

Achievements in the Quality and Productivity Improvement (KAIZEN) Project

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What is KAIZEN?

- Simply a word which means “improvement” in Japanese
- Incremental and continuous improvement with the involvement of entire workforce
- Quality and Productivity Improvement
- Without additional cost: “If no money, use your brain.”
- Participatory process and bottom-up from factory floors (*gemba*)
- Emphasis on process as well as results
- Reflecting a Japanese philosophy (continuous improvement through all aspects of life)



124	171	153	136	143
152	135	120	121	179
107	104	170	154	199
172	123	122	108	155
125	178	103	181	144
112	157	182	163	156
183	102	141	184	137
164	158	113	114	169
126	119	192	185	142
101	186	105	173	145
174	159	200	115	168
190	128	187	109	138
118	160	127	191	167
177	106	116	131	162
134	133	193	176	146
189	129	110	130	139
196	194	195	161	148
149	117	132	140	166
188	197	198	111	147
150	180	151	175	165



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108	128	148	168	188
109	129	149	169	189
110	130	150	170	190
111	131	151	171	191
112	132	152	172	192
113	133	153	173	193
114	134	154	174	194
115	135	155	175	195
116	136	156	176	196
117	137	157	177	197
118	138	158	178	198
119	139	159	179	199
120	140	160	180	200

Profile of the Project

- Project Title: The Study of Quality and Productivity Improvement (KAIZEN) in Ethiopia
- Project Duration: October 2009 to June 2011
- Project Holder: JICA & Ministry of Industry
- Study area: Addis Ababa and its surroundings
 - Sector Focused: Manufacturing
 - Objectives
 - 1) Pilot Project Performance: To formulate a manual to be used for conducting KAIZEN activities in Ethiopia, which is prepared based on results from verification study through the implementation of pilot activities for selected 30 (thirty) companies;
 - 2) Human Resources Development: To transfer relevant skills and techniques to the staff members of KAIZEN Unit of Mol; and,
 - 3) National Plan Formulation: To make a plan to disseminate KAIZEN activities for manufacturing companies in Ethiopia.

Sample Improvement Results (I)

Qualitative Results:

- Clean working environment created,
- Team work and motivation of workers developed,
- Health and occupational safety of workers improved,
- Lower level workers accustomed to suggesting improvement ideas to management decisions – Increased Employee Participation,
- Knowledge obtained on how to meet quick delivery and to reduce costs.

Sample Improvement Results (2)

Quantitative Results

✓ Monetary impact from the improvements reported is ETB 500,000/company. The reporting ranges from ETB 10,000 to ETB 3.2 mill.

- By **Reducing costs (a)** ETB 10,000 per month and **(b)** ETB 78, 000 per annum;
 - By **generating additional income** of ETB 1.2 million per year;
 - By **just decreasing down time** ETB 204, 000 per day,
 - By **rectifying raw materials defect** used for manufacturing ETB 2.4mill;
 - By **identifying, repairing and reusing** of usable **machines & equipments** worth of ETB 3.25 mill.
- ✓ **Non-Monetary Measures of Improvement include:**
- Increasing labor productivity, by **reducing time loss for searching** tools on average 50%;
 - Reduction of floor space around 50%;
 - **Defect ratio improvement** in the range of 50-70%;
 - **Lead time improved** in the range of 16 to 90%;
 - **Labor saved** from 15 to 90%.

*Note: USD1 = approximately
ETB 17.1 as of Aug. 2011*

Sample Improvement Results (3)

Quantitative Results

➤ Company A (Metal)

Recovered additional revenue with an amount of 118,995 birr

➤ Company B (Metal)

Lead time reduced from 2weeks to 1week

➤ Company C (Textile)

Reduced wastage of time by 624 min/month

➤ Company D (Chemical)

Reduced wasters of over production by 50%

Motion and movement by 100%

➤ Company E (Agro)

Decreased flour wastage by 190 qtl of wheat flour

➤ Company F (Agro)

Produced additional 12,000 lit/day

By eliminating 6hours dawn time/day

➤ Company G (Agro)

By decreasing milk wastage recovered 846 birr/day

Pictorial Presentation of some of the achievements obtained in the pilot companies

Fig.1 Sort, Set-in-order & Shine (3S) are implemented to standardize the inventory stock

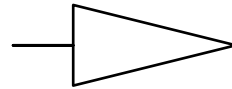
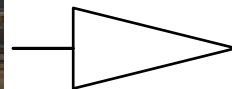


Fig. 2 In-process stock is repositioned to avoid **Muda of transportation**



Before Kaizen

After Kaizen

Highlighted results of the Pilot Project (1)

Possibility*	high	good	some	low	no	total
Grade	5	4	3	2	1	
number of the companies	6	4	8	6	4	28

* Possibility to be a “KAIZEN model company”

- 10 companies which are graded 5 and 4 are a candidate of the excellent companies.
- Exceeds one third of the companies has a possibility of the KAIZEN model companies.

Highlighted results of the Pilot Project (2)

KAIZEN Model Company (Graded 5)

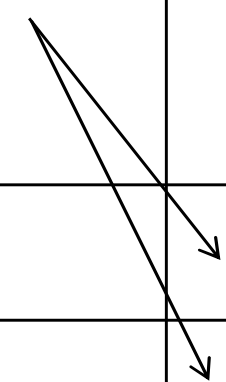
means a company which continuously practices KAIZEN and as the result realizes achievements that significantly excel other companies in terms of quality /productivity improvement (6 companies).

