakyahwa	Founder and Representative, Romme Center (NGO)
4	Mr. Joseph Matara	Head of Procurement Management Unit, EPZA
5	Mr. Richard Kwitega	RAS-Arusha
6	Mr. Jumanne Sagini	RAS-Simiyu
7	Mr. Privanus Katinhila	Department of Trade, RAS-Arusha
8	Ms. Jamila Nassor	Management Director, Ladyband Company (Private)
9	Ms. Jane Lyatuu	Head of TKU, MIIT
10	Mr. Richard Pweleza	Department of Trade, RAS-Kilimanjaro
11	Mr. Arthur Ndedya	SIDO-Kilimanjaro

Source: Prepared by the JICA Project Team

1.2 Second Training Program in Japan

(1) Overview

Course Name	Training on KAIZEN x Cluster Promotion	
Period	Group A:	From 7th December to 17th December 2020
	Group B:	From 15th December to 19th December 2020
Purpose	Group A:	Participants will learn measures and initiatives of local governments, industry associations, and cooperatives for developing local industries and industrial clusters in Japan and deepen their understandings of how KAIZEN training and other interventions which enhance firm capabilities would promote the growth of industrial agglomerations.
	Group B:	Participants will learn from cases of KAIZEN promotion in Japan and explore ways to realize the full potential of KAIZEN promotion in raising the competitiveness of the manufacturing sector.

Source: Prepared by the JICA Project Team

(2) Schedule

Date (Dec. 2020)	Time (Local Time)	Form	Program
7 Mon		—	Group A participants' arrival in DSM
8 Tue	9:00 ~ 10:45	—	Course orientation and introductory lecture
	11:00 ~ 12:00	Lecture	Importance and Promotion of Local Industry/Industry Cluster Development
	12:00 ~ 12:30	Lecture	Guidance on Independent Study and Housekeeping Announcement
	14:00 ~ 16:00	Video/ Exercise	Policy Measures for Industry Cluster Development in Tsubame City
9 Wed	8:30 ~ 10:00	Discussion	Policy Measures for Industry Cluster Development in Tsubame City (Supplementary Presentation, Q&A, and Discussion)
	10:15 ~ 12:30	Lecture	Enhanced Collaboration through Cluster Activities
	14:00 ~ 16:00	Video/ Exercise	Collaboration between Noodle Processor and Buckwheat Producer
10 Thu	9:30 ~ 10:45	Discussion	Interview with Expert Who Assisted Collaboration (on video), and Discussion
	11:15 ~ 13:30	Lecture	Strengthening Management Capabilities through KAIZEN - 1
	14:00 ~ 16:00	Video/ Exercise	KAIZEN Implementation in Benkan Corporation
11 Fri	8:30 ~ 10:00	Discussion	KAIZEN Implementation in Benkan Corporation (Supplementary Presentation, Q&A, and Discussion)

Date (Dec. 2020)	Time (Local Time)	Form	Program
	10:15 ~ 12:30	Lecture	Interim Review to Extract Success Factors and Plan Application in Tanzania
	14:00 ~ 16:00	Exercise	Review of KAIZEN x Cluster Pilot Exercise
12 Sat		—	—
13 Sun		—	—
14 Mon	8:30 ~ 10:00	Discussion	Improvement of KAIZEN x Cluster Model Utilizing the Lessons
	10:15 ~ 12:30	Lecture	Utilization of IoT (Internet of Things) in Factory KAIZEN
	14:00 ~ 16:00	Video/ Exercise	KAIZEN Implementation in Shinshowa Corporation
15 Tue	8:30 ~ 10:00	Discussion	KAIZEN Implementation in Shinshowa Corporation (Supplementary Presentation, Q&A, and Discussion)
	10:15 ~ 12:30	Lecture	Strengthening Management Capabilities through KAIZEN - 2
	14:00 ~ 16:00	Video/ Exercise	Preparation of Final Presentation
16 Wed	8:30 ~ 9:00	—	Group B: Program Orientation
	9:00 ~ 9:30	Lecture	Achievements of Tanzania KAIZEN Project and the FKM
	9:45 ~ 12:00	Presentation	Final Presentation by Group A Participants
	14:00 ~ 16:00	Video/ Exercise	Policy Measures for Industry Cluster Development in Tsubame City
17 Thu	8:30 ~ 9:15	Lecture	Measures and Achievements of KAIZEN Promotion in Japan
	9:30 ~ 11:00	Lecture	Firm Capability Development through KAIZEN
	11:15 ~ 12:30	Discussion	Africa KAIZEN Initiative
	14:00 ~ 16:00	Video	KAIZEN Implementation in Benkan Corporation and Shinshowa Corporation
18 Fri	8:30 ~ 11:00	Lecture	Policy Measures for KAIZEN Promotion - Training to Support Productivity Improvement, One-stop Comprehensive Support Center and Expert Dispatch, Monozukuri Subsidy
	11:15 ~ 12:30	Discussion	Accelerating KAIZEN Promotion in Tanzania
19 Sat		—	Departure from Dar es Salaam

Source: Prepared by the JICA Project Team

(3) Participants

	Name	Organization
Group A	1. Mr. Emmanuel J. Zakayo	TKU-DSM / SIDO
	2. Mr. Pius Methew	TKU-Dodoma
	3. Mr. Abraham Mlay	SIDO-HQ
	4. Ms. Betty Rweabura	SIDO-DSM
	5. Ms. Joan Stephen	SIDO-Morogoro
	6. Mr. Francis Stewart	SIDO-Mbeya
	7. Mr. Stanley Kibakaya	RAS-Mbeya
	8. Mr. Baraka Israel	CBE-Mbeya
	9. Mr. Maneno A. Maporo	SIDO-Mwanza
	10. Mr. Peter Kilima	SIDO-Kagera
	11. Mr. Crispin Kapinga	SIDO-Dodoma
	12. Mr. John Meku Lelo	SIDO-Mwanza
	13. Ms. Mariam Tambwe	CBE-DSM
	14. Ms. Lilian Godwin	Private Consultant
Group B	1. Mr. Paul Kessy Maduka	RAS-Dodoma
	2. Dr. Elizabeth Fredrick Mshote	RAS-DSM
	3. Dr. Shangwe Magasini Twamalae	RAS Pwani
	4. Mr. Mackdonald Masatu Maganga	SIDO HQ
	5. Mr. Juma Mwanbapa	Assistant Director for Light Industries, MIIT
	6. Dr. Dickson Pastory	Director for Post-graduate Studies, CBE
	7. Ms. Jane Lyatuu	Head of Tanzania KAIZEN Unit, MIIT
	8. Mr. Edward Nkomola	GSU officer, MIIT
	9. Prof. Riziki Silas Shemdoe (Absent)	Permanent Secretary, MIIT
	10. Mr. Ludvick Nduhiye Shemdoe (Absent)	Deputy Permanent Secretary, MIIT
	11. Eng. Ramson Mwilangali (Absent)	Director of Industrial Development, MIIT
	12. Prof. Emmanuel Mjema (Absent)	Rector, CBE

Source: Prepared by the JICA Project Team

2. Training Programs in Third Countries

For the training programs in third countries, participants attended the 3rd Africa KAIZEN Annual Conference held in Durban in South Africa in 2018, and the 4th in Tunis, Tunisia in 2019.

2.1. First Training Program in Third Country

(1) Overview

Course Name	3 rd Africa KAIZEN Annual Conference
Country (City)	South Africa (Durban)
Period	From Sunday 1 st to Thursday 5 th July 2018
Purpose	Through discussions and networking among stakeholders, participants will deepen their understanding of KAIZEN by learning about the policy implications, the findings and lessons learned from other countries.

Source: Prepared by the JICA Project Team

(2) Schedule

	Agenda			
Day 1 July 1 (Sun)	Arrival in Durban, South Africa			
Day 2 July 2 (Mon)	08:30 Plenary opening announcement 08:40 Welcoming remarks 09:00 Opening speech “ <i>Productivity and innovation as a driver for full and productive employment and decent work for all</i> ” 09:15 Opening message “ <i>Progress of Africa Kaizen Initiative</i> ” 09:30 Key note speech “ <i>The Role of Kaizen to Increase Firm Capabilities</i> ” 10:45 Panel Discussion 1 “ <i>Kaizen and Improving Firm Capability for Innovation</i> ” 11:40 Panel Discussion 2 “ <i>Kaizen and Corporate Cohesion</i> ” 12:35 Introduction of JICA/GDN (Global Development Network) research projects on Kaizen and JICA-RI book publication on Kaizen			
	Breakout session 1 for policy makers 14:00 -15:00 Sub-session 1 “ <i>Kaizen Curriculum Standardization</i> ” 15:00-16:00 Sub-session 2 “ <i>Kaizen consultant certification system</i> ” 16:15-17:25 Sub-session 3 “ <i>Kaizen Award system</i> ”		Breakout session 2 for practitioners/ Industries 14:00 – 17:05 Sub-session 4 “ <i>Best Practices in Kaizen Application</i> ”	
Day 3 July 3 (Tue)	09:00 Opening and Introduction of Toyota South Africa Motors (TSAM) 09:15 Key note presentation on “ <i>Basics of Toyota Production System and Application to other Businesses</i> ” 11:00 Factory visit Group A, B, C, D visit TSAM and Group E visits G.U.D p.m. Factory visit Group A visits Laser Junction, Group B visits Toyota Tsusho, Group C visits The Blind Syndicate, Group D visits PSA & Lumen, Group E visits Toyota Boshoku,			
Day 4 July 4 (Wed)	09:10 Presentation on “ <i>Political commitment and decentralized promotion system</i> ” by Mr. Tagesse Chafo, Minister, MoPSHRD, Ethiopia 09:30-10:30 Group Discussions 1			
	Group 1-3 “ <i>Opportunities of Kaizen</i> ” Proposed topics - Possible extension of roles of <i>Kaizen</i> - Role of public and private sectors	Group 4-6 “ <i>Way forward for Africa Kaizen Initiative</i> ” Proposed topics - Role of Center of Excellences - Mobilizing Resources - Disseminating <i>Kaizen</i> to neighbouring countries	Group 7-9 “ <i>Dissemination of Kaizen through Market System</i> ” Proposed topics - Promotion of Charged Service - Collaboration with FDIs - Mobilizing Resources	Group 10-12 “ <i>Toward the Africa Kaizen Award</i> ” Proposed topics - Role and capacity of National Focal Point of the Award - Action towards the next Conference

	Agenda
	11:00 Group Discussion 2 by country/organization Group discussion on action to be taken by each country/international organization
	14:00 Presentation of action plan by each group
	16:30 Closing remarks
Day 5 July 5 (Thu)	Departure to Tanzania

Source: Edited by the JICA Project Team from AKAC 2018 Program

(3) Participants

	Name	Organization
1	Dr. Isack A. Legonda	Director of Industrial Development, MIIT
2	Ms. Jane Lyatuu	Head of Tanzania KAIZEN Unit, MIIT
3	Mr. Emmanuel Zakayo	Tanzania KAIZEN Unit, MIIT

Source: Prepared by the JICA Project Team

2.2 Second Training Program in Third Country

(1) Overview

Course Name	4 th Africa KAIZEN Annual Conference
Country (City)	Tunisia (Tunis)
Period	From Sunday 23 rd to Thursday 27 th June 2019
Purpose	Through discussions and networking among stakeholders, participants will deepen their understanding of KAIZEN by learning about the policy implications, the findings and lessons learned from other countries.

Source: Prepared by the JICA Project Team

(2) Schedule

	Agenda
Day 1 23 Jun (Sun)	Arrival in Tunis, Tunisia
Day 2 24 Jun (Mon)	08:30 Opening session <ul style="list-style-type: none"> • Welcoming remarks by Minister of Industry • Welcoming remarks by Ambassador of Japan • Opening remarks by NEPAD CEO 09:00 Keynote presentation on “Enhancing firm capabilities in Africa and the role of Kaizen” by Prof. Tetsushi Sonobe, Vice President, Graduate Institute of Policy Studies

	Agenda
	<p>(GRIPS), Japan</p> <p>09:45 Group photo-taking</p> <p>10:00 Break (Press Conference)</p> <p>10:30 Panel Discussion followed by Q&A Moderator: Mr. Keiji Katai, JICA Panellist:</p> <ul style="list-style-type: none"> • Prof. Tetsushi Sonobe, Vice President, GRIPS, Japan • Mr. Bezabeh Gebereyes, Commissioner, Civil Service Commission, Ethiopia • Ms. Amel Ben Farhat, DG of Centre technique des industries mécaniques et électriques (CETIME), Tunisia • Mr. Achraf Tarsim, Regional Sector Manager Energy, Industry, Infrastructure & Financial Sector, AfDB <p>12:00 Lunch-</p> <p>13:00 Africa Kaizen Award : Presentation by nominees (part 1) Presentation by 5companies</p> <p>15:00 Break -</p> <p>15:30 Africa Kaizen Award : Presentation by nominees (part 2) Presentation by 3companiesand 1team</p> <p>17:00 Poster Session (Part 1) by the Nominees</p> <p>18:00 End of session</p>
Day 3 25 Jun (Tue)	<p>09:00 Breakout sessions on selected issues</p> <ol style="list-style-type: none"> 1) Improving the workplace culture through Kaizen 2) Consideration of Kaizen Key Performance Indicator (KPI) 3) Enabling environment for enterprises 4) Utilizing digital technology for Kaizen dissemination and implementation 5) Expanding Kaizen to other sectors <p>10:30 Break</p> <p>11:00 Breakout sessions (continue)</p> <p>12:30 Lunch</p> <p>13:30 Poster Session (Part 2)</p> <p>14:30 Plenary: presentation on summary of each session</p> <p>16:00 Break</p> <p>16:30 Making of TICAD 7 Message (selected members)</p>
Day 4 26 Jun (Wed)	<p>08:00 Kaizen site visit</p> <p>Group A: TF PRODO</p> <p>Group B: SOMEF</p> <p>Group C: AZUR PACK</p> <p>Group D: PM ELECOM</p> <p>Group E: ASTEEL FLASH</p> <p>Group F: CETIME</p> <p>Group G: Technopole Borj Cedria</p> <p>13:00 Lunch at Hotel</p> <p>14:30 Plenary: Closing Session</p> <ul style="list-style-type: none"> • Presentation: “ TICAD Process and Africa Kaizen Initiative by Mr. Eiji Inui, JICA • Message towards TICAD 7, by NEPAD on behalf of the participants • Comments and action plan from the participants

	Agenda
	<ul style="list-style-type: none"> • Closing Remarks by Mr. Hironobu Murakami, JICA 16:00 Break 17:00 Awarding ceremony of AKA followed by dinner reception 19:30 End of Session
Day 5 27 Jun (Wed)	Departure to Tanzania

Source: Edited by the JICA Project Team from AKAC 2019 Program

(3) Participants

	Name	Organization
1	Mr. Leo Lyayuka (Absent)	Director of Industrial Development
2	Ms. Jane Anaseli	Head of Tanzania KAIZEN Unit, MIIT
3	Mr. Emmanuel Zakayo	Tanzania KAIZEN Unit, MIIT
4	Mr. Pius Methew	Tanzania KAIZEN Unit, MIIT
5	Mr. Shoma Ngwandu Kibende	Director of Marketing and Investment, SIDO
6	Mr. Reuben Lyanga	QMS Manager, A to Z Textile Mills
7	Mr. Machael Alfayo Ayo	Production Manager, A to Z Textile Mills
8	Mr. Alex Evodius	Managing Director, Evolution Investments and General Supplies Ltd.
9	Mr. Novatus Massao	Acting Director, National Institute of Productivity (NIP)

Source: Prepared by the JICA Project Team

Attachment 1 Record of Project Results

Attachment 1-5 Record of Equipment Procurement

Attachment 1-5 Record of Equipment Procurement

Item	Specifications / Product No.	Qty.	Purchase Price			Date of Purchase	Current Location	Remarks
			Price	Currency	Price in JPY			
Laptop PC (includes a mouse and software)	HP Probook 450 G3 15-6200U 2.3 GHz 4GB 500GB Product No. : Y8A60EA#BH5 Software : MS Office 2016 Home and Business	1	2,830,000	TZS	143,538	2017/08/05	TKU DSM	A startup disfunction observed in May 2020, which was repaired in June 2021.
Projector	EPSON EB-S04	1	1,000,000	TZS	50,720	2017/08/22	SIDO Arusha	A slight damage due to a drop and a reduced battery capacity reported in June 2021.
Laptop PC	HP Probook 440 G3 15-6200U 2.3 GHz 4GB 500GB 14 Inch Windows 7/10 Pro Product No. : W0853UT#ABA Software : MS Office 2016 Home and Business	2	3,940,000	TZS	199,837	2017/08/29	SIDO Dodoma	
Digital camera	Canon IXUS 155	3	1,050,000	TZS	53,256	2017/08/29	SIDO Kilimanjaro	
Laptop PC	HP Probook 440 G3 15-6200U 2.3 GHz 4GB 500GB 14 Inch Windows 7/10 Pro Software : MS Office 2016 Home and Business	1	1,090	USD	123,926	2017/11/23	TKU DSM	Kept unreturned by a MIT retiree.
Laptop PC	HP Probook 440 G3 15-6200U 2.3 GHz 4GB 500GB 14 Inch Windows 7/10 Pro Product No. : W0853UT#ABA Software : MS Office 2016 Home and Business	1	2,387,000	TZS	121,546	2018/01/10	TKU DSM	
Books on KAIZEN (set of 9 titles)	1. Masaaki Imai. "Gemba Kaizen: A Commonsense Approach to a Continuous Improvement Strategy" 2. Masaaki Imai. "Kaizen: The Key to Japan's Competitive Success" 3. Robert Maurer. Ph.D., "One Small Step Can Change Your Life: The Kaizen Way" 4. Jeffrey Liker. "The Toyota Way: 14 Management Principles from the World's Greatest Manufacturer" 5. Jon Miller, Mike Wroblewski & Jaime Villafuerte. "Creating a Kaizen Culture" 6. Isao Kato & Art Smalley. "Toyota Kaizen Methods: Six Steps to Improvement 1st Edition" 7. Toshiko Nanasawa. "Kaizen Express: Fundamentals for Your Lean Journey" 8. Mike Rother. "Toyota Kata: Managing People for Improvement, Adaptiveness and Superior Results" 9. Mark R. Hamel. "Kaizen Event Fieldbook: Foundation, Framework, and Standard Work for Effective Events"	4	175,245	JPY	175,245	2018/09/06	TKU Dodoma	One set of nine titles; 5) lost
Video camera (includes a tripod and an SD card)	SONY HDR-CX485; 32GB	3	129,611	JPY	129,611	2018/09/07	TKU DSM	
SD card for digital camera	TOSHIBA U1 micro SDXC 128GB	3	9,050	JPY	9,050	2018/09/07	TKU DSM	
Projector	EPSON EB 541-3300LUMENS	1	1,000,000	TZS	47,380	2019/03/07	TKU Dodoma	①A reduced capacity of battery and power failure reported in July 2021 ②Lost by theft in March 2021 ③A microphone problem reported in August 2021.
Laptop PC	DELL Inspiron 3567 CORE I3 / 4GB / 1TB / 15.6 Inch MS Windows 10 PRO Software : MS Office 2019 Home and Business	4	3,700	USD	409,590	2019/03/08	TKU Dodoma	④Lost by theft in August 2019 ⑤A monitor disfunction reported in December 2021, which was repaired in January 2022.
Laptop PC	DELL Inspiron 3567 CORE I3 / 4GB / 500GB / 15.6 Inch MS Windows 10 PRO Software : MS Office 2019 Home and Business	2	3,933,000	TZS	191,183	2019/05/03	TKU Dodoma	MIT Government Office (Dodoma)
Books on KAIZEN	Tetsushi Sonobe & Keijiro Onuka. "Cluster-Based Industrial Development: KAIZEN Management for MSE Growth in Developing Countries"	5	62,950	JPY	62,950	2019/05/18	TKU Dodoma	One copy has been lost
Books on KAIZEN	Keijiro Onuka, Kimiaki Jin, & Tetsushi Sonobe. "Applying The KAIZEN in Africa -A New Avenue for Industrial Development"	6	22,530	JPY	22,530	2019/06/10	TKU Dodoma	One copy
Laptop PC	DELL Inspiron 15 3567 CORE I3 / 4GB / 1TB / 15.6 Inch	1	850,000	TZS	40,333	2019/11/10	TKU DSM	Five copies
Laptop PC	DELL Inspiron 3583 Intel Celeron 4205U / 4GB / 500GB / 15.6 Inch Windows 10 Pro / MS Office Professional Plus 2013 Product No. : 030T6 A04	1	950,000	TZS	45,154.0	2021/04/24	TKU Dodoma	Replacement of the item lost in August 2019 (purchased by a TKU staff member)
Air conditioner	SPLIT UNIT Samsung Wall Split Air Conditioner 12,000BTU Product No. : AR12TRHGWKNAF	6	3,610.80	USD	393,007	2021/05/11	SIDO Arusha SIDO Dodoma SIDO Kagera SIDO Mbeya SIDO Morogoro SIDO Singida SIDO HQ SIDO DSM SIDO Lindi SIDO Ruvuma SIDO Tanga SIDO Kilimanjaro	Replacement of the item lost in March 2021 (purchased by a TKU staff member)
Laptop PC	HP ENVY 17T-CE100 Intel Core-i7 / 16GB RAM / 1TB+256SSD / 17.3" screen / 4GB NVSD Card / Windows 10 Product No. : 6GJ02UAR#ABL	15	23,010.00	USD	2,504,454	2021/05/21	SIDO Arusha SIDO Dodoma SIDO Kagera SIDO Mbeya SIDO Morogoro SIDO Singida SIDO DSM SIDO Lindi SIDO Ruvuma SIDO Tanga SIDO Kilimanjaro	Replacement of the item lost in March 2021 (purchased by a TKU staff member)
Headphone	SONY WI-C200	12	354.00	USD	38,530	2021/05/21	SIDO Arusha SIDO Dodoma SIDO Kagera SIDO Mbeya SIDO Morogoro SIDO Singida SIDO DSM SIDO Lindi SIDO Ruvuma SIDO Tanga SIDO Kilimanjaro	
Video conference system	1) Smart TV: Samsung 65" 2) Web Camera: Logitech Conference Cam BCC950 Product No. 860-000440	3	9,027.00	USD	982,517	2021/05/21	SIDO HQ TKU Dodoma CBE HQ	
Network equipment	1) Router: Cisco ISR4221-K9 2) Smart Switches: Cisco WS-C3750X-24P-L 3) Stabilizer: Tronic 3KVA Single Phase Servo 4) Patch Panel: RJ45 Patch Panel 24 Port 5) Data Cabinet: 18U (600*800)	6	16,036.00	USD	1,745,390	2021/05/21	SIDO Arusha SIDO Dodoma SIDO Kagera SIDO Mbeya SIDO Morogoro SIDO Singida SIDO Ruvuma SIDO Mwanza	
Air conditioner	Split Wall Mount AC Panasonic CS-U-U12UKD4 12000 BTU	2	710.00	USD	77,874.0	2021/08/31	SIDO Mwanza	
Network equipment	1) Router: Cisco ISR 4221 Product No.: ISR4221/K9 Y05 2) Stabilizer: Tronic 3KVA Power Stabilizer Product No.: HS3000-DI 3) Smart Switches: Cisco WS-C3750X-24P-L, GIGA PoE 4) Data Cabinet: 18U (600*800)	2	2,454.40	USD	273,332	2021/10/11	SIDO Ruvuma SIDO Mwanza	
Network equipment	1) Router: Cisco WS-C3750X-24P-L, GIGA PoE 2) Data Cabinet: 18U (600*800)	2	3,568.00	USD	397,347	2021/10/23	SIDO Ruvuma SIDO Mwanza	
Air conditioner	Split Wall Mount AC Panasonic CS-U-U12UKD4 12000 BTU	2	59.00	USD	6,570	2021/10/25	SIDO Ruvuma SIDO Mwanza	
Air conditioner Network equipment	1) Air Conditioner: Hisense split unit 12000 BTU 2) Router: Cisco ISR 4221-K9 3) Smart Switches: Cisco WS-C3750X-24P-L, GIGA PoE 4) Stabilizer: Tronic 3KVA single phase 5) Patch Panel: RJ45 Patch Panel 24 Port 6) Data Cabinet: 18U (600*800)	3	12,567.00	USD	1,427,649	2021/12/28	SIDO Mara SIDO Tabora SIDO Njombe	
TOTAL								9,672,519

Attachment 2 Deliverables of Project

Attachment 2-1 Framework for Quality and Productivity Improvement
(KAIZEN) in Manufacturing Sector (FKM)



THE UNITED REPUBLIC OF TANZANIA
MINISTRY OF INDUSTRY AND TRADE

**Framework
for
Quality and Productivity
Improvement (KAIZEN) in
Manufacturing Sector
2020-2030**



FOREWORD

Tanzania has been articulating on industrialization in line with the National Development Vision 2025, which aspires to have a semi-industrialized economy by 2025. Moreover, it is the role of Government to create an enabling environment that enhances competitiveness domestically and in exports. The Ministry of Industry and Trade (MIT) bear the role of spearheading such development goals through the participation of both private and public sectors. KAIZEN helps to ensure sustainable competitiveness, led by continuous improvement of quality and productivity. MIT is also the overseer of the implementation of policies for industrial development: that is, the development of human capacity; creation of employment opportunities; economic transformation for achieving sustainable economic growth; external balance of payments; environmental sustainability and equitable development and building the capacity of institutions, to promote industry and trade.

The MIT in collaboration with Japan International Cooperation Agency (JICA) has been implementing a project on "Strengthening Manufacturing Enterprises through Quality and Productivity Improvement (KAIZEN)" since 2013. The second phase of the project (August, 2017 to July, 2021), covers eight regions namely: Arusha, Dar es Salaam, Dodoma, Kilimanjaro, Mbeya, Morogoro, Mwanza, and Singida. These are strategic regions to promote KAIZEN nationwide by making KAIZEN practices to be applied in all sizes and types of enterprises in both public and private sectors. A number of positive results have been realized in terms of building capacity for strengthening manufacturing enterprises, and thus, the need for replicating such successful outcome from pilot regions to a wider coverage to include the regions mentioned in the above.

It is on this basis that MIT through Tanzania KAIZEN Unit (TKU) in collaboration with project partners (including SIDO and CBE) have developed a 10 - year Framework for Quality and Productivity Improvement (KAIZEN) in Manufacturing Sector (FKM, 2020–2030). The Framework is focusing on putting in place a well-designed training program, wider geographic coverage, and an effective strategy for engaging public and private sectors.

The implementation of FKM 2020 - 2030 will involve the MIT, its affiliate institutions, business development service providers, employers and workers engaged in the manufacturing sector. Other sectors associated with KAIZEN initiatives include: education, agriculture, healthcare, mining and infrastructure (water, energy and transportation). In the long run, KAIZEN will be extended to all sectors of the economy, covering the whole country.

I would like to thank our Development Partners, JICA in particular. I am looking forward to our continued collaboration in the implementation of FKM 2020 – 2030.

KWA PAMOJA: TUTEKELEZE KAIZEN



Innocent L. Bashungwa (MP),
Minister for Industry and Trade,
2nd April, 2020.

List of Abbreviations

AKAC	Africa KAIZEN Annual Conference
BDSP	Business Development Service Provider
CAMARTEC	Center for Agricultural Mechanization and Rural Technologies
CBE	College of Business Education
CTI	Confederation of Tanzania Industries
EPZA	Export Processing Zone Authorities
FKM	Framework for Quality and Productivity Improvement (KAIZEN) in Manufacturing Sector
GIZ	<i>Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH</i> (German International Development Agency)
JICA	Japan International Cooperation Agency
MIT	Ministry of Industry and Trade
NIRC	National Irrigation Commission
SIDA	Swedish International Development Cooperation Agency
SIDO	Small Industries Development Organization
TBS	Tanzania Bureau of Standards
TCCIA	Tanzania Chamber of Commerce, Industry and Agriculture
TKU	Tanzania KAIZEN Unit
TOKT	Trainer of Training for KAIZEN Trainers
UUU	<i>Uratibu Udhibiti na Usimamizi wa Mapato na Matumizi ya Fedha za Serikali</i> (Report on Coordination, Monitoring and Management of Government Income and Expenditure)
VETA	Vocational and Educational Training Authority

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Framework for KAIZEN in Manufacturing Sector 2020-2030

1. BACKGROUND

The Ministry of Industry and Trade (MIT) in collaboration with Japan International Cooperation Agency (JICA) have been implementing the Project on Strengthening Manufacturing Enterprises through Quality and Productivity Improvement (KAIZEN) since 2013. The second phase of the project is of four years' duration from August 2017 to July 2021 and covers eight regions consisting of Dar es Salaam, Morogoro, Dodoma, Arusha, Kilimanjaro, Mwanza, Mbeya and Singida. As of November 2019, a total of 91 candidates has been trained and certified to provide KAIZEN consulting service to enterprises; 68 KAIZEN Trainers and 23 Advanced KAIZEN Trainers. On the other hand, 59 enterprises, which consist of 14 large and 45 small and medium-sized enterprises, have been certified for recognition of successful completion of KAIZEN pilot projects. This includes A to Z Textile Mills Ltd., Co. that was awarded among the best KAIZEN practice companies in Africa at the Africa KAIZEN Annual Conference 2019 in Tunisia.

The Project under the scheme of JICA's technical cooperation will be finished in July 2021. It is expected that Tanzania, while sustaining the already achieved results, continues to promote KAIZEN towards realizing the following.

- i. Practice of KAIZEN in all types of sectors and industries
- ii. Behavioral changes of Tanzanians to KAIZEN orientation
- iv. Public and private enterprises providing high quality products and services branded by KAIZEN
- v. The country as Center of Excellency and exports KAIZEN idea to other African countries

In this context, the Ministry through Tanzania KAIZEN Unit (TKU) in collaboration with project partners including Small Industries Development Organization (SIDO) and College of Business Education (CBE) has developed this Framework for Quality and Productivity Improvement (KAIZEN) in Manufacturing Sector 2020-2030 (FKM (2020-2030)). The Framework is intended for taking into consideration efforts for putting in place a well-designed KAIZEN training program, a sustainable mechanism of promoting geographic expansion of KAIZEN practice, and an effective strategy for engaging the public and the private sectors for KAIZEN promotion.

Framework for KAIZEN in Manufacturing Sector 2020-2030

2. SCOPE OF FKM (2020-2030)

The Framework for Quality and Productivity Improvement (KAIZEN) in Manufacturing Sector 2020-2030 (FKM (2020-2030)) is a plan for KAIZEN promotion targeting the manufacturing sector with the prospect of inducing emulation in other sectors, to transform people's mindset toward hard work, teamwork, and creativity. It requires commitment and active involvement of the MIT and its affiliate institutions as well as Business Development Service Providers (BDSPs), employers and workers engaged in the manufacturing sector.

The FKM (2020-2030) acknowledges linkages beyond the MIT affiliates with public and private institutions in the manufacturing, the services and other sectors. The sectors associated with KAIZEN initiatives include education¹, agriculture², healthcare, mining and infrastructure³. In the long run KAIZEN will be extended to all sectors of the economy, while covering the whole country and at the same time mainstreaming KAIZEN to all economic activities in a way of making the KAIZEN movement self-sustainable. With this broad picture envisioned, the FKM (2020-2030) focuses on the manufacturing sector particularly.

3. GOAL AND OBJECTIVES OF FKM (2020-2030)

The Goal of the FKM (2020-2030) is **to realize a sector-wide sustainable movement on quality and productivity improvement (KAIZEN)**. The Framework aims at making use of already created capacity to spread out KAIZEN countrywide, inclusively and sustainably during 2020-2030 in Tanzania.

In pursuit of this Goal, the four Objectives presented below will be promoted.

Objective 1: **Standards and guidelines will be provided.**

Objective 2: **KAIZEN will be promoted generally.**

Objective 3: **KAIZEN consulting service will be provided to enterprises.**

Objective 4: **KAIZEN Trainers and Coordinators will be trained.**

¹ Linkages in the education sector may include the Vocational and Educational Training Authority (VETA), curricula developers and higher learning institutions, among others.

² Linkages in the agriculture sector may include the Tanzania Chamber of Commerce, Industry and Agriculture (TCCIA), the Center for Agricultural Mechanization and Rural Technologies (CAMARTEC), the National Irrigation Commission (NIRC), and the Ministry of Agriculture (MoA), among others.

³ The infrastructure sector includes energy, water, and transportation sub-sectors.

Framework for KAIZEN in Manufacturing Sector 2020-2030

The activities to promote attainment of the Objectives are planned as shown in chapter “8. Logical Framework for Implementing FKM (2020-2030).” The manner and process of implementing the activities concerning Objectives 2 to 4 will be described in respective guidelines to be prepared through the activities under Objective 1, as listed in TABLE 1 below.

