



KDI SCHOOL OF PUBLIC POLICY AND MANAGEMENT

Secrets of an Economic Miracle:  
**Lessons for Sustainable Development  
from South Korea**

Edited Taejong Kim and Soogil Young



**KDI SCHOOL**  
KDI School of Public Policy and Management



**Secrets of an Economic Miracle:  
Lessons for Sustainable Development from  
South Korea**

**Edited Taejong Kim and Soogil Young**

This collection of papers on South Korea's development strategies has been produced by the KDI School of Public Policy and Management to support "The Korean Story: Secrets of an Economic Miracle," a MOOC available from SDGAcademyX at <https://www.edx.org/course/the-korean-story-secrets-of-an-economic-miracle>

#### Disclaimer

The views and opinions expressed in this publication are those of the authors and do not necessarily reflect the official policy or position of the KDI School of Public Policy and Management. Responsibility for the information and views set out in this publication lies entirely with the authors.

© KDI School of Public Policy and Management 2019  
263, Namsejong-ro, Sejong-si, 30149, Republic of Korea  
ISBN (paper) : 979-11-5545-188-5  
ISBN (electronic) : 979-11-5545-189-2

Foreword.....	9
Acknowledgments .....	11
List of Abbreviations and Acronyms.....	12
List of Tables .....	13
List of Figures.....	15
Introduction By <i>Soogil Young</i> .....	17
<b>Chapter 01 By <i>Soogil Young</i></b>	
<b>The Korean Economic Miracle: Secrets and Lessons .....</b>	<b>25</b>
I. Introduction.....	26
II. The Korean Economic Miracle by Epoch.....	28
1. South Korea’s Geopolitics and National Security .....	29
2. “Struggling in Despair on the Verge of Starvation” (Up to the Early 1960s).....	30
3. Taking Off (1960s).....	31
4. Investing in Heavy and Chemical Industries (1970s).....	33
5. Dismantling a Paternalistic Government (Late 1970s and Early 1980s).....	35
6. A Historic Shift to a Current Account Surplus (Mid-1980s).....	39
7. Democratization at Last (1987) .....	39
III. The Rite of Passage to a Developed Country .....	42
1. The Financial Crisis: Shedding the Final Legacy of a Paternalistic Government (1997-2001) .....	42
2. The Miracle Years Defined.....	45
IV. Secrets of the Economic Miracle: Securing the Right Fundamentals .....	46
1. A Clear Vision for National Development .....	46
2. An Outward-oriented Industrial Development Strategy.....	47
3. An Effective Economic-Governance System .....	48
4. Investing in Capabilities for Long-term Development: 5- and 10-Year Plans .....	49
5. Using Major Crises to Launch Paradigm-shifting Reforms .....	49

V. The Role of Authoritarian Presidency in Development .....	50
1. Is an Authoritarian Approach to Development Recommended? .....	51
2. The Downsides of South Korea's Authoritarian Approach .....	51
VI. The Role of Democracy in Development .....	53
VII. Challenges for Sustainable Development in South Korea Today .....	55
VIII. Lessons from South Korea for Developing Countries .....	58
References .....	61

## **Chapter 02 By *Soonman Kwon***

<b>South Korean Health Policy and Universal Health Coverage .....</b>	<b>65</b>
I. Health, Sustainable Development, and Universal Health Coverage .....	66
1. Sustainable Development Goals and Health .....	66
2. Healthcare Financing and UHC in Low-Income Countries .....	67
3. History of Health and Sustainable Development in South Korea .....	72
II. Public Health Centers and Immunization Programs in South Korea .....	74
1. Public Health Centers .....	74
2. National Immunization Programs .....	77
III. National Health Insurance and Universal Health Coverage in South Korea .....	80
1. Development of Health Insurance for Universal Health Coverage .....	81
2. Healthcare Reform and the Merger of Health Insurance Funds .....	83
IV. Challenges and Lessons for Universal Health Coverage .....	84
1. Future Challenges for UHC .....	84
2. Policy Lessons for UHC and Sustainable Development .....	85
References .....	88

