Singapore’s Experience with Productivity Development:
Internalization, Scaling-up, and International Cooperation

Izumi Ohno
GRIPS Development Forum
October 2010

This presentation largely owes to the information provided by Mr. Lo Hock Meng, Executive Director of the Singapore Productivity Association and the findings of the GRIPS mission to Singapore during Aug.29-Sept.3, 2010. We are grateful to the Singaporean officials and JICA for their valuable support to the mission.
Outline of Presentation

0. Introduction

1. Singapore’s *Productivity Movement*
   - Background, principles, evolution by stage, etc.

2. Institutional framework for *Productivity Movement*
   - Channels of scaling-up and institutionalization
   - Role of key agencies

3. JICA-supported Productivity Development Project (PDP)

4. Singapore’s international cooperation in the industry sector
Why Singapore?

- The first country where JICA provided comprehensive technical cooperation for Productivity Development Project (PDP).
  -- The first experience for JICA to transfer “software” (humanware) technology
- Successful example of internalization, scaling-up, institutionalization of *Productivity Movement*.
- Productivity continues to be a high-priority national agenda in today’s Singapore.
- Singapore now offers consultancy in this area to developing countries, including Africa.
Main Points

- Singapore’s interest in productivity dates back to the 1960s (early days of independence).
- In the early 80s, the govt. launched *Productivity Movement*, aiming at **mindset change** at all levels.
- Key to success:
  - Strong commitment of top leadership (PM)
  - Massive campaign (awareness raising), later combined with company-based consultancy
  - Tripartite cooperation among the govt., industry, & labor unions
  - Developing mgt. consultancy capability in the private sector, by designing systems and incentives to mobilize those trained under the JICA project
- While the Singaporean experience is unique in various aspects, its success factors give useful insights for Ethiopia’s *Kaizen* institutionalization.
About Singapore

- Small, city state (total pop. about 5 million); resource poor country
- Multicultural (Chinese 75%, Malay 14%, Indians and others 11%); recent increase in foreign workers
- Sustained economic growth over decades
  - Top ranking at Doing Business Index (2007-2010)
- Conscious effort to build human capability; efficient civil service
- Political stability maintained since independence (1965)
  - Successive administrations have committed to delivering and sharing the fruits of economic growth
  - Social pacts among the govt., business, and unions
### History of Productivity-related Organizations in Singapore

<table>
<thead>
<tr>
<th>Period</th>
<th>Organization</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1964</td>
<td><strong>Productivity Unit</strong>, within Economic Development Board (EDB)</td>
<td>65: Charter for Industrial Progress, Productivity Code of Practice</td>
</tr>
<tr>
<td>1967-72</td>
<td><strong>National Productivity Center</strong></td>
<td>71: Tripartite Interim Committee (to prepare NPB)</td>
</tr>
<tr>
<td></td>
<td>- Autonomously-run division under EDB</td>
<td></td>
</tr>
<tr>
<td>1972-95</td>
<td><strong>National Productivity Board (NPB)</strong></td>
<td>73: Singapore Productivity Association (SPA) formed</td>
</tr>
<tr>
<td></td>
<td>- Statutory body, initially affiliated with Ministry of Labor</td>
<td>81: Productivity Movement Launched</td>
</tr>
<tr>
<td></td>
<td>and later with Ministry of Trade and Industry (MTI)</td>
<td></td>
</tr>
<tr>
<td>1996-2001</td>
<td><strong>Productivity Standard Board (PSB)</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Statutory body, affiliated with MTI</td>
<td></td>
</tr>
<tr>
<td>2002-present</td>
<td><strong>Standards, Productivity and Innovation Board (SPRING)</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Statutory body, affiliated with MTI</td>
<td></td>
</tr>
</tbody>
</table>
Background for Productivity Movement

- 1979: Prime Minister Lee Kuan Yew’s concern: “Workers here were not as proud of or as skilled in their jobs compared to the Japanese or the Germans.”
- 1981: LKY met key Japanese employers in Singapore to discuss practices, work attitudes and productivity in Japan.
- 1981.4: The Committee on Productivity formed
- 1981.6: LKY met Mr. Goshi, then Chairman of the Japan Productivity Center. (This triggered a request for bilateral cooperation.)
Background for Productivity Movement

- 1981.6: Report of the Committee on Productivity
  - Studied Japan’s productivity movement; examined issues of improving productivity, work attitudes and labor management relations
  - Emphasized the importance of “human aspects” (= mindset change)
  - Proposed the establishment of a high-level council to review productivity efforts and outline future strategy

- 1981.9: National Productivity Council (NPC) established

⇒ Productivity Movement launched
Principles of Singapore Productivity Movement

- **Productivity Movement:**
  - The commitment and active involvement by government, employers and workers in activities to increase productivity.
- **To improve the welfare of Singaporeans through economic progress on 3 guiding principles:**
  - Improvements in productivity will increase employment in the long run.
  - Government, employers and labor must work together to implement measures to improve productivity.
  - Fruits of improved productivity must be distributed fairly among management, labor and consumers.