TABLE 1: GUIDELINES FOR IMPLEMENTATION OF ACTIVITIES

Objective	Guideline
Objective 2: General promotion of KAIZEN	KAIZEN Promotion Activity Guideline
Objective 3: Provision of KAIZEN consulting services	KAIZEN Consulting Service Guideline
Objective 4: Training of KAIZEN Trainers and Coordinators	KAIZEN Human Resource Development Guideline (Technical Guideline)

4. GEOGRAPHIC EXPANSION THROUGHOUT TANZANIA

A phased expansion of the KAIZEN movement is planned as shown in TABLE 2. The first five years will be the spreading phase in which the regional coverage grows, while the next five years will be the permeation phase in which KAIZEN practice in an area intensifies.

The regions to be newly covered will be decided by the end of the fiscal year two terms before actual expansion. That is, the four regions to be covered in the 2021-2022 term will be specified by June 2020. The criteria of selecting target regions are presented in BOX 1.

BOX 1: CRITERIA OF SELECTING TARGET REGIONS

1. The region corresponds with strategic priorities of the MIT, in terms of major industries, concentration of business enterprises, and zonal development plans among other factors.
2. The region presents strong local initiatives of a capable partner organization committed to organizing initial training activities.
3. The region has the potential of gaining support from the local government, donor projects, or other means of financing KAIZEN activities.

Framework for KAIZEN in Manufacturing Sector 2020-2030

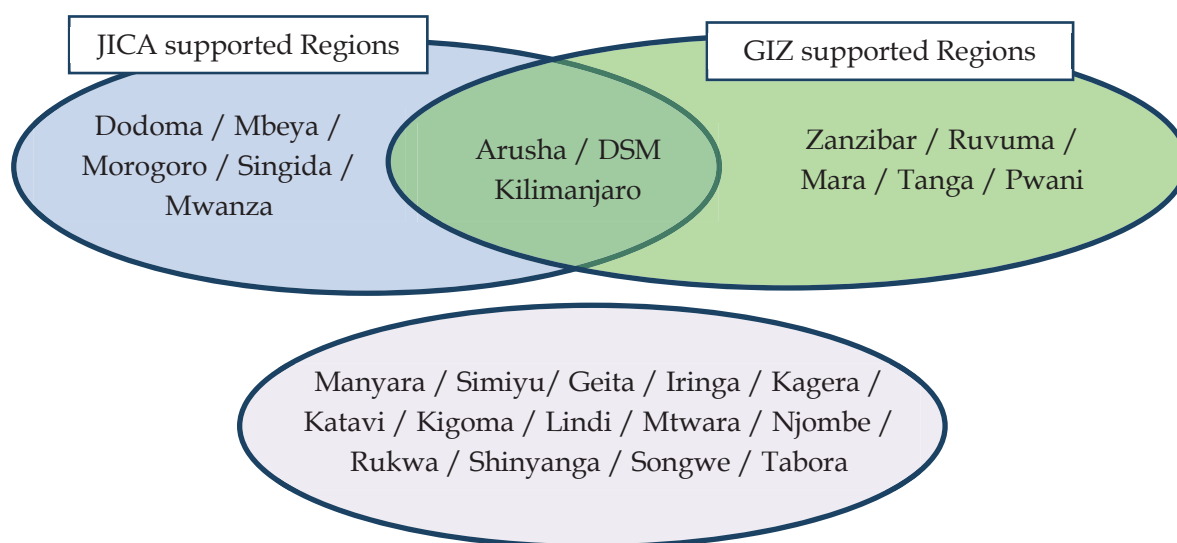
TABLE 2: PLAN OF GEOGRAPHIC EXPANSION

Year	No. of Regions		No. of Enterprises		No. of Trainers		
	Newly covered	Cumulative total	Newly trained	Cumulative total	Newly registered	Valid certificates*	
Phase I	Baseline	-	7	-	100	-	90
	2020-2021	1	8	50	150	10	100
	2021-2022	4	12	80	230	10	110
	2022-2023	6	18	120	350	20	85
	2023-2024	8	26	170	520	20	100
	2024-2025	5	31	180	700	10	105
Phase II	2025-2026	-	31	155	855	10	83
	2026-2027	-	31	155	1,010	10	81
	2027-2028	-	31	155	1,165	10	84
	2028-2029	-	31	155	1,320	10	84
	2029-2030	-	31	155	1,475	10	84

Note: A triennial expiration and renewal system of the Trainer certificate is planned to be introduced in the year 2020, under which half the certificate holders are assumed not to renew registration by conservative estimates. Number of enterprises may include members of industrial clusters.

FIGURE 1 shows a sample classification of target regions in view of donor-supported programs as potential alliance partners for integrating KAIZEN.

FIGURE 1: TARGET REGIONS FOR INTEGRATING KAIZEN TO OTHER DONOR SUPPORTED PROGRAMS (Example of JICA and GIZ)

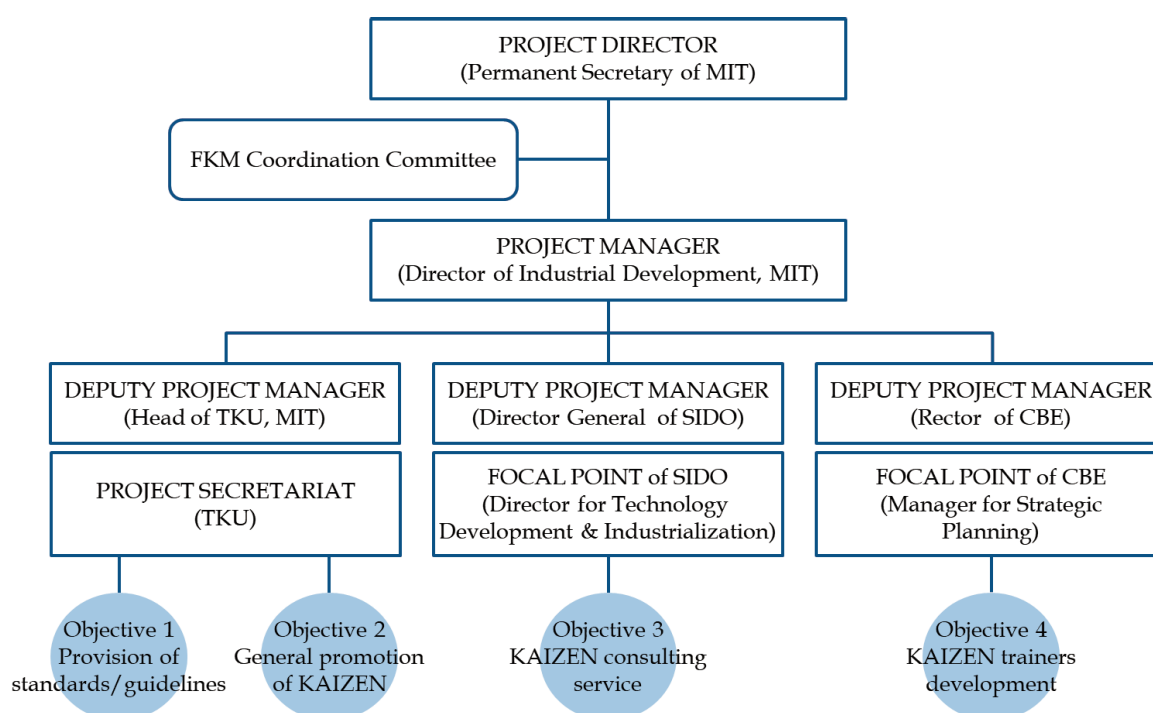


Framework for KAIZEN in Manufacturing Sector 2020-2030

5. STRUCTURE AND RESPECTIVE ROLES OF KEY PLAYERS

The management structure for implementation of the FKM (2020-2030) is shown in FIGURE 2. The Permanent Secretary of MIT will be responsible for the overall administration of the FKM implementation as the Project Director. The Director of Industrial Development, MIT, will be responsible for the managerial and technical matters as the Project Manager. The Deputy Project Managers, namely the Head of TKU, the Director General of SIDO, and the Rector of CBE, will be responsible for the administration of activities concerning each organization. The TKU will serve as the Project Secretariat and coordinate day-to-day operation as well as the planning, monitoring, and evaluation processes of the FKM implementation as a whole. SIDO and the CBE will designate their Focal Points who are responsible for day-to-day operation of activities concerning each organization.

FIGURE 2: IMPLEMENTING STRUCTURE



The Project Manager will report the progress, achievements, and future plans of FKM implementation to the FKM Coordination Committee at least once a year and whenever deemed necessary. The Committee will be established with the chairperson being the Project Director and the members will include, but not be limited to, the Project Manager, the Deputy Project Managers, Focal Points of SIDO and CBE, as well as the

Framework for KAIZEN in Manufacturing Sector 2020-2030

directors of each division in the MIT. Amendments to the FKM (2020-2030) must be agreed on at the FKM Coordination Committee. The FKM Coordination Committee will also serve as an advisory board for proper operation of the certification and registration system that is the basis of making KAIZEN promotion sustainable.

TABLE 3 summarizes the respective role of key actors in relation to the implementation of FKM (2020-2030).

TABLE 3: RESPECTIVE ROLES OF KEY ACTORS

Actor	Roles
MIT	➤ Steer the implementation of FKM (2020-2030)
	Permanent Secretary [Project Director]: <ol style="list-style-type: none"> i. Oversee the overall administration of the FKM implementation
	FKM Coordination Committee: <ol style="list-style-type: none"> i. Approve the annual implementation plan ii. Monitor the progress of the FKM (2020-2030) and devise countermeasures to any problem which may arise in the course of implementation iii. Approve amendments to the FKM (2020-2030) iv. Maintain proper operation of the certification and registration system
	Director of Industrial Development [Project Manager]: <ol style="list-style-type: none"> i. Oversee the managerial and technical matters across the Objectives for which different organizations are responsible ii. Incorporate and propose the annual implementation plan iii. Report the progress of annual implementation plan as well as overall achievements as compared to the target of the FKM (2020-2030) iv. Propose amendments to the FKM (2020-2030) when necessary
TKU	<ol style="list-style-type: none"> ➤ Coordinate the project management cycle and day-to-day operation of the FKM (2020-2030) implementation among actors concerned ➤ Implement, monitor, and improve activities concerning Objectives 1 and 2
	Head [Deputy Project Manager]: <ol style="list-style-type: none"> i. Manage the administration of activities concerning Objectives 1 and 2 ii. Propose a draft annual implementation plan for activities concerning Objectives 1 and 2 to the Project Manager iii. Supervise day-to-day operation of activities concerning Objectives 1 and 2 iv. Submit consolidated progress reports regularly to the Project Manager

Framework for KAIZEN in Manufacturing Sector 2020-2030

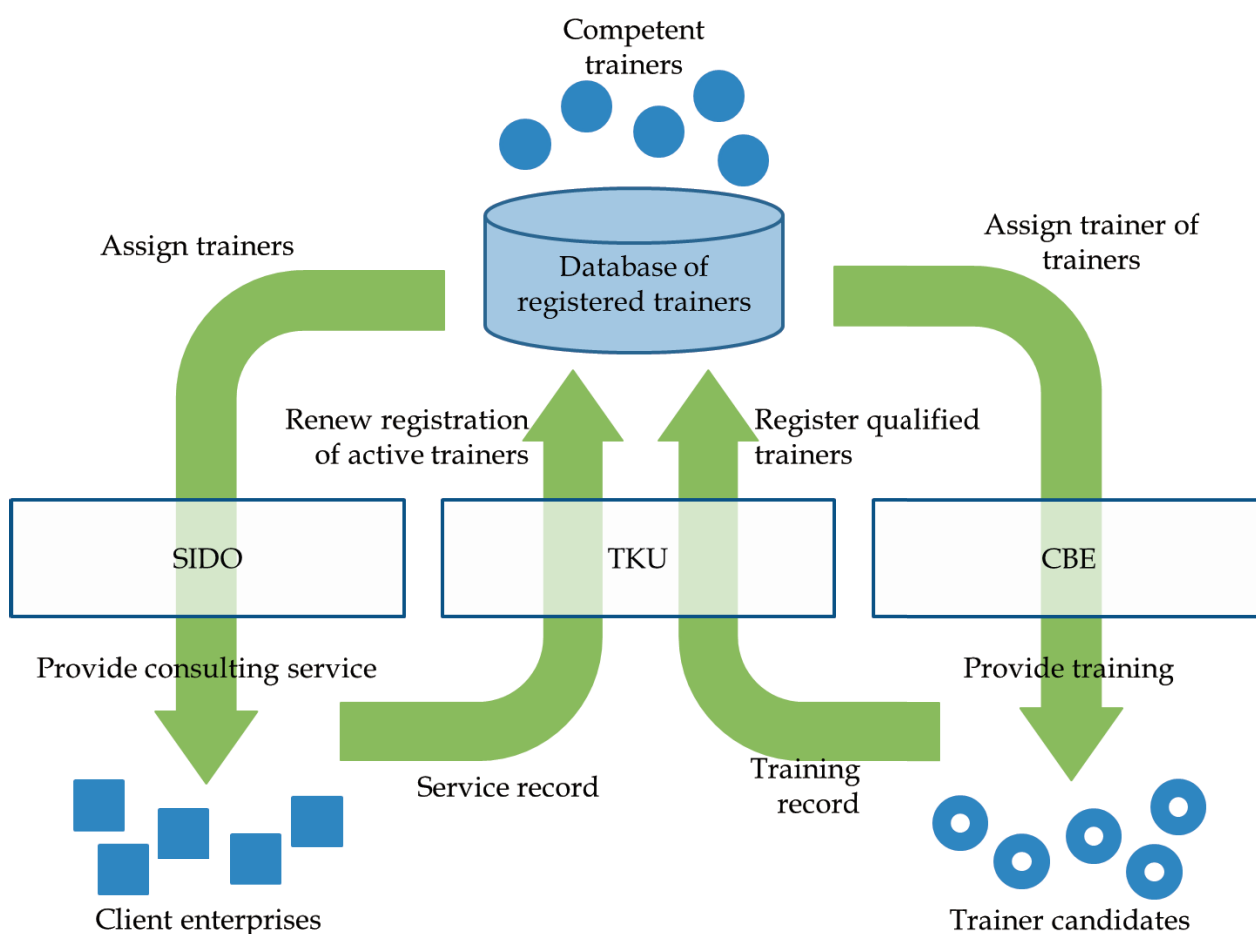
Actor	Roles
SIDO	➤ Implement, monitor, and improve activities concerning Objective 3
	Director General [Deputy Project Manager]: <ol style="list-style-type: none"> i. Manage the administration of activities concerning Objective 3 ii. Propose a draft annual implementation plan for activities concerning Objective 3 to the Project Manager
	Director for Technology Development and Industrialization [Focal Point of SIDO]: <ol style="list-style-type: none"> i. Supervise day-to-day operation of activities concerning Objective 3 ii. Submit regular progress reports on Objective 3 to the Secretariat
CBE	➤ Implement, monitor, and improve activities concerning Objective 4
	Rector [Deputy Project Manager]: <ol style="list-style-type: none"> i. Manage the administration of activities concerning Objective 4 ii. Propose a draft annual implementation plan for activities concerning Objective 4 to the Project Manager
	Manager for Strategic Planning [Focal Point of CBE]: <ol style="list-style-type: none"> i. Supervise day-to-day operation of activities concerning Objective 4 ii. Submit regular progress reports on Objective 4 to the Secretariat
KAIZEN trainers	➤ Provide KAIZEN consulting services to manufacturing enterprises ➤ Conduct lectures, exercises, on-site guidance, and other forms of training to disseminate knowledge and techniques of KAIZEN ➤ Update and improve KAIZEN consulting capacities collectively to upgrade the standard of KAIZEN practice in Tanzania

FIGURE 3 illustrates the flow of training, registration, and utilization of KAIZEN trainers under the structure for implementing FKM (2020-2030). The CBE organizes training courses to train KAIZEN trainers by utilizing registered Trainers of Training for KAIZEN Trainers (TOKTs)⁴. Once the trainer candidates complete the training course successfully, the TKU examines the training record and register the qualified candidates as KAIZEN trainers. On the other hand, SIDO arranges provision of KAIZEN consulting services for enterprises by utilizing registered KAIZEN trainers. Service records will be kept as an evidence of the trainer's activity, based on which the TKU determines whether he/she satisfies the requirements for renewal of registration.

⁴ The categories of KAIZEN trainers and requirements for qualification will be defined in the KAIZEN Human Resource Development Guideline (Technical Guideline).

Framework for KAIZEN in Manufacturing Sector 2020-2030

FIGURE 3: FLOW OF TRAINER MANAGEMENT



In addition to the actors listed in TABLE 3, implementation of FKM (2020-2030) will be promoted by a range of partner organizations. Partner organizations as of November 2019 include the Tanzania Bureau of Standards (TBS), the Export Processing Zone Authority (EPZA), the Vocational and Educational Training Authority (VETA), the National Institute of Productivity (NIP), and the Confederation of Tanzania Industries (CTI). The partnership will be expanded further on the initiative of the TKU. The roles and functions of partner organizations include the items presented in TABLE 4.

The MIT will provide partner organizations with technical and in-kind assistance to facilitate their activities. Financial support from the MIT may be granted upon request where necessary and appropriate.

Framework for KAIZEN in Manufacturing Sector 2020-2030

TABLE 4: ROLES AND FUNCTIONS OF PARTNER ORGANIZATIONS

Introduce KAIZEN to enterprises	<ul style="list-style-type: none"> i. Incorporate KAIZEN consulting service into the existing line-up of business development services ii. Provide introductory seminar on KAIZEN in conjunction with existing training programs iii. Disseminate KAIZEN-related announcements through the existing communication channel with enterprises
Train KAIZEN trainers/coordinators	<ul style="list-style-type: none"> i. Incorporate KAIZEN training course into the existing line-up of training programs for enterprises ii. Diffuse knowledge and techniques of KAIZEN within the organization by utilizing certified in-house KAIZEN trainers

6. FINANCING IMPLEMENTATION OF FKM (2020-2030)

The amount necessary for implementing the FKM (2020-2030) is preliminarily estimated as shown in TABLE 5.

TABLE 5: PRELIMINARY ESTIMATION OF IMPLEMENTATION COST

Year	Objective 1	Objective 2	Objective 3	Objective 4	Total
2020-2021	56,055,000	331,900,000	157,500,000	21,110,000	566,565,000
2021-2022	56,055,000	102,400,000	252,000,000	24,110,000	434,565,000
2022-2023	56,357,500	114,400,000	378,000,000	46,220,000	594,977,500
2023-2024	56,137,500	126,400,000	535,500,000	48,220,000	766,257,500
2024-2025	72,082,500	108,400,000	567,000,000	25,110,000	772,592,500
2025-2026	56,236,500	78,400,000	506,850,000	36,110,000	677,596,500
2026-2027	56,126,500	78,400,000	506,850,000	36,110,000	677,486,500
2027-2028	56,099,000	78,400,000	506,850,000	36,110,000	677,459,000
2028-2029	56,110,000	78,400,000	506,850,000	36,110,000	677,470,000
2029-2030	56,110,000	78,400,000	506,850,000	36,110,000	677,470,000

Note: The figures are nominal and based on prices in 2019. The estimated costs exclude staff salaries, office and supplies, local transportation, and other ordinary expenses. The breakdown by sub-activity is presented in "8. Logical Framework for Implementing FKM (2020-2030)."

Framework for KAIZEN in Manufacturing Sector 2020-2030

The implementation cost will be financed by 1) the Tanzanian government, 2) donors, and 3) fund raising activities.

1) Tanzanian Government

The MIT will ensure sufficient allocation of budget to maintain smooth operation of the core activities planned in the FKM (2020-2030). The Project Manager and the Deputy Project Managers will be encouraged to establish dialogue with leaders at levels of regional, municipal, and local government authorities in paving the way to locally-supported continuation of KAIZEN promotion. The TKU will expand and strengthen partnership beyond the MIT-affiliated institutions, as part of activities concerning Objective 2, and explore opportunities to tap additional fund sources.

2) Donors

The MIT will negotiate with donors for their contribution to the FKM (2020-2030). The Deputy Project Managers will coordinate with other donor-funded projects for joint implementation of some activity that has a purpose, target audience, or other aspects common to both sides. Potential collaborators include JICA, the Swedish International Development Cooperation Agency (SIDA), GIZ, and World Bank among others.

3) Fund Raising Activities

SIDO will consolidate a charging system for KAIZEN consulting services to be applied to the enterprises assisted by KAIZEN trainers. SIDO and the TKU will be in close communication with each other to maintain the charging system to be consistent with the guidelines provided under Objective 1.

The CBE will seek to gradually introduce admission fees for the KAIZEN trainer training courses to cover the cost which is associated clearly with individual participants such as the cost of textbooks or food and beverage. The TKU will develop a registration system for KAIZEN trainers by which a trainer is eligible for filling a job opportunity in government-funded KAIZEN consulting services, and apply a registration fee on trainers.

In addition to the above, the TKU will take the lead to devise and build mechanisms for seeking funds from a wide range of stakeholders.

7. MONITORING PLAN FOR FKM (2020-2030)

The monitoring plan for the FKM (2020-2030) is summarized in TABLE 6.

Framework for KAIZEN in Manufacturing Sector 2020-2030

The Annual Implementation Plan, which provides the schedule and budget of activities as well as the short-term performance indicators, will be agreed on at the FKM Coordination Committee by May of the previous fiscal year. Activity records such as KAIZEN consulting service delivery reports and KAIZEN training course attendance records will be summarized quarterly in a constant manner and compared to the plan to constitute a Quarterly Report (UUU⁵). The Quarterly Report will help the Project Manager evaluate the status and give instructions on corrective or reinforcing actions. An Annual Report will be made in June every year to consolidate overall results of activities conducted in the year and measure the progress toward accomplishment of the Goal and the Objectives.

TABLE 6: MONITORING PLAN

Item	Frequency	Person(s) in charge	Documentation	Data source
1. Adherence to the schedule	Monthly	<ul style="list-style-type: none"> Deputy Project Managers; Focal Points of SIDO and CBE 	(Activity records)	Activity records
2. Adherence to the budget	Quarterly	<ul style="list-style-type: none"> Director for Policy and Planning, MIT Project Manager 	Quarterly Report (UUU)	Financial records
3. Outputs from the Activities				Activity records, interviews, questionnaires, etc.
4. Achievement of the Objectives				
5. Achievement of the Goal	Annually	<ul style="list-style-type: none"> Project Director; Management Meeting 	Annual Report	Monitoring Reports, etc.

In addition, an impact survey will be conducted in the year 2024-2025 as an ex-post evaluation of the current Project on Strengthening Manufacturing Enterprises through Quality and Productivity Improvement (KAIZEN) Phase 2 as well as to assess achievements of the first five years of FKM implementation.

The indicators for monitoring are set as shown in TABLE 7. It requires an agreement at the FKM Coordination Committee to modify the indicators. The Annual Implementation Plan will be formulated in view of taking steps to achieve the medium- and long-term targets.

⁵ The UUU is the official form of quarterly performance report in the Tanzanian Government.
UUU: *Uratibu Udhibiti na Usimamizi wa Mapato na Matumizi ya Fedha za Serikali* (Report on Coordination, Monitoring and Management of Government Income and Expenditure)

Framework for KAIZEN in Manufacturing Sector 2020-2030

TABLE 7: KEY PERFORMANCE INDICATORS OF FKM (2020-2030)

Narrative summary	Time span	Indicators
Goal: A nation-wide sustainable movement on KAIZEN will be realized.	Medium-term	KAIZEN movement will be initiated in all regions in the country by June 2025.
	Long term	KAIZEN will be newly adopted in an enterprise in at least 19 regions (60%) every year after 2024-2025.
Objective 1: Standards and guidelines will be provided.	Short-term	A comprehensive set of guidelines and standards will be established by June 2021.
	Long term	The guidelines and standards will be maintained up-to-date and effective until June 2030.
Objective 2: KAIZEN will be promoted generally.	Medium-term	Key actors in the manufacturing sector in all regions will be exposed to basic KAIZEN knowledge by June 2025.
	Long term	At least 40% of manufacturing establishments in the country will be aware of KAIZEN by June 2030.
Objective 3: KAIZEN consulting service will be provided to enterprises.	Medium-term	At least 700 enterprises will have been introduced to KAIZEN by June 2025.
	Long term	At least 155 enterprises will be introduced to KAIZEN every year after 2024-2025.
Objective 4: KAIZEN Trainers and Coordinators will be trained.	Medium-term	A training course will have been organized in all regions by June 2025.
	Long term	A sufficient distribution and quality of KAIZEN Trainers will be maintained to meet the need of the manufacturing sector until 2030.
Activities	Short-term	(Output indicators will be set for each activity in the Annual Implementation Plan.)

8. LOGICAL FRAMEWORK FOR IMPLEMENTING FKM (2020-2030)

TABLE 8 presents the logical framework for implementing the FKM (2020-2030). This logical framework is equal to the Action Plan and Performance Assessment Matrix (PAM) on implementation of the FKM (2020-2030).

Framework for KAIZEN in Manufacturing Sector 2020-2030

TABLE 8: FKM (2020-2030) IMPLEMENTATION LOGICAL FRAMEWORK

S.N	ACTIVITY	TIME-FRAME	ESTIMATED COSTS	KEY INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS & REMARKS
0	Management of FKM (2020-2030)					
0.1	Formulate annual implementation plan					
0.1.1	Decide regions to be newly targeted two years ahead	Jun. every year until 2023	0	A list of target regions will be finalized by the end of June every year from 2020 to 2023.	Annual reports	
0.1.2	Prepare draft annual implementation plan	Oct-Nov. every year	0	A draft annual implementation plan will be prepared by the end of November every year.	Minutes of FKM Coordination Committee meeting	
0.1.3	Approve annual implementation plan for next fiscal year	Apr-May every year	0	Approval of the annual implementation plan will be achieved by the end of December every year.		
0.2	Monitor and evaluate progress					
0.2.1	Perform regular reporting	Year-round	0	All reports specified in the monitoring plan will be submitted as scheduled.	Reports submitted	
0.2.2	Evaluation of KAIZEN effects	May every year	0	The results of evaluation will be reported by the end of May every year.	Annual reports	Summarization of baseline & end-line data from reports submitted
0.2.3	Compile and submit annual report	Jun. every year	0	The annual report will be submitted by the end of June every year.		

Framework for KAIZEN in Manufacturing Sector 2020-2030

S.N	ACTIVITY	TIME-FRAME	ESTIMATED COSTS	KEY INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS & REMARKS
1	Administration of standards and guidelines					
1.1	Develop/update guidelines and tools					
1.1.1	Establish a channel to publicize guidelines and tools	2020-2021	0	A channel will be established by June 2021.	Announcement/ notice of publicizing latest guidelines and tools	Online sharing of PDF documents
1.1.2	Publicize updated/augmented guidelines and tools	Sep. every year	10,000,000	Latest versions of guidelines and tools will be publicized by the end of September every year.		
1.2	Control KAIZEN trainer registration and renewal					
1.2.1	Issue certificate of registration to qualified applicants	Apr. every year	660,000	Annual processing of initial registration will be completed by the end of August every year.	Record of issuance	
1.2.2	Process expiration and renewal of registration	Apr. every year	709,500	Annual processing of expiration and renewal of registration will be completed by the end of August every year.	Record of expiration and renewal	
1.2.3	Organize annual conference of KAIZEN Trainers	Oct. every year	550,000,000	Regular communication among KAIZEN trainers will be maintained.	Monitoring reports	
1.3	Maintain conformity to the standards					
1.3.1	Monitor operation of KAIZEN consulting services	Dec.-Jan. every year	0	Nonconformities, if detected, will be reported by the end of January every year for promoting corrective actions.	Monitoring reports	Document review by TKU staff
1.3.2	Monitor operation of training programs	Dec.-Jan. every year	0	Nonconformities, if detected, will be reported by the end of January every year for promoting corrective actions.	Monitoring reports	Document review by TKU staff
1.3.3	Conduct an impact survey	Year 2024-2025	16,000,000	The impact of KAIZEN promotion will be assessed comprehensively.	Impact survey report	

Framework for KAIZEN in Manufacturing Sector 2020-2030

S.N	ACTIVITY	TIME-FRAME	ESTIMATED COSTS	KEY INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS & REMARKS
2	General promotion of KAIZEN					
2.1	Organize Africa KAIZEN Annual Conference 2021					
2.1.1	Operate Interorganizational task force	Mar. 2020 - Jun. 2021	22,500,000	The task force will be regularly consulted with to facilitate cooperation among organizations.	Meeting minutes	
2.1.2	Plan and implement ancillary activities	Mar. 2020 - Jun. 2021	40,000,000	Ancillary activities will promote knowledge and practice of KAIZEN by taking advantage of the AKAC.	Annual report	Ancillary activities may include special seminar, student competition, workshops, business matching, etc.
2.1.3	Implement AKAC 2021 proper	Jun. 2021	185,000,000	The participants will show high rates of satisfaction to the event.	Satisfaction survey on participants	
2.2	Organize Tanzania National KAIZEN Award					
2.2.1	Evaluate and nominate candidate awardees	Nov.-Jan. every year	105,000,000	Finalists will be selected from an adequate number of candidates by the end of January every year.	Evaluation documents	Document review and on-site inspection
2.2.2	Implement Award Ceremony	Feb. every year	400,000,000	The ceremony will be held with a significant number of private sector participants by the end of February every year.	Annual report and media coverage	
2.3	Conduct sensitization seminars in target regions	Jul.-Aug. every year 2020-2024	144,000,000	A significant number of participants will be introduced to basic KAIZEN knowledge.	Attendance record	The seminar will be organized to stimulate the demand for KAIZEN training/consulting in newly targeted regions.

Framework for KAIZEN in Manufacturing Sector 2020-2030

S.N	ACTIVITY	TIME-FRAME	ESTIMATED COSTS	KEY INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS & REMARKS
2.4	Develop partnership					
2.4.1	Expand partnership in introducing KAIZEN to enterprises	Year-round	12,000,000	A number of partners (besides SIDO) will engage in introducing KAIZEN to enterprises.	Annual report	
2.4.2	Expand partnership in training KAIZEN trainers/coordinators	Year-round	12,000,000	A number of partners (besides CBE) will engage in training KAIZEN trainers/coordinators.	Annual report	
2.5	Implement public relations activities					
2.5.1	Hold booth at exhibitions	5 times every year	200,000,000	A significant number of applications for KAIZEN consulting services will be received through contacts collected at booth.	Annual report	(i) Saba Saba (June-July), (ii) Nane Nane (Aug), (iii) SIDO (Oct.), (iv) East African Juakari (Oct.-Nov.), (v) African Industrialization Week (Nov.-Dec.) Newsletter, brochure, annual report, broadcasting, etc.
2.5.2	Distribute communication materials and media contents	Update in Mar.-Apr. every year	55,000,000	A significant number of potential beneficiaries and collaborators will be reached by public relations activities.	Annual report	
3	Provision of KAIZEN consulting service to enterprises					
3.1	Manage process of service provision					
3.1.1	Recruit potential enterprises	Year-round	0	A yearly target number of eligible enterprises will apply for KAIZEN consulting services every year.	Service application form	
3.1.2	Assign trainers to provide consulting services to target enterprises	Year-round	4,331,250,000	A yearly target number of enterprises will be served every year.	Service record	Basic KAIZEN: Advanced KAIZEN = 75:25

Framework for KAIZEN in Manufacturing Sector 2020-2030

S.N	ACTIVITY	TIME-FRAME	ESTIMATED COSTS	KEY INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS & REMARKS
3.1.3	Record the results of KAIZEN consulting service	Year-round	0	Effects of KAIZEN in each enterprise served will be measured by a constant scale/indicator.	Post-service report	
3.2	Develop local network for outreach in each region	Jul. 2025 onward	93,000,000	Networks will be established at the regional level for SIDO regional offices to receive referrals of clients.	Service application form; Annual report	
4	Training of KAIZEN Trainers and Coordinators					
4.1	Organize training courses in target regions					
4.1.1	Recruit and select trainer candidates in target regions	Aug.-Sep. every year	24,000,000	A sufficient number of trainer candidates will apply for a training course by September every year.	Course application form	
4.1.2	Recruit and select pilot enterprises in target regions	Aug.-Sep. every year	0	A sufficient number of suitable enterprises will agree to participate in pilot KAIZEN projects by September every year.	Service application form	
4.1.3	Conduct training courses in target regions	Oct.-Jan. every year	140,000,000	Training courses will be conducted according to the annual implementation plan.	Training record	Basic KAIZEN Course only
4.1.4	Issue certificates of training course completion	Jan. every year	770,000	A yearly target number of certificates will be issued on successful completion of a training course.	Record of issuance	

Framework for KAIZEN in Manufacturing Sector 2020-2030

S.N	ACTIVITY	TIME-FRAME	ESTIMATED COSTS	KEY INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS & REMARKS
4.2	Organize training courses in strategic locations					
4.2.1	Recruit and select trainer candidates in selected locations	Jul. 2025 onward	0	A sufficient number of trainer candidates will apply for a training course every year.	Course application form	
4.2.2	Recruit and select pilot enterprises in selected locations	Jul. 2025 onward	0	A sufficient number of suitable enterprises will agree to participate in pilot KAIZEN projects every year.	Service application form	
4.2.3	Conduct training courses in selected locations	Jul. 2025 onward	180,000,000	Training courses will be conducted according to the annual implementation plan.	Training record	Basic KAIZEN (75% of trainees) and Advanced KAIZEN (25%) Courses
4.2.4	Issue certificates of training course completion	Jul. 2025 onward	550,000	A yearly target number of certificates will be issued on successful completion of a training course.	Record of issuance	

This Framework was prepared in cooperation with Japan International Cooperation Agency (JICA).



