Chapter 1
Overview: National Movements and the Synthesis of Selected Country Experiences

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This chapter provides an overview of the experiences of national movements for quality and productivity (*kaizen*) in selected countries in Asia and Africa. The chapter consists of two parts. The first part (sections 1-1.–1-3.) discusses why national movements are needed in countries which lack private sector dynamism. Drawing on the experiences of four countries, it discusses the factors that have contributed to successful national movements and the lessons learned from cross-cutting perspectives. The second part (section 1-4.) briefly reviews national movements for *kaizen* in four countries—Japan, Singapore, Burkina Faso, and Botswana—from comparative perspectives, with special attention to the factors that have contributed to their successes and failures. In doing so, it also intends to provide a summary of the remaining chapters, which contain case studies of national movements for quality and productivity improvement in the four countries.

1-1. Why is a national movement necessary?

A national movement is a policy involving the entire population for a decade or more, to transform the popular mindset toward hard work, teamwork, and creativity. Particularly, the movement for quality and productivity improvement is a national effort of many public and private stakeholders to attain economic and social progress, involving active participation of business, industry, workers, government, academia, community groups, and other interested parties (Prokopenko, 1999). Why is such a policy effort necessary, and what are key ingredients for success?

Many developing countries suffer from weak private sector response. Firms are too passive. Workers do not learn skills; job hopping is rampant. Short-term speculation is preferred over long-term investment in manufacturing technology. Under such circumstances, good policy alone may not induce dynamic growth. What is required is a spiritual revolution in a country where a relaxed attitude toward production and services rules. Then, policy must go much deeper than just providing infrastructure or unleashing the power of markets. The country must be engaged in a national campaign to transform people's values, mindsets and aspirations.

If mindset change does not come spontaneously from the private sector, the state may have to force it from the top until it becomes part of the national culture. In this sense, a national movement requires a

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conscious policy effort; it is not just a collection of individual projects. Policy will bear no fruit if its spirit and goals are shared only within a narrow circle of political leaders, government officials, and experts and academics. To be successful, a comprehensive and self-sustaining system of principles, implementing mechanisms, and necessary resources backed by the state's will and popular passion are required.

Such a forced national movement may work brilliantly, but may also fail. While permanent state guidance detached from market forces or popular sentiment is inconsistent with the development of a market economy, temporary use of such an approach is not only permissible but may even be highly effective in the early stage of economic take-off. Such top-down persuasion has produced significant lasting performance in some countries as well as failure in others—as seen in socialist production drives with collective farms and state-owned factories. A national movement is a double-edged sword. If it is to be adopted, it must be designed with knowledge and care. Systematic policy learning from international experience is essential to avoid mistakes.

In the 1950s, Japan launched a *kaizen* movement for quality and productivity improvement featuring Quality Control Circles (QCCs).[2] In the 1970s, Korea launched the Saemaul Movement which transformed Korean villages significantly. In the 1980s, Singapore engaged in the Productivity Movement in which even taxi drivers talked about productivity. After these movements, these countries became more productive and competitive. Several African countries also introduced QCCs and productivity movements with foreign assistance, with a mixed degree of success. Therefore, it is important to review the country experiences of national movements and understand the factors for their successes and challenges with due attention to the country-specific context.

1-2. Country cases to be examined in this report

Policy for creating national movements can be designed and implemented in various areas. In light of strong interest shown by the Ethiopian government during the course of Japan-Ethiopia industrial policy dialogues, this report focuses on creating a national movement for quality and productivity improvement. In particular, it will review the experiences of the following four countries.

- Japan's quality and productivity improvement (*kaizen*) movement (1950s-), with US assistance: The origin of Japan's *kaizen* movement was the quality control (QC) method imported from the United States (US) in the post-WW2 period. Japan quickly assimilated and developed this as its own management practice method; it began to produce results which even surpassed the

[2] It should be noted that even in Japan, workers were lazy, short-sighted, and hardly productive in the early 20th century (Ministry of Agriculture and Commerce, 1901). Disobeying company rules and executive orders were the norm rather than the exception. Through the effort of private firms and public policies, these "ungovernable" workers were transformed into *kaizen* workers half a century later.

performance of American manufacturers. Compared with the original US model, the adapted method emphasized process orientation, worker participation, and hands-on pragmatism. This method, which came to be known as *kaizen*, spread rapidly among Japanese companies, large and small, to form a core of the Japanese *monozukuri* (making things) spirit.

- Singapore's productivity movement (1980s-), with Japanese assistance: Singapore is the first country where the Japan International Cooperation Agency (JICA) provided comprehensive technical cooperation—in a venture called the "Productivity Development Project"—to transfer Japan's know-how in quality and productivity improvement. This project was requested by the then-Prime Minister Lee Kuan Yew to the Japanese government. With his strong commitment and leadership, the Productivity Movement was launched in 1981. The JICA project supported a substantial part of this initiative by mobilizing Japanese experts during 1983–1990. Singapore successfully internalized, scaled up, and institutionalized the Productivity Movement. Based on this experience, Singapore came to offer technical cooperation for productivity improvement in developing countries, including neighboring ASEAN countries and Botswana.
- Burkina Faso's QCC movement (1990s-), with the World Bank and Japanese assistance: Burkina Faso is a country where Japan's QCC activity was introduced in the 1990s, under the World Bank-supported technical assistance program (partly funded by the Japanese government through the Policy and Human Resources Development (PHRD) Fund). The World Bank's support lasted for about eleven years, mobilizing Japanese experts to support the pilot implementation of QCC activity and the establishment of an organization charged with QCC promotion. The project enjoyed strong interest among the Burkinabe policy makers and businesses, and QCC activity was implemented in selected companies and public organizations throughout the 90s. Even after the completion of the World Bank support, some companies continue to practice QCCs. Nevertheless, the extent of the diffusion of QCCs remains limited, and there are institutional challenges to sustaining the QCC movement.
- Botswana's productivity movement (1990s-), with Singaporean assistance: Botswana launched the productivity movement in the early 90s. The Singaporean government provided technical cooperation from 1991 for about ten years at the request of the president of Botswana. Based on the experience of their JICA-supported project, Singaporean experts assisted in the establishment of the Botswana National Productivity Center (BNPC) and the launch of an awareness-raising campaign. The productivity movement was introduced in both the private and public sectors, and the BNPC has played a key role in promoting productivity awareness. Nevertheless, Botswana is yet to make substantial progress in translating "awareness" into practical action for productivity improvement on the ground.

1-3. Factors affecting the success of national movements for quality and productivity improvement

The experiences of these four countries and other national movements (such as Saemaul Movement in South Korea) suggest that six factors are critical for designing and implementing a national movement that can successfully transform the mindset of the people.