Source: Information provided by Mr. Lo Hock Meng to the GRIPS mission on Sept. 2, 2010.
Evolution of Productivity Movement

**Awareness stage** 1981-85
Create widespread awareness of productivity among companies and the workforce

**Action stage** 1986-88
Translate “Awareness” into specific programs to improve productivity at the workplace

**Ownership stage** 1989-90s
Encourage ownership of Productivity Movement by private firms
Start international cooperation

**JICA-supported Productivity Development Project (PDP: 1983-90)**
- Training of NPB staff
- Massive campaign
- NPB staff (with JICA experts) conduct company visits, model company project, etc.
- Private management consultants
Awareness Stage: 1981-85

- **Focus**
  - Positive work attitude
  - Teamwork
  - Recognition for companies and individuals

- **Measures taken**
  - Education of the public
  - Information dissemination and training
  - Strengthening company loyalty
  - Promotion of labor-management joint consultation
  - Promotion of productivity in the public sector

Source: Information provided by Mr. Lo Hock Meng to the GRIPS mission on Sept. 2, 2010.
Key Message

- “Together We Work Better”
- Productivity campaign slogans and posters
- Virtuous cycle (political message)
  
  *Increased productivity*
  
  ➔ Growth of business/economy
  ➔ More consumer demand for products
  ➔ Welfare improvement of individuals
Action Stage: 1986-88

- **Focus**
  - Skills upgrading of management and workers
  - Upgrading of companies’ operational efficiency

- **Measures taken**
  - Model company project – implemented jointly by NPB staff & JICA experts
  - Management consultancy referral schemes, associate consultant scheme – mobilizing private consultants trained under JICA-supported PDP
  - Industry-based consultancy assistance scheme
  - Training of workforce (via. Skills Development Fund)
  - Collaboration with other National Training Programs

Source: Information provided by Mr. Lo Hock Meng to the GRIPS mission on Sept. 2, 2010.
Ownership Stage: 1989-90s

- Focus
  - Self-sustaining *Productivity Movement*

- Measures taken
  - Private sector leading the annual productivity campaign
  - Singapore Quality Award (1994- )
  - Launch of Productivity Activists Scheme (1996- )

Cf. Productivity Activists Scheme (introduced by PSB): network to enable member companies to benchmark their productivity against partners and improve their skills and techniques. Resources are pooled for an effective exchange of information in support of productivity movement.

Source: Information provided by Mr. Lo Hock Meng to the GRIPS mission on Sept. 2, 2010.
Framework for Productivity Movement
(Around the 1980s)

- National Productivity Council (NPC)
- National Productivity Board (NPB)

Productivity Movement

- Productivity Awareness
- Skills Upgrading
- Harmonious Labor Management Relations

Source: Information provided by Mr. Lo Hock Meng to the GRIPS mission on Sept. 2, 2010.
High-level Commitment and Oversight

- **PM Lee Kuan Yew**
  - Communicated his strong interest and led *Productivity Movement*
  - Delivered annual speeches on productivity from 1981 for seven consecutive years (November: Productivity Month)

- **National Productivity Council (NPC)**
  - High-level representation from govt., employer groups, unions and academia (about 20 members)
  - Reviewed productivity and outlined future strategy on an annual basis
  - Ensured the involvement of all parties concerned
Channels of Scaling-up and Institutionalization

- **Public sector**
  - Productivity campaign by the Central Productivity Committee; also linked with civil service reform programs
  - Involving MINDEF and the Singapore Armed Forces
- **Labor unions**
  - Productivity campaign by the NTUC Productivity Promotion Council
- **Employer group**
  - Involvement of business associations
- **Training at educational institutions (polytechnic, etc.)**
- **Development of private, management consultants**
- **Incentives for companies**
  - Workforce training (via Skills Development Fund)
  - Singapore Quality Award (for both public and private sectors)
Role of National Productivity Board (NPB): 1981-95

- Serving as the secretariat of National Productivity Council (NPC)
- Providing management consultancy
  - Company visits, model company project
  - Management Guidance Center (for local companies)
  - Industry-based consultancy assistance scheme (six industries)
- Developing a cadre of private, management consultants
  - Training NPB Associates
  - Management consultancy referral system
- Promoting Work Excellence Committee and Quality Control (QC) Circles
- Promoting productivity campaign
- Administering Skills Development Fund
  - Training of workforce