Attachment 2 Deliverables of Project

Attachment 2-2 Technical Guidelines



THE UNITED REPUBLIC OF TANZANIA
MINISTRY OF INVESTMENT, INDUSTRY AND TRADE

KAIZEN Technical Guidelines

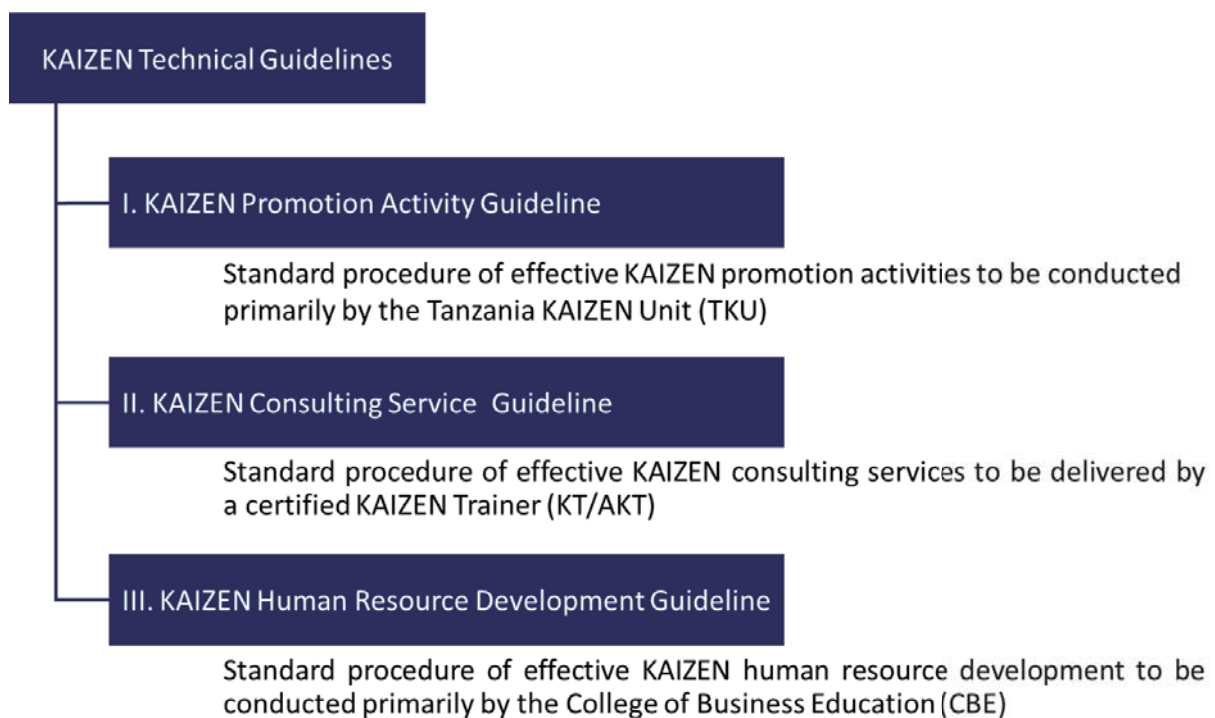
Second Edition
January 2022



Introduction

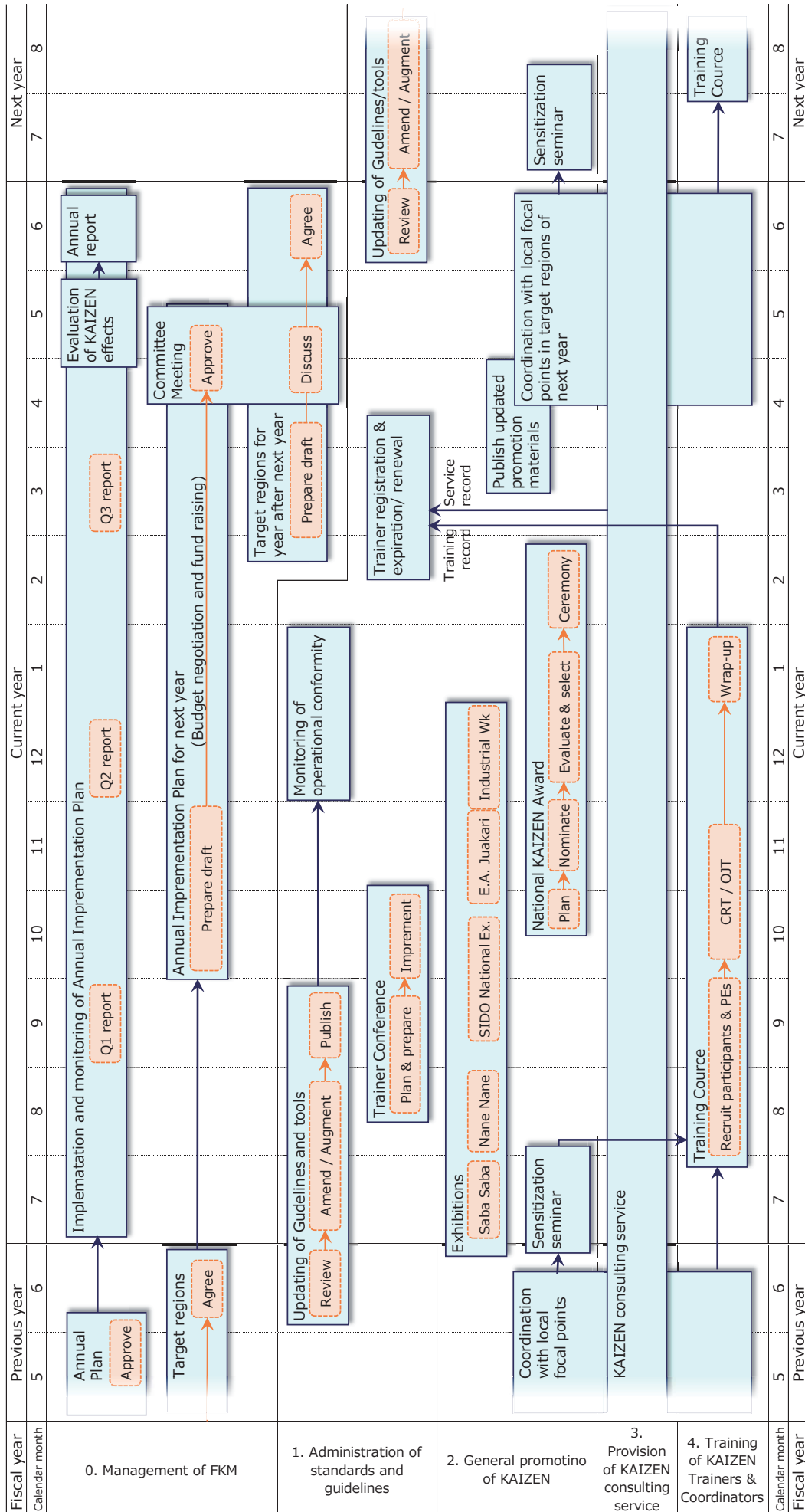
The KAIZEN Technical Guidelines provide the standards and procedures for sustainable operation of the Framework for Quality and Productivity Improvement (KAIZEN) in Manufacturing Sector 2020-2030 (FKM 2020-2030) in Tanzania, which was inaugurated by the Ministry of Investment, Industry and Trade (MIIT) in August 2020.

The Guidelines are divided into three and cover the key aspects of national KAIZEN movement, which largely correspond to the roles of the Tanzania KAIZEN Unit (TKU), the Small Industries Development Organization (SIDO), and the College of Business Education (CBE), in implementation of the framework.



The TKU, as the secretariat of FKM implementation, manages amendments to the Guidelines. The Guidelines shall be reviewed in June-August every year for possible improvements in effectiveness and efficiency of activities in the changing environment. The CBE, SIDO, or any other stakeholders may suggest amendments; the TKU coordinates the revised edition by incorporating such suggestions and making adjustments for overall consistency. The latest edition will be publicized by the end of September and all activities in the fiscal year will be conducted in accordance with the latest Guidelines.

Annual Cycle of Activities in FKM (2020-2030)



Note : PE=Pilot Enterprise CRT=Class Room Training OJT=On-the-Job Training

I. KAIZEN Promotion Activity Guideline

■ Objective

This Guideline provides a standard procedure of effective KAIZEN promotion activities to be conducted primarily by the Tanzania KAIZEN Unit (TKU) for the purpose of realizing wider recognition and adoption of KAIZEN countrywide.

■ Application

All the KAIZEN promotion activities conducted by the TKU should follow this Guideline. Any organization or individual may use this Guideline as a reference for its activities related to KAIZEN promotion.

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1. Initial KAIZEN Promotion in Newly Targeted Regions

Given that the FKM (2020-2030) lays out a schedule of phased expansion of KAIZEN to cover all the 31 regions by June 2025, this section describes how the promotion activities will be arranged and implemented in a region during the initial few years of introducing KAIZEN knowledge and practices locally.

1.1 Model Schedule of KAIZEN Introduction

The following process will be applied to each region which is selected as a target region for expansion of KAIZEN coverage. The FKM (2020-2030) provides that the target region will be decided by the end of the fiscal year two terms before actual expansion.

TABLE 1 Schedule of KAIZEN Introduction in Target Region

Year 0 (preparation)	Year-round	Formation of local implementation structure
	April - May	Preparatory visit to target region
Year 1 (actual expansion)	July - August	Stakeholder Sensitization Seminar (Top Management Seminar)
	August - September	Recruitment of candidate KAIZEN trainers and pilot enterprises
	October - November ¹	Training Course to develop local KAIZEN trainers Pilot KAIZEN activities at selected local enterprises
	January	Wrap-up Meeting
Year 2	Year-round	Continuation of KAIZEN promotion

1.2 Selection of Target Regions

The regions to be targeted newly in a fiscal year will be approved by the MIIT one year before the start of that year. The TKU, in consultation with SIDO and CBE, gathers information about potential target regions, evaluates the readiness of the regions based on the selection criteria provided in the FKM (2020-2030), and proposes the target regions. This nomination process should be started in January or at least six months before the MIIT approval by which the target regions will be decided.

1.3 Formation of Local Implementation Structure

The TKU, CBE, and SIDO will identify local partners for KAIZEN promotion and coordinate a local implementation structure before the start of the fiscal year in which the region is targeted. The local implementation structure should be suited for smooth operation of initial activities and steady transition from

¹ A basic-level training course is supposed to be provided. Otherwise, a longer period may be required.

centrally-led to locally-supported KAIZEN promotion. While the specific form of such a structure varies depending on local conditions, the Regional Office of Small Industry Development Organization (SIDO-RO) will be the lead organization in every region. SIDO-RO is indispensable also for the reason that it will be the main provider of KAIZEN consulting service to sustain KAIZEN practice in the region. The lead organization should assign at least two focal persons who will be responsible to coordinate local resources and make necessary arrangements for the initial activities. The TKU, together with the SIDO headquarters (SIDO-HQ), makes sure that SIDO-ROs are well-informed about their roles and responsibilities in local KAIZEN promotion.

Other local partners most likely include the Regional Administrative Secretary (RAS) Office, the satellite campus of the College of Business Education (CBE) if located in the region, and the training center of Vocational and Educational Training Authority (VETA). The RAS Office will be an important partner in view of mainstreaming KAIZEN in the local society. By utilizing the local networks established by the SIDO-RO, the TKU promote understanding of the local partners about the benefits of introducing KAIZEN in their region and gain their active support and engagement in the implementation of the series of activities in the first year of KAIZEN introduction.

1.4 Preparatory Visit to Target Region

The TKU will organize a preparatory visit in around April to May to each region to be targeted next year. A representative of CBE shall accompany the visit as it will organize the training course later. In the case that the SIDO-RO is having difficulty in leading local KAIZEN promotion activities, accompaniment of a representative from SIDO-HQ should be advisable.

The visit should be made as cost-efficient as possible. Working-level discussions with local partners should be made in advance by telephone or web-meeting, so that the implementation plan for the series of activities will be agreed by the end of the preparatory visit. Especially, the TKU and the CBE must prepare cost estimates and a cost-sharing plan to cover the costs.

TABLE 2 presents the list of items which must be decided by the end of the preparatory visit.

TABLE 2 What Must Be Decided by End of Preparatory Visit

Category	Item to be decided
Framework of implementation	<input type="checkbox"/> Focal person at TKU and his/her roles and functions
	<input type="checkbox"/> Focal person at CBE and his/her roles and functions
	<input type="checkbox"/> Focal persons at SIDO-RO and their roles and functions
	<input type="checkbox"/> Minimum and maximum numbers of KAIZEN Trainer (KT) candidates accepted in training course
	<input type="checkbox"/> Scenario for the case that applications are below the minimum or over the maximum number planned

Category	Item to be decided
	<input type="checkbox"/> Financial contribution of each party to cover the remaining costs after fees collected from participants
	<input type="checkbox"/> Lecturer(s) for classroom training (CRT) program
	<input type="checkbox"/> Instructor(s) for on-the-job training (OJT) program
Schedule of activities	<input type="checkbox"/> Date and venue of stakeholder sensitization seminar
	<input type="checkbox"/> Deadline for application for training course
	<input type="checkbox"/> Dates and venue of CRT program and written exam
	<input type="checkbox"/> Dates (period) of OJT program
	<input type="checkbox"/> Date and venue of wrap-up meeting

It should be noted that the KAIZEN Human Resource Development Guideline provides the following.

- One Pilot Enterprise (PE) will accommodate up to three KT candidates in a basic-level program.
- Every PE should assign at least two competent employees as KAIZEN Coordinator (KC) candidates.

In addition, an OJT instructor is expected to supervise up to three OJT teams. Therefore, the number of KT candidates will determine how many PEs need to be arranged, how many KC candidates are expected to participate, and how many OJT instructors need to be assigned. The minimum number of KT candidates must be the same or larger than the break-even point. If the number of applications falls below the minimum, the course will be cancelled unless some other funding is available to make up the loss. The maximum number of KT candidates will be determined largely by the budget allocated to the travel expenses of the OJT instructors. TABLE 3 shows the numbers of KT candidates, KC candidates, and OJT instructors corresponding to the number of PEs.

TABLE 3 Numbers of PEs, KT Candidates, KC Candidates, and OJT Instructors

No. of PEs	1	2	3	4	5	6	7	8
No. of KT candidates	1-3	4-6	7-9	10-12	13-15	16-18	19-21	22-24
No. of KC candidates	2-	4-	6-	8-	10-	12-	14-	16-
No. of OJT instructors	1	1	1	2	2	2	3	3

The focal persons at SIDO-RO should have a clear understanding about their tasks ahead as the primary persons to prepare and organize the upcoming local activities. In this regard, the preparatory visit mission will brief to the Regional Manager of SIDO so that he/she will recognize the significance of the activities and instruct the subordinates properly.

1.5 Stakeholder Sensitization Seminar (Top Management Seminar)

The Stakeholder Sensitization Seminar will be organized in each target region to kick off KAIZEN

introduction activities and promote participation of enterprises and business development service providers (BDSPs) in the activities to follow. TABLE 4 provides the outline of the seminar. A model timetable of the seminar is presented in Attachment 1.

TABLE 4 Outline of Stakeholder Sensitization Seminar (Top Management Seminar)

Purpose	<ol style="list-style-type: none"> 1. Expose local stakeholders to basic KAIZEN knowledge and convince them of effectiveness and benefits of KAIZEN 2. Recruit potential pilot enterprises and candidate KAIZEN Trainers to be involved in a training course that will be organized a few months after the seminar.
Target Audience	<p>50-100 persons that should consist of the following:</p> <ul style="list-style-type: none"> - Top and/or middle management of local enterprises (potential pilot enterprises) - Local BDSPs (potential candidate KAIZEN trainers) - Key persons from the local authorities
Duration	One (1) full-day

The seminar will be held in July-August in each of the target regions of the year. The TKU, via SIDO-RO, will involve the local chapters of Tanzania Private Sector Foundation (TPSF) and Tanzania Chamber of Commerce and Industry (TCCI) to reach local enterprises and encourage them to participate in the seminar. TABLE 5 is a sample checklist for seminar preparation. The TKU should add, remove, or modify the checklist items according to the conditions on each occasion.

TABLE 5 Checklist for Stakeholder Sensitization Seminar Preparation

Item	Deadline	Person in charge	✓
1. Letter to RAS and SIDO-RO			
2. Budget check with MIIT			
3. Guest of Honor			
4. Venue (capacity for XX persons)			
5. Timetable and division of roles			
6. List of participants			
7. Invitation letter			
8. Press release			
9. Promotion (flyer, press)			
10. Presentation (PowerPoint/Video)			
11. Catering			
12. Application forms			
13. Registration form			
14. Participants' feedback questionnaire			

On calling for participation in the KAIZEN Training Course, the course fees to be paid by the participant must be explained clearly, along with the expected benefits of the course. Other conditions which should be

made clear include the deadline for application, the deadline for payment, that the course may be cancelled when the applicants are fewer than the minimum number planned, and the criteria for selection of participants when the number of applicants exceeds the maximum. TABLE 6 summarizes the messages that must be conveyed to the participants at the seminar.

TABLE 6 What Must Be Explained to Seminar Participants

Item to be decided
<input type="checkbox"/> Benefits of learning and applying KAIZEN - Show tangible data of KAIZEN effects to provide a rationale for investing in learning KAIZEN - Tell case stories to describe what the participants will go through - Present opportunities for KTs to illustrate how KAIZEN knowledge and skills will enhance their careers
<input type="checkbox"/> Deadline for application to participate in the KAIZEN training Course
<input type="checkbox"/> Amount of course fees to be paid by the participant (KT candidates, KC candidates, and Pilot Enterprises)
<input type="checkbox"/> Deadline for payment of the course fees
<input type="checkbox"/> The course may be cancelled when the applications do not reach the minimum number of participants
<input type="checkbox"/> Criteria of selection of participants when the applications exceed the maximum number of participants

A model questionnaire form to collect feedbacks from the participants is provided in Attachment 2². For monitoring the effectiveness of seminars in a constant manner, the questionnaire form should employ a common set of questions across seminars over time. The TKU may add some questions to meet special survey needs at each seminar, while a careful judgement should be required to make a major change of the questionnaire form.

1.6 Trainer/Coordinator Training and Pilot KAIZEN Implementation

Following the Stakeholder Sensitization Seminar, a training course will be organized in October-November in each of the target regions of the year. The training course is intended for developing local KTs and KCs and consists of four days of CRT and six weeks of OJT³ at a pilot enterprise. The OJT program is pilot KAIZEN implementation to produce a model for future KAIZEN promotion in the region. The training course itself will be organized by the CBE while the TKU makes sure that the Stakeholder Sensitization Seminar will function as a funnel to involve high-potential enterprises and BDS practitioners for smooth launch and successful implementation of the training course.

For the details of implementing the training course, see the KAIZEN Human Resource Development Guideline.

² The questionnaire form should be translated in Swahili for more convenience of the participants.

³ A basic-level training course is supposed to be provided.

1.7 Continuation on local initiative

It is critical that KAIZEN will be promoted in the region continuously after the training course or pilot KAIZEN implementation is completed. The SIDO-RO, together with the RAS Office, should take the lead at this stage. The TKU, CBE, and SIDO-HQ will extend follow-up support in their respective fields of responsibility as defined in the FKM, where necessary and appropriate.

The TKU encourages local initiative by the following arrangements as part of KAIZEN promotion activities.

- Present concrete and reliable data on effectiveness of KAIZEN to local policymakers and stakeholders (see 2.2)
- Raise awareness among local KAIZEN Trainers and Coordinators about opportunities of being nominated for the Tanzania KAIZEN Award (see 2.3)
- Provide local KAIZEN Trainers with learning and networking opportunities (see 2.4)

2. General Promotion of KAIZEN

2.1 Annual Schedule of General Promotion Activities

TABLE 7 presents the annual schedule of general promotion activities in accordance with the FKM (2020-2030). Besides those activities scheduled at a certain time of the year, the TKU receives and responds to general inquiries year-round. The flow of managing incoming communications including such inquiries is presented in Attachment 3.

TABLE 7 Annual Schedule of General Promotion Activities

	Exhibition	Seminar/Conference	Publication
July	◀ Saba Saba	◀ Stakeholder Sensitization Seminar (see 1.4)	
August	◀ Nane Nane		
September	◀ SIDO National Exhibition		◀ Article on MIIT Newsletter
October		◀ KAIZEN Trainer Conference	
November	◀ East African Juakari		
December	◀ Industrial Week		◀ Article on MIIT Newsletter
January			
February		◀ Tanzania KAIZEN Award / National KAIZEN Day	
March			◀ Article on MIIT Newsletter
April			◀ Updated promotion materials be available
May			
June			◀ Article on MIIT Newsletter

2.2 Running Booth at Exhibitions

The FKM (2020-2030) assumes that a booth will be run at five exhibitions annually. Those exhibitions have been selected for their size and relevance of expected visitors, in view of efficiency in promoting KAIZEN. Replacement, addition, or removal of a particular exhibition may be made when it is necessary and appropriate for better results.

The TKU will set objectives and target indicators for each occasion of participating in an exhibition, a sample of which is provided in TABLE 8. Moreover, follow-up activities should be planned and conducted for maximum utilization of contacts and interests gathered at the event. Such follow-up activities may include 1) adding the newly-gained contacts to the mailing list for future announcements, 2) sending a thank-you message or phone call and collecting feedbacks on booth presentation, and 3) encouraging application for a training course or KAIZEN consulting service.

TABLE 8 Example of Objectives and Target Indicators of Exhibition

Objective	Target Indicator
Raise KAIZEN awareness in the business sector	<ul style="list-style-type: none"> • Distribute XXX copies of flyers • Draw XXX persons to the booth for briefing • Make a seminar presentation to an audience of more than XXX persons
Solicit potential client enterprises for fee-based KAIZEN consulting services	<ul style="list-style-type: none"> • Collect XXX applications for referral to a KAIZEN Trainer • Collect contact information from XXX enterprises for future announcements of KAIZEN-related events and activities
Recruit candidates of KAIZEN Trainers	<ul style="list-style-type: none"> • Collect XXX applications for upcoming KAIZEN training courses • Collect contact information from XXX persons for future announcements of learning opportunities

2.3 KAIZEN Trainer Conference

The KAIZEN Trainer Conference is not expected to promote KAIZEN by itself but intended to be a medium for mobilizing KAIZEN Trainers as promoters and extension agents of KAIZEN. The conference costs are at least partially supported by the participants themselves through paying a registration fee. The outline of the conference is presented in TABLE 9.

TABLE 9 Outline of KAIZEN Trainer Conference

Purpose	<ol style="list-style-type: none"> 1. Supplement and upgrade KAIZEN Trainers' practical knowledge about KAIZEN 2. Retain and motivate KAIZEN Trainers as active practitioners 3. Encourage KAIZEN Trainers to promote KAIZEN personally 4. Encourage newly certified KAIZEN Trainers to register
Participants	<ul style="list-style-type: none"> - Registered KAIZEN Trainers from different regions - Newly certified KAIZEN Trainers from different regions (The number of participants will be defined according to the available budget.)
Duration	Two (2) days (The duration may be adjusted according to the subjects.)

A model timetable of KAIZEN Trainer Conference is suggested in Attachment 4. The basic composition of programs that combines presentations, workshops, panel discussion, and individual work may remain unchanged for years while the theme, subject, and content of the programs should be updated to reflect current topics and interests. Attachment 5 provides a sample worksheet to be used at the end of the conference for the participants to summarize lessons and plan back-home actions. A model questionnaire form to collect participants' feedback is presented in Attachment 6.

The TKU will maintain regular communication with the KAIZEN Trainers after the conference to sustain and expand the effects of the two-day programs. Especially, the participants need to be encouraged repeatedly for steady implementation of the back-home action plans, for which the TKU should establish a monitoring mechanism embedded in the Conference program.

An Evaluator Training for the Tanzania KAIZEN Award will be provided in conjunction with the Trainer Conference for selected KAIZEN Trainers, which appears in the next section "2.4 Tanzania KAIZEN Award / National KAIZEN Day."

2.4 Tanzania KAIZEN Award / National KAIZEN Day

The Tanzania KAIZEN Award competition provides a unique opportunity to recognize outstanding performers at the national level and spotlight the role models of KAIZEN implementation. Simultaneously it serves as the gateway to the continental-level competition, the Africa KAIZEN Award (AKA). The TKU, as the nominator in Tanzania together with the National Institute for Productivity (NIP), nominates the national award winners to run for the AKA.

The National KAIZEN Day is intended for engaging potential actors who would play a significant role in nationwide KAIZEN promotion as well as drawing media coverage and thus raising interest of the businesspersons. Combined into one event, the Tanzania KAIZEN Award completion and the National KAIZEN Day constitute the biggest and most important event of KAIZEN promotion in the year.

TABLE 10 provides a model checklist for the Tanzania KAIZEN Award Competition and Ceremony/National KAIZEN Day. Normally the award ceremony is organized in February, for which the screening and evaluation process starts in October of the preceding year.

TABLE 10 Checklist for Tanzania KAIZEN Award Competition & Ceremony and National KAIZEN Day

Timing	Step	Item	✓
October (4 months before ceremony)	Fund- raising	Decide the dates for milestone events including the application deadline, major announcements, and the Competition and Ceremony/National KAIZEN Day.	
		Prepare a concept note and a budget proposal.	
		Secure the budget through fund-raising from different sources.	
		Set up a guideline for compensation of travel costs and/or per diem for evaluators, nominees/awardees, and other invitees.	
	Regional selection (On-site inspection and evaluation)	Finalize the evaluation criteria, scoring sheets, application/recommendation forms, template/outline of final presentation, and all other materials to be used in the process of selecting the winners.	
		Appoint Evaluators out of registered KAIZEN Trainers for the first selection of enterprises at the regional level.	
		Conduct the Evaluator Training to provide guidance on on-site inspection and close the gap between generous and strict Evaluators.	
November (3 months before ceremony)		List up all eligible candidates for different award categories, namely small and medium enterprises, large enterprises, KAIZEN Trainers, and Advanced KAIZEN Trainers.	
		Distribute an official letter to invite recommended or self-appointed applicants to run for the award.	
		The Evaluators conduct on-site inspection and evaluation.	
December (2 months before ceremony)		The Evaluators discuss and select the enterprises to be nominated for the national competition.	
		Finalist Selection	The TKU discusses and decides the winners of KAIZEN Trainers and Advanced KAIZEN Trainers categories.
	Final presentation and awarding ceremony	The TKU discusses and decides the enterprises to make a final presentation at the competition.	
		Confirm availability of guests of honor for the ceremony.	
		Prepare speech scripts.	
January (1 month before ceremony)		Appoint Judges for final selection of enterprises.	
		Consolidate a list of invitees to the Competition and Ceremony/National KAIZEN Day.	
		Book a venue and catering for the Competition and Ceremony/National KAIZEN Day.	
		Prepare the agenda/timetable of the Competition and Ceremony/National KAIZEN Day. Assign a moderator, presenters, and other necessary roles at the event.	
		Invite the finalist enterprises to make a presentation at the competition and confirm their attendance. Provide the finalists with the presentation template/outline.	
		Distribute invitation letters to the invitees.	
February (month of ceremony)		Prepare trophies and certificates.	
		Make a press release, organize a press conference/seminar, and conduct other activities for media coverage.	
		Hold a Judges' meeting to provide guidance on scoring of presentations and final selection of winners.	

Timing	Step	Item	✓
		Prepare the venue: 1) backdrop and stand-up banners, 2) designated seats for VIPs and evaluators, 3) podium, 4) PA system, 5) projector, screen, PC and presentation files, 6) scoring sheets for evaluators, 7) reception desk, 8) attendance sheet, 9) notebooks and pens, 10) brochures, newsletters, and other promotion materials, 11) side table/service wagon to have trophies stand by, 12) exhibition tables (if necessary)	
		Arrange payments of travel costs and/or per diem according to the guideline for compensation.	
		Have the trophies printed/carved with the names of winners before presentation.	
	Reporting	Consolidate a written final report of the competition to be submitted as part of the quarterly and/or annual report.	

The prize categories and eligibility criteria are as shown in TABLE 11.

TABLE 11 Tanzania KAIZEN Award Prize Categories and Eligibility Criteria

Candidate Group		Prize Category	Eligibility Criteria	
Enterprises	Large Enterprises	Outstanding KAIZEN Performance Award (First prize)	<ul style="list-style-type: none"> ✓ A factory/company/institution or a division in a factory/company/institution which has 100 or more employees ✓ Made KAIZEN achievements in the recent two years 	
		Excellent KAIZEN Performance Award (Second prize)		
		Great KAIZEN Performance Award (Third prize)		
	Small and Medium-sized Enterprises	Outstanding KAIZEN Performance Award (First prize)		<ul style="list-style-type: none"> ✓ A factory/company/institution or a division in a factory/company/institution which has 99 or less employees ✓ Made KAIZEN achievements in the recent two years
		Excellent KAIZEN Performance Award (Second prize)		
		Great KAIZEN Performance Award (Third prize)		
Trainers	Advanced KAIZEN Trainers	Best Advanced KAIZEN Trainer Award First Prize	<ul style="list-style-type: none"> ✓ Registered Advanced KAIZEN Trainers (AKTs) ✓ Made achievements as AKT in the recent two years 	
		Best Advanced KAIZEN Trainer Award Second Prize		
		Best Advanced KAIZEN Trainer Award Third Prize		
	KAIZEN Trainers	Best KAIZEN Trainer Award First Prize		<ul style="list-style-type: none"> ✓ Registered KAIZEN Trainers (KTs) ✓ Made achievements as KT in the recent two years
		Best KAIZEN Trainer Award Second Prize		
		Best KAIZEN Trainer Award Third Prize		

Selection of enterprise winners takes the steps shown in TABLE 12. The evaluation criteria for on-site inspection and final presentation are presented in Attachments 7 and 8, respectively. All the finalist

enterprises will be recognized with a certificate while the prize winners will receive a trophy.

TABLE 12 Tanzania KAIZEN Award Company Selection Process

Step	Description
1. Evaluator Training /Distribution of Evaluation Form	The TKU presents and explains the Evaluation Form for on-site inspection and evaluation at the Evaluator Training Program to be organized in conjunction with the KAIZEN Trainer Annual Conference.
2. Confirmation of Eligibility	Evaluators confirm eligibility of candidate companies; companies which implemented KAIZEN activities in recent two years, regardless of when they started applying KAIZEN, are eligible. KAIZEN Trainers consult the TKU when they are not sure about the eligibility of a particular company.
3. On-site inspection and evaluation	Evaluators, under the leadership of SIDO-ROs, conduct on-site inspection of prospective companies by using the Evaluation Form.
4. First Selection to Nominate Candidates	Evaluators, under the leadership of SIDO-ROs, select up to three (3) best companies based on the results of on-site inspection, and then nominate them to national competition by sending the filled-out Evaluation Forms to the TKU.
5. Online Interview with Nominee Companies	The TKU organizes web-meeting or telephone interviews with the companies nominated. The nominee Trainers may join the interview session.
6. Second Selection to Identify Finalists	The TKU selects up to fifteen (15) finalist companies based on the documents (Evaluation Forms) submitted and results of online interviews. The TKU then notifies the selection results to all companies nominated and their nominators. The TKU provides guidelines/templates for the presentation to be prepared.
7. Final Presentation and Selection of Winners	The finalist companies make presentation in front of the Team of Judges. The Judges score the performance based on the documents (presentation materials) and the presentations, which will be combined with the results of on-site evaluation to determine the winners.