- Strong personal commitment of the top leader
- Establishment of core organizations responsible for quality and productivity improvement (such as national productivity organizations)
- Supporting institutions and mechanisms at central and local levels
- Massive campaign for mass participation
- Authorized and standardized training programs and materials for those concerned
- Developing private sector capability, especially, fostering expertise of private productivity management consultants.

First, the movement must be launched and sustained by a top leader with strong personal interest and commitment. Second, there is a need to establish core organizations (e.g., national productivity organizations, QCC centers) responsible for implementing and coordinating various activities related to quality and productivity improvement. Since productivity improvement depends on both national (economic and structural policies and the quality of public administration) and micro (the quality of managerial, professional and labor resources) levels, the institutional mechanism to support the productivity movement should embrace both aspects (Prokopenko, 1999). Third, related to this, supporting institutions and mechanisms must be created at the central and local levels. This could include the establishment of a high-level national council with a central ministry or agency assuming the role of the lead organization (or national productivity organization) and the secretariat to the national council, and regional, district, and community-level mechanisms for productivity promotion (Prokopenko, 1999). It is important to note that the national productivity organization is not the only entity promoting productivity improvement; rather, it should coordinate with other institutions in a catalyst role. By networking and helping other institutions, the national productivity organization should help build a strong, supportive institutional infrastructure.

Fourth, public awareness campaigns are a crucial element of productivity movement. To change people's attitudes, massive campaigns are effective for fostering positive attitudes, values, and a culture of productivity. Public awareness campaigns should target not only workers and managers, but also government officials and politicians, professionals, students, and the general public. Highly visible incentive and recognition mechanisms should also be implemented at the national and local levels. Various instruments can be mobilized, such as TV, public speeches by senior government officials, and national conventions. Also, award programs are effective for promoting campaigns to

reward good performers and stimulate interest in best practices and corporate efforts to excel. Fifth, authorized and well-designed training programs must be created to educate government officials in charge as well as private leaders and participants of the movement in the frontline of implementation. Sixth, the movement must continue for a sufficiently long time, typically over a decade or more, with evolving emphasis. The movement can be initiated and led by the government at the initial stage, but it must be gradually transferred to the private sector. This is critical for fostering a feeling of ownership of the productivity movement by individuals. To this end, it is important for core organizations to train private management consultants so that they support productivity improvement at industry and company levels.

At the same time, it is important to note that country-specific factors might affect the outcome of national movements. These include: (i) drivers of the productivity movement, (ii) the degree of private sector dynamism, and (iii) the level of technology to be introduced in the movement.

On the first point, while political drive is absolutely necessary, economic incentives are crucial to sustain the national movement. Thus, it is important to understand what drives the movement and how strong these factors are. Second, the degree of private sector dynamism matters. Where a dynamic private sector exists, it can take a lead in initiating, scaling-up, and sustaining productivity movement, and the government can play a supportive role. This was exactly the case of Japan. However, if the private sector is weak as in the case of many developing countries, the government is required to lead the introduction, adaptation, and development of the productivity movement. Under such circumstances, the productivity movement must start with top-down instruction to encourage grassroots participation. Private sector dynamism also includes the absorptive capacity to learn, adapt and internalize foreign technology. So, the educational and training levels of the general workforce become important. Third, the level of technologies to be introduced for the productivity movement can differ, depending on the stages of development: developing countries may wish to focus on basics of *kaizen* such as 5S and QCCs, while more advanced countries like Taiwan and Korea may wish to address R&D and technological innovation in the productivity drive (see Appendices 2-3). Because each country differs in these three aspects, special attention must be paid when designing the policy for a national movement for quality and productivity improvement.

Tables 1-1 and 1-2 show, respectively, how the four countries differ in light of the six determinants for success, as well as country-specific factors that might affect the outcomes of national movements.

Table 1-1. Overview of Quality and Productivity Movements (1): Factors for Success

	Japan	Singapore	Burkina Faso	Botswana
Leadership	○	○	△	△
Core organization	○ (private)	○ (public)	△/× (public➔private)	△ (public)
Supporting institutions	○	○	△	△
Massive campaign	○ (national movement)	○ (national movement)	△	△
Training programs and materials	○	○	△	△
Fostering private sector capability (productivity mgt. consultants)	○	○	×	×

Note: Assessment by the GRIPS Development Forum: ○good, △moderate, ×poor.

Table 1-2. Overview of Quality and Productivity Movements (2): Country-Specific Factors

	Japan	Singapore	Burkina Faso	Botswana
Drivers of productivity movement	Strong • Domestic • Need for export drive (resource-poor country)	Strong • Domestic • Perceived poor work ethics • Need for FDI attraction (resource-poor country)	Moderate • Domestic + External • Need to enhance supply-side response during SAP	Moderate • Domestic • Perceived poor work ethics • Need for economic diversification (resource-rich country)
Degree of private sector dynamism	Strong • Private sector-led national movement	Moderate • Govt.-led national movement	Weak • Govt.-initiated movement	Weak • Govt.-initiated movement
External support	US & Europe	Japan	WB/Japan	Singapore

SAP: Structural Adjustment Program.
Note: Assessment by the GRIPS Development Forum.

In Table 1-1, Japan and Singapore score good marks compared to Burkina Faso and Botswana. However, Japan and Singapore differ in the nature of leadership and core organizations. The Japanese *kaizen* movement was led by the private sector. It was driven domestically, namely by a sense of urgency for post-war economic reconstruction and export drive. In contrast, Singapore's Productivity Movement was initiated by the government and led by Prime Minister Lee Kuan Yew himself, who lamented the poor work ethics of the Singaporeans. So, the domestic drive was strong. At the same time, the presence of foreign direct investment (FDI) companies served as important benchmarks for assessing Singapore's productivity level and made policymakers aware of the need for its

improvement. Being a resource-poor country, Singapore desperately needed to attract FDI to sustain growth.

In Burkina Faso and Botswana, the movement was initiated by the governments. In Burkina Faso, the QCC movement was launched by the government in response to the Structural Adjustment Program agreed with the World Bank in the early 90s. The Burkinabe government also came to regard the QCC activity as a key instrument to enhance the supply-side response to the reform program. In this sense, the drivers of the Burkinabe QCC movement were both external and domestic. In Botswana, the leadership perceived poor work ethics and the need for economic diversification from heavy dependence on mineral resources. The productivity movement was driven domestically, initiated by the government. Respective governments created the core organizations charged with QCC promotion (Burkina Faso) and the productivity movement (Botswana), and there was a certain level of commitment of key government officials and the private sector. These experiences suggest that it is possible to apply Japanese-style management in countries with different socio-cultural contexts. Nevertheless, the initial efforts in Burkina Faso and Botswana are yet to produce a lasting change in the popular mindset. The diffusion in QCC activity and practical implementation of productivity improvement on the ground are yet limited, and the private sector capability remains weak. In Burkina Faso, the core organization has been gradually transferred to non-government, non-profit organizations, which currently face the challenge of institutional sustainability after the completion of donor support.

