Experience of Kaizen in Ethiopia and the way forward

17th October, 2011 Tokyo, Japan

Daniel Kitaw (Dr.-Ing.)
Associate Professor and Chair of Industrial Engineering
Founding Fellow of Ethiopian Academy of Sciences
Addis Ababa University

Outline

- 1. Introduction
- 2. Concepts of Quality and Productivity
- 3. Quality/Productivity in Ethiopia
- 4. Kaizen in Ethiopia and Africa
- 5. A Way Forward
- 6. Conclusion

Key Statistics of Ethiopia (2010)

Land Area
 1,106,000 sq km.

Population over
 80 million

Labor Force 38 million (2007)

Contribution of sectors to the GDP growth:

Agriculture 41.5 %

■ Industry 13.3 %

Service sector 46.9 %

1. Introduction

- Ethiopia has registered successive development in the past five years at about 10% per year.
- The Government of Ethiopia planned to sustain the growth and increase the contribution of industrial sector from 13.3% in 2010 up to 19.1% in 2015.
 - •Quality and productivity improvement are considered as a means to achieve the plan.

2a. Concept of Quality

Reducing variation - Deming

Fitness for purpose - Juran

Conformance to requirements - Crosby

Exceeding customers expectations!!

The central idea lays on customer, because;

Today is the customer economy.

Customer has upper hand.

Lowest price, highest quality and best services are the standards of customer satisfaction.

At the heart of quality movement, there are two simple aims, they are:

Make things right the first time and every time.

Work for continual improvement.

If Quality (KAIZEN) is introduced and managed correctly, will:

Eliminate waste

Cut inventories

Improve customer satisfaction and

Enhance profitability

2b. Concept of Productivity

"Productivity is a state of mind... an attitude that seeks the continuous improvement of what exists. It is a conviction that one can do better today than yesterday and that tomorrow will be better than today."

European Productivity Agency (1959)

"Productivity is an attitude of mind that strives for and achieves the habit for improvements, as well as the systems and the set of practices that translate the attitude into action"

National Productivity Board, Singapore

3. Quality/Productivity in Ethiopia

- There were and are sporadic efforts to promote quality/productivity in Ethiopia.
 - Government
 - Ethiopian Quality Award Organization
 - National Association of Ethiopian Industries
 - Ethiopian Society of Industrial Engineers
 - International development partners
 - Private quality promoters

Government's effort

- Related to quality;
 - Ethiopian Standard Institute
 - Ethiopian Authority for Standardization
 - Quality and Standard Authority of Ethiopia
 - Quality Infrastructure
- Productivity improvement center
- Civil Service reforms

International development partners

GiZ - Quality infrastructure

JICA - Kaizen

4a. Kaizen Activities in Ethiopia

- Prime Minister Meles requested July, 2009:
 - Advice on Ethiopia's industrial development strategy, from East Asian perspectives.
 - How to stimulate private sector dynamism? How to enhance the policy of the private sector?
- JICA-GRIPs team responded:

"National Movement for Mindset Change!"

 Accordingly, framework of study for Kaizen was designed (from October, 2009 to May, 2011) with three phases.

Phase1 (2009): Preparatory work

Phase 2 (2010): Implementation of pilot project

Phase3 (2011): Kaizen unit start performing

diagnosis & guidance

• All the three phases are completed on time.

■ In 2009

- JICA and MOTI agreed the study on Kaizen
- KU (Kaizen Unit) formed under MOTI
- Kaizen Project launched

In 2010

- Lessons from African countries that implemented Kaizen
- Training and Seminars were conducted
- Kaizen implementation commenced in 1st batch companies
- Kaizen high level forum carried out
- Performance evaluation of implementers' carried out.