The Evaluator Training Program will be organized by the TKU for the purpose of 1) reducing variations in scoring between the Evaluators, 2) creating a common understanding about on-site evaluation, and 3) testing the evaluation form by applying it on model enterprises. Taking the opportunity of the KAIZEN Trainer Conference when KAIZEN Trainers from different regions gather at a location, a group of KAIZEN Trainers selected as Evaluators of the year will be asked to attend the Evaluator Training Program either one day before or after the two-day Conference. The TKU will select the Evaluators in each target region by considering their levels of practical knowledge and experience as well as the balance between the numbers of Evaluators and candidate companies in the region. Attachment 9 provides a sample timetable of the Evaluator Training Program.

Trainer prize winners are decided based on document evaluation only; the eligible trainers will be invited to describe their recent achievements by filling in a self-evaluation form provided by the TKU, which will be examined for the quality and significance of KAIZEN consulting services performed. Attachment 10

shows a model of trainer’s self-evaluation form and Attachment 11 provides the criteria for evaluating the trainer’s performance based on the self-evaluation form.

A sample timetable of the Tanzania KAIZEN Award Competition and Ceremony/National KAIZEN Day is presented in Attachment 12. The sample timetable assumes to have Award Competition (finalist presentations) on the first day and Award Ceremony and National KAIZEN Day on the second day. Note that in the case that the program incorporates finalist presentations and prize awarding in one day, the trophies may need to be printed/carved with the names of winners and shipped to the winners afterwards.

2.5 Consolidation and Publication of KAIZEN Effects

Registered KAIZEN Trainers are required to follow the KAIZEN Consulting Service Guideline, which provides that the Trainer should report the outline and results of KAIZEN consulting services he/she performs at an enterprise to the TKU. The TKU summarizes the achievements annually and report to the FKM Coordination Committee so that the effectiveness of KAIZEN promotion will be evaluated, and necessary adjustments will be made to the activities planned in the FKM (2020-2030).

Moreover, the TKU will fully utilize the consolidated performance data to show the impact of KAIZEN implementation in numeric terms and convince potential client enterprises and trainer candidates of the value of adopting KAIZEN. Specifically, the TKU makes sure that KAIZEN promotional materials always carry latest data of KAIZEN effectiveness. Such utilization of concrete data is emphasized at occasions of awareness-raising among policymakers including the budget session in January and the investors’ forum in May-June every year. Attachment 13 presents the list of KAIZEN indicators with which KAIZEN Trainers should report the achievements of KAIZEN implementation; the TKU will use these indicators to show aggregate effectiveness of KAIZEN implementation nationwide. TABLE 13 presents a model checklist for consolidation and publication of KAIZEN effects.

TABLE 13 Checklist for Consolidation and Publication of KAIZEN Effects

Timing	Step	Item	✓
November	Collection and consolidation of data	Call for Trainers to report KAIZEN Consulting Services they provided.	
December		Examine and summarize before-after comparative data from the reports collected.	
January		Incorporate relevant data from on-site inspection of Tanzania KAIZEN Award candidate enterprises. (see 2.4)	
		Incorporate relevant data from pilot KAIZEN implementation. (see 1.5)	
		Finalize the summary data on effectiveness of KAIZEN.	
February	Development of promotion materials	Take inventory of promotion materials and plan the items and quantities to be developed this year.	
		Plan the contents/articles and the layouts for each item, covering continental-level developments where appropriate. Assign persons in charge for developing the contents/articles for each item.	

Timing	Step	Item	✓
March		Draft, improve, and finalize the copies of promotion materials. Have them printed. The TKU will have an intensive meeting to review the promotion materials.	
	Publication and reporting	Consolidate a distribution list that specifies the quantity of each item to be delivered to different locations. Include any materials prepared at the continental level for circulation to the public.	
April		Distribute the finished promotion materials according to the distribution list.	
		Make presentation at the FKM Coordination Committee meeting.	
June		Compile and submit the Annual Report.	

The promotion materials are updated annually and released in April to efficiently meet the occasions for distribution. TABLE 14 lists the promotion materials which should be regularly prepared and kept in stock at the TKU. They are prepared in the Swahili language. The TKU will schedule and arrange submission of articles to the Monthly Newsletter of MIIT at least once in three months to deliver latest activities and achievements to a wide range of readers.

TABLE 14 KAIZEN Promotion Materials

Cycle	Item	Contents	Specifications
Quarterly	Articles on MIIT Newsletter	<ul style="list-style-type: none"> • Reports of KAIZEN-related events and activities • Success stories of KAIZEN implementation • Statistics of KAIZEN achievements 	Submit periodical articles to the MIIT Newsletter
Biannual	Brochure	<ul style="list-style-type: none"> • Introduction of KAIZEN and national KAIZEN movement or FKM (2020-2030) • Invitation to KAIZEN Consulting Services and KAIZEN Training Courses 	Swahili A4, full-color, tri-fold 5,000 copies
	Poster	<ul style="list-style-type: none"> • 5S concepts illustrated 	Swahili A2, full-color, 2,000 copies Swahili A3, full-color, 2,000 copies
	Booklet	<ul style="list-style-type: none"> • Popular manual of 5S implementation 	Swahili A5, 4C cover+2C inside, 40 pages Saddle stitch, 5,000 copies

Note: In addition to the items listed in the table, banners for specific events may be prepared.

Timetable of Stakeholder Sensitization Seminar (Top Management Seminar)

Time and Date:

Venue:

Time	Program	Person in Charge
08:00 - 08:30	Registration	Secretariat
08:30 - 08:45	Introduction of Purpose, Program and Timetable	Moderator
08:45 - 09:15	Opening Remarks	Guests of Honor
09:15 - 09:30	Group Photo	ALL
09:30 - 09:45	Self-introduction and Ice-breaking	Moderator
09:45 - 10:30	Presentation: Introduction to Basic KAIZEN Tools and How It Works for Promoting Industries	TKU
10:30 - 10:45	Questions and Answers	Moderator
10:45 - 11:15	Tea Break	ALL
11:15 - 11:45	Presentation: How Company Benefits from KAIZEN --- Case Study 1	Top management of an enterprise implementing KAIZEN
11:45 - 12:15	Presentation: How Company Applies KAIZEN --- Case Study 2	KAIZEN Coordinator
12:15 - 12:45	Presentation: How Trainer Benefits from KAIZEN --- Case Study 3	KAIZEN Trainer / SIDO
12:45 - 13:15	Questions and Answers	Moderator
13:15 - 13:30	Call for Application for Training Course	CBE
13:30 - 13:40	Participants' Feedback Questionnaire	Moderator
13:40 - 14:00	Closing Remarks	HTKU
14:00	Lunch and Networking	ALL

Participants' Feedback on Stakeholder Sensitization Seminar⁴

This questionnaire survey is conducted for the purpose of assessing effectiveness of the KAIZEN Stakeholder Sensitization Seminar. The survey is anonymous, and your answers will be processed in a way that ensures non-disclosure of individual respondents' answers.

1. Which of the following describes your position in relation to KAIZEN implementation? (select all applicable)
 - [E] Working in an enterprise/organization, where KAIZEN may be introduced
 - [T] Assisting individual enterprises/organizations to improve their business; KAIZEN may be introduced as part of support tools
 - [O] Neither of the above

2. (For those who answered [E] to the previous question) Which of the following is your position in the enterprise/organization you work for? (select one)
 - [D] Business Owner or Managing Director
 - [M] Section Manager (Which section?: _____)
 - [S] Staff member (Which section?: _____)

3. How do you evaluate your level of knowledge and understanding about the subject before and after the program "Introduction to Basic KAIZEN Tools and How It Works for Promoting Industries"? (select one for each)

<Before training>	<After training>
<input type="checkbox"/> [5] Comprehensive and sufficient	<input type="checkbox"/> [5] Comprehensive and sufficient
<input type="checkbox"/> [4] Mostly sufficient	<input type="checkbox"/> [4] Mostly sufficient
<input type="checkbox"/> [3] Moderate	<input type="checkbox"/> [3] Moderate
<input type="checkbox"/> [2] Partial	<input type="checkbox"/> [2] Partial
<input type="checkbox"/> [1] Little or nothing	<input type="checkbox"/> [1] Little or nothing

4. How much did the case studies attract your interest? (select one for each)

Case study 1 How Company Benefits from KAIZEN	<input type="checkbox"/> Very interested	<input type="checkbox"/> Interested	<input type="checkbox"/> Not interested
Case study 2 How Company Applies KAIZEN	<input type="checkbox"/> Very interested	<input type="checkbox"/> Interested	<input type="checkbox"/> Not interested
Case study 3 How Trainer Benefits from KAIZEN	<input type="checkbox"/> Very interested	<input type="checkbox"/> Interested	<input type="checkbox"/> Not interested

5. Which of the following best describes your level of interest in KAIZEN? (select one)
 - [5] Very interested. Want to learn more and/or practice soon.
 - [4] Fairly interested. Want to learn more and/or practice when having a chance.
 - [3] Undecided. Need more information to judge usefulness.
 - [2] Not very interested. Open to receiving further information or training.
 - [1] Not interested at all. No need for further information or training.

⁴ This questionnaire form shall be translated into Swahili.

(Attachment 3: Workflow of Inquiry Management --- To be prepared.)

Attachment 4 Model Timetable of KAIZEN Trainer Conference

Timetable of KAIZEN Trainer Conference

Time and Date:

Venue:

DAY 1		
Time	Program	Person in Charge
08:00 - 08:30	Registration	Secretariat
08:30 - 08:45	Introduction of Purpose, Program and Timetable	Moderator
08:45 - 09:15	Opening Remarks	Guests of Honor
09:15 - 09:30	Group Photo	ALL
09:30 - 09:45	Self-introduction and Ice-breaking	Moderator
09:45 - 10:30	Presentation: Recent Developments in KAIZEN Promotion (incl. Q&A)	TKU
10:30 - 10:50	Tea Break	ALL
10:50 - 11:45	Presentation: Important Updates in Latest Revision of KAIZEN Technical Guideline and Related Tools (incl. Q&A)	TKU
11:45 - 12:45	Presentation: Important Updates in Latest Revision of KAIZEN Consulting Service Guideline and Related Tools (incl. Q&A)	TKU
12:45 - 13:45	Lunch Break	ALL
13:45 - 14:30	Workshop I: [set topical subject(s) in KAIZEN implementation] 1) Group discussion	Moderator
14:30 - 15:00	Tea Break	ALL
15:00 - 16:20	Workshop I (cont.): 2) Group presentation	Moderator
16:20 - 16:30	Closing of the Day	Moderator
DAY 2		
Time	Program	Person in Charge
08:00 - 08:30	Registration	Secretariat
08:30 - 08:45	Recap of Previous Day	Moderator
08:45 - 10:15	Panel Discussion: [set topical subject(s) to trigger exchange of views] 1) Introductory presentations (15 minutes from each panelist) 2) Q&A (panelists answer questions jointly)	Selected Trainers (Panelists)
10:15 - 10:45	Tea Break	ALL
10:45 - 12:45	Workshop II: [set topical subject(s) in Trainers' career development] 1) Group discussion	Moderator
12:45 - 13:45	Lunch Break	ALL
13:45 - 15:00	Workshop II (cont.): 2) Group presentation	Moderator
15:00 - 15:25	Individual Work: Workshop Summary and Back-Home Action (Each participant will fill out a worksheet to summarize lessons gained at the conference and plan actions to be taken back home.)	Moderator
15:25 - 15:35	Participants' Feedback Questionnaire	Moderator
15:35 - 15:45	Closing Remarks	HTKU
15:45 - 16:15	Tea and Networking	ALL

Workshop Summary and Back-Home Action

Name:	Region:
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1. What are the most important things you have learned through the workshops?
Please summarize the lessons from the workshops.

2. What are the understanding/ideas you have reached through the workshops?
Please write your insights gained through the workshops.

3. What is the concrete measure you will apply as KAIZEN Trainer in your region?
Please specify your back-home action(s) to be put in practice starting tomorrow.

EVALUATION FORM FOR KAIZEN TRAINER CONFERENCE

1. Which category of KAIZEN Trainer are you certified with?

- () Basic KAIZEN Trainer (KT) () Advanced KAIZEN Trainer
 (AKT)
 () Trainer of Training for KAIZEN Trainer (TOKT) () KAIZEN Master Trainer

2. How long have you been practicing KAIZEN consulting service?

- () Less than 3 years () 3-5 years () More than 5 years

3. Was the purpose of this Conference appropriate to support your activity in the role of Question 1?

Purpose: Participants will gain common understanding of future plans and challenges for KAIZEN movement in Tanzania and get ready to take collective actions for advancing KAIZEN Trainers' roles in enhancing competitiveness of the manufacturing sector.

- () Totally YES () More or less YES () More or less NO ()
 Totally NO

4. Are the knowledge and techniques you have gained through each program useful to your activity as KAIZEN Trainer?

DAY 1

1) Presentation of Recent Developments in KAIZEN Promotion () Very useful () Useful () Not useful

2) Presentation of Important Updates in Latest Revision of the KAIZEN Technical Guideline and Related Tools () Very useful () Useful () Not useful

3) Presentation of Important Updates in Latest Revision of the KAIZEN Consulting Service Guideline and Related Tools () Very useful () Useful () Not useful

4) Workshop I () Very useful () Useful () Not useful

DAY 2

5) Panel Discussion () Very useful () Useful () Not useful

6) Workshop II () Very useful () Useful () Not useful

7) Individual Work "Workshop Summary and Back-Home Action" () Very useful () Useful () Not useful

5. Did the conference package meet your expectation?

- () No () Yes

6. What did you find good about this Conference?

7. What improvements do you suggest about this Conference?

8. Please give any additional comments you may have.

THANK YOU FOR YOUR ATTENTION

Tanzania KAIZEN Award On-site Enterprise Evaluation Form

Evaluator's name(s)		Date	
---------------------	--	------	--

1. Company Profile

Name						
Local Address						
Representative	Name			E-mail		
	Title/Position			Phone No.		
Line of Business/Major Product						
Year of Establishment				Capitalized at		
No. of Employees		Permanent Employees:		Part-time Employees:		
No. of Managers (section/division heads)				Annual Sales Value		
KAIZEN Coordinator(s)	1	Name			E-mail	
		Title/Position			Phone No.	
	2	Name			E-mail	
		Title/Position			Phone No.	
	3	Name			E-mail	
		Title/Position			Phone No.	

2. Evaluation

Select the level achieved. The company is regarded to achieve a certain level when it satisfies all conditions defined for the said level and under.

1. Objectives	a) Organizational vision and strategies		
	The company's vision and strategies are not very clear.		1
	The management has a certain vision and/or strategies that are spoken but not written.		2
	The company's vision and strategies are written and shared to the employees.		3
	The company's vision and strategies written and shared express customer-orientation.		4
	The employees share the company's vision and strategies and behave accordingly.		5
	b) Theme selection (clarity and scope of KAIZEN activities)		
	The objectives of KAIZEN activities and targets to be improved are not very clear.		2
	The objectives and targets are set clearly and relevant to the company's vision.		4
	The countermeasures identified have a scope and logic that can make an impact in the company.		6
	Multiple sections/departments concerned to the objectives are involved in the KAIZEN activities.		8
	The KAIZEN activities are implemented company-wide under clear and relevant objectives.		10
	c) Commitment of the management		
	The management is rather indifferent to KAIZEN activities.		1
	The management attends a regular Gemba inspection or meeting occasionally (every two months).		2
	The management attends a regular Gemba inspection or meeting occasionally (monthly).		3
	The management attends a regular Gemba inspection or meeting occasionally (every two weeks).		4
	The management attends a regular Gemba inspection or meeting occasionally (weekly).		5

Attachment 7 Evaluation Sheet for On-site Inspection of Enterprises for Tanzania KAIZEN Award

2. Process	a) Implementation system (participatory and continuous)		
	The company does not have such a system that a KAIZEN Committee coordinates multiple QCCs.	2	
	A KAIZEN Committee meeting is organized to oversee QCCs although less than once a month.	4	
	Multiple QCCs/KAIZEN Teams are organized and the KAIZEN Committee meeting is held monthly.	6	
	The Committee manages the progress of every QCC and 5S auditing is conducted periodically.	8	
	The company has a specific practice of PDCA by the Committee in managing QCCs company-wide.	10	
	b) Scientific approach		
	Data collection is uncommon, spontaneous, improper or inconsistent.	2	
	Data is collected and recorded but underutilized; use of data in root-cause analysis is inappropriate.	4	
	The root-cause analysis is made by interpreting data appropriately with proper QC tools.	6	
	Relevant data is collected accurately and frequently, and used for monitoring and control.	8	
	Periodical data is analyzed and utilized, which has made concrete improvements continuously.	10	
	c) Economical approach (efficiency)		
	The countermeasures are simple reversal of problems, which shows little wisdom exercised.	1	
	The countermeasures are identified with a proper problem-solving approach by gathering wisdom.	2	
	The countermeasures rely more on external resources than internally available resources.	3	
	The countermeasures are designed fully based on internally available resources.	4	
	The countermeasures are well thought out to derive maximum results with limited resources.	5	
	3. Outputs / Outcomes	a) Quality of products/services	
		The activities resulted in delivering no or little measurable improvement of product/service quality.	1
The activities are said to have delivered a measurable improvement of product/service quality.		2	
Improvement of product/service quality is shown by KPI data after KAIZEN.		3	
Improvement of product/service quality is verified with comparable KPI data before & after KAIZEN.		4	
A company-wide quality improvement is verified by before-after comparison of KPI data.		5	
b) Productivity of products/services			
The activities resulted in delivering no or little measurable improvement of productivity.		1	
The activities are said to have delivered a measurable improvement of productivity.		2	
Improvement of productivity is shown by KPI data after KAIZEN.		3	
Improvement of productivity is verified with comparable KPI data before & after KAIZEN.		4	
A company-wide productivity improvement is verified by before-after comparison of KPI data.		5	
c) Motivation of and incentives for workers			
The workers are reluctant to participate and no mechanism is introduced to motivate them.		1	
The workers are somehow motivated to participate although the mechanism is unclear.		2	
Mechanisms like reward and award are introduced to motivate the workers for KAIZEN activities.		3	
The reward/award mechanism has made direct outputs like an increase of worker suggestions.		4	
The reward/award mechanism has induced effects like increased coverage or intensity of activities.		5	
d) Standardization and skill development of workers			
There is no mechanism to standardize KAIZEN achievements and upgrade the workers' skills.		1	
Measures are taken to standardize improvements through KAIZEN activities.	2		

Attachment 7 Evaluation Sheet for On-site Inspection of Enterprises for Tanzania KAIZEN Award

	An annual plan of employee training is prepared for continuous skill/competency development.	3
	The annual employee training plan has a set of programs each designed for different job grades.	4
	Visualization such as skill mapping is practiced to promote skill/competency development.	5
	e) Teamwork and communication	
	Teamwork and communication is hardly mentioned or no system is adopted to promote them.	1
	Meetings are held in the workplace to promote teamwork and communication, although irregularly.	2
	Regular meetings are organized in the workplace to promote teamwork and communication.	3
	A notice board is utilized for information sharing in addition to the regular meetings.	4
	The manager/supervisor actively engages in the system to promote teamwork and communication.	5
	f) Safe and comfortable work environment	
	Little improvement is made to the work environment through the KAIZEN activities.	1
	The KAIZEN activities improved the work environment to be safe and comfortable for the workers.	2
	Accidents such as personal injury are reported and recorded in the company.	3
	Not only accidents but also are incidents/near-misses are reported and recorded in the company.	4
	Countermeasures are taken on accidents and incidents reported to prevent recurrence.	5
	g) Customer satisfaction	
	Customer satisfaction is not measured or little improvement is observed through KAIZEN activities.	1
	The company has received customer feedbacks appreciating concrete improvements in QCD.	2
	Customer complaints and feedbacks are shared among the employees regularly.	3
	Countermeasures are taken on complaints to improve QCD and ensure customer satisfaction.	4
	Customer satisfaction is monitored and effectiveness of countermeasures taken is evaluated.	5
	h) Spillover effects on social responsibility	
	The company has little sense of social responsibility or KAIZEN activities are contained within.	1
	The company has introduced KAIZEN to its group companies or business partners.	2
	The company has conducted some isolated activities to spread KAIZEN beyond its close partners.	3
	The company has activities to spread KAIZEN beyond its close partners on a continuous basis.	4
	The company's KAIZEN activities encompass environmental/educational issues in the community.	5
	i) Achievement of organizational objectives and targets	
	Achievements are not measured in quantitative data or data is not consolidated properly.	1
	The targets and objectives are not achieved and corrective measures have not been taken.	2
	Causes/reasons for the shortfalls are identified and corrective measures are taken.	3
	Monthly monitoring is established and all the targets and objectives are met by timely actions.	4
	The KAIZEN activities have generated a measurable financial impact on sales and/or profits.	5
4. Presentation	a) Documentation	
	The achievements and process to reach them are not recorded adequately to understand the detail.	2
	Records of the activities provide sufficient information, although not well-compiled as a report.	4
	A written report is compiled, which describes the activities in the flow of QC story with enough data.	6
	The report explains the KPIs and their targets logically with both baseline and end-line data.	8
	The report holds sincerity, logical consistency, and compelling use of data and analyses.	10

Attachment 7 Evaluation Sheet for On-site Inspection of Enterprises for Tanzania KAIZEN Award

3. Gemba in Pictures * Provide 5 best pictures with explanation to showcase KAIZEN effects.

1 (picture)	(explanation)
2 (picture)	(explanation)
3 (picture)	(explanation)
4 (picture)	(explanation)
5 (picture)	(explanation)

Criteria for Evaluation of Finalist Enterprises

Category	<input type="checkbox"/> Large Enterprises <input type="checkbox"/> Small and Medium-sized Enterprises
Name of Enterprise	

Process	Criteria	Point
Situation analysis	Logical flow (Why did the company select the theme of KAIZEN?) --- a.	//10
Root-Cause Analysis	Appropriate application of Methodology --- b.	/10
	Reasonable identification of root-cause --- c.	/10
Countermeasure	Well-planned countermeasures --- d.	/10
	Countermeasures well implemented --- e.	/10
KPI	Reasonable explanation about KPI --- f.	/10
	Degree of KPI improvement --- g.	/10
Evidence	Provide enough evidences to prove KPI improvement --- h.	/10
Plan for future	Systematize the countermeasure --- i.	/ 5
Teamwork	Participatory improvement --- j.	/ 5
Presentation	Completed within specified time and in good balance --- k.	/ 5
	Clear and impressive explanation and pertinent responses to questions/comments --- l.	/ 5
Total		/100

Attachment 9 Sample Timetable of Evaluator Training Program

Timetable of Evaluator Training Program

Time and Date:

Venue:

Time	Program	Person in Charge
08:30 - 09:00	Registration	Secretariat
09:00 - 09:45	Lecture: Presentation of Evaluation Form	TKU
09:45 - 10:30	Q & A and Discussion	All
10:30 - 11:00	Tea Break	All
11:00 - 12:30	Industry Visits	All
12:30 - 13:30	Group Discussion (Preparation for Group Presentation)	Groups
13:30 - 14:30	Lunch Break	All
14:30 - 15:20	Group Presentations	Groups
15:20 - 15:50	Comparison of Scores between Groups	TKU
15:50 - 16:00	Summary and Closing	TKU

Self-Evaluation Form for Trainers

Date DD / MM / 20 .

1. Personal Information

First Name		Surname	
Organization		Phone	
Mobile		e-mail	
Address			
Registration (Tick all applicable)	<input type="checkbox"/> KAIZEN Trainer (KT) Date of Registration: <u>DD</u> / <u>MM</u> / <u>20</u> <input type="checkbox"/> Advanced KAIZEN Trainer (AKT) Date of Registration: <u>DD</u> / <u>MM</u> / <u>20</u> <input type="checkbox"/> Trainer of KAIZEN Trainers (TOKT) Date of Registration: <u>DD</u> / <u>MM</u> / <u>20</u>		

2. Self-Evaluation of KAIZEN Consulting Services

List your activities in RECENT TWO YEARS (December 20XX to November 20XX).

- 1) KAIZEN Consulting Service you provided to a company/organization after certified as Trainer
(Please attach "KAIZEN Consulting Service Record" for each company/organization.)

No.	Company/Organization Name	Service Period (from MM/YYYY to MM/YYYY)	Total Person-Days Worked
1			
2			
3			
4			
5			

- 2) KAIZEN Consulting Service you provided to a company/organization as trainee in OJT program

No.	Company/Organization Name	Service Period (from MM/YYYY to MM/YYYY)
1		
2		
3		
4		
5		

- 3) KAIZEN promotion activities (e.g. delivering a seminar/training course/lecture, publication, etc.)
(Please attach documents that show effectiveness or impact of the activity, if you have any.)

No.	Description of Activity	Date (DD/MM/YYYY)	Audience Type and Size
1			
2			
3			
4			
5			

- 4) Learning and skill development activities (e.g. attending a training course/conference, etc. related to quality and productivity improvement (KAIZEN))

No.	Description of Activity	Date (DD/MM/YYYY)	Provider/Organizer
1			
2			
3			
4			
5			

After filling in this form, kindly submit it to Tanzania KAIZEN Unit by e-mail: tku@mit.go.tz

Criteria for Evaluation of Trainers

Each activity reported in the Self Evaluation Form will be given the points as indicated below, and the sum will be the score for each category.

1) KAIZEN Consulting Service provided to a company/organization after being certified as KAIZEN Trainer	
Basic/Advanced KAIZEN Consulting Service <u>with KAIZEN Consulting Service Record attached (Fully or mostly filled) which shows significant achievements clearly.</u>	5 points
Advanced KAIZEN Consulting Service <u>with KAIZEN Consulting Service Record attached (Fully or mostly filled, especially the KPIs)</u>	4 points
Basic KAIZEN Consulting Service <u>with KAIZEN Consulting Service Record attached (Fully or mostly filled, especially the KPIs)</u>	3 points
Basic/Advanced KAIZEN Consulting Service without KAIZEN Consulting Service Record	2 points
KAIZEN Consulting Service of less than 5 man-days of engagement or man-day is unknown	1 point
2) KAIZEN Consulting Service provided to a company/organization as trainee in an OJT program	
Basic/Advanced KAIZEN Trainer Training Course (<u>70% or more attendance</u>)	1 point
3) KAIZEN promotion activities	
Lecture at a seminar with an audience of 100 or more / Publication which was circulated to 100,000 persons or more / Other activity which had equivalent output	5 points
Lecture at a seminar with an audience of 50 or more but less than 100 / Publication which was circulated to 10,000 persons or more but less than 100,000 / Other activity which had equivalent output	4 points
Delivery of KAIZEN Trainer Training Course with 20 or more trainer candidates	3 points
Delivery of KAIZEN Trainer Training Course with less than 20 trainer candidates	2 points
Any activity which is not classified in any of the above	1 point
4) Learning and skill development activities	
Any activity verified with the attendance record or other equivalent evidences	1 point



**TIMETABLE FOR THE Xth KAIZEN AWARD
COMPETITION**
xxth of February 20YY



I. KAIZEN Award Presentations

08:00 - 08:30	Registration
08:30 - 08:40	Self Introduction
08:40 - 09:00	Opening Speech by Head of TKU, MIIT
09:00 - 09:10	Explanation about evaluation criteria by TKU, MIIT

Presentation by enterprises

(Each presentation is strictly limited to 10 minutes)

09:15 - 09:25	Enterprise 1
09:30 - 09:40	Enterprise 2
09:45 - 09:55	Enterprise 3
10:00 - 10:10	Enterprise 4
10:10 - 10:35	Questions and Answers (Q &A)

10:35 - 11:10 Group Photo and Coffee Break

11:15 - 11:25	Enterprise 5
11:30 - 11:40	Enterprise 6
11:45 - 11:55	Enterprise 7
12:00 - 12:10	Enterprise 8
12:15 - 12:25	Enterprise 9
12:25 - 13:00	Questions and Answers (Q&A)

13:00 - 14:15 Lunch Break

14:20 - 14:30	Enterprise 10
14:35 - 15:45	Enterprise 11
14:50 - 15:00	Enterprise 12
15:00 - 15:20	Questions and Answers (Q&A)
15:25 - 15:35	Enterprise 13
15:40 - 15:50	Enterprise 14
15:55 - 16:05	Enterprise 15
16:10 - 16:30	Questions and Answers (Q&A)

16:30 - 16:40	Closing Remarks by Director of Industrial Development, MIIT
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Attachment 12 Sample Timetable of Tanzania KAIZEN Award Competition and Ceremony/National KAIZEN Day



**TIMETABLE FOR THE Xth KAIZEN AWARD CEREMONY
AND
THE Yth NATIONAL KAIZEN DAY
xxth of February 20YY**



Time	Program	Person in Charge
08:30 - 09:00	Registration	Secretariat
09:00 - 09:10	Remarks by Guest of Honor 1	Guest of Honor 1
09:10 - 09:20	Remarks by Guest of Honor 2	Guest of Honor 2
09:20 - 09:30	Remarks by Guest of Honor 3	Guest of Honor 3
09:30 - 09:40	Remarks by Guest of Honor 4	Guest of Honor 4
09:40 - 10:30	Group Photo and Tea Break	All
10:30 - 10:50	Key Speaker 1	Key Speaker 1
10:50 - 11:10	Key Speaker 2	Key Speaker 2
11:10 - 11:30	Key Speaker 3	Key Speaker 3
11:30 - 11:50	Key Speaker 4	Key Speaker 4
11:50 - 12:15	Special Presentation by Winner of Previous Year (LE)	Winner (LE)
12:15 - 12:40	Special Presentation by Winner of Previous Year (SME)	Winner (SME)
12:40 - 13:30	Q & A	All
13:30 - 14:40	Lunch Break	All
14:40 - 15:00	Announcement and Award for KAIZEN Trainers	Moderator
15:00 - 15:20	Award of Recognition for Enterprises	Moderator
15:20 - 15:40	Announcement and Award for Enterprises	Moderator
15:40 - 16:00	Closing Remarks	Permanent Secretary, MIIT

List of KAIZEN Indicators

Every enterprise planning to implement KAIZEN activities should select at least one of the indicators listed below which corresponds to the KAIZEN theme applied. The enterprise may have additional indicators according to its individual needs and challenges.

	Indicator	How to measure
5S	Free space rate (%)	$\text{Free space (m}^2\text{)} \div \text{Total space (m}^2\text{)} \times 100$ <p>Do not just measure the free space but measure both occupied and unoccupied spaces to know the percent unoccupied.</p>
	Time required for picking an item (sec.)	Measure the time length taken to search and fetch a certain item (tool, material, part, etc.).
	5S score	Examine the status of target workplace by using the 5S check sheet attached in the KAIZEN Consulting Service Guideline.
Quality	Defective rate (%)	$\frac{\text{Quantity of defective units}}{\text{Quantity of units processed}} \times 100$ <p>“Quantity of defective units” includes both damped and reworked units. Do not just count the number of defective units per unit time but compare it with the total number of units (both rejected and accepted units) processed/produced.</p>
	Yield rate (%)	$\frac{\text{Volume of good units produced}}{\text{Volume of main material input}} \times 100$ <p>Measure the volumes of production and input by using a same unit (piece/carton, kg/ton, liter/m³, etc.).</p>
Productivity	Production volume per unit time (pieces/hour, tons/day, etc.)	Count the number of units actually produced/processed within a certain period of time.
	Production lead time (hours, days, etc.)	Measure the time length from inputting materials at the factory until making them into finished products.