1-4. Synthesis of country case studies (Summary of Chapters 2-5)

This section analyzes the experience of national movements in the four countries, especially in light of the above mentioned factors for success and failure. It also gives attention to country-specific factors that have affected the outcomes of the national movements. First, the Japanese experience will be presented as a case where a national movement was driven by the private sector. Then, the experiences of Singapore, Burkina Faso, and Botswana will be shown as cases where government-led national movements have taken place. The three countries vary in the degree of leadership commitment, private sector dynamism, possibility of attracting FDI and so on; this has led to different results in their respective national movements.

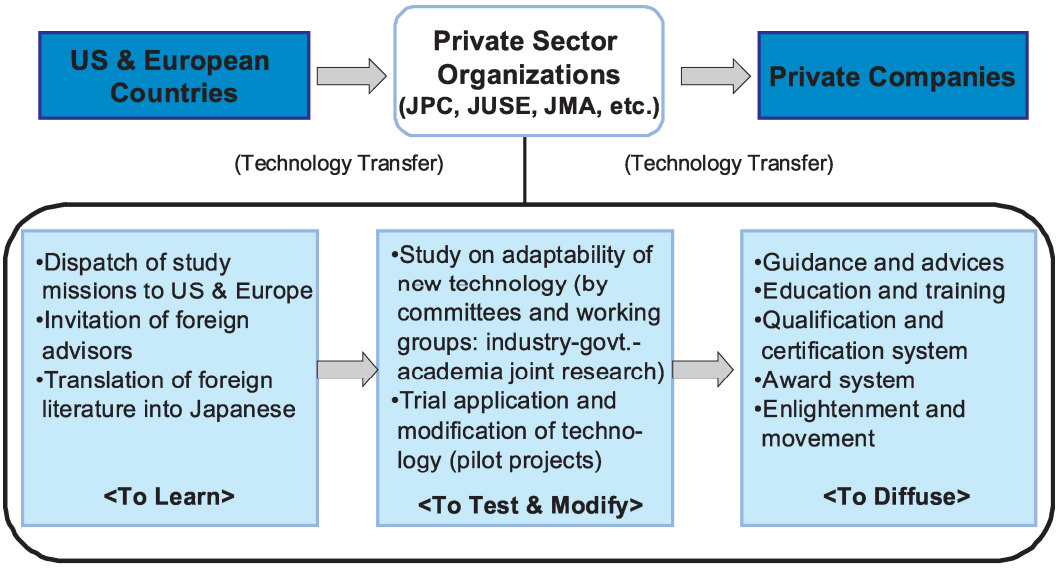
1-4-1. The experience of the private sector-led movement: Japan

Japan’s productivity movement was driven by a sense of urgency for post-war economic recovery and industrial catch-up. The devastation of WW2 made both the government and business sectors work hard to improve the quality and productivity for exporting processed products. At that time, “Made-in-Japan” was perceived as “low-price and low quality,” and quality and productivity improvement was high on the national agenda. Also, throughout the second half of the 1940s and 50s,

the Japanese labor movement was ideologically leftist and radical, and there was an acute need to introduce cooperative labor-management relations in the economy (Prokopenko, 1999). The Japanese business and government leaders were eager to learn the QC methods developed in the US, as well as the harmonious labor-management relations promoted by the British Productivity Council at that time.

Leadership and core organizations: In Japan, the private sector took the initiative to create the core organizations responsible for introducing, adapting and disseminating a method for improving quality and productivity. Three non-profit, private organizations spearheaded this initiative—the Union of Japanese Scientists and Engineers (JUSE), the Japan Productivity Center (JPC), and the Japan Management Association (JMA). As summarized in Figure 1-1, these organizations played active roles in three critical stages of technology transfer: (i) learning new technologies from advanced Western countries; (ii) examining the adaptability and validity of technologies in Japan and making necessary adjustments; and (iii) diffusing new technologies (see Chapter 2).[3]

Figure 1-1. The Role of Private Sector Organizations in Introduction, Development and Diffusion of Foreign Technologies



Source: Adapted from Tsuyoshi Kikuchi "The Roles of Private Organizations in the Introduction, Development and Diffusion of Production Management Technology in Japan" (original paper published in the Bulletin of the Graduate School of International Cooperation Studies No. 4, 2011, Takushoku University).

At the first stage, many study missions were dispatched to the US and Europe. Also, foreign experts were invited for lectures. Mission reports and lecture notes were widely disseminated among the organization members. Foreign text books and materials were translated and distributed to companies and researchers, as well. At the second stage, various committees and working groups were established,

[3] See chapter 2 for details. JUSE contributed to quality improvement in Japan, with greater emphasis on the transfer and diffusion of production management technology from an industry-wide perspective. JPC contributed to the development of productivity improvement movement from a macro-socioeconomic perspective. JMA contributed to the development of Japanese industry through "noritsu" (efficiency) improvement towards scientific management.

comprised of experts and researchers from industry, government, and academia, to study the adaptability of foreign technologies and make necessary adjustments. Pilot projects were also implemented. So, the private organizations did not simply diffuse Western technologies in their original forms; foreign technologies were adapted to the Japanese context through self-study. At the third stage, various measures were mobilized for diffusing quality and productivity improvement technologies and developing the private sector capability for providing consultancy on practical productivity improvement methods and techniques. The measures included consulting services for guidance and advice; education and training; qualification and certification systems; and a nationwide campaign through an annual award ceremony, conventions and seminars, and newsletters and publications.

Top management of all three organizations had a strong sense of mission and commitment to developing companies and industries to realize Japan's postwar economic recovery. Their strong leadership was critical to learning the knowledge and technology from the US and Europe, adapting them, and diffusing *kaizen* movements nationwide.