In 2011

- 2nd batch implementation of Kaizen commenced
- Kaizen manual prepared and it is under pilot testing
- Kaizen high level forum carried out
- Kaizen Audio-visual materials have been prepared
- Kaizen dissemination plan has been proposed
- Kaizen Library formed and equipped
- EKI institutional design

Kaizen implementation project constitutes:

- Organizing of Quality Control Circle (QCC)
- 5S implementation
- Operation Standard and Time Study
- Elimination of wastes (MUDAs)

- General benefits obtained from the Kaizen projects were:
 - Capacity utilization improvement
 - Profits improvement
 - Waste minimization
 - Costs reduction
 - Down time minimization
 - Cycle time reduction

- Some of qualitative results obtained are:
 - Clean working environment created
 - Teamwork and motivation of workers developed
 - Health and occupational safety of workers improved
 - Knowledge obtained on how to meet delivery & reduce costs
- Some of quantitative results obtained are:
 - Reducing costs ETB 78,000 per annum
 - Generating additional income of ETB 1.2 million per year.
 - Decreasing downtime ETB 204,000 per day
 - Reduction of floor space around 50%

Challenges faced in the kaizen implementation process were:

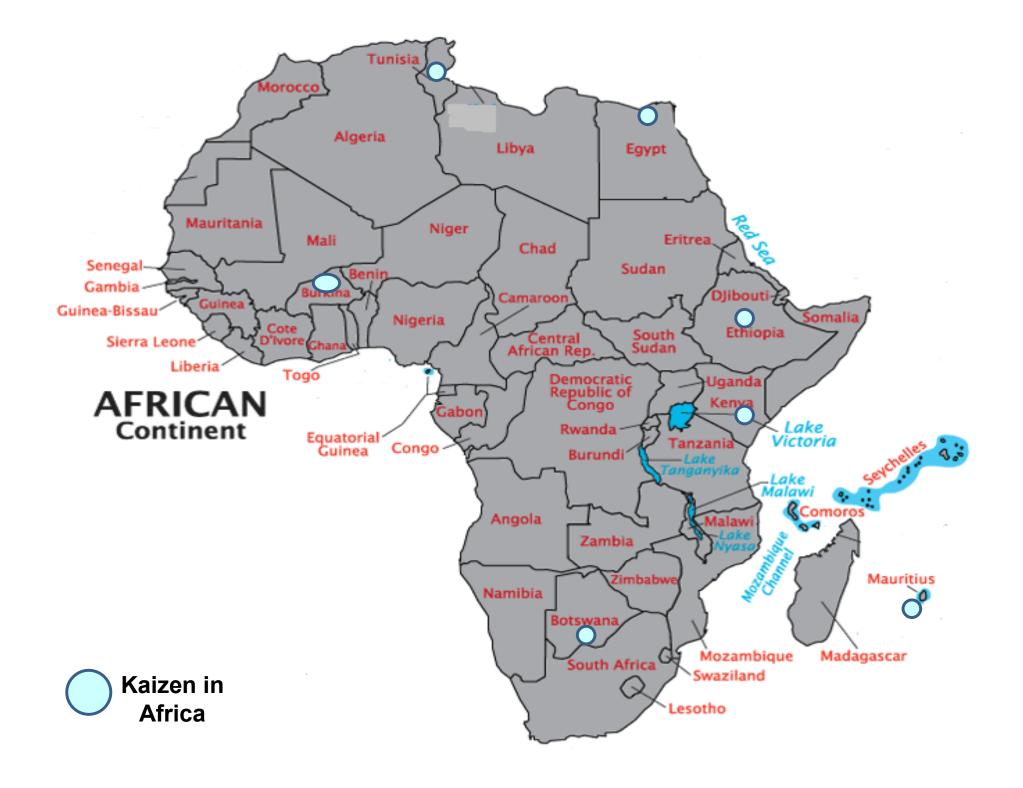
- Power is very much concentrated in the hands of top managers
- Workers motivation to improvement and change in the organizations were limited
- Awareness creation among the management and employees took much time

- National dissemination of kaizen activities in Ethiopia may require:
 - Kaizen needs to be publicized as a national movement
 - Create enabling environment for Kaizen dissemination
 - Create Kaizen day/month
 - Establish Kaizen award
 - Human resource development through training
 - Customization of the Kaizen guidance methodology
 - Standardization of Kaizen consultancy
 - Integrate Kaizen in all educational systems
 - Synchronization of the GTP with Kaizen projects

4b. Kaizen in Africa

 Currently, four organizations are considered as vital to spread Kaizen method in Africa.