II. KAIZEN Consulting Service Guideline

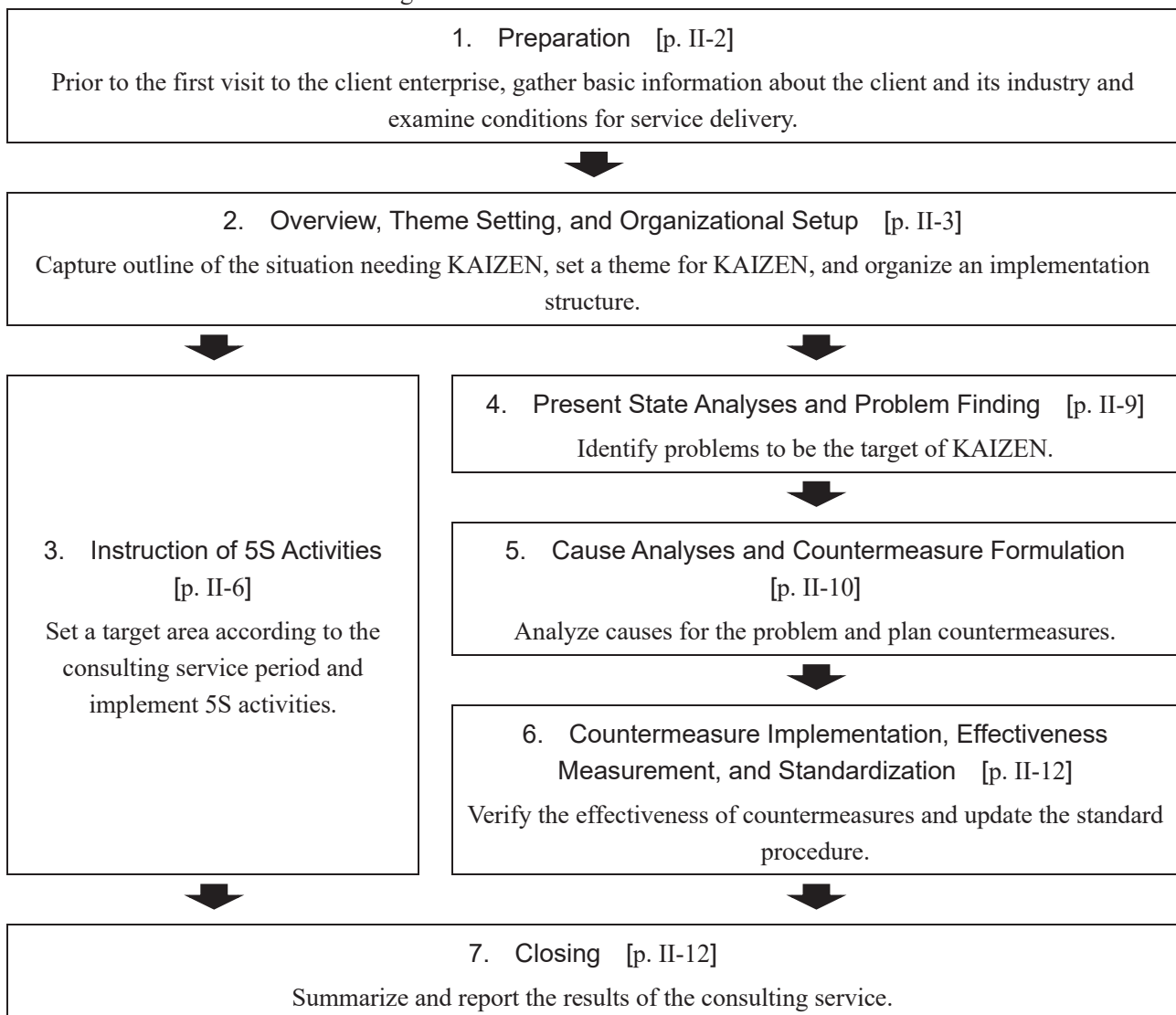
■ Objective

This Guideline provides a standard procedure of effective KAIZEN consulting services to be delivered by a certified KAIZEN Trainer (KT/AKT) for the purpose of nurturing the capacity of a client enterprise to maintain KAIZEN activities self-reliantly.

■ Application

All KAIZEN consulting services provided by a certified KAIZEN Trainer should follow this Guideline, regardless of the sector or the size of the client enterprise and whether the service is paid or unpaid.

< Process of KAIZEN Consulting Service >



1. Preparation

- | | |
|---|--|
| <p>1.1 Respond to the service request and indicate your suitability.</p> | <ul style="list-style-type: none"> • Consider the following when judging if you should accept the service request. <ol style="list-style-type: none"> 1) Do you have an adequate knowledge about the industry? Does the industry have essential similarities with the ones you have experience with? 2) Are you available during the service period expected from the request particulars? 3) Is there a public support program to compensate the service fees? Otherwise, is the client enterprise able to bear the cost? |
| <p>1.2 Conduct preparatory research on the client enterprise.</p> | <ul style="list-style-type: none"> • Gather and organize adequate information about the following: <ol style="list-style-type: none"> 1) Products, production volume, and the number of employees of the client enterprise 2) Typical production processes in the client's industry 3) (Especially when the client requests quality improvement) typical defects in the client's industry • Make a telephone call or prior visit to the client enterprise for supplementary research as required. |
| <p>1.3 Prepare a draft schedule of consulting and coordinate with the client enterprise to set the dates of visits.</p> | <ul style="list-style-type: none"> • As a standard, the KAIZEN Trainer visits the client enterprise every one or two weeks for on-site guidance and the program of KAIZEN consulting service consists of five weeks (five days of on-site guidance) at the minimum. • Explain and agree on the following as preparations necessary on the client's side. <ol style="list-style-type: none"> 1) Commitment and leadership of the management 2) Appointment of a KAIZEN Coordinator and provision of basic training for him/her 3) Arrangement of a KAIZEN promotion organization • Explain and agree on compensation of the consulting service cost, publication of KAIZEN results, and handling of related data. • Sign a confidentiality agreement as required. |

2. Overview, Theme Setting and Organizational Setup

- | | |
|--|---|
| <p>2.1 Outline the process of KAIZEN consulting service and confirm the manager's view on problems and challenges.</p> | <ul style="list-style-type: none"> • Describe specific activities involved in KAIZEN, e.g. data collection, so that the manager will understand the necessity of sparing time and days for the activities. • As the enterprises requesting a KAIZEN consulting service always have awareness of certain problems, be informed of them first and keep the KAIZEN theme suggested by the client in mind while conducting a GEMBA inspection. |
| <p>2.2 Conduct an inspection of GEMBA at the client enterprise.</p> | <ul style="list-style-type: none"> • With permission of the manager, photograph the scenes of GEMBA. This is not only for comparing the appearances before and after KAIZEN, but also for providing evidence to support recommendations to the manager. • To understand the production process, conduct a visual observation of the production line and an interview with the production manager for the following information: <ol style="list-style-type: none"> 1) Production process from raw materials procurement to product shipment (including types of machines used) 2) Product varieties and the production volume of each variety 3) Production volume, defects, operating time, and other production data recorded • (When the client requests 5S activities) Conduct a visual inspection of the warehouse and an interview with the warehouse manager for the following information: <ol style="list-style-type: none"> 1) Location of raw materials, works-in-process/intermediate products, and final products 2) Suppliers of raw materials and supply lead time of each material 3) Buyers of final products and sales lead time of each product 4) Practice of first-in first-out and other inventory management techniques • (When the client requests productivity improvement) Conduct a visual inspection of GEMBA with focus on the following: <ol style="list-style-type: none"> 1) 5S status in the production site and the warehouse (including |

	<p>existence and storage situation of dead stock)</p> <p>2) Layout and flow of the production process</p> <p>3) Work environment and movement of the workers</p>
<p>2.3 Discuss with the management and set the KAIZEN theme and the Key Performance Indicators (KPIs).</p>	<ul style="list-style-type: none"> • A decision of the management that shows organizational commitment is crucial for viability and sustainability of KAIZEN activities. • The period of consulting service contract shapes the scope of KAIZEN activities. When the client enterprise is large-sized and four to six months are given as the contract period, KAIZEN activities may be led by multiple KAIZEN teams (QCCs) under different themes. The theme of each KAIZEN team should be aligned with the strategies of the whole enterprise. • When the client requesting quality or productivity improvement has poor 5S status, the KAIZEN Trainer should recommend that the client implement 5S activities first to build a base for continuous improvement. • When providing a short training program on 5S with about five days of on-site guidance, you may select a workplace from each of the production and the warehouse sections. These sections have an objective or theme of KAIZEN different from that of the other, hence experiencing both approaches will help the client expand 5S within the enterprise. • If the enterprise does not keep records of the KPI data usually, you should ask the KAIZEN team to collect data for a certain period of time prior to KAIZEN activities proper. • The KPI target value may be decided when the theme is set or after the present status is analyzed. Regardless of when you set the target value, the KPIs must be agreed on at the time of theme setting. • At least one of the indicators listed in the table below should be selected as a KPI for every client. Other indicators may be used together to directly measure the changes to be made by KAIZEN activities under the selected theme.

	Indicator	How to measure
5S	Free space rate (%)	$Free\ space\ (m^2) \div Total\ space\ (m^2) \times 100$ Do not just measure the free space but measure both occupied and unoccupied spaces to know the percent unoccupied.
	Time required for picking an item (sec.)	Measure the time length taken to search and fetch a certain item (tool, material, part, etc.).
	5S score	Examine the status of target workplace by using the 5S check sheet (Attachment 1).
Quality	Defective rate (%)	$Quantity\ of\ defective\ units \div Quantity\ of\ units\ processed \times 100$ “Quantity of defective units” includes both damped and reworked units. Do not just count the number of defective units per unit time but compare it with the total number of units (both rejected and accepted units) processed/produced.
	Yield rate (%)	$Volume\ of\ good\ units\ produced \div Volume\ of\ main\ material\ input \times 100$ Measure the volumes of production and input by using a same unit (piece/carton, kg/ton, liter/m ³ , etc.).
Productivity	Production volume per unit time (pieces/hour, tons/day, etc.)	Count the number of units actually produced/processed within a certain period of time.
	Production lead time (hours, days, etc.)	Measure the time length from inputting materials at the factory until making them into finished products.

2.4 Draw up an implementation plan for KAIZEN activities and organize an implementation structure.

- Based on the service contract period, plan the activity period, dates of on-site guidance, and specific activities on each day. On-site guidance should be planned at appropriate intervals for establishing a PDCA cycle within the client enterprise through instructing a series of KAIZEN practices from present status analyses to effectiveness measurement and standardization.
- Arrange a KAIZEN promotion organization in the enterprise. It is this KAIZEN promotion organization that conducts KAIZEN activities. The KAIZEN Trainer focuses on nurturing the KAIZEN Team’s initiatives and providing technical advice that is timely and to the point, so as to promote sustainability of self-reliant KAIZEN activities

even after the consulting service is completed.

- 1) Appoint a KAIZEN Coordinator to promote KAIZEN enterprise-wide.
 - 2) Organize a KAIZEN Team in each target workplace and appoint a team leader.
 - 3) Set up the modes and occasions that the management participates in KAIZEN activities and supports the KAIZEN Team.
- It is useful to provide an internal training program on basic KAIZEN techniques. Especially, methods of visualization and quantification will help facilitate KAIZEN activities.
 - Agree on the forms, frequency, and persons in charge of the records and reports to be kept during the activity period. The following records and reports at least are necessary.
 - 1) Record of KPI data before and after KAIZEN
 - 2) Record of instructions provided by the KAIZEN Trainer on each day of on-site guidance
 - 3) Periodical report from the enterprise to the KAIZEN Trainer on the activities conducted on its own
 - 4) Completion report of the consulting service
 - Identify the data necessary for the next step (detailed analyses) and give instructions for proper measurement. Some data may not be collected usually, and you should make sure the enterprise collects such data at least for one week.
 - 1) (For quality improvement themes) Quantities of total production, total defects, and defects by mode of defect for the target product
 - 2) (For productivity improvement themes) Cycle time or production capacity of each process

3. Instruction of 5S Activities

3.1 Observe and record the status before KAIZEN.

- Collect data of the KPIs selected according to the KAIZEN theme.
- Photograph scenes of the workplace before 5S implementation.
- Score the 5S status using the checklist. Illustrate the results on a radar diagram for visual understanding.

3.2 Plan for instructing 5S activities.

- When the client enterprise is large-sized and a few months are given for 5S introduction, the instruction plan may take a form that you instruct sequentially on “Sort - Set in Order - Shine - Standardize – Sustain” in a selected pilot workplace and then expand to other workplaces in stages.
- When the consulting period is rather short and hardly gives enough time for instruction of 5S in sequence, an advisable instruction plan may take a form that you incorporate “Standardize” and “Sustain” practices while instructing on “Sort - Set in Order – Shine” to ensure continuity of the 5S activities. For example:
 - 1) Once rules are set, keep them in a document or table. (e.g. use and disuse guidelines, inventory quantity and period by item, cleaning schedule indicating dates, persons in charge, and target areas, etc.)
 - 2) Promote visualization. (e.g. showing the minimum inventory by writing it on a tape put on a shelf, placing an inventory table next to each item, etc.)
 - 3) Encourage putting up a KAIZEN status board and regular monitoring and prize-giving by utilizing the 5S checklist from the beginning of 5S activities.
 - 4) Stress the importance of Sustain when instructing activities in each step of “Sort - Set in Order - Shine.”
- The instruction plan should rest on the cycle that on every visit you give instructions on a particular activity to be conducted by the KAIZEN Team and check the results to give reinforcing or correcting advice on the following visit.

3.3 Instruct 5S activities.

- Every step should be designed to nurture certain abilities of employees as follows.
 - 1) “Sort”: Abilities to prioritize, judge, and take responsibility
 - 2) “Set in Order”: Abilities to arrange and analyze
 - 3) “Shine”: Abilities to notice and pay attention to details
 - 4) “Standardize”: Abilities to establish mechanisms and improve the present status
 - 5) “Sustain”: Abilities to think and act for oneself, pursue self-growth

and self-fulfillment, and maintain “do thoroughly what you normally do” and “act on one’s word” philosophy

- “Sort” activities start with designating the location of disused items and setting guidelines for use and disuse judgement. Assign a final decision-maker before introducing a Red Tag activity.
- “Set in Order” activities require trainees to learn how to define and indicate the location and quantity of an item used at a certain frequency.
- “Shine” activities should be designed to shift gradually from ad hoc cleaning to preventive measures applied to the dirt source. Dirt source control consists of 1) measures not to generate dirt, 2) measures to confine dirt, and 3) measures not to leave dirt.
- “Standardize” activities should be centered around installing a mechanism to ensure continuous “Sort - Set in Order - Shine” activities.
- “Sustain” activities apply methods to maintain and reinforce 5S activities.
 - 1) Place a KAIZEN status board
 - 2) Put up a slogan, poster, banner, etc.
 - 3) Introduce the management’s regular patrol in the workplace
 - 4) Give an award to the workplace of excellent 5S status
 - 5) Exercise 5S activities regularly even in a short time slot

3.4 Monitor the status and effects of 5S periodically.

- Examine 5S status in the target workplace by using the 5S checklist at a certain interval. The KAIZEN Coordinator should take the lead in the examination.
- The workplace receiving a good result from the examination should be encouraged for a higher target.
- When the examination reveals a poor 5S status in a workplace, the KAIZEN Trainer, the KAIZEN Coordinator, and the KAIZEN Team should discuss the problem and implement a countermeasure.

4. Present State Analyses and Problem Finding

4.1 Observe the status before KAIZEN with the KPIs.

- Collect data of the KPIs selected according to the KAIZEN theme.
- (For quality improvement) Calculate the defect rate by using the formula below:

$$\text{defect rate [\%]} = \text{defect quantity} / \text{input quantity} \times 100$$

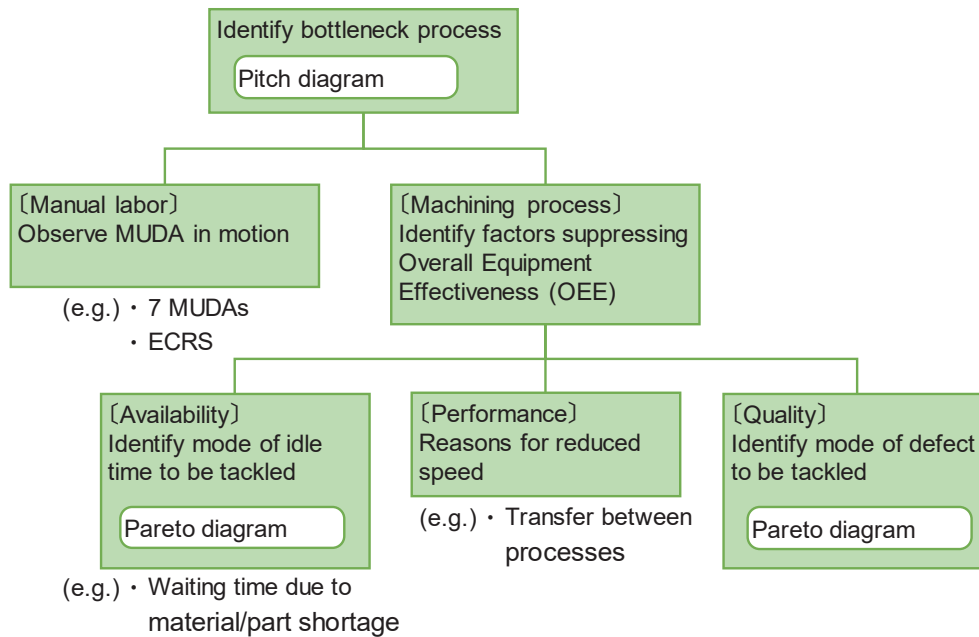
The defect and the input quantities must be in a same unit (e.g. piece, kilogram, etc.). The denominator is not the good product but the input (sum of good and defective products) quantity.
- (For productivity improvement) Calculate productivity by using the formula below.

$$\text{productivity} = \text{output} / \text{input}$$

The output may be represented by the volume of good products, while the input may be counted in raw materials, man-hour, equipment operating time, etc.

4.2 Determine the problems of high priority to be dealt with.

- Since it is impossible to tackle all the problems, you must prioritize the problems that need corrective action.
- (For quality improvement) Draw a Pareto diagram by using the data on the quantity of defects by mode of defect, and then identify the mode of defect to be improved through KAIZEN activities.
- (For productivity improvement) A logical breakdown of productivity problems is illustrated in the figure below. Improving the bottleneck process is the key to produce substantive effects of KAIZEN; follow the figure from the top downward to narrow down the major problem causing inefficiency in the bottleneck process. Besides, taking a practical problem (e.g. waiting time due to part shortage) of the client's concern to provide a remedy and induce effects on productivity improvement is another effective approach in a bottom-up form.



5. Cause Analyses and Countermeasure Formulation

5.1 Explore possible causes for the target problem.

- Draw a fishbone diagram for each target problem to list factors possibly causing the problem.
- Describe the factors in specific terms so that everyone shares the same understanding of the situation depicted.

Bad description	Good description
<ul style="list-style-type: none"> • Material quality is low. • Lack of regular maintenance • Insufficient skills 	<ul style="list-style-type: none"> • MFI of PP is below the minimum requirement. • Degradation of lubricating oil • Residue in metal mold

5.2 Identify the factors actually causing the problem (true causes)

- The fishbone diagram shows possibility only, and you need further study in GEMBA to know which factor is at work in reality. Modify the characteristic value linked to the potential cause, and the result will prove if the factor tested is a true cause or not.

5.3 Track back the true causes and identify the root cause.

- Use a why-why analysis to identify the root cause.
- Follow the rules below to conduct a why-why analysis properly.
 - 1) Describe a condition (why) simply; do not combine multiple reasons in one condition.
 - 2) When all conditions (whys) are satisfied at one layer, the immediate effect (the condition of the upper next layer) should be

	<p>realized.</p> <ol style="list-style-type: none"> 3) When any of the conditions at one layer fails to realize, the immediate effect (the condition of the upper next layer) should not be realized. 4) Avoid reasoning by personality traits. 5) Specify the condition so that everyone understands it in a same way. 6) Adjectives/adverbs should be used with a standard for comparison. 7) Distinguish a condition (why) from its countermeasures. <ul style="list-style-type: none"> • Identification of the root cause is the most important step in quality improvement activities; once you capture the root cause rightly, the KAIZEN activity is largely successful. In reverse, countermeasures targeting a false root cause will not reduce the defect rate.
<p>5.4 Decide on countermeasures to remove the root cause.</p>	<ul style="list-style-type: none"> • Devise a variety of ways to resolve the root cause by brainstorming with the KAIZEN Team or by other means of generating ideas. • Video shooting is useful for exploring possible improvements in manual labor; the KAIZEN Team can discuss improvements while watching actual work on video together. • Encourage the KAIZEN Team to seek advice from related engineers, the KAIZEN Coordinator, the workplace manager, and the management. • Evaluate potential countermeasures from the viewpoints of expected benefits, costs, and required time period, and finally decide which countermeasures are to be implemented. Acquire consent of the management to the countermeasure selected by the KAIZEN Team. • Plan how the effectiveness of countermeasures will be measured. • When the countermeasure requires a long time for implementation, an implementation plan should be prepared to define the person in charge and the deadline for each task.

6. Countermeasure Implementation, Effectiveness Measurement, and Standardization

- | | |
|---|--|
| 6.1 Implement (on a trial basis) the countermeasures. | <ul style="list-style-type: none"> • When the countermeasure takes a long period of time for implementation, regular monitoring should be conducted once a week or at a relevant interval as means of keeping activities on track. |
| 6.2 Measure effectiveness of the countermeasures. | <ul style="list-style-type: none"> • Collect data on KPIs as you did before implementing KAIZEN and evaluate effectiveness of the countermeasure implemented. • In case the effects gained were below expectation, review the process to find out “why the result turned out below expectation” and redo the fishbone diagram and on. The review process is important to avoid repeating the same failure. |
| 6.3 Standardize the new procedure. | <ul style="list-style-type: none"> • The countermeasure verified through trial implementation should be introduced at a full scale. Document the countermeasure by updating the Standard Operating Procedure (SOP) or other related documents and disseminate the new practice to all workers related. (Holding a guidance session is advisable.) |

7. Closing

- | | | | | | | | |
|--|--|---------------------------------|--|--------------------------|----------------------------|--|---|
| 7.1 Summarize the results of the KAIZEN consulting service. | <ul style="list-style-type: none"> • Consolidate the KPI data before and after KAIZEN, pictures of target workplaces, the results of 5S examination, and other related data to show the change induced during the activity period. • Effects of KAIZEN include tangible gains such as cost reduction and defect rate reduction that can be expressed in financial terms as well as intangible gains like enhanced teamwork and heightened motivation. | | | | | | |
| 7.2 Brief the manager about activities conducted and achievements through KAIZEN consulting service. | <ul style="list-style-type: none"> • Compile a Completion Report that describes the following aspects of the consulting service concretely and concisely. <table border="1" style="border-style: dashed; border-width: 1px; margin-top: 10px;"> <tr><td>1. Outline of client enterprise</td></tr> <tr><td>2. Actual schedule of activities conducted</td></tr> <tr><td>3. KAIZEN theme selected</td></tr> <tr><td>4. Indicator(s) and target</td></tr> <tr><td>5. Present status (problem finding) and cause analysis</td></tr> <tr><td>6. Countermeasures and their implementation</td></tr> </table> | 1. Outline of client enterprise | 2. Actual schedule of activities conducted | 3. KAIZEN theme selected | 4. Indicator(s) and target | 5. Present status (problem finding) and cause analysis | 6. Countermeasures and their implementation |
| 1. Outline of client enterprise | | | | | | | |
| 2. Actual schedule of activities conducted | | | | | | | |
| 3. KAIZEN theme selected | | | | | | | |
| 4. Indicator(s) and target | | | | | | | |
| 5. Present status (problem finding) and cause analysis | | | | | | | |
| 6. Countermeasures and their implementation | | | | | | | |

7.3 Report to the TKU on delivery of KAIZEN consulting service

- | |
|--|
| 7. Results (effectiveness measurement) |
| 8. Recommendations for the future |
- Utilize pictures, graphs, and other visual elements to make the presentation powerful and persuasive.
 - Encourage continuous KAIZEN promotion even after the consulting service is over.
 - Fill the prescribed form (Attachment 2) and submit it to the TKU.
 - 1) Outline of the KAIZEN consulting service contract
 - 2) Activities conducted
 - 3) Results delivered
 - 4) (Attachment) A copy of Completion Report submitted to the manager

“KAIZEN x Cluster” Model

for accelerating introduction of KAIZEN and raising competitiveness of industrial clusters

By combining the Cluster Development Manual and the KAIZEN Consulting Service Guideline, the “KAIZEN x Cluster” Model is applied to industrial clusters for effective and efficient use of KAIZEN for increased competitiveness of the cluster, member businesses, and the value chain.

Attachment 3 presents the process of applying the Model to an industrial cluster, followed by a sample timetable of the sensitization seminar that initiates substantive “KAIZEN x Cluster” interventions to the cluster (Attachment 4). The materials and forms used in the process listed below are available at SIDO and TKU.

Materials and Forms for “KAIZEN x Cluster” Model

Phase	Materials and Forms
I. Situation Analysis	<ul style="list-style-type: none"> • Checklist for Cluster Selection
II. Sensitization Seminar/ Introductory Training	<ul style="list-style-type: none"> • Presentation material for sensitization, incl. announcement for consulting service • Training materials <ul style="list-style-type: none"> ➢ What is KAIZEN? ➢ 5S+1S ➢ <i>Muda-dori</i> (handout, presentation, and exercise) ➢ Why-why analysis (handout, presentation, and exercise) • Questionnaire (baseline) • Questionnaire (feedback) • Application form
III. Target firm selection	<ul style="list-style-type: none"> • Fee table for KAIZEN Consulting Services • Agreement form
IV. Implementation	<ul style="list-style-type: none"> • Materials for Gemba Training • List of KAIZEN indicators • 5S Total Evaluation Sheet (Attachment 1) • Report formats: <ul style="list-style-type: none"> ➢ KAIZEN Consulting Service Record (Attachment 2) ➢ KAIZEN Implementation Report (in Word and PPT) • Questionnaire (end line)
V. Data collection/ Survey	N/A
Monitoring & evaluation visit & advice	<ul style="list-style-type: none"> • Presentation material for sensitization • Other training materials as necessary

5S Total Evaluation Sheet

Workplace: _____

Grade the results of each activity in each evaluation item on a scale of zero to three as follows:

3 points	85% or more
2 points	60% or more but less than 85%
1 point	30% or more but less than 60%
0 point	Less than 30%

	Evaluation		Evaluation items	Evaluation points
	Appearance	System completion		
Sort	✓		1) Necessary things and unnecessary things can be identified easily.	
	✓		2) Unnecessary things are discarded, or clarified in time limit for handling.	
	✓		3) Quantity of each thing is kept as specified.	
	✓		4) Bulletins and control sheets are replaced with updates.	
			Subtotal	
Set in order	✓		5) Things are located at each given place.	
	✓		6) Fixed positions of things are clarified by signboard, delineating, etc.	
	✓		7) Things are positioned so as to facilitate first-in first-out system.	
	✓		8) Small improvement realizes easy transfer of things into and from each given place.	
			Subtotal	
Shine	✓		9) There are no stain, trash, dust, etc. (Facilities, floor, building, lighting, etc.)	
	✓		10) Upstream solutions are provided against stain, trash, dust, etc.	
	✓		11) Voluntary inspection of facilities is conducted.	
	✓		12) Processes, aisles, etc. are delineated with paint colors, etc. so that cleaning area can be easily identified.	
	✓		13) There are no stain/separation/unevenness/cracks in painted/delineated part on the floor.	
	✓		14) There are no obstacles on aisles. (Carts, pallets, parts, etc.)	
			Subtotal	
Standardize		✓	16) Judgment criteria for necessary/unnecessary things are specified.	
		✓	17) Judgment criteria for disposing unnecessary things are specified.	
		✓	18) Quantities of necessary things are specified.	
		✓	19) Fixed positions of necessary things are specified by signboard, layout chart, etc.	
		✓	20) Heights of racks, etc. are specified.	
		✓	21) Method/procedure/responsible person/time frame of cleaning are specified.	
		✓	22) Contents/procedure/responsible person/time frame of voluntary facility inspection are specified.	
	✓		23) Workers keep neat appearance and have no stain on their cloths, etc.	
	✓		24) Progress/normality/abnormality in 3S (Seiri, Seiton, Seiso) can be easily identified.	
✓		25) Comfortable worksite is maintained through repeated 3S activity.		
			Subtotal	
Sustain		✓	26) Annual policy for 5S activity is set.	
		✓	27) Annual basic plan for 5S activity is set.	
		✓	28) 5S activity plan is set for each worksite.	
		✓	29) Awareness campaign, education, events, and patrols are included in activity plan.	
		✓	30) 5S evaluation sheet is specially prepared for each worksite.	
		✓	31) Supervisor prepares "Shitsuke Evaluation Sheet" for workers.	
	✓		32) Supervisor repeatedly instructs workers on their weak points in Shitsuke.	
	✓		33) Patrols by the person in each duty position are provided.	
	✓		34) Responsible persons for patrols properly give advices and take actions.	
	✓		35) Activity bulletin board is efficiently utilized for timely notice and understandability.	
	✓		36) Bottom-up activities such as small improvements are invigorated.	
			Subtotal	
			Total	/108
			Achievement rate	%

Attachment 2: KAIZEN Consulting Service Record

KAIZEN Consulting Service Record

The Completion Report presented to the client company should be attached to this Record and sent to the TKU.

(Page 1/2)

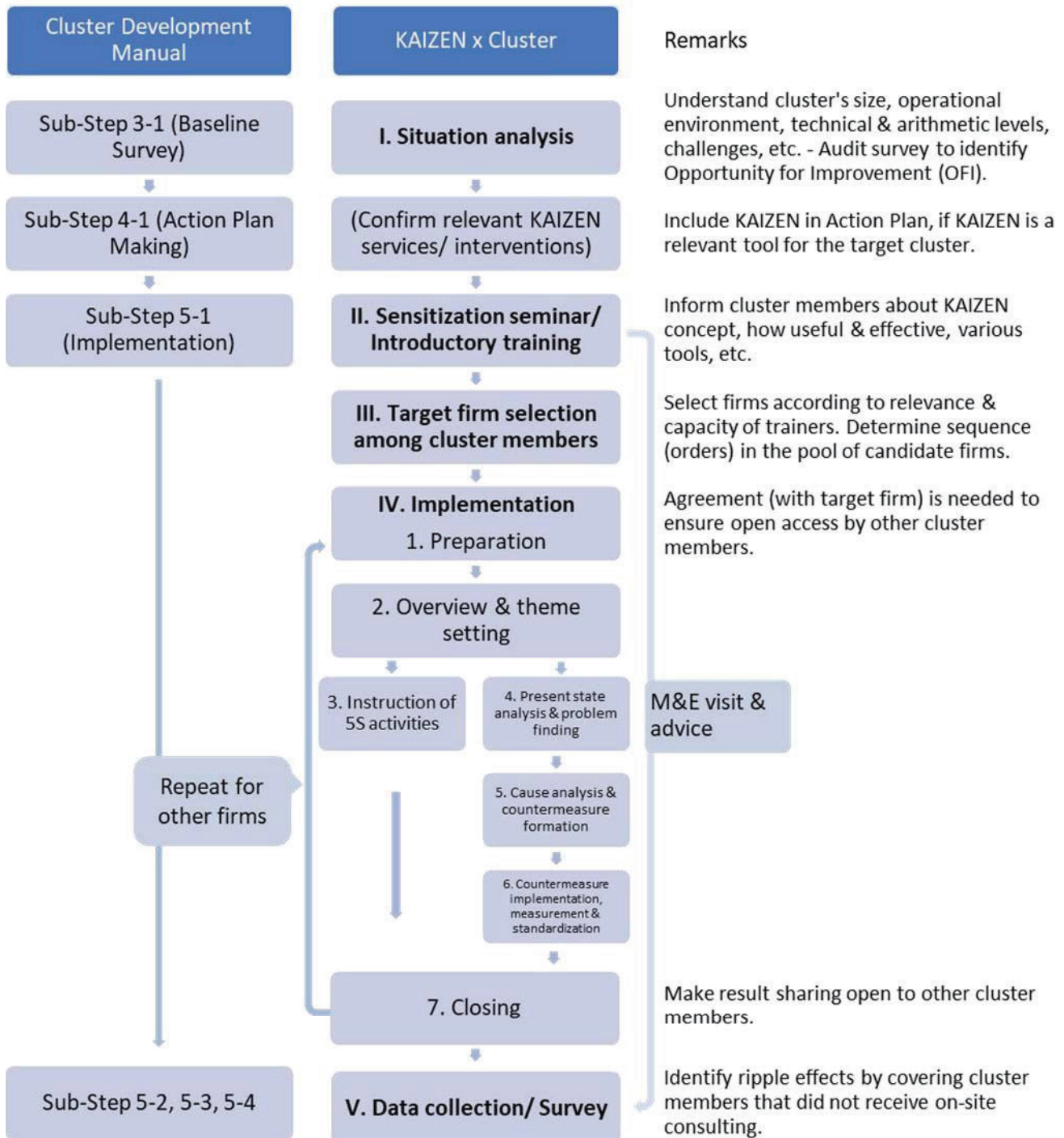
KAIZEN Trainer	Name				Registration No.		
	E-mail				Phone No.		
Client Company	Name						
	Local Address						
	Representative	Name				E-mail	
		Title/Position				Phone No.	
	Line of Business/Major Product						
	No. of Employees			Annual Sales Value			
Service Contract	Service Period	From:			To:		
		Total Working Days					
	Service Fees	Remuneration paid by:	<input type="checkbox"/> Client Company	<input type="checkbox"/> Government/Public	<input type="checkbox"/> Other (specify:)		
		Reimbursable costs paid by:	<input type="checkbox"/> Client Company	<input type="checkbox"/> Government/Public	<input type="checkbox"/> Other (specify:)		
KAIZEN Activities	Theme and Target						
	Cause Analysis						
	Counter-measures						
	Results						

17

Measurement	Data must be given at least one of these indicators	<input type="checkbox"/> Free space rate (%)	Before		Date	
			After		Date	
		<input type="checkbox"/> Time required for picking an item (sec.)	Before		Date	
			After		Date	
		<input type="checkbox"/> 5S score	Before		Date	
			After		Date	
		<input type="checkbox"/> Defective rate (%)	Before		Date	
			After		Date	
		<input type="checkbox"/> Yield rate (%)	Before		Date	
			After		Date	
		<input type="checkbox"/> Production volume per unit time (pieces/hour, tons/day, etc.)	Before		Date	
			After		Date	
		<input type="checkbox"/> Production leadtime (hours, days, etc.)	Before		Date	
			After		Date	
<input type="checkbox"/> Other indicator (specify:)	Before		Date			
	After		Date			
<input type="checkbox"/> Other indicator (specify:)	Before		Date			
	After		Date			
Attachment	<input type="checkbox"/> Completion Report presented to the client company (mandatory) <input type="checkbox"/> Other documents and evidences (specify:)					

Attachment 3: Process of Applying “KAIZEN x Cluster” Model

Overview of “KAIZEN x Cluster” Approach



Attachment 4: Sample Timetable for “KAIZEN x Cluster” Sensitization Seminar

Standard Timetable for “KAIZEN x Cluster” Sensitization Seminar

Time (Hours)	Program	Materials
Curriculum (DAY 1)		
9:20-9:30 (0:10)	Questionnaire (Baseline)	Questionnaire
9:30-10:00 10:30-11:30 (1:30)	What is KAIZEN? <i>(incl. explanation on QCC)</i>	Standard material (lecture)
11:30-12:30 13:30-15:30 (3:00)	5S+1	Standard material (lecture)
15:30-16:00 (0:30)	Announcement of opportunity for individual on-site consulting	
Curriculum (DAY 2)		
8:30-10:00 10:30-12:00 (3:00)	Muda-dori <i>(incl. explanation on layout modification and visualization)</i>	Customized material (lecture & exercise)
13:00-16:00 (3:00)	Why-why analysis	Customized material (lecture & exercise)
16:00-16:20 (0:20)	Selection of target firms	
16:20-16:30 (0:10)	Questionnaire (Feedback)	Questionnaire

III. KAIZEN Human Resource Development Guideline

■ Objective

This Guideline provides a standard procedure of effective KAIZEN human resource development to be conducted primarily by the College of Business Education (CBE) for the purpose of supplying competent KAIZEN professionals to guide implementation of KAIZEN in manufacturing enterprises countrywide.