The history of the establishment of the JPC exemplifies the strong commitment of visionary leaders of such private organizations. By the early 1950s, Europe was rapidly recovering from the WW2 devastation with US assistance (Marshall Plan) and embarking on a productivity movement based on collaboration between employers and workers. In 1951, Mr. Kohei Goshi (who later became the first chairman of the JPC), visited Europe as a member of a Keizai Doyukai (Japan Association of Corporate Executives)[4] mission. He was convinced of the need for a productivity movement in Japan and thought that this issue must be broadly shared with the entire business sector. Upon his return, Mr. Goshi invited major business organizations (e.g., the Japan Federation of Economic Organization (Keidanren), the Japan Federation of Employers' Association (Nikkeiren), and the Japanese Chamber of Commerce) to collaborate for the establishment of the JPC.

The Japanese government had also recognized the need for productivity improvement. In 1954, the Cabinet adopted a policy for productivity improvement. The Enterprise Bureau of the Ministry of International Trade and Industry (MITI) planned to set up a productivity organization. However, business leaders insisted that the JPC be created as a private organization. Finally, the JPC was established in 1955, funded by both public and private sectors, on the premise that the government would not intervene into the JPC spending policies and personnel affairs. A government-business coordination committee was established in 1955, attended by vice ministers of various ministries and the JPC-selected private sector members. The coordination committee was chaired by a private sector

[4] Keizai Doyukai is a private, non-profit, non-partisan organization that was formed in 1946 by 83 far-sighted business leaders united by a common desire to contribute to the reconstruction of the Japanese economy. Now, its membership comprises approximately 1,400 top executives of some 900 large corporations.

representative. During 1955–61, the JPC received support from the US government on various activities, such as sending study missions, inviting experts, collecting materials and information, and making movies about technologies.

Training programs, massive campaign, and network organizations: To increase the awareness of business managers, executives, production managers and employees of the importance of improving quality, productivity and efficiency, all three organizations held conventions and symposiums to discuss specific themes. Furthermore, they all promoted nationwide public relations and education activities, such as the Deming Prize and the Japan Quality Medal (JUSE), the Japan Quality Award (JPC), and the JMA Human Resources Development Excellent Award (JMA).

An often-cited example in this regard is the QCC movement initiated and diffused by JUSE. This shows how the US-originated concept and techniques of statistical QC have been adapted and disseminated nationwide, with the initiative of the private organizations. In July 1950, Mr. Koyanagi, Managing Director of JUSE, took the initiative to invite Dr. W. D. Deming, renowned American expert on statistical process control, to Japan. Dr. Deming held a series of lectures and seminars, teaching basic principles of statistical QC to executives, managers, and engineers of Japanese industries. His transcript of the eight-day course on QC was compiled from stenographic records and distributed for a fee. The lectures inspired many participants, and JUSE immediately established “the Deming Prize” in 1951, with the aim of rewarding Japanese companies for major advances in quality improvement. The awards ceremony is broadcast every year in Japan on national television.

The QC movement introduced at the workshop level in the 1950s was developed into the QCC by the 1960s. To promote the movement, JUSE created nationwide networks—at the central and regional and prefectural levels. At the central level, in 1962, the QCC Center was created as a national registration system. Educational materials were developed and distributed through journals and field quality centers, etc., providing a common framework for workers from different companies. In 1963, QCC Conventions began where diverse companies and circle members presented their problem-solving successes. Local chapters and regional branches of the QCC Center were also created. It was at this chapter level of the QCC Center that much of the normal learning about circles and quality control took place. Chapter activities included running QCC Conventions (held throughout the country), arranging for factory tour exchanges and various study meetings. The membership unit of the QCC Center was the local factories of national corporations. Large numbers of workers, including shop and office floor workers, were involved in these local-level activities. Through chapter activities, a feeling of solidarity and mutual development has been forged among workers across their companies. QCC activity was promoted by broadcasting training programs on radio/TV and publishing journals. In this

way, JUSE successfully created mass organizations and networks for QCC movement (Cole, 1989).[5]

Supporting institutions: A comprehensive approach was taken to quality and productivity improvement. Various national systems were established to support the quality and productivity improvement efforts. These include:

- Standards system (JIS: Japan Industrial Standards, from 1949)
- Public research organizations (testing and research centers that meet the industrial needs of local communities)
- Export inspection system (1957)
- *Shindan* system (small and medium enterprise (SME) management consultants system),[6] etc.

For example, when certifying products for the JIS label, not only the products themselves but also the factory's quality management systems and facilities were examined in light of whether they had enough capacity to meet the standards. Also, public research organizations conducted tests and inspections and provided technological information to local SMEs (prefectures, and municipalities). An export inspection system was introduced to improve the quality of export products. On-site inspections were conducted annually by government organizations. As a result, the percentage of rejected products decreased, and product quality was improved. Under the *shindan* system, advice was provided to SMEs on the adoption of scientific management methods and new technologies. A visiting consulting system was established in 1952. These systems were mutually reinforcing.

Development of private sector capability: All three organizations have provided training programs for company managers and workers on theoretical knowledge, practical skills and techniques required. Furthermore, they have created qualifications and certification systems, such as QC Specialist (JUSE), Management Consultant (JPC) and CPE Qualification (JMA), which have contributed to developing the abilities of those who are engaged in technology transfer and diffusion and maintaining their abilities above a certain level. Qualification and certification have also helped increase customers' trust in the personnel who are engaged in technology transfer and diffusion.

Here, it is important to note that Japanese companies had personnel with sufficient educational background and technical knowledge to absorb foreign technologies and make them Japanese. Subsequently, many companies developed their own systems of *kaizen*, including the globally known Toyota Production System (developed by the Toyota Motor Corporation) and *jishukanri* (self-management) activity in the steel industry. These efforts laid a solid foundation for establishing the so-called Japanese production management system. Instead of heavily relying on external

[5] This paragraph is based on Cole, Robert E. (1989).

[6] In Japanese, *shindan* means enterprise diagnostic and advice. It is a state-authorized and supported system or enterprise and advisory services targeted mainly at SMEs in both manufacturing and services. *Shindanshi* is a specialist who diagnosis and gives advice to SMEs, concerning various management issues.

management consultants, Japanese companies have endeavored to train their workers to develop in-house systems for quality and productivity improvement.

Specific factors for Japan: As explained above, the Japanese *kaizen* movement was initiated with strong ownership of the private sector. Also, with the support of private organizations such as JUSE, the JPC, and the JMA, companies endeavored to learn and internalize their own production management system. With the existence of such a dynamic private sector, Japan did not face a serious problem with the sustainability or the development of private sector capability. All three of the organizations possessed the capacity to absorb the new technologies and techniques introduced from the West. Furthermore, the companies' top management and engineers had enough knowledge to understand the relevant skills and techniques and the desire to adopt them. Factories also had workers capable of absorbing the new technologies.