## **Chapter 03 By *Byoung-Joo Kim***

<b>Political Foundations for Sustainable Development in South Korea</b> .....	<b>93</b>
I. Conceptualizing the Political Side of Economic Development .....	94
II. Dramatic Development and Correction: Park (1962-1979), Chun (1980-1987) and Roh (1988-1992) Governments .....	96
1. Survival and Development: The Park Government (1962-1979) .....	96
2. Correction and Liberalization: The Chun Government (1981-1987) .....	98
3. Openness and Growth: The Roh Government (1988-1992) .....	99
III. Internationalization and Reform: Kim Young-sam (1993-1997) and Kim Dae-jung (1998-2002) Governments .....	101
1. Transparency and Internationalization: The Kim Young-sam Government (1993-1997) .....	101
2. Rationalization and Reform: The Kim Dae-jung Government (1998-2002) .....	103
IV. Applying South Korea's Experience to Theory and Practice .....	104
1. Preconditions for Top-down Mobilization and Bottom-up Demand Channeling .....	105
 Chapter 04 By Ju-Ho Lee, Hyeok Jeong, Song Chang Hong	
<b>South Korea Accumulates Human Capital for Sustainable Development</b> .....	<b>107</b>
I. Human Capital and Development in South Korea .....	108
1. Sustainable Development and Human Capital .....	108
2. Human Capital in South Korea .....	108
II. Expanding Education with Equality .....	110
1. Early Focus on Literacy and Basic Education .....	110
2. Sequential Expansion .....	112
3. Active Private Sector Participation .....	114
4. Effective Education Financing System .....	114
III. Linking Education to the Economy .....	115
1. Difficulties in the Early Stages .....	115
2. Building a New Culture .....	116

3. Vocational Education System.....	117
4. WorldSkills Competitions and Job Qualifications .....	118
5. Employee Training .....	120
<b>IV. Promoting Brain Gain .....</b>	<b>122</b>
1. Studying Abroad.....	122
2. Active Programs to Promote Brain Gain .....	123
3. Promoting R&D and Innovation .....	125
4. Limits and Challenges .....	127
<b>References.....</b>	<b>129</b>

## **Chapter 05 By *Do Hyun Han***

### **The South Korean Saemaul Undong Model for Sustainable Development..... 133**

<b>I. Understanding the Saemaul Movement .....</b>	<b>134</b>
1. Principles of the Saemaul Movement .....	134
2. Achievement of the Saemaul Movement .....	135
<b>II. Business Models of the Saemaul Movement.....</b>	<b>137</b>
1. Job Creation .....	137
2. Grassroots Innovation .....	139
3. Income Reinvestment Project .....	140
<b>III. Local Initiative and Responsibility.....</b>	<b>142</b>
1. Village Meetings and the Village Development Committee .....	142
2. Saemaul Leaders.....	143
<b>IV. The Saemaul Movement and Cooperatives.....</b>	<b>144</b>
1. Role of Cooperatives in the Saemaul Movement .....	144
2. Agricultural Cooperatives .....	145
<b>V. The Saemaul Movement and the Empowerment of Women .....</b>	<b>145</b>
1. Women's Education .....	146
2. Self-Reliance and Empowerment.....	146

VI. The Saemaul Movement and Leadership Education.....	147
1. Educational Content.....	147
2. Educational Methods.....	148
VII. The Saemaul Movement and Reforestation .....	149
1. Cultivating Seedlings in the Village .....	149
2. The Village Forestry Cooperative .....	150
3. Crosschecking Planting Trees .....	150
VIII. Successful Cases and Lessons for Developing Countries.....	150
References.....	155

## **Chapter 06 By *Eun Kyung Kim***

<b>The Advancement of Education and Human Rights for Women in South Korea.....</b>	<b>159</b>
I. Overview of the Status of Women in South Korea .....	160
1. Gender Agenda in the SDG Development Framework.....	160
2. Women in South Korea.....	160
II. Women’s Policies in South Korea.....	161
1. The Korean Women’s Development Institute.....	161
2. The Ministry of Gender Equality and Family .....	165
3. The Korean Institute for Gender Equality Promotion and Education .....	167
III. Economic Empowerment of Women.....	170
1. Policies for Supporting Women Workers.....	171
2. Affirmative Action .....	173
IV. The Political Participation of Women.....	175
1. Process of the Gender Quota System .....	175
2. Outcomes of the Gender Quota System .....	177
3. Achievements of the Political Participation of Women.....	178
References.....	181