■ Application

All training courses to develop KAIZEN trainers conducted by the CBE, or other training institutions if any, should follow this Guideline. Any organization or individual may use this Guideline as a reference for its activities related to KAIZEN human resource development.

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1. Roles in KAIZEN Implementation and Qualifications to Perform the Roles

The Ministry of Investment, Industry and Trade (MIIT) recognizes the roles presented in FIGURE 1 as constituting a system of KAIZEN human resource development for the manufacturing sector in Tanzania. Currently, a certification system for KAIZEN Consultant has not been established in Tanzania.

The system is intended for continuously producing competent KAIZEN professionals to serve the need for effective KAIZEN implementation, and thus requires a set of qualifications to perform each role as shown in TABLE 1. TABLE 2 provides the list of subjects in KAIZEN knowledge and techniques, which are classified in two levels, basic and advanced, reflecting the typical challenges faced by different sizes of enterprises.

FIGURE 1 Roles and Qualifications in KAIZEN Human Resource Development System

	Implement advanced-level KAIZEN in Large Enterprises (LEs)	Implement basic-level KAIZEN in Small and Medium-sized Enterprises (SMEs)
Train or instruct candidate trainers/coordinators		[1] Trainer of Training for KAIZEN Trainer (TOKT)
Implement KAIZEN from outside the enterprise he/she belongs to	[2] Advanced KAIZEN Trainer (AKT)	[3] KAIZEN Trainer (KT)
Implement KAIZEN from within the enterprise he/she belongs to	[4] In-House KAIZEN Coordinator (KC)	

TABLE 1 Qualifications for Roles in KAIZEN Human Resource Development System

Title (acronym)	Roles	Qualifications
[1] Trainer of Training for KAIZEN Trainer (TOKT)	<ul style="list-style-type: none"> - Training of KAIZEN Trainers (KTs) - KAIZEN guidance at basic level for companies 	<ul style="list-style-type: none"> ✓ Basic-level KAIZEN knowledge and techniques as described in TABLE 2 ✓ Human skills to guide and facilitate KAIZEN activities in an enterprise ✓ Accumulated experience of providing KAIZEN consulting services ✓ Skills and experience of conducting classroom and in-company training programs ✓ Report-writing
[2] Advanced KAIZEN Trainer (AKT)	<ul style="list-style-type: none"> - Provide advanced-level KAIZEN consulting service mainly to LEs 	<ul style="list-style-type: none"> ✓ Advanced-level KAIZEN knowledge and techniques as described in TABLE 2 ✓ Human skills to guide and facilitate KAIZEN activities in an enterprise ✓ Report-writing
[3] KAIZEN Trainer (KT)	<ul style="list-style-type: none"> - Provide basic-level KAIZEN consulting service mainly to MSMEs 	<ul style="list-style-type: none"> ✓ Basic-level KAIZEN knowledge and techniques as described in TABLE 2 ✓ Human skills to guide and facilitate KAIZEN activities in an enterprise ✓ Report-writing
[4] In-House KAIZEN Coordinator (KC)	<ul style="list-style-type: none"> - KAIZEN promotion within the company and to group companies and suppliers 	<ul style="list-style-type: none"> ✓ Whichever level of KAIZEN knowledge and techniques required for the size of enterprise he/she belongs to

TABLE 2 Basic and Advanced-Level KAIZEN Knowledge and Techniques

Advanced-level KAIZEN Knowledge and Techniques	Basic-level KAIZEN Knowledge and Techniques
<p>Sufficient understanding about the following subjects to the extent that he/she can utilize the knowledge and techniques to solve problems in practical KAIZEN implementation:</p> <ul style="list-style-type: none"> ✓ All knowledge and techniques at the basic level ✓ Total Quality Management (TQM) (management principles, daily and policy management, strategic management, cross-functional group activity) ✓ Cost Management (management accounting, cost analysis, cost reduction, fixed cost and variable cost, break even analysis) ✓ Total Productive Maintenance (TPM) (concept of TPM, preventive maintenance, autonomous maintenance, 16 major losses, countermeasures for 7 losses, 8 pillars) ✓ Standardization (three points of standardization, standard operation sheet, QC process chart, skill map) ✓ Company Diagnosis 	<p>Sufficient understanding about the following subjects to the extent that he/she can utilize the knowledge and techniques to solve problems in practical KAIZEN implementation:</p> <ul style="list-style-type: none"> ✓ Introduction of KAIZEN (basic concepts of KAIZEN and Quality Control (QC), steps of KAIZEN, 5M, 3M, 3GEN, PDCA cycle) ✓ 5S ✓ Visual Control ✓ Problem solving (QC story, brainstorming, 3MU reduction, root-cause, why-why analysis) ✓ QC Circle (QCC) (roles of top management and KAIZEN Coordinator, leadership, idea creation, KPI) ✓ QC 7 Tools ✓ Production Planning (types of production, yearly/monthly/daily schedule, make-to-order/make-to-stock management) ✓ Inventory control (types of order) ✓ Industrial Engineering (IE) (process analysis, motion analysis, ratio delay analysis, line balance, multi activity analysis) ✓ Layout improvement (kinds of plant layout, principles and steps of layout improvement, PQ analysis)

2. Certification and Registration System

2.1 Certification of Completion of Training Course

The CBE, as an accredited training institution providing KAIZEN training courses conforming to this Guideline, certifies the individuals for completing the said training course when all requirements shown in TABLE 3 are satisfied by the candidate. A sample form of the application form is provided in Attachment 1.

TABLE 3 Requirements for Completion of Training Course

	TOKT	AKT	KT	KC
Enrollment	<ul style="list-style-type: none"> ✓ Application form ✓ KT certification 	<ul style="list-style-type: none"> ✓ Application form ✓ College/university graduate or equivalent capability proved 	<ul style="list-style-type: none"> ✓ Application form ✓ College/university graduate or equivalent capability proved 	<ul style="list-style-type: none"> ✓ Application form ✓ Experience of production management (<i>with a good command of written and spoken English or Kiswahili languages</i>)
Classroom Training (CRT)	<ul style="list-style-type: none"> ✓ 100% attendance as lecturer at 2 batches of 4-day basic-level program 	<ul style="list-style-type: none"> ✓ 100% attendance at a 6-day advanced-level program (Waived for advanced-level KC certificate holders) (First 4 days waived for KT or basic-level KC certificate holders) 	<ul style="list-style-type: none"> ✓ 100% attendance at a 4-day basic-level program (Waived for KC certificate holders) 	<ul style="list-style-type: none"> ✓ 100 % attendance at a 4-day basic-level or 6-day advanced-level program
Written examination	Not required	<ul style="list-style-type: none"> ✓ 70% or higher score (Resitting allowed one time only) 	<ul style="list-style-type: none"> ✓ 70% or higher score (Resitting allowed one time only) 	Not required
On-the-Job Training (OJT)	<ul style="list-style-type: none"> ✓ 70% or more attendance as instructor at 2 batches of 6 on-site sessions at an SME ✓ Independent final report of acceptable quality 	<ul style="list-style-type: none"> ✓ 70% or more attendance at 23 on-site sessions at an LE ✓ Independent mid-term report of acceptable quality ✓ Independent final report of acceptable quality 	<ul style="list-style-type: none"> ✓ 70% or more attendance at 6 on-site sessions at an SME ✓ Independent final report of acceptable quality 	<ul style="list-style-type: none"> ✓ 70% or more attendance at either 6 on-site sessions at an SME or 23 on-site sessions at an LE ✓ Final team report of acceptable quality

(1) Waiver program

For those who wish to upgrade their title of certification, a waiver program is provided as indicated in TABLE 3 to accelerate conversion to a title of greater abilities. The candidate does not need to duplicate the training module he/she has gone through already.

If a KC requests the TKU to convert their status from KC to KT, it requires additional condition. First, an application form with approval of the management should be submitted. Second, the score of written examination should reach beyond the minimum threshold of 70% if the condition has not been met before. Third, individual report needs to be submitted and approved by the TKU. The report must be prepared based on an experience of providing a KAIZEN consulting service to an enterprise engaged in different product from the one where the candidate received KC training. If a KC intends to improve the status to AKT, the KC needs to fulfill the requirements for AKT certification likewise. Before the departure of Japanese experts who authorize to approve AKT, the mechanism needs to be revised.

(2) Training of AKT and TOKT by Tanzanian experts

AKT is designed to be trained by Japanese experts since the training requires skills and experiences at high level. However, exit plan after Japanese experts leave the country has not been clarified yet. For instance, a certified AKT who provides KAIZEN consulting services for more than 10 medium and large enterprises confirmed by the TKU can be considered as alternative to be able to train other AKT candidates (TOAKT). Further discussions on this point may be required.

Likewise, training of TOKT has not been clarified yet. Since the contents of training for TOKTs remain at a basic level, a TOKT with experiences may be allowed to train other TOKTs. For instance, a TOKT who has instructed more than 10 training courses can be authorized by the TKU to train other TOKTs. These issues to train AKTs and TOKTs remain to be concerns of the TKU.

2.2 Registration of KAIZEN professionals at the MIIT

The MIIT registers the KAIZEN Trainers (KTs), Advanced KAIZEN Trainers (AKTs), and the Trainers of Training for KAIZEN Trainer (TOKTs) who apply for registration by presenting the certificate of completion of training course. KAIZEN-related opportunities and announcements will be directed to the registered KAIZEN professionals. The registration is valid for three years; KT/ AKT/ TOKT may renew their registration by providing evidence of active engagements as KAIZEN professionals before the expiration date. TABLE 4 shows the requirements for registration and renewal. The terms and conditions of registration and a sample form of registration data sheet are provided in Attachments 2 and 3, respectively.

TABLE 4 Requirements for Registration and Renewal

	TOKT	AKT	KT
Registration	<ul style="list-style-type: none"> ✓ Registration data sheet ✓ Certificate of completion of TOKT training course issued by the CBE 	<ul style="list-style-type: none"> ✓ Registration data sheet ✓ Certificate of completion of AKT training course issued by the CBE 	<ul style="list-style-type: none"> ✓ Registration data sheet ✓ Certificate of completion of KT training course issued by the CBE
Renewal	<ul style="list-style-type: none"> ✓ Registration data sheet ✓ Attendance at one refreshing seminar in the current registration period (3 years) ✓ KAIZEN Consulting Service Record⁵ submitted for at least 5 client enterprises served in the current registration period (3 years) ✓ Delivery of at least 1 training course for KAIZEN trainers in the current registration period (3 years), endorsed by the CBE 	<ul style="list-style-type: none"> ✓ Registration data sheet ✓ Attendance at one refreshing seminar in the current registration period (3 years) ✓ KAIZEN Consulting Service Record submitted for at least 5 client enterprises served in the current registration period (3 years) ✓ Provision of advanced-level KAIZEN consulting service (in terms of enterprise size or KAIZEN theme/methods) to at least 2 of the abovementioned client enterprises 	<ul style="list-style-type: none"> ✓ Registration data sheet ✓ Attendance at one refreshing seminar in the current registration period (3 years) ✓ KAIZEN Consulting Service Record submitted for at least 5 client enterprises served in the current registration period (3 years)

Note: Holders of multiple titles may submit the same evidence to satisfy requirements of different titles. KAIZEN Master Trainers entitled before the current qualification system may register as KT.

⁵ The KAIZEN Consulting Service Record form is provided in the KAIZEN Consulting Service Guideline.

3. Training Course for KAIZEN Trainers

A training course for KAIZEN Trainers consists of (1) a classroom training (CRT) program, (2) an on-the-job training (OJT) program, and (3) a wrap-up meeting. The CBE, in close cooperation with the TKU and SIDO, is expected to maintain the training course effective to achieve the learning scope and objectives in changing environment for course implementation. The modality of training may be modified and adjusted as long as the knowledge and techniques defined in TABLE 2 will be attained through the training course.

3.1 Recruitment of Pilot Enterprises

Once a training course is planned, the CBE recruits pilot enterprises (PEs) that will accept a team of trainees to implement KAIZEN activities on site during the OJT program. The number of PEs needed will be determined by the planned capacity of training course; in principle, one PE will accommodate up to three trainees in a basic-level program and up to five trainees in an advanced-level program. In addition, the size⁶ and the manufacturing system of PEs matter when determining their appropriateness for basic or advanced-level OJT programs. Although advanced-level KAIZEN is suitable to large enterprises (LEs) and basic-level KAIZEN to micro, small, and medium-sized enterprises (MSMEs) in principle, exceptions may apply to such cases as a large enterprise having a single production process with one machine, a small enterprise running a highly sophisticated production system, etc.

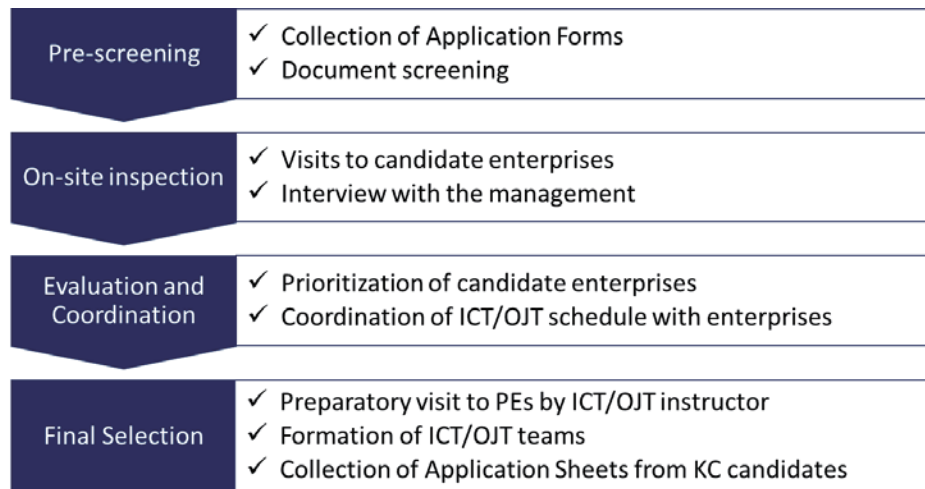
The first training course to be organized in a region will follow a Stakeholder Sensitization Seminar as described in the KAIZEN Promotion Activity Guideline, which should work as a funnel to recruit suitable PEs. The CBE, in cooperation with the TKU and the Regional Office of Small Industry Development Organization (SIDO-RO), makes sure that the seminar will be participated in by potential PEs. Training courses not preceded by the Top Management Seminar require another approach to recruitment of PEs; recommendations or direct applications will be called through SIDO-RO and other local partners. In addition, the TKU, the CBE, and SIDO-RO should seek chance of collaboration and integration with other programs so that the beneficiaries of such programs will be introduced to KAIZEN and thereby synergy effects can be generated.

FIGURE 2 illustrates the process of selecting PEs out of candidate enterprises applying for receiving on-site KAIZEN guidance by the OJT team. A sample of the Application Form is provided in Attachment 4. The criteria for selection of PEs are as presented in BOX 1. In some regions a challenge is expected that a limited number of manufacturing enterprises are in operation and their locations are not favorable to the accessibility for trainees. Instructors and SIDO-RO should coordinate the optimal arrangement of the PEs for

⁶ The size category of enterprise is defined in Tanzania by the amount of capital investment and the number of employees. PEs are classified according to the number of employees as follows: large enterprises have 100 and more employees, medium-sized enterprises have 50 to 99 employees, small enterprises have 10 to 49 employees, and micro enterprises have less than 10 employees.

uninterrupted implementation of the OJT program.

FIGURE 2 Process of Pilot Enterprise Selection



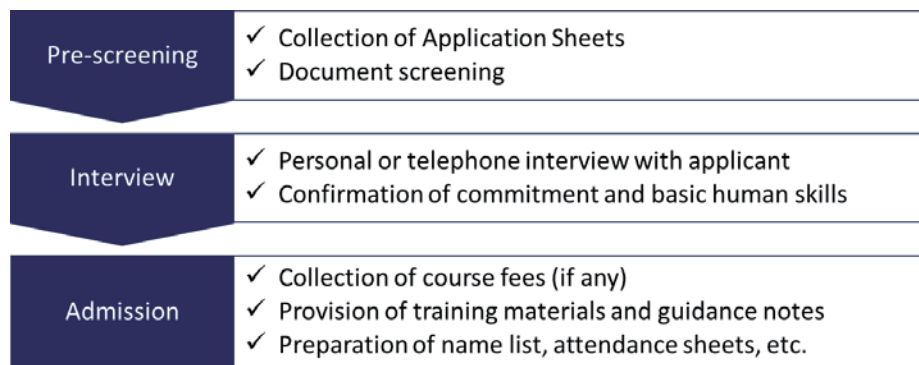
BOX 1 Criteria for Selection of Pilot Enterprises

1. The top management is eager to learn and implement KAIZEN in the enterprise.
The top management should be aware of the time and money that need to be shouldered by the enterprise and agrees to bear the costs.
2. The enterprise has 10 or more employees and suitable for the level of OJT program.
Micro enterprises are excluded from PE candidates.
3. The enterprise is operating.
Operation may be disrupted by fluctuating demand, shortage of funds, etc.
4. The enterprise is located in an easily accessible area for trainees.
5. The enterprise has a good chance of generating positive results through KAIZEN activities.
6. The enterprise is able to assign at least two competent employees as KC candidates.
7. The management allows data collection, picture taking, and/or video shooting at the target workplace for the purpose of problem analyses and effectiveness measurement.
The data to be collected during the OJT program will not be publicized without a separate permission by the management given in advance.

3.2 Enrollment of Trainees

The process of enrolling KAIZEN Trainer candidates is shown in FIGURE 3.

FIGURE 3 Process of Enrollment of KAIZEN Trainer Candidates



3.3 Classroom Training (CRT) Program

TABLE 5 presents a standard timetable of the classroom training program. The duration of a classroom training program is 4 days for KT candidates and 2 more days for AKT candidates. In case if an AKT candidate attends the classroom training program both for basic and advanced course consecutively, it sums up to 6 days. KCs are also requested to attend the classroom training program as well. KCs from MSMEs participate in the classroom training for KT candidates (basic), and KCs from large enterprises attends the classroom training program for KT candidates (basic) and AKT candidates (advanced).

Absence is not accepted for classroom training as it is quite intensive. If the participant is absent from classroom training, he or she will be failed.

TABLE 5 Standard Timetable of Classroom Training Program
Advanced-level Classroom Training Program

		Basic-level Classroom Training Program					
		Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
8:45-9:00	Registration	Registration	Registration	Registration	Registration	Registration	Registration
9:00-10:30	<ul style="list-style-type: none"> • General guidance • What is KAIZEN? 	<ul style="list-style-type: none"> • Layout improvement (Part of 5S implementation) 	<ul style="list-style-type: none"> • Why-why analysis 	<ul style="list-style-type: none"> • Production management 	<ul style="list-style-type: none"> • Total Quality Management (TQM) 	<ul style="list-style-type: none"> • Standardization 	
10:30-11:00	Short break	Short break	Short break	Short break	Short break	Short break	Short break
11:00-12:30	<ul style="list-style-type: none"> • 3-Mu (<i>Muri, Muda and Mura</i>) 	<ul style="list-style-type: none"> • QCC • Problem solving 	<ul style="list-style-type: none"> • <i>Muda-dori</i> 	<ul style="list-style-type: none"> • Production management (cont.) 	<ul style="list-style-type: none"> • TQM (cont.) 	<ul style="list-style-type: none"> • Total Productive Maintenance (TPM) 	
12:30-13:30	Lunch break	Lunch break	Lunch break	Lunch break	Lunch break	Lunch break	Lunch break
13:30-14:30	<ul style="list-style-type: none"> • 5S + 1S 	<ul style="list-style-type: none"> • 7 QC Tools 	<ul style="list-style-type: none"> • <i>Muda-dori</i> (cont.) 	<ul style="list-style-type: none"> • Inventory control 	<ul style="list-style-type: none"> • Cost management 	<ul style="list-style-type: none"> • Company diagnosis 	
14:30-15:00	Short break	Short break	Short break	Short break	Short break	Short break	Short break
15:00-16:00	<ul style="list-style-type: none"> • Visualization 	<ul style="list-style-type: none"> • 7 QC Tools (cont.) 	<ul style="list-style-type: none"> • Industrial Engineering 	<ul style="list-style-type: none"> • Effectiveness measurement and data collection • Guidance on OJT program 	<ul style="list-style-type: none"> • Cost management (cont.) 	<ul style="list-style-type: none"> • Guidance on OJT program 	

TOKT candidates conduct classroom training under supervision of a certified TOKT. Serious mistakes are to be corrected immediately, and the comments and advice will be provided to the TOKT candidate directly by the supervisor after the classroom training program.

Apart from TOKT candidates, AKT candidates may conduct classroom training if he/she is interested and capable. Nevertheless, the course leader must be a TOKT.

3.4 Written Examination

The written examination is administered at the end of the CRT program. KT candidates answer 50 multiple-answer questions in 60 minutes, while AKT candidates go through 32 multiple-answer questions in 40 minutes.

Candidates must provide correct answers to at least 70% of the questions in order to pass the exam. For those who fail the exam, resitting is allowed for one time only and will be provided during the OJT program and before the wrap-up meeting.

3.5 On-the-Job Training (OJT) Program

The OJT program consists of 6 weeks for KT candidates and 23 weeks for AKT candidates. The program should follow the process of KAIZEN implementation described in the KAIZEN Consulting Service Guideline. The contents or activities in OJT program are explained in TABLES 6 and 7 below.

TABLE 6 Basic-level OJT program for KT Candidates and KCs from SMEs

Week	Contents of training
1	Meeting with the management team, management policies, company diagnosis, SWOT analysis, etc.
2	Theme setting, target setting, current status analysis on themes
3	Current status analysis on themes (cont.), cause investigation, plan for countermeasures Trainees Knowledge Sharing Meeting & Resitting of written examination
4	Implementation of countermeasures
5	Implementation of countermeasures
6	Confirmation of results, preparation of follow-up action plans, and report to the management team

TABLE 7 Sample Advanced-level OJT Program for AKT Candidates and KCs from LEs

Week	Contents of Training
1	Company diagnosis and base line survey
2	KAIZEN theme identification in along with management policies
2	Key Performance Indicator (KPI) and numerical target identification
3-6	Current situation analysis and identification of the issue
7	Preparation of action plan

Week	Contents of Training
8-10	Cause analysis
11	Planning of countermeasures
	Trainees Knowledge Sharing Meeting & Resitting of written examination
12-16	Implementation of countermeasures
17	Confirmation of outputs
18	Preparation of countermeasure plan
19-21	Implementation of countermeasure plan
22-23	Measurement of outputs (impact)

The Trainees Knowledge Sharing Meeting, which is scheduled in the third week of basic-level program or in the eleventh week of advanced-level program, is intended for promoting mutual learning among the trainees. All trainees enrolled in the training course will get together and share their findings, ideas, or lessons from attending to different PEs. The instructor should design and guide the meeting to close the gap between fast- and slow-learners; for example, discussion on problems commonly found in different Gemba, brainstorming of countermeasure ideas for a problem which the OJT team is having difficulty to cope with, or giving advice to each other may be effective.

Actual courses of the program vary depending on the assignment set up in each pilot enterprise. The instructor must adjust and coordinate the schedule of activities as satisfaction of the PE is crucial for the OJT program to be successful and fruitful to the trainees.

KT candidates are required to participate in 4 out of 5 times of on-site activities at the PE to complete the program. Likewise, AKT candidates must attend 16 out of 23 times. The instructor keeps record of attendance which will be submitted to the CBE weekly during the period of OJT program. If the CBE agrees and assumes it necessary, a trainee may visit the PE voluntarily and engage in one-day independent activities to make up for one day of absence from the regular program.

All trainees will compile and submit a final report at the end of the OJT program. TOKT/AKT/KT candidates are expected to prepare a report individually, while KCs are to write a report as a team. BOX 2 shows the standard list of contents of the final report. The instructor will evaluate or mark the report submitted based on the criteria provided in TABLE 8. The report shall be accepted only when it scores two or higher on the three-point scale in every evaluation item. Any report which is not qualified for the minimum condition will be requested to be re-submitted. If it is not re-submitted or does not improve the quality, that report would be disqualified.

BOX 2 Standard List of Contents of Final Report

<u>Report to be written by AKT/KT candidates and KCs</u>	<u>Report to be written by TOKT candidates</u>
<ol style="list-style-type: none"> 1. Introduction: profile and management policy of PE 2. Preparation 3. Theme selection (issues recognized by PE, reason for selecting the theme, specifications of the theme) 4. Target 5. Current situation analysis 6. Cause analysis 7. Countermeasures and action plan 8. Results 9. Lessons learned 10. Actions for the future 	<ol style="list-style-type: none"> 1. Training plan (training objective and target indicators, list of trainees, schedule, profile of PE, KAIZEN theme and target indicators) 2. Weekly progress (participants, weekly plan, weekly achievement, gap analysis) 3. Outcome (comparison of targets and actual results for: KAIZEN theme and indicators, training objective and indicators) 4. Future challenges (challenges in training of KTs and challenges for pilot enterprises)

TABLE 8 Evaluation Criteria for Final Report of OJT Program

Evaluation item		Not acceptable Score: 1	Acceptable Score: 2	Excellent Score: 3
Quality of report	Logical consistency of the narrative of theme selection, cause identification, and countermeasure implementation	The logical flow from the problems to the causes to the countermeasures presented in the Report is weak and unconvincing.	The Report maintains logical consistency among the problems, the causes, and the countermeasures, while some details may contain irrelevance.	The Report is logically consistent throughout its contents.
	Clarity of the narrative that a reader without being on the service site can understand the activity	The reader cannot grasp an overall picture of activities implemented	The reader will understand the overall flow of specific activities conducted, while some parts may contain ambiguity.	The reader will have a clear understanding of all activities conducted.
Quality of consulting service	Adequate support for organizational setup, such as KAIZEN team and/or committee, for KAIZEN activities in the client company	The Report does not tell about organizational setup in the client company.	The organizational setup established in the client company was not sufficient for vigorous KAIZEN activities, but the KAIZEN Trainer provided advice and support to facilitate activities in the particular situation.	A sufficient organizational setup was established in the client company.
	Appropriate selection and use of KAIZEN methods/tools	The method/tool employed was unsuitable for the purpose, and/or it was used in a wrong way.	The method/tool employed was suitable and used in a proper way, while the selection of it may not be the best fit for the purpose.	Throughout the activity period, the method/tool employed was the best selection for the purpose and used properly.
	Adequate support for producing good results from KAIZEN activities.	The Report does not tell about the results from KAIZEN activities.	Although the results did not reach the target figure, causes of nonattainment are explored and lessons and further actions are suggested.	The results delivered from KAIZEN activities achieved the target figure.

3.6 Wrap-up meeting

After a few months from the classroom training and OJT programs, a wrap-up meeting will be held. The wrap-up meeting functions as a seminar to learn the effort and output of KAIZEN activities by presentations from PEs based on the progress gained by classroom training and OJT. Presenters are KAIZEN member and KC of the PEs or KT/AKT candidates. Output is expected to illustrate a degree of change by explaining the indicators and the reason of change. Enterprises which participate in and make a presentation at wrap-up meeting may be considered for nomination to annual KAIZEN Award Competition.

All certificates will be awarded at the end of the meeting for logistical efficiency. In the case that a supplementary written examination (resitting) has not been provided earlier, it may be administered on the day of the wrap-up meeting before the meeting proper.

3.7 Certificates

Certificates of Completion for qualified TOKT/AKT/KT candidates will be issued at the end of the wrap-up meeting or otherwise within 6 weeks after the meeting. KCs who successfully completed the training course, as well as PEs which completed the designated weeks of KAIZEN implementation, will be awarded a Certificate of Recognition.

The CBE provides the summary of results from each training course to the TKU so that the registration process of certified KAIZEN professionals will be facilitated.


**APPLICATION FORM FOR ADVANCED KAIZEN TRAINER (AKT)
 AND TRAINER OF KAIZEN TRAINER (TOKT) CANDIDATE**

Category to apply	<input type="checkbox"/> Advanced Kaizen Trainer (AKT) <input type="checkbox"/> Trainer of Kaizen Trainer (TOKT)
Date and place certified as KAIZEN Trainer	

PERSONAL INFORMATION	
Name* (With a title: Mr./Ms.,etc.)	
Address	
Mobile	
E-mail	
Organization/Position	
Nationality	
Main field of Consulting	
Membership in professional bodies	
Date of birth	

*Please note: This name and title will appear on your certification if you successfully complete the training.

STANTIVE QUESTIONS	
1	Describe the reason you wish to participate in this Program.
2	List any specific training/skills you would like to have in this training.
3	Can you make a firm commitment to participate in the training program? <input type="checkbox"/> Yes <input type="checkbox"/> No
Signature _____ Date _____	
APPROVAL BY THE ORGANIZATION	
Our organization hereby approves this application of the KAIZEN trainer training and ensure the applicant can attend the training by absentsing his/her daily work.	
Signature _____ Date _____ Name: Designation / Position:	

Please submit this form to tku@mit.go.tz Asante.



APPLICATION FORM FOR KAIZEN TRAINER (KT) CANDIDATE

PERSONAL INFORMATION	
Name* (With a title: Mr./Ms.,etc.)	
Address	
Mobile	
E-mail	
Organization/Position	
Nationality	
Main field of Consulting	
Membership in professional bodies	
Date of birth	

*Please note: This name and title will appear on your certification if you successfully complete the training.