1-4-2. The experiences of government-led national movements

1-4-2-1. Singapore

Singapore succeeded in inculcating the spirit of productivity into its residents. From the early days of independence, productivity was high on the agenda of the Singaporean government. The Productivity Unit was created in 1964, and it was upgraded to the National Productivity Center in 1967 and to the National Productivity Board (NPB) in 1972. In 1979, Prime Minister Lee Kuan Yew remarked that "Workers here are not as proud of or as skilled in their jobs compared to the Japanese or the Germans." Lee Kuan Yew met with a number of Japanese companies active in Singapore and Mr. Goshi, then the chairman of the JPC, and became interested in Japan's productivity movement. He was convinced of the need for a productivity movement in Singapore, and in 1981, the Productivity Movement was launched. Multitudes of programs and massive public campaigns were introduced until even taxi drivers talked about productivity. After five years of awareness-raising, the focus shifted from national promotion of productivity to company-level promotion. Model company projects and company-based consulting were implemented.

At a request from Lee Kuan Yew, JICA assisted this national initiative with its first large-scale cooperation, the Productivity Development Project, from 1983–1990. A number of the JPC experts were dispatched by JICA and provided technical cooperation throughout the period. The productivity campaign was actively promoted in the public sector as well, linked with a civil service reform program. Notably, Singapore adapted the Japanese QCC and developed it into Work Improvement Teams (WITs) to improve the performance of the workforce in the public sector.[7]

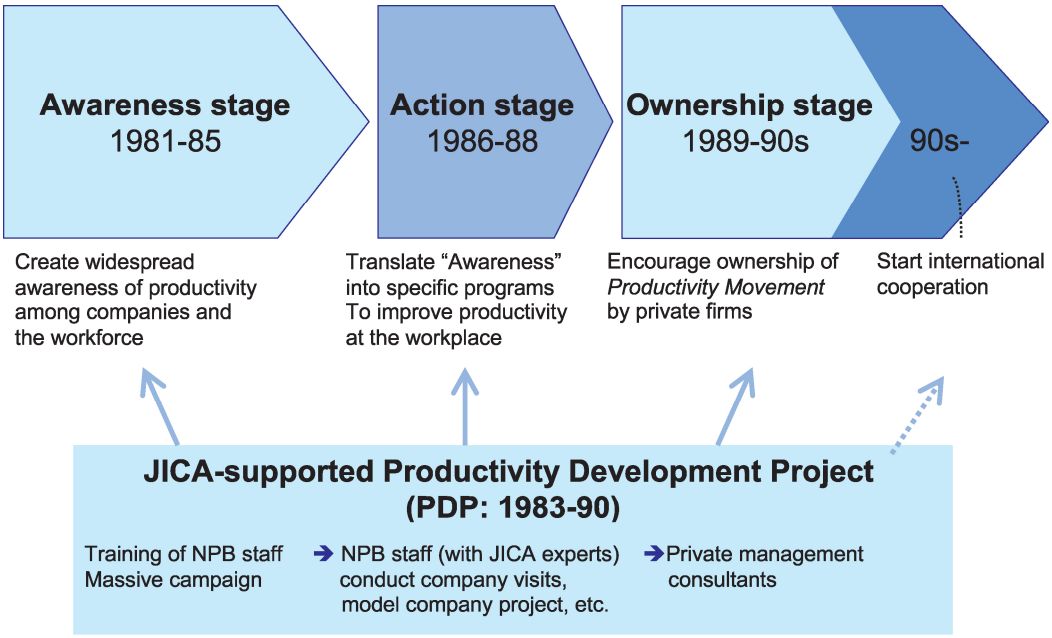
[7] A WIT is a group of civil servants from the same work unit, irrespective of divisional status, who meet regularly to solve problems, examine improvement opportunities, and develop problem solving skills.

Tripartite cooperation among the government, employers, and labor unions is a key institutional feature of Singapore's Productivity Movement. This again was inspired by the Japanese *kaizen* movement experience. The National Productivity Council (NPC) was established in 1981 as an oversight and policy coordination body for productivity movement. The NPC was chaired by the State Minister of Labor (later by the State Minister of Trade and Industry) with high-level representation from the government, employer groups, unions, and academia. The NPB was restructured and expanded to carry out its mission of promoting productivity concepts and culture nationwide. It also served as the secretariat to NPC.

Immediately after the establishment of the NPC, the government launched the Productivity Movement, which evolved in the following three stages (Figure 1-2).

- Awareness stage: create widespread "awareness" of productivity among companies and the workforce.
- Action stage: translate "awareness" into specific programs to improve productivity at the workplace.
- Ownership stage: encourage "ownership" of the Productivity Movement by private companies.

Figure 1-2. Evolution of the Productivity Movement in Singapore



Source: Elaborated by the author, based on the information provided by Mr. Lo Hock Meng, Executive Director of Singapore Productivity Association (SPA) to the GRIPS mission on Sept. 2, 2010.

Strong political will and policy persistence transformed Singapore into a very competitive nation with high productivity. By the early 1990s, Singapore began to teach productivity skills to developing countries in East Asia, Africa, and Eastern Europe. As such, Singapore is widely regarded as a

successful case of a government-led productivity movement. As Chapter 3 explains, it is possible to say that all of the following six determinants for success were in place in Singapore's Productivity Movement.

- Strong commitment of visionary top leadership, namely, then Prime Minister Lee Kuan Yew
- Establishment of national productivity organizations by the government, under a tripartite cooperation mechanism. With the oversight of the NPC, the NPB coordinated and promoted the diffusion of the Productivity Movement by organizing massive awareness campaigns, implementing training programs and consultancy for skills upgrading, and developing manuals and training materials. Various groups and institutions were involved, facilitating the scaling-up of the Productivity Movement.
- Supporting institutions and mechanisms. Related to the above, Singapore's Productivity Movement were made possible by the establishment of centralized oversight and coordination mechanisms, strong involvement and support of key stakeholders (public sector, unions, employers, and academia), and sharing productivity gains among those stakeholders.
- Massive public campaigns. Singapore dedicated five years to awareness raising. The NPB made major efforts to disseminate productivity culture to the public. The slogan "Together We Work Better" and the mascot character of Teamy Bees were adopted; November was designated as Productivity Month; and the Prime Minister delivered a productivity speech for seven consecutive years.
- Production of authorized and standardized training programs and materials. With JICA support, various training manuals and promotional materials were produced and utilized. The areas cover management and supervisory development, labor-management relations, QCCs, industrial engineering, total quality control, audio-visual technology, production management, occupational safety and health, consultancy for SMEs.
- Developing management consultancy capability in the private sector by designing systems and incentives to mobilize those trained under the JICA project. The NPB allowed people from the private sector to participate in training fellowships in Japan. Those trained became NPB Associate or Referral Consultants. Thus, a pool of consultants was created to supplement NPB's effort in reaching out to industries.