Cf. Skill Development Fund: an employer-based funding that provides financial incentives for staff training. Established in 1978. All employers must pay Skills Development Levy for all workers.
Role of Singapore Productivity Association (SPA)

- Established in 1973 as an affiliated body of NPB (now, SPRING)
- Promote the active involvement of organizations and individuals in *Productivity Movement* and expedite the spread of productivity and its techniques
- Organize courses and seminars, company visits, study tours to promote knowledge/skills acquisition
- Members (institutional or individual) have access to information, training and seminars, networking opportunities, etc.
- International cooperation: in collaboration with MFA, MTI, SPRING, APO, AOTS, etc.

JICA-supported Productivity Development Project (PDP)

- Fully integrated into Singapore’s national effort; supported crucial part of *Productivity Movement*
- Contributed to:
  - Upgrading skills (NPB staff, private business)
  - Developing manuals & promotional materials
  - Developing a pool of consultants
  - Raising productivity in key industries (six priority industries), etc.
  - Supporting “graduation” process (regional training for ASEAN countries to share Singapore’s experiences)
- Nevertheless, PDP encountered difficulty in the initial years.
Evolution of Productivity Development Project (PDP)

After initial years of trial and errors, the project plan was restructured so as to combine practice and theory.

- **Japanese experts**: emphasizing theory and concept at first.
- **Singaporeans**: requesting quick, tangible results (PM’s attention), such as practical productivity technology transfer, application on the ground.

<table>
<thead>
<tr>
<th>Year</th>
<th>Preparatory phase</th>
<th>Restructuring phase</th>
<th>Implementing phase</th>
<th>Follow-up phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>83.6</td>
<td>Trial and errors</td>
<td>Re-building trust</td>
<td>Achievement of tangible results</td>
<td>Consolidation</td>
</tr>
<tr>
<td>85.4</td>
<td>Confusion</td>
<td></td>
<td>Capacity improvement of NPB staff</td>
<td>Regional training program (ASEAN)</td>
</tr>
<tr>
<td>86.6</td>
<td>Misunderstanding</td>
<td></td>
<td>Transfer of productivity-improvement technique</td>
<td></td>
</tr>
<tr>
<td>88.6</td>
<td></td>
<td></td>
<td>Development of mgt. consultants</td>
<td></td>
</tr>
<tr>
<td>90.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: *Singapore Productivity Development Project: Report on Ideal and Practice of Technology Transfer*  
Japan Productivity Center (JPC) March 31, 1990
Summary of JICA-supported PDP (after restructuring)

NPB

PDP

Major Pillars
- Training of trainers
- Upgrading of NPB Staff

Assisting Fields
- Mgt. & Supervisory Development (MSD)
- Labor-mgt. relations (LMR)
- QCC
- Industrial engineering (IE)
- TQC
- Audio-visual technology & resource center
- Production mgt.
- Occupational Safety & Health
- Consultancy for SMEs

Assisting Methods
- Practical guidance
- Development of training materials
- Model company & pilot company project
- Seminars/workshops
- Preparation for papers
- PDP fellowship training

Essential Characteristics
- Basics (5S)
- Broad job description & flexible assignment
- Team work
- Initiative & creativeness
- Work ethics
- Attentiveness & aleptness
- Information sharing
- Mutual trust
- Long-term view

Source: Singapore Productivity Development Project: Report on Ideal and Practice of Technology Transfer Japan Productivity Center (JPC) March 31, 1990
Now, Productivity Again

- "Growing through skills and innovation" as one of the seven key strategies
  - Need to create better and high paying jobs for the citizens
  - Need to manage the dependence on low-skill foreign labor and support continuous education and training of low-wage Singaporean workers.
- National Productivity and Continuing Education Council (NPCEC) established in April 2010
  - To oversee the national effort to boost productivity and skills upgrading
Institutional Mechanism for Boosting Skills and Enterprise Productivity through National Effort

**National Productivity and Continuing Education Council (NPCEC)**

- Chaired by Deputy PM
- Members from ministries/agencies, business, unions
- Joint secretariat: MTI, MOM (ministers)

**Working Committee for Productivity and Continuing Education (WCPCE)**

- Led by MTI, MOM (PS level)
- Inter-agency coordination

**Sectoral “Productivity Roadmap” for the next 10 years**

- Draft & propose
- Scrutiny
- Review & submit
- Oversight
- Review & approval

**Financial Incentives**

- National Productivity Fund
- Productivity & Innovation Credit
- Skills Dvt. Fund
- Lifelong Learning E.F.