KAIZEN PROJECT REQUIREMENTS	
Years of experience as a consultant	
Number of clients served in the field of production management in the past three (3) years	
Identify the techniques you are familiar with:	
- Quality Control	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> a Little
- Production Planning	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> a Little
- Process Control	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> a Little
- Process Layout Analysis	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> a Little
- Production Cost Control	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> a Little
- Inventory Control	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> a Little
- Others (specify)	

WORK EXPERIENCE (Start from the Last position)	
Dates (from – to)	
Name and address of employer	
Type of business or sector	
Occupation or position held	
Main activities and responsibilities	
Dates (from – to)	
Name and address of employer	
Type of business or sector	
Occupation or position held	

EDUCATION AND TRAINING

Dates (from – to)	
Name and type of organization providing education and training	
Principal subjects /occupational skills covered	
Title of qualification awarded	
Level in national classification (if appropriate)	
PERSONAL SKILLS AND COMPETENCIES <i>(not necessarily covered by formal certificates)</i>	
Mother tongue	
Other languages	
English	Reading skills:
	Writing skills:
	Verbal skills:
Technical skills and competencies	[Describe these competences and indicate where you acquired.]
Driving licence(s)	
Additional information	

SUBSTANTIVE QUESTIONS	
------------------------------	--

1	Describe the reason you wish to participate in this Program.
2	List any specific training/skills you would like to have in this training.
3	Can you make a firm commitment to participate in the training program? <input type="checkbox"/> Yes <input type="checkbox"/> No

Signature _____ Date _____

APPROVAL BY THE ORGANIZATION	
-------------------------------------	--

Our organization hereby approves this application of the KAIZEN trainer training and ensure the applicant can attend the training by absenting his/her daily work.

Signature _____ Date _____

Name:

Designation / Position:

Please submit this form to tku@mit.go.tz Asante.





APPLICATION FORM FOR IN-HOUSE KAIZEN COORDINATOR (KC) CANDIDATE

PERSONAL INFORMATION	
Name* (With a title: Mr./Ms.,etc.)	
Address	
Mobile	
E-mail	
Nationality	
Date of birth	
CompanyName	
Position	
Job Description	

*Please note: This name and title will appear on your official recognition if you successfully complete the training.

KAIZEN EXPERIENCE	
Years of experience of KAIZEN	
Identify the techniques you are familiar with:	
- Quality Control	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> a Little
- Production Planning	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> a Little
- Process Control	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> a Little
- Process Layout Analysis	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> a Little
- Production Cost Control	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> a Little
- Inventory Control	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> a Little
- Others(specify)	

Substantive Questions

- 1) List any specific training/skills you would like to have in this training.
- 2) Can you make a firm commitment to participate in the training program? Yes No

Signature _____ Date _____

Approval by the Organization

Our organization hereby approves this application of the in-house KAIZEN coordinator training and ensures the applicant can attend the training by absentsing his/her daily work.

Signature _____ Date _____

Name:

Designation / Position:

Please submit this form to tku@mit.go.tz Asante Sana



Terms and Conditions of KAIZEN Trainer Registration

1. Registration

- 1.1 Persons who completed and certified in a designated KAIZEN Trainer Training Course may apply for registration at the Tanzania KAIZEN Unit (TKU), Ministry of Investment, Industry and Trade, to be officially recognized as KAIZEN Trainer.
- 1.2 The categories of registration are 1) Basic KAIZEN Trainer (KT), 2) Advanced KAIZEN Trainer (AKT) and 3) Trainer of Training for KAIZEN Trainers (TOKT).
- 1.3 Application for registration must be made within the period that shall be prescribed by the TKU once a year and no later than three years after completion of the Training Course.
- 1.4 Application shall be made by submitting the application documents listed below.

Category	Application documents for initial registration
KT AKT TOKT	1) Registration Data Sheet 2) Proof of payment for registration fees 3) Certificate of completion of a KAIZEN Trainer Training Course in the category of registration 4) Copy of personal identification document

- 1.5 Special terms apply to the persons who completed a KAIZEN Trainer Training Course before July 2019 that their application for registration shall be accepted until June 2024.
- 1.6 Persons who completed a KAIZEN Master Trainer Training Course may apply for registration in the category of Basic KAIZEN Trainer (KT). Their application for registration shall be accepted until June 2024.

2. Termination of Registration

- 2.1 [Expiration] Registration shall be terminated by the TKU after three years from the date of registration.
- 2.2 [Voluntary termination] Registration may be terminated by the person himself/herself by making a written request to the TKU at any time of the year.

3. Renewal of Registration

- 3.1 Registration shall be renewed after every three years by taking all necessary procedures for renewal.
- 3.2 Application for renewal of registration must be made within the period that shall be prescribed by the TKU once a year and before expiration of current registration.
- 3.3 Application for renewal shall be made by submitting the application documents required for each category of registration as indicated in the table below.

Category	Application documents for renewal registration
KT	<ol style="list-style-type: none"> 1) Registration Data Sheet 2) Proof of payment for registration fees 3) Certificate of attendance at one refreshing seminar in the current registration period (recent 3 years) 4) KAIZEN Consulting Service Records on at least five client enterprises served in the current registration period (recent 3 years)
AKT	<ol style="list-style-type: none"> 1) Registration Data Sheet 2) Proof of payment for registration fees 3) Certificate of attendance at one refreshing seminar in the current registration period (recent 3 years) 4) KAIZEN Consulting Service Records on at least five client enterprises served in the current registration period (recent 3 years), at least two of which must report provision of advanced-level KAIZEN consulting service in terms of enterprise size or KAIZEN theme/methods.
TOKT	<ol style="list-style-type: none"> 1) Registration Data Sheet 2) Proof of payment for registration fees 3) Certificate of attendance at one refreshing seminar in the current registration period (recent 3 years) 4) KAIZEN Consulting Service Records on at least five client enterprises served in the current registration period (recent 3 years) 5) Written evidence from the College of Business Education (CBE) on delivery of at least one KAIZEN Trainer Training Course in the current registration period (recent 3 years)

3.4 Persons registered in multiple categories may submit same documents to satisfy the requirements of different categories.

3.5 Persons registered in a category may add another category by renewing the registration before expiration. Application shall be made by submitting the application documents as indicated in the table below.

Category	Application documents for renewal registration								
For the category to be added	<table border="1"> <tr> <td>KT</td> <td>1) Registration Data Sheet</td> </tr> <tr> <td>AKT</td> <td>2) Proof of payment for registration fees</td> </tr> <tr> <td>TOKT</td> <td>3) Certificate of completion of a KAIZEN Trainer Training Course in the category of registration</td> </tr> <tr> <td></td> <td>4) Copy of personal identification document</td> </tr> </table>	KT	1) Registration Data Sheet	AKT	2) Proof of payment for registration fees	TOKT	3) Certificate of completion of a KAIZEN Trainer Training Course in the category of registration		4) Copy of personal identification document
KT	1) Registration Data Sheet								
AKT	2) Proof of payment for registration fees								
TOKT	3) Certificate of completion of a KAIZEN Trainer Training Course in the category of registration								
	4) Copy of personal identification document								
For the category already registered	<table border="1"> <tr> <td>KT</td> <td>1) Evidence of the previous valid registration</td> </tr> <tr> <td>TOKT</td> <td>2) KAIZEN Consulting Service Records on at least two client enterprises served in the current registration period</td> </tr> </table>	KT	1) Evidence of the previous valid registration	TOKT	2) KAIZEN Consulting Service Records on at least two client enterprises served in the current registration period				
	KT	1) Evidence of the previous valid registration							
TOKT	2) KAIZEN Consulting Service Records on at least two client enterprises served in the current registration period								
	<table border="1"> <tr> <td>AKT</td> <td>1) Evidence of the previous valid registration</td> </tr> <tr> <td></td> <td>2) KAIZEN Consulting Service Records on at least two client enterprises served in the current registration period, at least one of which must report provision of advanced-level KAIZEN consulting service in terms of enterprise size or KAIZEN theme/methods</td> </tr> </table>	AKT	1) Evidence of the previous valid registration		2) KAIZEN Consulting Service Records on at least two client enterprises served in the current registration period, at least one of which must report provision of advanced-level KAIZEN consulting service in terms of enterprise size or KAIZEN theme/methods				
AKT	1) Evidence of the previous valid registration								
	2) KAIZEN Consulting Service Records on at least two client enterprises served in the current registration period, at least one of which must report provision of advanced-level KAIZEN consulting service in terms of enterprise size or KAIZEN theme/methods								

4. Significance of Registration

- 4.1 A person registered in the category of Basic KAIZEN Trainer (KT), Advanced KAIZEN Trainer (AKT), or Trainer of Training for KAIZEN Trainers (TOKT) may officially present himself/herself as KAIZEN Trainer of respective category.
- 4.2 The TKU shall publish a list of registered KAIZEN Trainers.
- 4.3 A registered KAIZEN Trainer may participate in the KAIZEN Trainer Annual Conference, refreshing seminars and other KAIZEN-related opportunities provided for KAIZEN Trainers.
- 4.4 A registered KAIZEN Trainer is eligible for providing the KAIZEN consulting service which is fully or partially supported by public funds.

End of Document

(Ver. 1.0 effective on 10 August 2021)

Registration Data Sheet

Part I: Personal details

Name	Title	<input type="checkbox"/> Mr. <input type="checkbox"/> Ms. <input type="checkbox"/> Dr. <input type="checkbox"/> Other (specify: _____)			
	Surname				
	First name				
	Middle name				
Date of Birth					
Employer	Name				
	Local Address				
	Phone No.		Line of Business		
Contact Information	Local Address				
	Phone No.		Region		
	E-Mail	@			

Part II: Certification

Purpose	<input type="checkbox"/> New Registration <input type="checkbox"/> Renewal of Registration			
Category	<input type="checkbox"/> Basic KAIZEN Trainer (KT)	Certificate of Completion	Date	
			No.	
	<input type="checkbox"/> Advanced KAIZEN Trainer (AKT)	Certificate of Completion	Date	
			No.	
	<input type="checkbox"/> Trainer of KAIZEN Trainers (TOKT)	Certificate of Completion	Date	
			No.	

Part III: Specialization/ Area of competence

Expertise	* Select up to three areas in which you are most experienced and specialized.		
	<input type="checkbox"/> 5S + 1S	<input type="checkbox"/> Visualization	<input type="checkbox"/> Muda dori
	<input type="checkbox"/> Problem solving	<input type="checkbox"/> QC Story/QC Circles	<input type="checkbox"/> Layout improvement
	<input type="checkbox"/> 7 QC Tools	<input type="checkbox"/> Quality Control	<input type="checkbox"/> Total Quality Management (TQM)
	<input type="checkbox"/> Inventory control	<input type="checkbox"/> Cost management	<input type="checkbox"/> Production management
	<input type="checkbox"/> Industrial Engineering (IE)	<input type="checkbox"/> Other (specify: _____)	

Part VI: Declaration

I _____ (name) declare that the information provided is correct to my best understanding, and that, false information may necessitate cancellation of my qualifications.

NB: After filling in this form, scan and send it to tku@mit.go.tz



APPLICATION FORM FOR KAIZEN PILOT ENTERPRISE CANDIDATE

Applicant Enterprise Information			
1)	Company Name*		
2)	Company Registration No.		
3)	Company Type		
4)	Industrial Sector		
5)	No. of Total Employees (permanent/casual)		
	No. of Female Employees (permanent/casual)		
6)	Year of Establishment		
7)	Name of main products		
8)	Membership in Chamber(s)/Association(s) List (if applicable)		
9)	Company information	Postal address	
		Location	
		Representative's name /Position	
		Telephone	
		E-mail	
		Website	
10)	Contact Person	Name	
		Position	
		Telephone	
		E-mail	
*Please note: This name will appear on the recognition if the enterprise performed KAIZEN throughout training period.			
Substantive Questions			
<p>In answer these questions, the applicant company management should demonstrated its commitment to work with KAIZEN.</p> <p>Note: In assessing the eligibility of the company the Tanzania KAIZEN Unit (TKU) will use the selection criteria of good inter-sectorial and locational balance in terms of direction of industrial development in Tanzania as well as the appropriateness of the company as a pilot company.</p>			

3) Please describe some main issues which you anticipate will be improvement through application of the KAIZEN practice. (For example: low efficiency in production line)	
4) Please specify special requests/expectation of the Program, if any. (For example: to train the workers for better team work)	
5)	Can you assign a leader for KAIZEN practice (KAIZEN Coordinator: KC) in your company? (Please submit an application form for KAIZEN Coordinators to register) <input type="checkbox"/> Yes <input type="checkbox"/> No
6)	Can you guarantee that KC will attend classroom training and on-site training? <input type="checkbox"/> Yes <input type="checkbox"/> No
7)	Is your company aware about KAIZEN? <input type="checkbox"/> Yes <input type="checkbox"/> No
8)	Has your company implemented KAIZEN before? <input type="checkbox"/> Yes <input type="checkbox"/> No
9)	Does your company have a KAIZEN team? <input type="checkbox"/> Yes <input type="checkbox"/> No
10)	Can you organize KAIZEN team(s) in your company? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
11)	Can you invest in the cost for improvement such as fixing the wall and floor, cleaning tools, carts, white board, and others depending on the needs of the company? <input type="checkbox"/> Yes <input type="checkbox"/> No
12)	Can you promise not to move the production site within one year? <input type="checkbox"/> Yes <input type="checkbox"/> No
13)	Can you approve use of data, photographs, etc. produced through training, for analysis of workplace improvement as well as for promotion of the KAIZEN program? <input type="checkbox"/> Yes <input type="checkbox"/> No
14)	Can you cooperate with the questionnaire survey? <input type="checkbox"/> Yes <input type="checkbox"/> No
<p>Name:</p> <p>Position:</p> <p><i>(person authorized to sign on behalf of the applicant company)</i></p> <p>Signature _____ Date _____</p>	

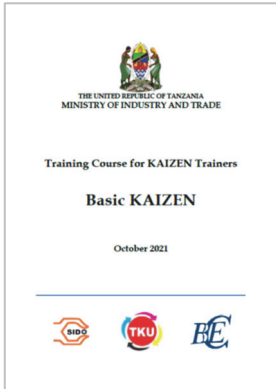

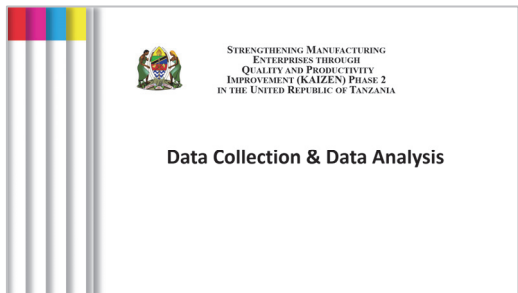
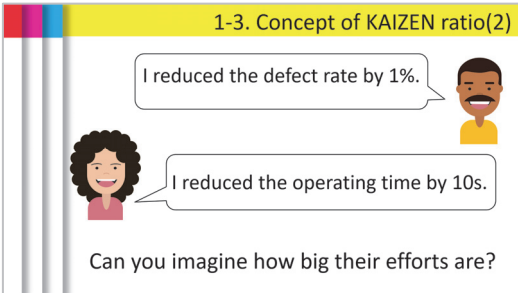
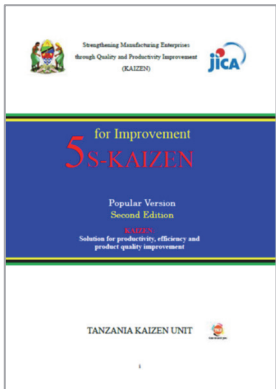
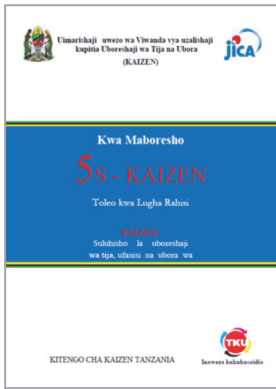
Please submit this form to tku@mit.go.tz Asante Sana.

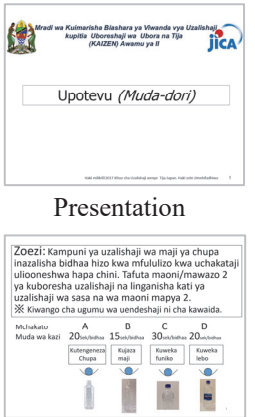












Attachment 2 Deliverables of Project



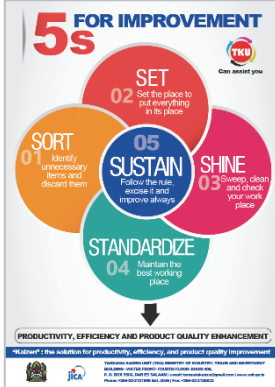




Attachment 2-3 Outline of Training and Promotion Materials

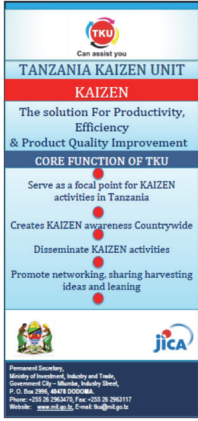


Attachment 2-3 Outline of Training and Promotion Materials

Material (language)	Description	Images
Textbooks for KAIZEN Trainer classroom training program (English)	<p>Training materials which cover the scope of training for the basic or advanced level.</p> <p>Target:</p> <ul style="list-style-type: none"> - Trainees of Training Courses for KAIZEN Trainers (candidates of KT or AKT) <p>A4; 106 + Cover (Basic) Paper 80gsm Cover 250gsm Gloss</p>	 <p>Basic Level</p>  <p>Advanced Level</p>
Video material about collecting data to measure effectiveness of KAIZEN (English)	<p>A slideshow video with narration to describe how to measure the effectiveness of KAIZEN</p> <p>Target:</p> <ul style="list-style-type: none"> - KAIZEN Trainers - Trainees of Training Courses for KAIZEN Trainers (candidates of KT or AKT) <p>MP4; 00:18:56</p>	 <p>1-3. Concept of KAIZEN ratio(2)</p> 
5S Booklet (English) (Swahili)	<p>An introductory guide to basic 5S implementation</p> <p>Target:</p> <ul style="list-style-type: none"> - Employees of companies to implement KAIZEN - Participants of Sensitization Seminars <p>A5; 36+Cover page Paper 135gsm Cover 250gsm With Lamination Gloss</p>	 <p>English</p>  <p>Swahili</p>

Material (language)	Description	Images	
<p>Materials of Introductory Training Program for Industrial Clusters (Swahili)</p>	<p>An introductory guide to basic <i>muda-dori</i> and why-why analysis</p> <p>Target:</p> <ul style="list-style-type: none"> - Participants in a sensitization seminar/introductory training at an industry cluster - Employees of companies (especially cluster members) to implement KAIZEN 	 <p>Exercice</p>	 <p>Handout Textbook</p>
<p>Basic KAIZEN (English)</p>	<p>A guide to implementation of KAIZEN activities and use of related tools (Prepared in Phase 1)</p> <p>Target:</p> <ul style="list-style-type: none"> - Trainees of Training Courses for KAIZEN Trainers (Used as a supplementary material for OJT program) 		
<p>FKM (English) (Swahili)</p>	<p>The plan of nationwide KAIZEN dissemination for 10 years from July 2020</p> <p>Target:</p> <ul style="list-style-type: none"> - Project members - Policy makers/decision makers - Donors <p>A4; 28 + cover Paper: 135gsm Gloss Cover: 250gsm Gloss Stitch Lamination</p>	 <p>English</p>	 <p>Swahili</p>
<p>Newsletter (English)</p>	<p>A periodical to publish project activities, which is Issued annually</p> <p>Target:</p> <ul style="list-style-type: none"> - General public - Project members <p>A4; 12 pages</p>	 <p>Vol. 4</p>	 <p>Vol. 5</p>

Material (language)	Description	Images
<p>TKU brochure (Swahili)</p>	<p>A brief introduction to 5S, KAIZEN, and the nationwide expansion plan</p> <p>Target:</p> <ul style="list-style-type: none"> - General public - Policy makers/decision makers <p>A4; three-fold</p>	 <p>Cover side</p>
<p>SIDO brochure (English)</p>	<p>A brief introduction to KAIZEN</p> <p>Target:</p> <ul style="list-style-type: none"> - General public <p>A4; three-fold</p>	 <p>Cover side</p>
<p>SIDO KAIZEN flyer (Swahili)</p>	<p>An introductory overview of KAIZEN concept</p> <p>Target:</p> <ul style="list-style-type: none"> - General public <p>A4; one-sided</p>	
<p>Flyer of successful cases (English)</p>	<p>A brief introduction of KAIZEN best practices</p> <p>Target:</p> <ul style="list-style-type: none"> - General public <p>A4; Double-sided</p>	 <p>A to Z Textile Mills Limited Press, Forge & Metal Works</p>



Material (language)	Description	Images
<p>Flyer for recruitment (English)</p>	<p>A guidance on the outline of training program for KAIZEN trainers and conditions for participation</p> <p>Target:</p> <ul style="list-style-type: none"> - Prospective candidates of KAIZEN trainers - Prospective candidates of pilot enterprises - Prospective candidates of KAIZEN coordinators <p>A4; Double-sided</p>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>For KT candidates</p> </div> <div style="text-align: center;">  <p>For PE and KC candidates</p> </div> </div>
<p>5S Poster (Swahili) (English)</p>	<p>Awareness raising for 5S practices</p> <p>Target:</p> <ul style="list-style-type: none"> - To be put up at workplaces of companies implementing KAIZEN <p>A2 Full Color A3 Full Color</p>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>TKU</p> </div> <div style="text-align: center;">  <p>SIDO</p> </div> </div>
<p>Banner (Backdrops)</p>	<p>To be put up in the venue for events</p>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Sensitization Seminar</p> </div> <div style="text-align: center;">  <p>KAIZEN Award</p> </div> </div> <div style="text-align: center; margin-top: 20px;">  <p>KAIZEN Day</p> </div>

Material (language)	Description	Images		
Standing Banner	To be placed at events and exhibitions	 <p>TKU Can assist you TANZANIA KAIZEN UNIT KAIZEN The solution For Productivity, Efficiency & Product Quality Improvement CORE FUNCTION OF TKU Serve as a focal point for KAIZEN activities in Tanzania Creates KAIZEN awareness Countrywide Disseminate KAIZEN activities Promote networking, sharing harvesting ideas and leaning</p> <p>TKU</p>	 <p>COLLEGE OF BUSINESS EDUCATION (CBE) CBE PROVIDES KAIZEN TRAINING Programs offered: Basic KAIZEN training (141L) Advanced KAIZEN training (141L) Trainer of KAIZEN training (141L) Kaizen Training and Improvement The solution for productivity & quality improvement. KAIZEN BENEFITS</p> <p>CBE</p>	 <p>SMALL INDUSTRIES DEVELOPMENT ORGANIZATION (SIDO) SIDO KAIZEN THE SOLUTION FOR PRODUCTIVITY, EFFICIENCY & QUALITY IMPROVEMENT KAIZEN BENEFITS Improved Turnover and Equipment Increased morale - Employee retention Encouraged commitment - Creative problem solving Increased Productivity and Capacity Reduction of waste Improved production flow Cost Reduction Collaborative problem solving Well-defined work standards Streamlined process and flow Optimal Utilization Inventory control and reduction Improved utilization of equipment and employee skills Safety Clean workplace Well established safety standards Improved ergonomics Customer Satisfaction Reduction of lead time Higher quality and improved competitiveness</p> <p>SIDO</p>

Source: Prepared by the JICA Project Team

Attachment 2 Deliverables of Project

Attachment 2-4 Presentation Material on “KAIZEN x Cluster” Model

Presentation on Tanzanian Model

KAIZEN Service Provision to Industrial Clusters
"KAIZEN x Cluster"

Africa KAIZEN Annual Conference 2021

Day 2
25 August 2021

1

1

Sempeho Manongi Nyari



Regional Manager, Small Industries Development Organization (SIDO) Dodoma Regional Office

Advanced KAIZEN Trainer

Serving Tanzanian MSMEs at SIDO since 2006.
MBA Corporate Management from Mzumbe University.
PGDBA from College of Business Education.
BA in Economics from Bugema University, Uganda.
Specialized in enterprise development, rural industrialization and productivity improvement.
Conducted training to many Tanzanian MSMEs in business management, marketing, investment project appraisal, international trade requirements, etc.
Provided KAIZEN consulting to 17 firms.

2

2

Key Messages

- **Cluster Development Approach** has been promoted in Tanzania as a way for industrialization.
- KAIZEN is meaningful to individual firms. In addition to that, dissemination of KAIZEN concept and implementation can be enhanced by utilizing the framework of industrial cluster.
- Therefore, we have tried to **combine Cluster Development Approach with KAIZEN**.
- There are signs to justify **the effectiveness of this approach**, despite data limitation.
- "KAIZEN x Cluster" can be **applicable** to other African countries.

3

3

Outline

1. Cluster development in Tanzania
2. Concept & objectives of "KAIZEN x Cluster"
3. Flow
4. Pilot modality
5. Pilot examples & achievements
6. Lessons & recommendations

4


4

Outline

1. Cluster development in Tanzania
2. Concept & objectives of "KAIZEN x Cluster"
3. Flow
4. Pilot modality
5. Pilot examples & achievements
6. Lessons & recommendations

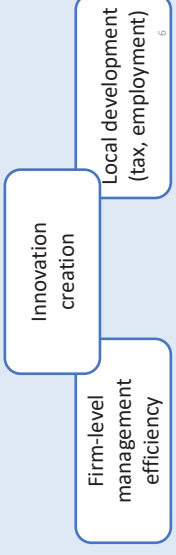
5

Why Cluster Development?




"A geographically proximate group of interconnected companies and associated institutions in a particular field, linked by complementarities and commonalities"
(Michael Porter)

- Information sharing leads to knowledge sharing.
- Cooperation and collaboration enable more options than those achievable individually.
- Increased visibility attracts value chain actors and supporting institutions. (Support provision becomes easier for service providers, too)



6

About 59 clusters have been supported by SIDO in collaboration with other stakeholders.



- Sunflower oil
- Rice milling
- Grain milling (e.g., maize)
- Grape processing
- Honey processing
- Food products
- Seaweed
- Dried fish
- Milk processing
- Leather products
- Metal engineering
- Clothes
- Sisal products

7

Many stakeholders are found in a cluster.

Minko SF Oil Cluster
66 members incl. farmers, NGOs, village officials (Many crushers are also farmers)

Upstream: Suppliers (Seed, Crude oil, Refined oil, Seed cake), Equipment, Packaging, Aggregators, Farmers (in Singida District & nearby LGAs & regions), SF oil mills (non-members), Mechanics, Repair services, Land, Warehouse, Machines, Minko Village, Singida District, Building (refinery).

Core: SF oil mills (Crushers) (22, with 116 direct employment (2019)), Refinery (with warehouse), Transporters, Traders & Retailers, Consumers.

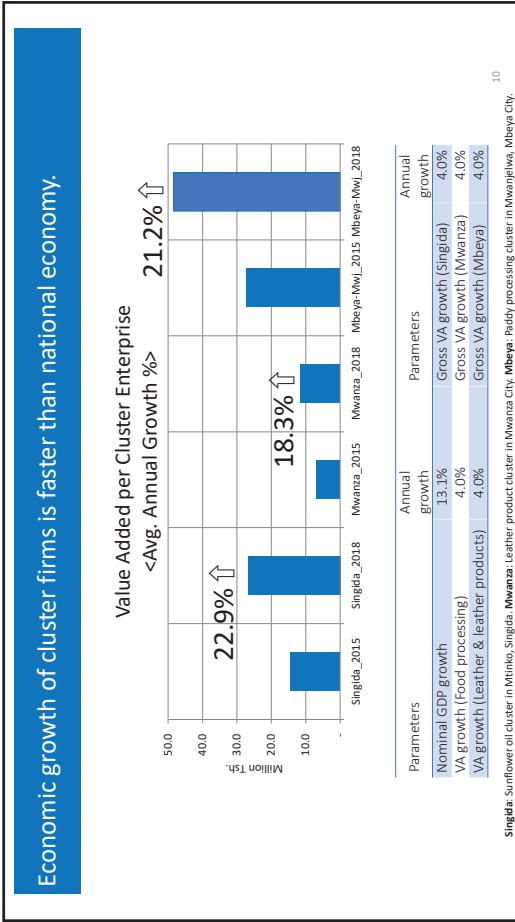
Support & Services: SIDO (loan to member crushers), MIVARE (exted), MTTI, Finance, Partners, TA, Finance, Sida, JICA, UDOM, <Academia, R&D>, <Private Institutions> (Banks, Lab. expert, UDOM), <Public org./Project> (MIVARE, MTTI).

Downstream: Traders & Retailers, Consumers, Cake buyers.

Other: Baseline survey, have the ready to go, UDOM.

As of Aug. 2018

8



- Outline**
1. Cluster development in Tanzania
 2. Concept & objectives of "KAIZEN x Cluster"
 3. Flow
 4. Pilot modality
 5. Pilot examples and achievements
 6. Recommendations

Background

- Cluster Development Approach was bearing fruits.
- Challenge: Upgrading firm-level management efficiency and product quality.
- Knowing that KAIZEN program was bringing success to industries, the Government of Tanzania found it necessary to **empower cluster with KAIZEN** so that challenges can be solved in clusters.

2 Objectives of "KAIZEN x Cluster"

1

To disseminate KAIZEN concept and promote KAIZEN implementation widely

in addition to the ordinary ways to reach individual firms.

2

To position KAIZEN services as a typical BDS tool for industrial clusters

in attempt to increase competitiveness of the clusters.

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Outline

1. Cluster development in Tanzania
2. Concept & objectives of "KAIZEN x Cluster"
3. Flow
4. Pilot modality
5. Pilot examples & achievements
6. Lessons & recommendations

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13

14

Two methods: ① Standard Method and ② M&E Visit & Advice Method.

① Standard Method

To whole cluster To target firm To target firm To whole cluster

Situation analysis

Sensitization seminar (1 day)

Gemba Visit (1-2 days)

Consulting (5 weeks)

Wrap-up seminar (1 day)

- Select target clusters through site visit & screening
- Inform cluster members about KAIZEN and its benefits
- Call for application for consulting
- Gemba Training to employees
- Gemba Consultation to understand more about the target company
- Theme setting
- Problem finding
- Cause analysis
- Countermeasure
- Reporting about target firms
- Knowledge sharing
- Measurement

② M&E Visit & Advice Method

To whole cluster To whole cluster

Situation analysis

Sensitization seminar

Monitoring Visits (2-3 days x 3 times)

- Select target clusters through site visit & screening
- Inform cluster people about KAIZEN
- Use other occasions for sensitization
- Gemba Training to cluster members
- Pilot exercises
- Knowledge sharing

Sensitization & Gemba Training covered:

- ✓ Introduction to KAIZEN
- ✓ 5S+1
- ✓ Muda-dori
- ✓ Why-why analysis

15

15

16

During consulting, at least one KPI is selected from the list.

5S	Quality	Productivity
Free space rate (%)	Defective rate (%)	Production volume per unit time (pieces/hour, tons/day, etc.)
Time required for picking an item (sec.)	Yield rate (%)	Production lead time (hours, days, etc.)
5S score		

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Outline

- Cluster development in Tanzania
- Concept & objectives of "KAIZEN x Cluster"
- Flow
- Pilot modality
- Pilot examples & achievements
- Lessons & recommendations

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Region	Target Clusters	Reasons for selection	KAIZEN Trainers
Dodoma	UWAZAMAM (Grape)	Many beneficiaries. Different segments of VC involved. Many trainers available. A cooperative of 150 members.	Sempeho Manongi, Meitalami Nyangusi, Crispin Kapinga, Richard Benaya
Mbeya	Mbeya Rice Group (MRG)	Many beneficiaries. 30 milling machines operated by 22 processors. 1,800 persons working directly and indirectly in 15 sub-groups.	Francis Stewart, Baraka Israel, Stanley Kibakaya, Jane Lyatuu
Morogoro	Metal Engineering Cluster Initiative (MECI)	Has basic experiences in Kaizen. Expansion to other members is realistic. 68 members (60 micro/small & 8 medium). 450 employment in total.	Allen Mhizze, Lilian Godwin, Joan Mangawe, Grace Makoye, Emmanuel Zakayo
Kagera	SIDO Karakana (metal, carpentry, etc.)	100+ micro businesses concentrated in one location, and considered ready for M&E Visit & Advice Method.	Nina Nchimbi, Peter Kilima, Maneno Maporo, John Lelo

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Planned for 3 batches (of Gemba Visit & Consulting) in 3 regions for Standard Method.
 Morogoro Team managed to complete consulting to 16 companies in 3 batches.
 Kagera Team conducted 3 visits as planned under M&E Visit & Advice Method.

19

Trainers used standard materials (customized to fit the local context).
 Various formats were utilized. Modification is ongoing based on the pilot exercise.
 Trainers reported activities and findings from each visit.
 Japanese experts gave advice through weekly Zoom meeting.

Steps	Formats and Materials Used
Situation Analysis	<ul style="list-style-type: none"> Checklist for Cluster Selection
Sensitization Seminar	<ul style="list-style-type: none"> Presentation material for sensitization (incl. announcement for consulting service) Questionnaire (baseline) Questionnaire (feedback) Application form
Target firm selection	<ul style="list-style-type: none"> (Fee table) Agreement form
Gemba Visit & Consulting	<ul style="list-style-type: none"> Materials for Gemba Training (List of KAIZEN indicators) 5S Total Evaluation Sheet Questionnaire (endline) Report formats: <ul style="list-style-type: none"> Google Forms for report to Japanese experts KAIZEN Consulting Service Record KAIZEN Implementation Report (In Word and PPT)
(Kagera) M&E visit & advice	<ul style="list-style-type: none"> Presentation material for sensitization Other training materials as necessary

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Outline

1. Cluster development in Tanzania
2. Concept & objectives of "KAIZEN x Cluster"
3. Flow
4. Pilot modality
5. Pilot examples & achievements
6. Lessons & recommendations


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Increased space by 24% and reduced time to find items by 90%.