1-4-2-2. Burkina Faso

In 1989, the Burkinabe government introduced QCCs on a pilot basis, at the recommendation of the World Bank. A Japanese task manager (Mr. Hiroaki Suzuki)[8] of the World Bank, who was inspired by the Burkinabe spirit of teamwork, proposed the possibility of introducing QCCs in Burkina Faso,

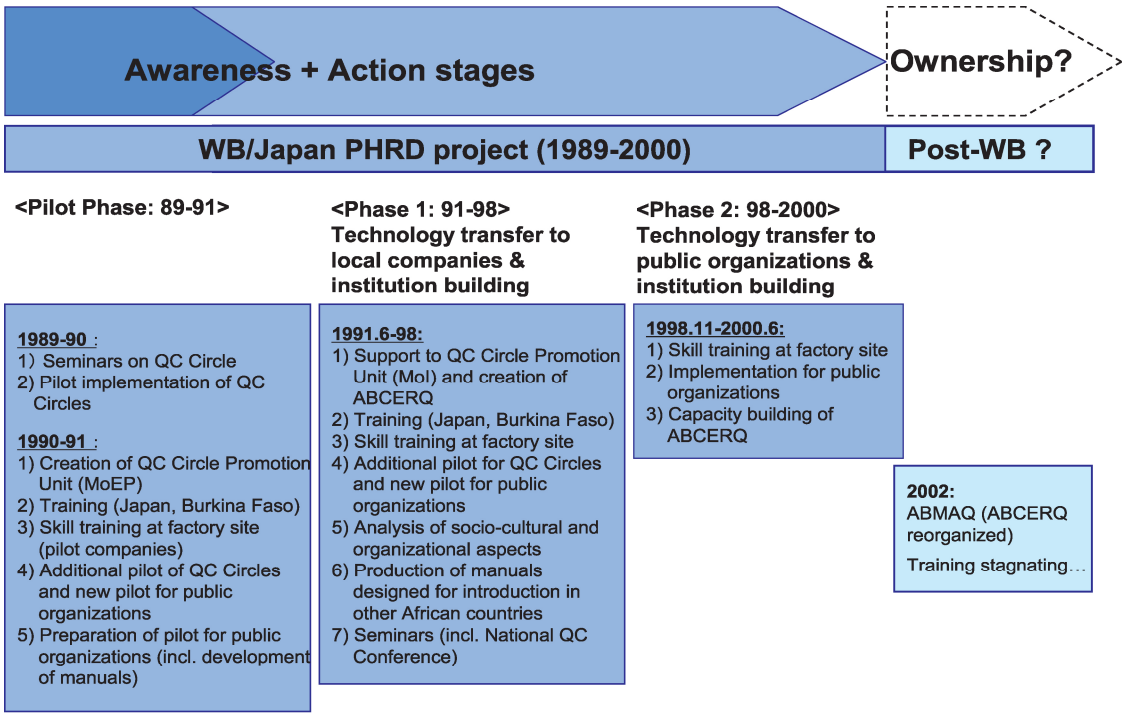
[8] See Suzuki (1993) for the background and the initial phases of the World Bank and Japan PHRD supported project of QCC implementation.

which was favorably received by the government. Both the Burkinabe government and the World Bank regarded QCCs as a means of complementing the Structural Adjustment Program by enhancing the supply-side capacity of the economy. The technical assistance project was launched, funded by the World Bank and the Japanese government (through the PHRD Fund) and implemented during 1989–2000. As such, the driver of the QCC introduction was external, but it was fully owned by the government. Throughout the period, a team of Japanese experts (JUSE) visited Burkina Faso periodically to help establish the core organization, conduct training and seminars, and implement pilot QCCs in selected companies and public organizations.

Initially, the government assumed responsibility for QCC promotion. In the late 1990s, the QCC Promotion Unit was created within the Ministry of Export Promotion. In 1992, the Burkinabe QCC Association (ABCERQ), non-government, non-profit organization, was established to support and disseminate QCC activities. For the initial few years, the QCC Promotion Unit continued to serve as the secretariat of ABCERQ; but gradually, the responsibility was transferred to ABCERQ. From 1995, ABCERQ became independent of the Ministry of Industry, Commerce and Mining (former Ministry of Export Promotion), assuming full responsibility for conducting seminars and training, implementing pilot QCCs, organizing annual National QC Conventions, etc. ABCERQ also started to collect membership fees and to charge for consulting. Throughout the 1990s, QCC activity attracted strong interests from senior policymakers and business. With the support of the World Bank/Japan PHRD project, ABCERQ played a central role in the diffusion of QCCs in both private and public organizations. In 2002, ABCERQ was reorganized into the Burkinabe Quality Management Association (ABMAQ) by expanding its functions to include the International Organization for Standardization (ISO), quality management, and SMEs.

Figure 1-3 shows the evolution of the QCC movement in Burkina Faso. Roughly, the World Bank/Japan PHRD project evolved in three phases: (i) the pilot phase, which supported seminars and pilot implementation of QCCs, the creation of the QCC Promotion Unit in the Ministry of Export Promotion, and staff training; (ii) technology transfer to private companies; and (iii) technology transfer to public organizations. The latter two phases supported the expansion of pilot QCCs implementation, skill training at the factory sites, production of manuals and training modules, and creation and capacity development of ABCERQ.

Figure 1-3. Evolution of the QCC Movement in Burkina Faso



Source: Sayoko Uesu, "Case Study: QC Circle Experience in Burkina Faso", Ch.2. in *Japanese Approach to Growth Support in Developing Countries: International Comparison and Case Studies*, GRIPS Development Forum, 2010.

A notable feature of the Burkinabe case was that the awareness and action stages were combined in the promotion of QCC movement. This is different from the case of Singapore, which dedicated the initial five years to awareness raising before moving into the action stage. In Burkina Faso, pilot QCCs activity was linked with annual National QC Conferences. With high-level attention and good publicity, National QC Conferences motivated the members of pilot QCCs to present the best results of their activities. The first National QC Conference was held in July 1991, with the attendance of high-level government officials (six ministers, including the Minister of Finance and Plan, the Minister of Industry, Commerce and Mining, and the Minister of Civil Service and Modernization of Public Administration). The day was designated as "Quality Day." Annual National QC Conferences continue even now.