Key Criteria for the Model Company

- Model workplace activities: 5S, Standard operation sheets, Layout study
- General activities: Employee training of basic KAIZEN knowledge, Workload reduced
- Organization management: QCC activities, Wide dissemination of KAIZEN
- Management direction: Active top management, Good employee relations, Development of KAIZEN activities

Assessment of Capacity Development of KU members

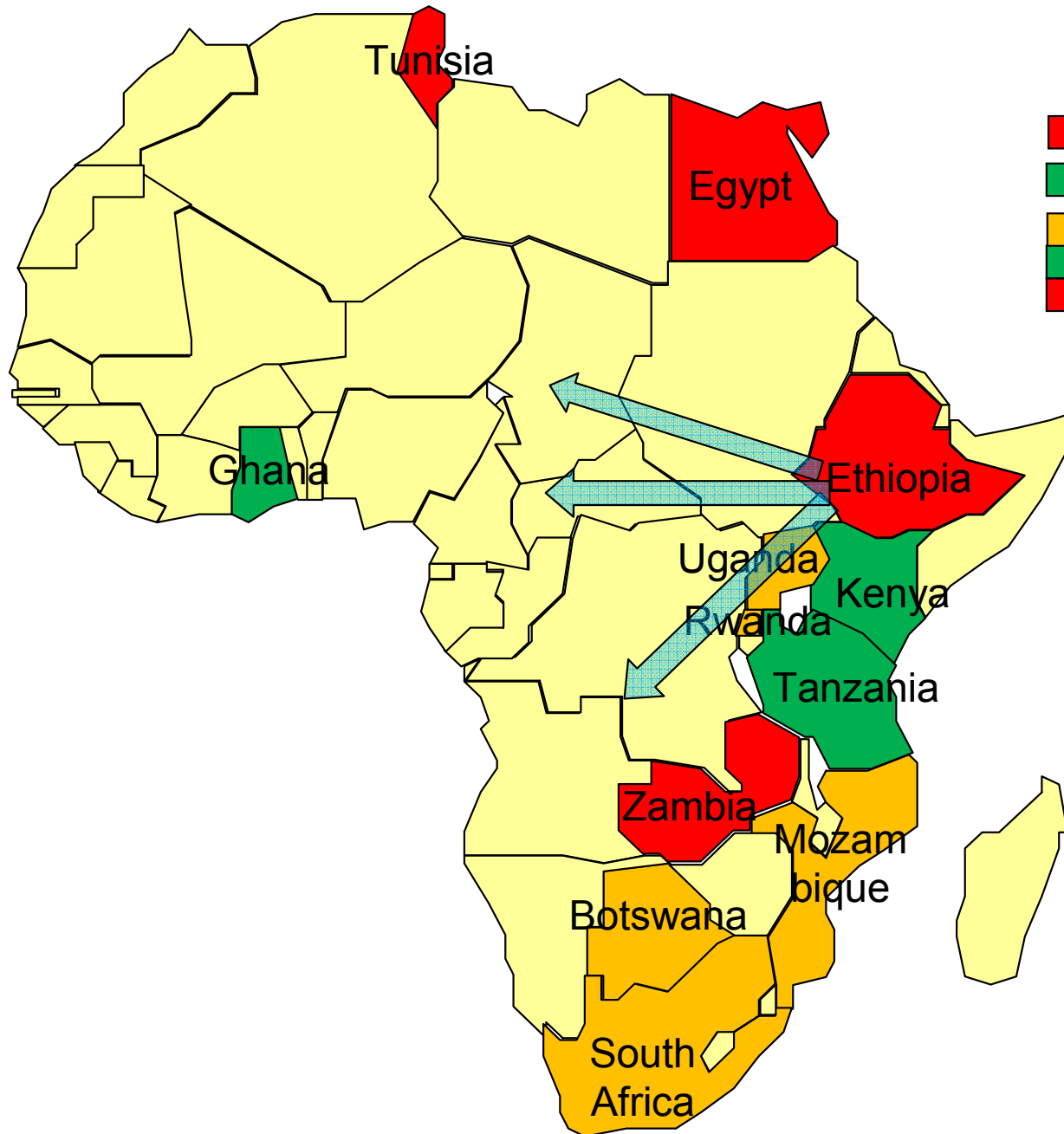
Level	Competence	Assignment	Before project	After project
0	no experience of KAIZEN		9	
I	Competent to conduct KAIZEN activities for yourself	Junior KAIZEN Consultant		
II	Competent to guide KAIZEN activities	Assistant KAIZEN Consultant		3
III	Competent to provide consultancy services on KAIZEN	KAIZEN Consultant		6
IV	Competent to provide consultancy services on KAIZEN	Senior KAIZEN Consultant		
V	Competent to provide consultancy services on KAIZEN	Lead KAIZEN Consultant		



Institutionalization of KAIZEN dissemination system and JICA's continuous assistance

1. Established first Kaizen-titled body (KAIZEN Unit) and first Kaizen-titled organisation (Ethiopian KAIZEN Institute) in Sub-Saharan Africa under Ministry of Industry
2. Phase 1 ended with tangible results in June 2011 and Phase 2 will start in November 2011 for 3 years

JICA KAIZEN assistance spread in Africa



LEGEND

- Project implemented/ing
- Project officially requested
- MPC course participated*
- (only for Sub-Saharan)

*Malaysian Productivity Center (MPC) have conducted "JICA Third Country Training Programme for African Countries on Enhancement of Productivity and Competitiveness for Trade Promotion through TQM and KAIZEN Approach".

Thank you very much.