- Kaizen institute
- JICA
- APO
- ILO



The efforts are very limited

 However, competitiveness of Africa is still very low

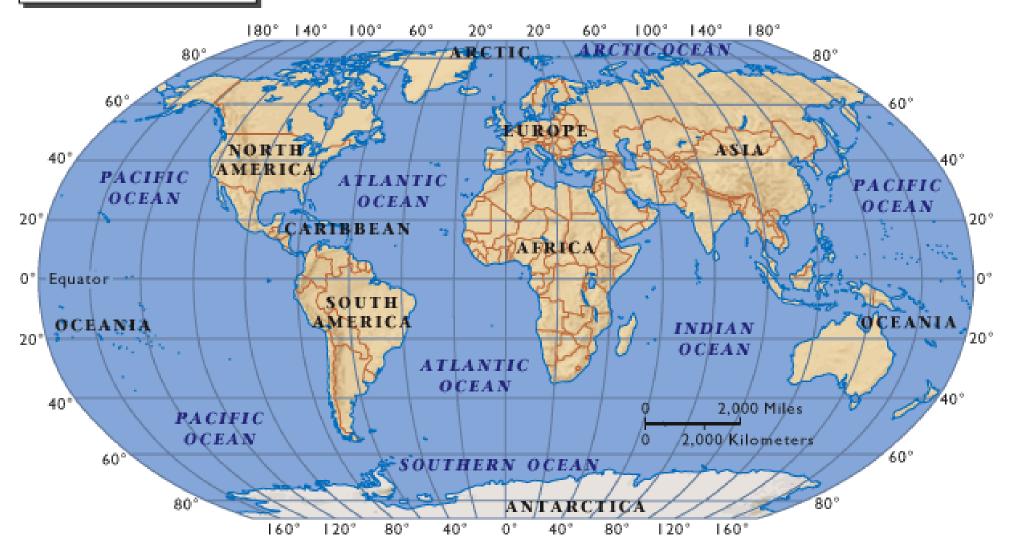
Global Competitiveness Index (GCI) - Selected Countries

Countries	<i>GC</i> I - 2009/10	<i>GC</i> I - 2010/11	<i>GC</i> I - 2011/12	Status
Switzerland	1	1	1	Growth
Singapore	3	3	2	Growth
USA	2	4	5	Decline
UK	13	12	10	Growth
Turkey	61	61	59	Growth
German	7	5	6	Growth
Japan	8	6	9	Decline
South Korea	19	22	24	Decline
China	29	27	26	Growth

African Countries	<i>GC</i> I - 2009/10	<i>GC</i> I - 2010/11	<i>GC</i> I - 2011/12	Status
Tunisia	40	32	40	Stagnant
South Africa	45	54	50	Decline
Mauritius	57	55	54	Growth
Botswana	66	76	80	Decline
Egypt	70	81	94	Decline
Morocco	73	75	73	Stagnant
Namibia	74	74	83	Decline
Rwanda	NA	80	70	Growth
Gambia	81	90	99	Decline
Algeria	83	86	87	Decline
Libya	88	100	NA	Decline
Senegal	92	104	111	Decline
Kenya	98	106	102	Decline
Nigeria	99	127	127	Decline
Tanzania	100	113	120	Decline
Benin	103	103	104	Decline
Lesotho	107	128	135	Decline