Even after the completion of the World Bank support (in 2000), some companies remain committed to quality and productivity improvement and have developed their own QC systems, taking a comprehensive approach. They continue to practice QCCs, and ABMAQ (previously ABCERQ) offers training and seminars. This suggests that the Japanese-style QCCs can be introduced in Burkina Faso, if proper adjustments are made to fit the local context (see Chapter 4). Nevertheless, the extent of the diffusion of QCC activity remains limited, and there are institutional challenges to sustaining the QCC movement.

The first challenge is the sustainability of the core organization, i.e., ABMAQ, both technically and financially. Technically, ABMAQ experts and QC managers of companies have had difficulty updating their knowledge and techniques for quality and productivity improvement. The absence of Japanese FDI in Burkina Faso has limited opportunities for local experts and companies to constantly access the latest knowledge and techniques. Now that ten years have passed since the project completion, ABMAQ experts and QC managers of companies are being replaced by the second generation of members who have not received skills training from Japanese experts. Financially, ABMAQ faces the challenge of securing sufficient revenues to cover its administrative and operational costs. Due to economic stagnation, companies (especially SMEs) are reluctant to pay for membership fees. As a result, the size of AMBAQ membership remains small, which limits the expansion of its training programs. Moreover, ABMAQ faces competition from private consulting companies, which specialize in Western management techniques.

Another challenge is the lack of a coordinated approach among quality-related institutions (such as standards and testing). As explained earlier, in Japan, the government set up various complementary systems, which mutually reinforced each other to improve quality and productivity. In Singapore, the establishment of centralized oversight and coordination mechanisms ensured the strong involvement and support of key stakeholders and other institutions. In Burkina Faso, the government's attention to quality is yet insufficient, leaving AMBAQ and the other institutions fragmented and uncoordinated.

In short, the Burkinabe government showed a certain level of leadership and interest in the QCC promotion in the early days of its introduction. The government took the initiative to create ABCERQ and helped its transition to a non-profit organization (which later became ABMAQ). QCC pilots were enthusiastically implemented in selected companies and public organizations, and national conventions and campaigns were organized. However, it may be said that leadership has not been strong enough to transform enthusiasm at the organizational level into a national movement. In light of the six factors for success, Burkina Faso has faced the following challenges with national movement:

- Sustainability of the core organization, technically and financially, especially after donor-funded project is over.
- Lack of a coordinated approach among quality-related institutions (which is related to top leadership problem).
- Developing private sector capability, especially, fostering expertise of the second generation of QCC experts.

1-4-2-3. Botswana

In 1993, the government of Botswana launched a productivity movement with two main features: (i) the introduction of Singapore-inspired WITs, adapted from Japan's QCCs; and (ii) the establishment of

the BNPC, based on a tripartite cooperation mechanism (Modisi, 1996). The driver of the movement was domestic, namely, the urging of President of Botswana, Sir Ketumile Masire himself. President Masire perceived that Botswana has a problem of loose ethics ("a culture of laxity") that prevailed in the civil service and led to a productivity deficit. Being dependent on mineral resources, the country also had been urged to diversify the economy. At a request by President Masire to the then-Singaporean Prime Minister Gho Chok Tong, the Singaporean government provided technical cooperation for productivity improvement from 1991 to the early 2000s.

First, the Singaporean model of WITs was introduced in 1993 as the basis for the Strategy for Productivity Improvement in the Public Service. A twinning arrangement between the Botswana Institute of Administration and Commerce (BIAC) and Singapore's Civil Service Training Institute was adopted as the instrument for transplanting WITs into Botswana (World Bank, 1996).

Second, the government established the BNPC in 1993 as a national productivity organization, aimed at promoting productivity consciousness in Botswana. The BNPC was created as a parastatal, public organization, which reports to the Minister for Presidential Affairs and Public Administration. Drawing on the Singaporean experience, a tripartite board was established, comprised of representatives from the government, employers' and workers' organizations, and a few other stakeholders, to provide oversight of the BNPC activity. The scope of the BNPC activities covers both the public and private sectors.

The BNPC made major efforts to raise public awareness on productivity. A series of seminars on productivity were undertaken for both the public and private sectors, including ministers, parliamentarians, and chief executives (Modisi, 1996). "Productivity Week" was launched. At the district level, District Productivity Improvement Forums (DPIFs) were created, which were tripartite and had a community-based structure and were conceived as networks of change agents from the government, private sector organizations, community and non-government organizations. The idea was to share productivity information with the productivity movement tripartite.

However, a recent study (Chapter 5) shows that the BNPC has focused too much on public awareness without progress on the implementation of practical productivity enhancement on the ground. Despite twenty years of awareness-raising effort, the involvement of the private sector in practical activity for quality and productivity improvement has been limited. In particular, since SMEs cannot afford consulting fees, they have faced difficulty in accessing practical guidance and advice on productivity improvement. Moreover, the BNPC has had problems attracting and retaining qualified and experienced experts, and there have been frequent staff changes.

In sum, the Botswana experience indicates that there was enthusiasm and commitment of leadership when the productivity movement was introduced. The core organization was created and supported by the government, and massive campaigns were implemented. However, in light of the six factors for success, Botswana is yet to achieve progress on implementation of productivity improvement on the ground. The experience of Botswana shows the following challenges with the national movement.

- Sustainability of the core organization, especially retaining those experts who received professional training for quality and productivity improvement.
- Difficulty of making progress at the action stage (going beyond the awareness stage), especially practical implementation of productivity improvement at the industry and company levels.
- Developing private sector capability, especially, fostering the expertise of private, productivity management consultants.

1-5. Implications for Ethiopia—toward a national movement for *kaizen*

Regarding the six determinants mentioned in this chapter, Ethiopia does not have problems of leadership, since *kaizen* was driven by strong commitment of the top leader. During the two-year period of JICA support (the Study on Quality and Productivity Improvement in Ethiopia, from October 2009 to May 2011), pilot company projects were implemented, and their results have been disseminated; the JICA experts conducted training for the staff of the Kaizen Unit of the Ministry of Industry (MOI) to transfer relevant skills and techniques; and a national plan has been formulated to disseminate *kaizen* activities for manufacturing companies. As a result, *kaizen* has come to be known among policy makers and business managers in Ethiopia. Based on these achievements, the Ethiopian government has decided to establish a core organization responsible for quality and productivity improvement, i.e., the Ethiopian Kaizen Institute (EKI). The Kaizen Unit of the MOI, created in 2009 as the counterpart of the above JICA study, has been upgraded into the EKI with functional strengthening. At the request of the government in November 2011, JICA has begun new support the institutionalization of the EKI in such areas as organizational development, human resource development, and nationwide dissemination of *kaizen*.