Company	Oak Metal Works (est. 2006)
Location	Morogoro (Saba Saba area)
Employees	12
Business	Metalwork (cooking stove, gates, doors, etc.)



Before



After

Problems	Limited working space, long time to pick items, dirty & dangerous work place, low morale
KAIZEN theme	Space creation Target: Increase work space by 16.7% (Create 20 m ² more)
Measures taken	<ul style="list-style-type: none"> Weekly sorting, arranged items, cleaning based on timetable Making KAIZEN board and racks for storage Demarcating storage areas
KPI	16.7% (20 m ²) → 40.8% (49 m ²) (= US\$63/mo.)
Other achievements	<ul style="list-style-type: none"> Sold unnecessary items to gain TZ\$100,000 (= same as monthly rent). Time to find items reduced from 30 min. to 3 min. (≈ USD724/mo.)

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Increased working space by 53 %.

Company	Abel C Rice Milling (est. 2006)
Location	Mbeya (Mwanjelwa area)
Employees	5
Business	Rice milling



Before



After

Problems	Limited working space, unnecessary items, unorganized layout.
KAIZEN theme	Space creation & layout improvement Targets: Create passage of 60 cm, increase working space from 7 m ² to 15 m ² .
Measures taken	<ul style="list-style-type: none"> Sorting and shining Improving layout and visualizing areas Using pallets to handle rice bags
KPI	Passage 0 → 100 cm. Working space 7 → 15 m ²
Other achievements	<ul style="list-style-type: none"> Changed mindset or workers and customers.

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Saved lead-time by 35% for filling bottles. Tripled free space.

Company	Dane Holdings Limited (est. 2016)
Location	Dodoma (Nkulabi, 35 km from Dodoma City)
Employees	13
Business	Manufacturing wine (red, white & fortified)



Before



After

Problems	Inefficient filling process.
KAIZEN theme	Lead-time reduction in filling process Target: Reduce time of filling 1 carton (330 ml. x 56 bottles).
Measures taken	<ul style="list-style-type: none"> 5S implementation Improving work flow and layout change by considering ergonomics
KPI	20 → 13 minutes (≈ USD118/day)
Other achievements	<ul style="list-style-type: none"> Increased free space from 10% to 30%. Improved layouts in other areas (e.g., tanks, storage, kitchen, etc.) Improved sealing process from hot water to machine.

24

Outputs of KAIZEN consulting are inspiring.

- 70% of KPI targets were achieved.
- 75% were for space creation.
- 5S score improved by 38 points.

In Morogoro

In Morogoro

In Morogoro

Other output

- Cash revenue from sales of unnecessary items.

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Impacts are emerging in 3 areas.

On firm-level business

- Production efficiency increased.
- Customer satisfaction is increased.
- Attracted other supporters (e.g., banks)
- Impact is valued at USD2,283 per mo. (TZS 5.3M) for 16 companies at MIECI in Morogoro (*1).

USD143
SAVED
Per month
Per company

On cluster development

- Reducing middlemen increased orders to cluster members.
- Thinking of applying KAIZEN along VC.
- Mindset change is positive for joint works.

On KAIZEN dissemination

- Sensitization and consulting provision can be done efficiently.
- Nearby firms are attracted to KAIZEN by seeing positive results.
- Consulting know-how is accumulated.

(*1) Converted to the profit generated by saved time (e.g., fixing an engine takes 30 min. at the profit of TZS30,000), or assuming saved space is rented at TZS,000/m².

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However, there are challenges, such as...

- Perception of KAIZEN that it is for large firms.
- Some firms (workers) do not want to give up time for production.
- Decision making takes time if owner and management are separate.
- Some firms are hesitant to give data.
- Many firms are not willing to pay, or willing to pay less.

WTP_5S_a: 5S: Gemba Training + Consulting (5 weeks), TZS 180,000 (Pre-paid)
 WTP_5S_b: 5S + layout change & Visualization: Gemba Training (6T) + Consulting (7 weeks), TZS 230,000 (Pre-paid)

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Outline

- Cluster development in Tanzania
- Concept & objectives of "KAIZEN x Cluster"
- Flow
- Pilot modality
- Pilot examples & achievements
- Lessons & recommendations

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Lessons

- **Linking KAIZEN with cluster development approach** is positive in terms of both KAIZEN dissemination and cluster development, along with firm-level efficiency.
- The flow and 2 methods are found to be **practical**, with some adjustments.
- Taking into account **seasonality (business cycle)** of cluster firms is necessary.
- The more the industries **understand KAIZEN**, the more they are willing to pay for KAIZEN consulting.

Knowledge level of KAIZEN	WTP (%)
0	10
1	20
2	30
3	40
4	50
5	60

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Recommendations

- **Adopt KAIZEN x Cluster initiative** to promote industrialization.
- Identify existing clusters and **introduce KAIZEN concept**. KAIZEN can be an entry point of thinking about development along horizontal & vertical VC.
- Consider how to **sustain the system financially**.
- Show **good examples and expected benefits** to beneficiaries and policy makers.
- To do so, **data taking and analysis** are critical.

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Thank you very much
Asante sana
Arigato gozaimasu
Merci Beaucoup

KAIZEN Kwa Mabadiliko Endelevu!

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Attachment 2 Deliverables of Project

Attachment 2-5 Outline of Baseline Survey Results

Attachment 2-5 Outline of Baseline Survey Results

1. Information gathering on the organization and function of the implementation organizations (TKU, SIDO and CBE)¹

(1) Tanzania KAIZEN Unit (TKU)

- Outline of the implementation organization
 - Purpose of establishment: To implement and disseminate KAIZEN in Tanzania
 - Positioning: A government organization established within the Department of Industrial Development, Ministry of Industry, Trade and Investment (MITI)
 - Role: Planning, monitoring and evaluation of activities relating to KAIZEN implementation and promotion
- Workforce: A TKU Head, two staff members (one seconded from SIDO), and one secretary hired by JICA Project Team (Two persons will be added in future)
- Activities: Planning of training programs for KAIZEN Trainers and candidates, attendance management of training, discussion with potential partner organizations, and PR activities on KAIZEN promotion
- Implementation status of Business Development Services (BDS) for companies: None

(2) Small Industries Development Organization (SIDO)

- Outline of the implementation organization
 - Purpose of establishment: To provide services relating to the planning, coordination and promotion with regard to the growth of small enterprises
 - Positioning: Public organization under MITI
 - Role: Support for development of small enterprises in a planned manner, preparation of support activity plans, and proposals and recommendations to the government on development support for small enterprises
- Workforce: 360 personnel (73 at SIDO's headquarters and 287 at 24 regional offices)
- Activity outline: To provide consulting service and technical training for small enterprises
- Implementation status of BDS for companies: Support by Business Development Officers, Technical Officers and Credit Officers, and technical services relating to industrial estates, technological development center, trainer centers, financial support, and the planning and management of related fairs

¹ The survey was conducted between August 2017 and November 2017.

(3) College of Business Education (CBE)

- Outline of the implementation organization
 - Purpose of establishment: To provide training relating to commercial and industrial activities
 - Positioning: Educational institutions that have bases in Dar es Salaam, Dodoma, Mbeya, and Mwanza
 - Role: To provide education on commerce and information and communication technology (ICT)
- Workforce
 - Number of staff members: 361 (including 199 academics and researchers)
 - Number of students: Approximately 8,000
- Activity outline: To provide education on commerce and ICT with degrees (diploma, bachelors, masters, and doctorates)
- Implementation status of BDS for companies: Provision of non-degree basic courses in marketing, accounting, business management and other related fields not exclusively for companies. Activities to provide BDS consulting services which include KAIZEN from academics to private enterprises are highly encouraged by the CBE management.

2. Collection of information on KAIZEN trainer candidates and their ability²

On the first day of the CRT, a written test was conducted for KAIZEN trainer candidates for the purpose of assessing the level of understanding on KAIZEN prior to the start of the training program. The average score was 44 out of 100. While the test was conducted in Arusha and Dar es Salaam, no significant difference was identified in terms of average scores. In particular, relatively high scores were recorded with regard to 5S, while low scores in the field of problem-solving steps.

3. Collection of information on the ability of KAIZEN master trainers and trainers who received training in Phase 1 of the Project, and the implementation status of KAIZEN guidance service

In August 2017, Japanese experts asked questions on QC 7 tools and stories to three KAIZEN master trainers who received training in the first phase, who failed to give clear answers. A lack of basic KAIZEN knowledge has led to the following corrective measures:

- Reeducation of the KAIZEN master trainers and trainers who were trained in Phase 1
- Introduction of written tests in the classroom training (CRT) program for KAIZEN trainers and advanced KAIZEN trainers

As the reeducation is expected to require the KAIZEN master trainers and trainers trained in

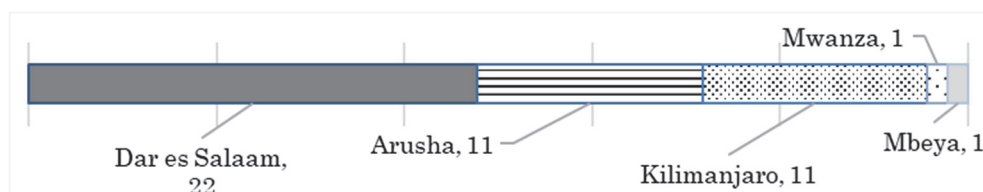
² The survey was conducted between August 2017 and November 2017.

Phase 1 to receive training using Phase 2’s curriculum, a gap created by the modification of the curriculum in Phase 2 will likely be filled.

Two written tests are to be conducted before and after CRT Program each (for the latter, a few weeks after the end of the OJT program) to check the level of understanding. In the written tests conducted in Arusha and Dar es Salaam in September and October 2017, respectively, the KAIZEN master trainers and trainers trained in Phase 1 showed relatively high scores of 50 to 60 out of 100, but no one achieved the qualifying score of 70. The average score for the KAIZEN trainer test was 44, with the highest 6 and the lowest 18. The average score for the Advanced KAIZEN trainer test was 46, with the highest 68 and the lowest 27.

4. Baseline survey on beneficiary organizations including private enterprises

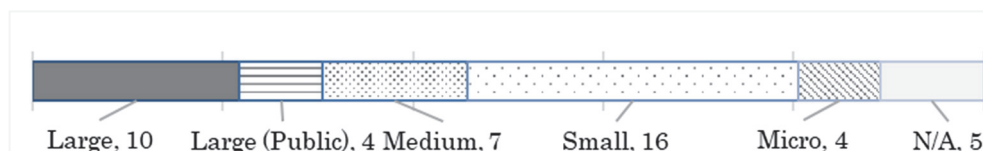
- Target: 46 pilot enterprises
- Survey Items: sales, year of establishment, number of employees, products, kaizen themes, baseline data on kaizen themes
- Result
 - Location of pilot enterprises: Dar es Salaam···22 enterprises, Arusha···11 enterprises, Kilimanjaro···11 enterprises, Mwanza··· 1 enterprise, Mbeya··· 1 enterprise



Source: Prepared by JICA Project Team

Figure 1 Location of Target Enterprises (46 Enterprises)

- Size: Large (More than 99 employees) ···10 enterprises, Public Large Enterprises···4 enterprises, Middle (More than 49 and less than 100 employees)···10 enterprises, Small (More than 9 and less than 50 employees)···16 enterprises, Micro (Less than 10 employees)···4 enterprises



Source: Prepared by JICA Project Team

Figure 2 Size of Target Enterprises (46 Enterprises)

- Sales, Age (years from establishment to 2017), Number of Employees: Maximum, minimum, mean and median for each item is shown in Table 1.

Table 1 Sales, Age and Number of Employees of Target Enterprises (46 Enterprises)

	Maximum	Minimum	Mean	Median
Sales: Number of valid responses =37	TZS 72,000,000,000 (G&B Soap)	TZS 15,000,000 (MERCIBEL CASSAVA FLOUR)	TZS 5,222,615,120	TZS 826,005,000
Age: Number of valid responses =37	63 years old (Nandra Engineering Work Ltd, Established in 1954)	Less than 1 year (more than one enterprises, established in 2016)	19.38 years old	13years old
Number of Employees: Number of valid responses =42	700 (The Tanzania Electrical, Mechanical and Electronics Services Agency (TEMESA))	5 (TANZANITE SPRINGS)	122.76	42.5

Source: Prepared by the JICA Project Team

➤ Product:

- Brush, Bloom, Mop
- Glass container
- Plastic homeware
- Soap, Detergent, Toothpaste, Cooking oil
- Soap, Soap manufacturing machine
- Soap
- Metal Processing×4 responses
- Steel bar
- Aluminum window frame
- Metal cutting machines, Woodworking machines, Water pumps
- Wheelbarrow, Construction material machine
- Wind turbine, Renewable energy system
- Weighing products, Gymnastic Equipment and Iron block
- Garment
- Mosquito net, Garment, etc.
- Polypropylene woven raffia bag
- Alcoholic beverages
- Food Processing (maize, barley)
- Food Processing (flour, spice)
- Peanut Butter, Nutritious Flour, Honey

- Mechanical and electronic services
- Honey
- Flour
- Coffee
- Natural extract such as vanilla
- Banana wine
- Organic cassava flour
- Drinking water
- Chicken feed, Chick for poultry farming
- Animal feeds
- Waste bales

Attachment 2 Deliverables of Project

Attachment 2-6 End-Line Survey Report

Result of End-line Survey

6th JCC Meeting on 28 February 2020
(Supplementary note on 2 March 2020)

Project on Strengthening Manufacturing
Enterprises through Quality and Productivity
Improvement (KAIZNE) Phase 2

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Outline of Survey

Purpose

- To measure the effectiveness of KAIZEN pilot activities conducted in 2017-2019
- To provide evidence of KAIZEN benefits and help promote wider adoption of KAIZEN

Data collection period

16 October 2019 – 17 January 2020

Sample

Enterprises on which baseline data is available were selected out of 88 preliminary candidates

Telephone interview by KAIZEN Trainer:	37	52 unique enterprises
On-site interview by Japanese experts:	26	
On-site interview by TKU staff:	24	

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Survey Method

Semi-structured interview survey conducted by using a common questionnaire across interviewer groups

A. Company profile	Annual sales, Number of employees, etc.
B.1 Quality	a. Defect reduction (Before / After) b. Yield improvement (Before / After)
B.2 Productivity	a. Lead time reduction (Before / After) b. Capacity utilization (Before / After) c. Space creation / Movement reduction (Before / After)
B.3 Morale	a. Suggestions made per worker (Before / After) b. Rate of absence without notice (Before / After)
B.4 Additional financial impact	
B.5 Additional gender-based impact	
B.6 Award chronology	
B.7 Comments from the company	

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Sample Composition

	Basic (5 weeks)	Advanced (23 weeks)	Total
Dar es Salaam	17	9	26
Kilimanjaro	12	0	12
Arusha	7	3	10
Mbeya	2	1	3
Mwanza	0	1	1
Total	38 (73.1%)	14 (26.9%)	52 (100%)

- The preliminary candidate group consists of 70 Basic (79.5%) and 18 Advanced (20.5%).
- Only 2 (3.4%) were non-manufacturing enterprises.
- Out of 52 enterprises, 22 (42.3%) did not disclose the annual sales value.

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Financial Implications

		Total (thousand Tsh) /number of cases	Max. Min. Med.
B.1 Quality	a. Defect reduction	90,292 /8	74,525 15 1,854
	b. Yield improvement	58,725 /3	52,785 340 5,600
B.2 Productivity	a. Lead time reduction	481 /4	290 1 95
	b. Capacity utilization	219,111 /13	174,000 129 2,150
	c. Space creation / Movement reduction	N.A. /0	N.A.
Subtotal		368,608 /20	
Additional Financial Impact		582,666 /20	200,000 10 2,100
Cumulative total		951,275 /30	205,600 28 4,317

*Financial implications are calculated as a spot gain or on a weekly basis.

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KAIZEN Ratio

% change after/[value before]-1

		Average /# of cases	Max. Min. Med.
B.1 Quality	a. Defect reduction	66.4% /26	100.0% 12.0% 66.4%
	b. Yield improvement	46.2% /7	160.0% 10.4% 20.0%
B.2 Productivity	a. Lead time reduction	60.6% /29	110.0% 20.0% 61.3%
	b. Capacity utilization	71.0% /33	500.0% 1.7% 40.0%
	c. Space creation / Movement reduction	177.5% /11	414.3% 20.0% 166.7%
B.3 Morale	a. Suggestions made per worker	*Qualitative data only	
	b. Rate of absence without notice	73.3% /9	100.0% 21.4% 80.0%

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Notes on Data Collected

- The average KAIZEN ratio has two major limitations:
 - Only a fraction of enterprises gave before-after comparison in numeric terms; the average needs to be read carefully.
 - Indicators varied among enterprises even for a same subject*; a same value of KAIZEN ratio may reflect different levels of impact in practice.
- The financial implications rely on even fewer data and need to be interpreted carefully. Based on available data we should be able to say as the following:
 - Direct effects of pilot KAIZEN activities in 88 enterprises were estimated to be at least 1,621 million TZS worth.
 - KAIZEN-induced financial impact (direct and indirect) reported from 30 enterprises amounted to 951 million TZS in total.

* For example, some enterprises used the defect rate while others used the number of defect items.

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Other Findings

- Some enterprises confirmed to have made further improvements after pilot KAIZEN activities are finished.

ID	Indicator	Before	After	Latest
4	Work-in-process found weekly	550	220	5
18	Weekly production capacity of door lock	5,000 pcs	7,138 pcs	9,000 pcs
20	Barley production capacity per 16hrs	20 t	26 t	30 t
29	Chopper & extractor m/c processing/day	200 kg	360 kg	1,000 kg
30	Defect rate	15.0%	7.4%	6.4%
35	Cassava peeling performance per hour	188 kg	206 kg	228 kg
40	Daily production per worker	900	1,385	1,762

- Not a few enterprises requested follow-up guidance and another chance of training/consulting.
- End-line survey itself served as a form of follow-up to revitalize self-reliant continuation of KAIZEN activities.

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Recommendations

- Improve knowledge and skills of KAIZEN Trainers and Coordinators of measuring effectiveness of KAIZEN activities
 - Methods to express effectiveness in numeric terms (especially in financial terms)
 - Standard/common indicators for proper summarization and comparison across enterprises
 - Baseline and end-line data should be gathered in every training/consulting program
- Introduce a regular survey of enterprises as means of
 - 1) monitoring effectiveness of KAIZEN promotion and
 - 2) encouraging continuous KAIZEN activities in enterprises
 - National KAIZEN Award Competition

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Improvement Details (1)

Annex

- [Quality] Defect reduction

ID	Indicator	Before	After	%	Tsh
2	Final product defect rate	0.88%	0.00%	100.0%	
2	Packaging defects (boxes)	1.05%	0.04%	96.2%	
2	Packaging defects (pouches)	0.13%	0.00%	100.0%	
2	Packaging defects (rollers)	2.63%	1.60%	39.2%	
4	Defects per week	12 pc	2 pc	83.3%	350,000
5	Defect rate	6.43%	3.65%	43.2%	
9	Material waste in the loom	4.06%	3.20%	21.2%	
10	Label printing reject rate	2.00%	0.91%	54.5%	
10	Loss of paper tray	1.10%	0.30%	72.7%	
11	Chick feed reject rate	1.85%	0.00%	100.0%	
12	Audio amplifier defect	0.40%	0.04%	90.4%	
24	Bearing defect rate	16.67%	6.52%	60.9%	1,145,550

*Financial implications are calculated as a spot gain or on a weekly basis.

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Improvement Details (2)

Annex

- [Quality] Defect reduction (cont.)

ID	Indicator	Before	After	%	Tsh
29	Contamination	2.00%	0.05%	97.5%	
30	Defect rate	14.95%	7.42%	50.4%	8,843,100
32	Plastic production defects	0.44%	0.33%	23.3%	2,563,200
36	Defect rate	20%	8%	60.0%	
37	Defect of bottles	16.64%	8.84%	46.9%	14,795
40	Loss rate of banana aging	30%	1%	96.7%	2,646,000
41	Potatoes defect rate	10%	4%	60.0%	204,000
43	Defective trailers per week	44.44%	12.50%	71.9%	
44	Number of complaints	35 case	14 case	60.0%	
45	Defect in production	18%	3%	83.3%	
48	Kg waste in 24 hours	3.50	3.08	12.0%	
50	Defect rate	10%	2.5%	75.0%	

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Improvement Details (3)

Annex

- [Quality] Yield improvement (cont.)

ID	Indicator	Before	After	%	Tsh
3	Average aluminum production	20.7%	37.6%	81.6%	52,785,000
6	Scrap steel collected	50 t	60 t	20.0%	
10	Daily pallet production	207 pcs	300 pcs	11.1%	
12	Weekly production	10 pcs	26 pcs	160.0%	5,600,000
22	Production against demand	73%	93%	27.4%	
41	Yield rate	80-83%	90-96%	12.5%	340,000
48	Yield percentage	74.8%	82.6	10.4%	

- [Productivity] Lead-time reduction

ID	Indicator	Before	After	%	Tsh
3	Loading time per day	60 min.	15 min.	75.0%	289,575
4	Work-in-process in week	550 pcs	220 pcs	60.0%	

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Annex

Improvement Details (4)

- [Productivity] Lead-time reduction (cont.)

ID	Indicator	Before	After	%	Tsh
7	Process cycle time per cloth	1.8 min.	1.4 min.	22.2%	
8	Conveyor stoppage per hour	138 times	69 times	50.0%	
11	New employee learning downtime	3 months	1 months	66.7%	
13	Time to find appropriate tool	155 sec.	60 sec.	61.3%	
18	Rolling time per piece	9.70 sec.	2.59 sec.	73.3%	
19	Time to search tool/spear	1800 sec.	46.7 sec.	97.4%	
21	Mechanical to find tool	300 sec.	120 sec.	60.0%	
23	Time to service one car	60 min.	45 min.	25.0%	
23	Time for tire rotation	5 min.	3 min.	40.0%	
29	Production lead time	10 wks	2 wks	80.0%	
32	Mold processing	80 min.	45 min.	43.8%	
34	Waiting for bottles to refill / day	16 hrs	3 hrs	81.3%	

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Improvement Details (5)

- [Productivity] Lead-time reduction (cont.)

ID	Indicator	Before	After	%	Tsh
38	Shaft manufacturing process	260 min.	125 min.	51.9%	
39	Packaging time per box	2.44 sec.	1.95 sec.	20.1%	
40	Lead time for a crate of wine	1 min.	0.1 min.	90.0%	
41	Daily production	5 t.	10.5 t.	110.0%	
42	Loss by material waiting	3 hrs	1 hrs	66.7%	189,000
43	Time searching reflective tape	22.8 sec.	11.18 sec.	51.0%	950
43	Time searching pivot bolts	25.6 sec.	8.58 sec.	66.48%	994
45	Production of small items/work	72 hrs	54 hrs	25.0%	
47	Locating tires	30 min.	10 min.	66.7%	
47	Locating 1 spare part	6 min.	1 min.	83.3%	
49	To produce 3 meters of 1 sheet	2 min.	1 min.	50.0%	
50	To produce 1 gypsum board	5 min.	4 min	20.0%	

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Improvement Details (6)

- [Productivity] Lead-time reduction (cont.)
- [Productivity] Capacity utilization

ID	Indicator	Before	After	%	Tsh
51	Loading time	40 min.	18 min.	55.0%	
52	Production of an item per day	180 min.	15 min.	91.7%	
53	Locating appropriate timber	120 sec.	30 sec.	75.0%	

ID	Indicator	Before	After	%	Tsh
1	Production by E205 m/c daily	2,000 pcs	2,750 pcs	37.5%	6,562,500
2	Detergent powder plant daily	30 t.	42 t.	40.0%	174,000,000
2	Machine breakdown	5.59%	2.07%	62.97%	
5	M/C average production / day	339.36kg	377.90kg	11.36%	
8	Wine fermentation / month	1,394,590	1,745,370	25.2%	
8	Production by crate	169,809	184,613	8.72%	

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Improvement Details (7)

- [Productivity] Capacity utilization

ID	Indicator	Before	After	%	Tsh
14	Reduce overproduction of soap	8 workers	5 workers	37.5%	375,000
17	Flour left-over in production	18.75%	1.25%	93.3%	2,150,000
18	Production capacity of door lock/wk	5,000	7,138	42.76%	3,634,600
19	Door lock from 76 steel bar	5,000	5270	5.4%	243,000
20	Barley production capacity	20 t.	26 t.	30.0%	
22	Daily production flour	40 carton	70 carton	75.0%	2,700,000
22	Daily production peanut butter	20 carton	50 carton	150.0%	7,500,000
26	Finger millet production /day	150 carton	230 carton	53.3%	920,000
28	Dispatch of truck per week	3	6	100.0%	
28	Forklift availability for loading	4 hrs	18 hrs	350.0%	
29	Chopper & extractor m/c utilization	200 kg	360 kg	80.0%	
33	Monthly production in crates	4,475	5,250	17.3%	
33	Processing plant utilization	74.5%	85%	14.1%	

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Improvement Details (8)

- [Productivity] Capacity utilization (cont.)

ID	Indicator	Before	After	%	Tsh
35	Cassava peeling process per hr	188 kg	208 kg	9.6%	29,250
37	Bottle production	2,084	2,278	9.4%	29,250
39	Machine availability	64.67%	88.00%	36.1%	
40	Daily production per person	900	1,384.62	53.9%	
41	Production capacity	5 t.	13 t.	160.0%	336,960
43	Weekly production	5	7	40.0%	18,800,000
44	Waiting hours in a day	3.25 hrs	1.95 hrs	40.0%	
48	Machine stoppage in a month	2,496 hrs	2,396 hrs	4.0%	
49	Capacity utilization	94.41%	96.02%	1.7%	
50	Gypsum board production	80 pcs	120 pcs	50.0%	
51	Production time	9,521 min.	10,359 min.	8.8%	
52	Breakdown in 3 months	1,235 hrs	212.43 hrs	82.8%	
52	Medical bottle production	166,256	355,195	113.6%	

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Improvement Details (9)

- [Productivity] Space creation / Movement reduction

ID	Indicator	Before	After	%	Tsh
13	Store room space	12.5 m ²	24.0 m ²	92.0%	
23	Floor space	6 m ²	18 m ²	200.0%	
27	Average percentage free space	17.5%	90%	414.3%	
28	Bales stowed in 400m ² storage	300	1,200	300.0%	
40	Space creation	2 m ²	8 m ²	300.0%	
41	Space occupied	16 m ²	8 m ²	50.0%	
43	Offload area space	736 m ²	897 m ²	21.9%	
44	Space creation	12 m ²	32 m ²	166.7%	
45	Time wastage in storage room	-	-	20%	
50	Free space	8 m ²	15 m ²	87.50%	
53	Space creation	4 m ²	16 m ²	300.0%	

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Improvement Details (10)

- [Morale] Suggestions made per worker

ID	Before	After
4	Work Section responsibilities was not identified clear. There were no identified lunch room during break. Change and Washrooms were of old fashion with no management.	Work section was standardized with specific roles. Space created has been modified to lunch room. Change room and washrooms have clear supervision.
18	There was no record or data keeping system.	The management to develop a database which comprise all production information.
19	There were no system that track working in progress, customer record or material available this has been major problem in developing daily plan and weekly target.	Kaizen has left us with the database comprise of work details, materials available and customer record in which we can view daily target and forecasting. Not only that we have a weekly meeting which is productive to all employees.
20	Mode of Bonus based on tons produced per shift, for a long period production volume didn't increase above 20 Tons and demoralize operators.	After kaizen production boost to 26 Tons this has increase worker workers bonus as well
24	Before kaizen there were no work plan and schedules, this has cause delay and negligent.	After kaizen, work plan and schedules have been documented and disseminated during toolbox meeting

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Improvement Details (11)

- [Morale] Suggestions made per worker (cont.)

ID	Before	After
31	-	More pleasant working environment and reduce chances of incidents or accident. Company has also experience change of employees attitude and commitment.
35	-	Peeling process has been reduced from 14 to 8 working hour. This has increase workers moral and save cost.
38	Before kaizen two different section were doing the same activities, task given doesn't have a sense of ownership in a way that each section feels that other section will accomplish it, this cause task delay	After combining those two section currently tasks have a sense of ownership, no negligence and teamwork spirit has been improved
39	-	During KAIZEN training twice a month, gather the KAIZEN ideas.
40	Staff were neutral : Idleness	Staff are now KAIZEN oriented
43	4 times per week	10 times per week
45	They were little to none public suggestions from workers before introduction of Kaizen to the employees and managing staff	There was an increase in moral and comfort leading to workers offering suggestions and ideas for general company improvement increasing by 87%

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Improvement Details (12)

- [Morale]
Rate of absence without notice

ID	Indicator	Before	After	%	Tsh
13	% who comes too late	90%	5%	94.4%	
22	Operators arriving late	46.7%	36.7%	21.4%	
23	Rate of absence	55.6%	11.1%	80.0%	
40	Rate of absence	15%	5%	66.7%	
41	Rate o absence	50.0%	0.0%	100.0%	
42	Late for morning meeting	12.5%	6.25%	50.0%	
43	Rate of absence	1.97%	0.66	66.7%	
45	Absence w/o notice per month	1.1	0	100.0%	
49	Rate of absence w/o notice	21.74%	4.35%	80.0%	

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Additional Financial Impact (1)

ID	Description	Tsh
4	Unnecessary items and broken tools/machine was sold to the value of Tsh.80,000,000	80,000,000
4	At the end of May 2019, Still the management is selling the rest of the cloth left over with approximately value of Tsh.40,000,000	40,000,000
6	Most loss operation tools were recovering during the process of implementing 5S, with the total value of Tsh.5,000,000	5,000,000
12	After Kaizen training, company manage to score a major project worth estimated Tsh.200,000,000	200,00,000
14	Through kaizen profit has been raised by Tsh.700,000 from 800,000 to 1,500,000 per week	700,000
17	More than 7 million is saved per year since we started to implement KAIZEN due to effective control of waste and defects	175,000
19	Before kaizen we often counter a loss of welding machine, after kaizen company manage to establish handover report and secure all machine. A cost for new welding machine is Tsh.950,000	950,000
19	50 Dies which were suspected as loss were recovered. A mechanical will spend two to three week preparing one die during the production of a certain equipment/ tool	500,000
	Manufacturing cost of one Die is Tsh.100,000; 50 x 100,000 = Tsh 500,000	

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Additional Financial Impact (2)

ID	Description	Tsh
23	After implementing Kaizen, management suspend the renovation plan of registrar office which hardly could cost Tsh 10,000,000	10,000,000
24	92 million.	92,000,000
26	Sales increase of 184,000 per day. Production days 16 days per month	883,200
30	During kaizen period, Iron block sales has increase for 371,000 in every production	371,000
31	The rate of label purchase was reduced to almost 10% due to a reduction in loss of labels from improper storage. price per Label = 350 price of one coffee is 5000	52,500
39	Decrease waste of water : 20,000 L/month = 800,000TSH/month	240,000
43	Due to less quality problems, customers have higher satisfaction rate hence increase profits.	-
45	After execution of the various Kaizen tools and principals we recorded an increased reduction in redundant purchases, a reduction in operating cost due to reduction in wastage, as well as obtained some financial leverage after clearing dead loads and red tagged unnecessary items and scraps. It was also recorded a cost saving of approximately TZS 523,000/= per stock purchase that could have been lost from either over stocking, purchase of defected items etc.	523,000

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Additional Financial Impact (3)

ID	Description	Tsh
45	A production cost saving adding up to TZS 9,800/pc	9,800
46	Review of KAIZEN after six month, tracking 5% increase of production, monthly sales will increase by 5%	27,500
47	7 km going for tires at remote office X 2,300 Litrs of fuel for car X 352 days X 2 routes used TZS 11,334,400 is saved by not following tires at remote office premises.	11,334,400
49	30 million loss saved of items	30,000,000
51	TZS 2.1m collected from waste and Deadstock: Used in Visualization	2,100,000
51	Fewer pending orders. Daily Sales increase due to faster loading process (+17%)	106,250,000
53	10 Mirror frame circles are now produced per week from timbers that were previously wasted. 1 Mirror frame circle sales at Tsh 250,000	2,500,000

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