African Countries	<i>GC</i> I - 2009/10	<i>GC</i> I - 2010/11	<i>GC</i> I - 2011/12	Status
Uganda	108	118	121	Decline
Cameroon	111	111	116	Decline
Zambia	112	115	113	Decline
Ghana	114	114	114	Stagnant
Cote divore	116	129	129	Decline
Ethiopia	118	119	106	Growth
Malawi	119	125	117	Growth
Madagascar	121	124	130	Decline
Mauritania	127	135	137	Decline
Burkina Faso	128	134	136	Decline
Mozambique	129	131	133	Decline
Mali	130	132	128	Growth
Zimbabwe	132	136	132	Stagnant
Burundi	133	137	140	Decline
Swaziland	NA	126	134	Decline
Angola	NA	138	139	Decline
Chad	131	139	142	Decline

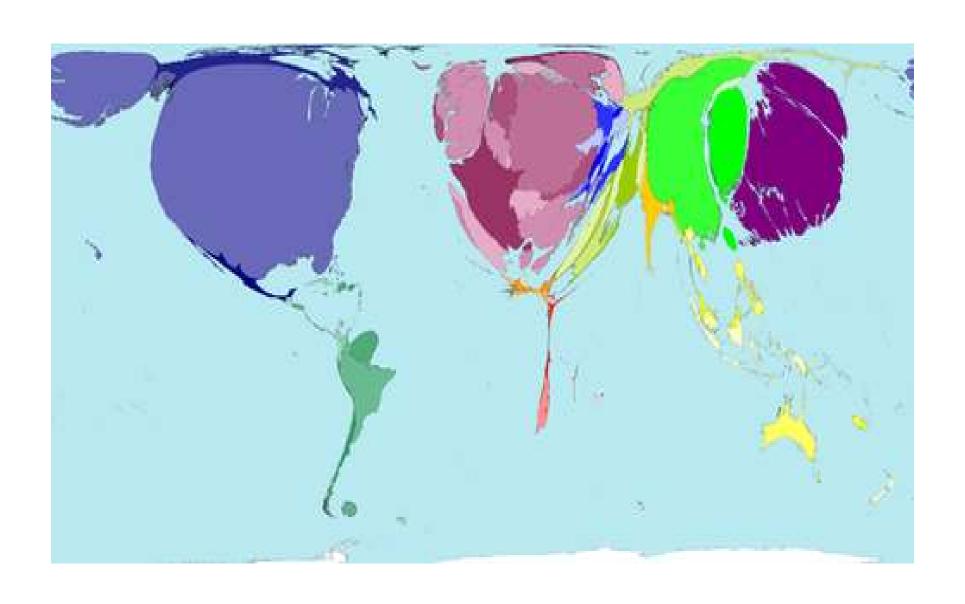
The World



World Map Based on Population



World Map Based on Development



- The need to integrated movement of quality/productivity in Africa are;
 - To maximize resources utilizations
 - To facilitate successful experience sharing
 - To conduct joint research
 - To accelerate the movement of quality/productivity

5. A way Forward

- Quality and Productivity improvement is a global agenda.
- Kaizen has become a global activity spread by multinational companies and their employees to improve quality and productivity.
- However, propagation of Kaizen in Africa is still very low due to the limited number of players who bring the practice and excellence.

Establishing Pan African Kaizen Initiatives
 Institute (PAKII) will be a remedy to the challenges faced by African countries

What would be the objectives of PAKII?

- To serve as a focal point for promoting quality and productivity improvement (Kaizen) in Africa.
- To disseminate Kaizen activities and concepts to all African countries.
- Networking, sharing, harvesting ideas and learn with peers to each other in all African countries.
- Discuss common issues and solutions in African context.

The establishment of PAKII

- It is important to create a conducive environment for PAKII that will enable it to coordinate and participate all African countries.
- PAKII would work in cooperation with AU and other African institutions that would enable to achieve its objectives.

6. Conclusion

- Currently, the leadership in Ethiopia has recognized the need for attitude change in working culture and established the Ethiopian Kaizen Institute (EKI).
- It is high time to keep the momentum
- African's integrated action (PAKII) for quality/productivity improvement in an organized way will significantly accelerate the movement's success.

Thank you