The experiences of national productivity movements in the four countries suggest that Ethiopia may wish to pay special attention to the following points when it endeavors to disseminate and scale up *kaizen* through a national movement.

First, as the core organization, the EKI must assume various functions such as *kaizen* promoter, catalyst, mobilizer, capacity builder, and so on. These include: formulating overall policies, plans, and programs for *kaizen* dissemination; providing training of trainers and developing authorized and standardized training programs and materials; conducting diagnosis and consulting services through model company projects; creating national awareness on quality and productivity, and establishing

mechanisms for nationwide outreach, including micro and small enterprises (MSEs) and the future workforce through technical and vocational education and training (TVET). Such functions cannot be realized by the EKI alone. There is a need to establish a mechanism for overall coordination of *kaizen* dissemination to ensure smooth implementation of these activities. Furthermore, in developing training programs and materials, it is important that the government, private sector, and academia work together to study the adaptability of foreign technologies and make necessary adjustments tailored to the Ethiopian context. This is what the Japanese and Singaporean experiences suggest.

Second, it is important to be mindful of the three stages of a national movement—i.e., awareness, action, and ownership—and consider the role of the EKI in each stage. Building a national movement is a long-term undertaking and must continue over a decade or more, with evolving emphasis. Singapore spent the initial five years raising productivity awareness and moved to the action stage by introducing specific programs at the workplace (e.g., model company projects, management consultancy programs for local companies). Then, it moved to the ownership stage to encourage private and public organizations to lead the Productivity Movement. Burkina Faso combined the awareness and action stages by linking QCC pilots with annual QCC National Conventions. Botswana has faced difficulty translating "awareness" into concrete action. Since Ethiopia has already implemented *kaizen* pilots at model companies with JICA support, it may be effective to combine awareness with action stages in the future.

Third, among the three stages, the ownership stage is critical to self-sustain the national movement. However, this is the most difficult stage. Conscious policy efforts are necessary on two aspects. First, it is important to sustain core organizations technically and financially—especially after the completion of donor support. Over the medium-term, the EKI should have a strategy for how to constantly update *kaizen* knowledge and techniques. One option might be to link the transfer of *kaizen* technology with an FDI attraction strategy. Financially, the government should commit to supporting the EKI for a sufficient time. These are the experiences drawn from Singapore, Burkina Faso, and Botswana. At the same time, the Japanese case suggests the importance of working with business associations from early on. Second, it is necessary to gradually strengthen private sector capability so that companies can develop their own systems of *kaizen* and that capable management consultants can be nurtured and scaled up in the country. Awards may be effective to stimulate interests in best practices and motivate excellence. Certification and qualification systems may be also useful for retaining capable national experts and developing private management consultants.

Lastly, as the experiences of Burkina Faso and Botswana suggest, it is necessary to recognize that in those countries where the presence of FDI (for manufacturing in particular) is limited, donor support might play a larger role in updating the knowledge and techniques on *kaizen*. The situation is different from East Asia, where Japanese companies shifted their production bases in the mid-1980s and

assisted their local partners to learn *kaizen* philosophy and practices. Therefore, in Africa and other countries which have limited access to FDI, donors may wish to consider providing "light" technical cooperation programs even after they have completed comprehensive support. For example, it would be useful for donors to dispatch short-term experts for seminars and training and/or organize international conferences to share best practices. Such "light" cooperation would help those countries gain regular access to the latest necessary knowledge and techniques. The countries may also wish to formulate FDI attraction strategies, targeting multi-national and Asian companies (not limited to Japanese ones) which have mastered *kaizen* practices.

The transferability of Japanese-style management practices, such as *kaizen*, to the socio-economic environment of developing countries is a hotly debated issue. The experiences of JICA's *kaizen* assistance programs suggest that the diffusion of *kaizen* philosophy and practices is already observable in some parts of the developing world (Ohno, Ohno and Uesu 2009).[9] The case studies included in this report also confirm that efforts are being made by local institutions to introduce Japanese-style quality and productivity improvement and assimilate it in the country-specific context. However, the introduction must be conducted with proper leadership and with adjustments that reflect the uniqueness of the targeted society. Moreover, a few years of pilot implementation is not enough to create popular mindset change. This is why having a national movement becomes so important. For this reason, the country case studies on national movements should serve as useful references for Ethiopia and other developing countries to understand key factors for its success and failure.

[9] Please see GRIPS Development Forum (2009) for the discussions on applicability of *kaizen* to different socio-cultural contexts.

References

Cole, Robert E. (1989), "The Building of a National Infrastructure in Japan," chapter 13 in *Strategies for Learning: Small-Group Activities in America, Japanese, and Swedish Industry*, University of California Press.

GRIPS Development Forum ed. (2009), *Introducing KAIZEN in Africa*, October.

Imai, Masaaki (1986), *Kaizen: The key to Japan's competitive success*, McGraw-Hill Publishing Company.

Kikuchi, Tsuyoshi (2011), "The Roles of Private Organizations in the Introduction, Development and Diffusion of Production Management Technology in Japan," (original paper published in *the Bulletin of the Graduate School of International Cooperation Studies* no.4, 2011, Takushoku University).

Ministry of Agriculture and Commerce (1901), *The survey of Industrial Workers* (in Japanese).

Modisi, Mogolori (1996), "Civil Service Reform in Botswana since the 1980s: Lessons of Experience," chapter 6 in Ladipo Adamokekun, Guy De Lusignan, and Armand Atomate, eds., *Civil Service Reform in Francophone Africa: Proceedings of a Workshop*, Abidjan, January 23-26, World Bank Technical Paper.

Ohno, Izumi, Kenichi Ohno and Sayoko Uesu (2009), "Introduction," chapter 1 in *Introducing KAIZEN in Africa*, GRIPS Development Forum, ed., pp.1-12

Prokopenko, Joseph, ed. (1999), *Productivity Promotion Organizations: Evolution and Experience*, with Joji Arai and Arturo Tolentino, International Labour Organization, Geneva.

Suzuki, Hiroaki (1993), *Quality Control Circles as an Institutional Development Tool: Pilot Project Experience in Burkina Faso*, Capacity Building and Implementation Support Division, Africa Technical Department, The World Bank. Report prepared for the Tokyo International Conference on African Development, October 5-6, 1993.

Uesu, Sayoko (2010), "Case Study: QC Circle Experience in Burkina Faso," chapter 2 in *Japanese Approach to Growth Support in Developing Countries: International Comparison and Case Studies*, GRIPS Development Forum.

World Bank (1996), "Governance and Public Administration (Botswana)," Findings: Best Practices Infobrief, Africa Region, no. 9, October.