**Sector WGs (12 priority sectors)**

- Construction
  - BCA
  - Unions
  - Industry
- Electronics
  - EDB
  - Unions
  - Industry
- Precision Eng.
  - EDB
  - Unions
  - Industry
- Transport Eng.
  - EDB
  - Unions
  - Industry
- General Mfg.
  - SPRING
  - Unions
  - Industry
- F & B
  - SPRING
  - Unions
  - Industry
- Retails
  - SPRING
  - Unions
  - Industry
- Others
- Others

**Cross-cutting issues**

- Low wage workers
- Research & benchmarking
- Infocomm and logistics
Singapore’s International Cooperation in the Industrial Sector

  - Administered by Ministry of Foreign Affairs (MFA, Technical Cooperation Directorate)
  - Bilateral training programs (G-to-G), joint training programs with other donor agencies (e.g., JSPP21)
  - Examples: private sector growth & FDI attraction, TVET programs for principals & instructors, productivity management for government officials, public governance & administration, etc.
  

- **Fee-based (2006- ): Singapore Cooperation Enterprise (SCE)**
  - Formed by MTI and MFA
  - Technical cooperation on a cost-recovery (non-profit) basis
  - Mobilize expertise accumulated in the country’s public agencies and retired civil servants and politicians on a project basis
  - Work with both governments and non-governments in developing countries.

    [http://www sce gov sg/aboutUs asp](http://www.sce.gov.sg/aboutUs.asp)
### Singapore’s International Cooperation in Productivity Development

<table>
<thead>
<tr>
<th>Year</th>
<th>Project/Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>1983</td>
<td>Productivity Development Project (PDP)</td>
</tr>
<tr>
<td>1984</td>
<td>JICA-Singapore Partnership Projects (JSPP 21)</td>
</tr>
<tr>
<td>1985</td>
<td>Japan-ASEAN Training Program</td>
</tr>
<tr>
<td>1986</td>
<td>Management Diagnosis Training Project</td>
</tr>
<tr>
<td>1987</td>
<td>Management Diagnosis Training Project (advanced)</td>
</tr>
<tr>
<td>1988</td>
<td>Productivity Development Training Project in Hungary</td>
</tr>
<tr>
<td>1989</td>
<td>Productivity Development Training Project for African countries</td>
</tr>
<tr>
<td>1990</td>
<td>Quality and Productivity Training Project for SMEs</td>
</tr>
<tr>
<td>1991</td>
<td>Management Diagnosis Training Project for SMEs</td>
</tr>
<tr>
<td>1992</td>
<td>Singaporean Govt. Projects</td>
</tr>
<tr>
<td>1993</td>
<td>Assistance for ASEAN countries</td>
</tr>
<tr>
<td>1994</td>
<td>Assistance for South Africa and Kenya</td>
</tr>
<tr>
<td>1995</td>
<td>Assistance for Botswana</td>
</tr>
<tr>
<td>1996</td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td></td>
</tr>
<tr>
<td>2002</td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td></td>
</tr>
</tbody>
</table>

Examples: Botswana and SADC

1. **Botswana**: From 1991- (for about 10 years), SPA provided two-phased technical cooperation, at the request of Botswana President to Singaporean PM.
   - SPA supported:
     - Promotion of tripartite cooperation
     - Staff training of the Botswana National Productivity Center (BNPC)
   - 1st phase: mixed results, causing brain drain of trained staff
   - 2nd phase: BNPC successfully strengthened to become a center of excellence in SSA
     [Link](http://www.bnpc.bw/index.php?id=2)

2. **SADC member countries**: During 1994-2004, under JSPP21 (run by JICA/MFA), training programs on productivity management were conducted.
**Recent Example: Rwanda**

- President Kagame’s strong desire to learn from Singapore (small and resource-poor country, building human capability)
- Started with ODA-based bilateral training (SCP), followed by fee-based projects (SCE)
  - Workforce development and public sector capacity building
  - Social security fund reform, etc.
- SCP can serve as an entry point for tailor-made technical cooperation by SCE.
Final Remarks

- Singaporean experiences suggest the importance of:
  - High-level, political commitment
  - Institutional mechanisms involving all parties concerned
  - Combination of national movement (**mindset change**) and company-based, practical consultancy
  - Designing systems to foster private, productivity mgt. consultants

- Ethiopia should study how other African countries have built capability and institutional mechanisms for productivity development (e.g., Botswana)

- Invite Singaporean (e.g., SPA) experts to learn their experiences of *Productivity Movement* and technical cooperation in Africa