Chapter 07 By *Sung Jin Kang*

Shifting the South Korean Development Paradigm Toward Green Growth .....	185
I. Environmental Degradation .....	186
1. Rapid Energy Consumption .....	187
2. Rapid Increase in CO2 Emissions .....	188
II. Environmental Improvement during Industrialization .....	191
1. Environmental Protection Strategies .....	192
2. Policies Regarding Water and Air Pollution .....	193
III. Environmental Restoration and Industrialization .....	194
1. Afforestation .....	194
2. Restoration of Cheonggye Stream .....	196
3. Restoration of Lake Sihwa and the Tidal Power Plant .....	197
4. Greening Industry .....	199
IV. Green Growth Initiative as a Shift in Development Paradigms .....	201
1. Low Carbon, Green Growth .....	201
2. Development Paradigm Shift .....	203
3. Financing Green Growth .....	204
4. Green Growth and Sustainable Development .....	206
References .....	208

## Foreword

South Korea's economic development experience has been widely documented in development spheres. Our country's story of development, which saw a war-torn country riddled in poverty transition into an economic powerhouse and vibrant democracy of today, is one that needs to be shared. KDI School of Public Policy and Management (KDI School) was established in 1997 to meet the educational needs of future leaders in an increasingly globalized world. One of its key missions is to share Korea's development experiences with the development community and by doing so help public officials, academics, policy practitioners, and key agents of change better identify policy alternatives and solutions for their countries' development challenges.

KDI School is delighted to be part of the global sustainable development initiative, one that aligns with the School's core values and serves to advance the Sustainable Development Goals (SDGs) around the world. In collaboration with the SDG Academy and in the spirit of inclusiveness, KDI School launched a massive online open course (MOOC) entitled "The Korean Story: Secrets of an Economic Miracle" in October 2018. Through this innovative approach, KDI School hopes to realize its commitment to reach and serve the knowledge needs of isolated and underserved communities around the world by scaling its offerings to a massive open online community.

As of January 2019, over 1,200 learners from more than 100 countries have enrolled in "The Korean Story" MOOC. Building on its success and to enhance the overall learning experience of its subscribers and other students of development, KDI School is pleased to present this volume that presents an in-depth look at the development topics covered in the online course. This includes economics, politics, education, health, women's empowerment, rural development, and the environment. This printed volume will be an invaluable supplement to the MOOC and provide a more comprehensive blended learning experience.

Like the MOOC it accompanies, this volume provides an incisive look at the inner workings of Korea's story of nation-building, including its key economic reforms, governance structure, and policy strategies that have propelled South Korea to its current status as the 12th largest economy in the world. The book also covers some of the critical mistakes made along the way, particularly with regards to sustainability, which may offer even more valuable lessons for the developing world. While the MOOC and this volume aim to share South Korea's "secrets" of how it achieved its remarkable economic growth, it goes without saying that there is no

one-size-fits-all secret recipe for success that can be transplanted everywhere. It is up to the readers of this volume to engage in an imaginative reinterpretation of the text, to put on your critical thinking hats and find what can be applicable and relevant to your local contexts.

We at KDI School of Public Policy and Management hope that this volume aids in your mission to formulate sustainable development strategies and policies that can help realize the SDGs.

**Jong-Il You**

Dean

KDI School of Public Policy and Management

## Acknowledgments

This volume is a joint product of the KDI School of Public Policy and Management and the SDG Academy, produced under the responsibility of Prof. Taejong Kim who directed the project, assisted by Prof. Soogil Young who served as the editorial advisor. We would like to thank the respective authors for their highly-valued contribution to this volume. We also thank the members of the Development Research Division of KDI School, especially, Dr. Min Young Seo, the Division Head, as well as Ms. MyungEun Lee, Senior Research Associate, and Ms. Jiyoung Hwang, Research Associate, in the same Division, for having carried forward this project to completion with their tireless administrative support. We would also like to express our sincere gratitude to Ms. Suzan Nolan, Managing Editor of BlueSky International, for her thorough and high-quality language-editing service on the final manuscripts of all chapters. We also would also like express our deep gratitude to Prof. Jong-Il You, Dean, and Prof. Wonhyuk Lim, Associate Dean, of the KDI School for their strong support for the project.

We are heavily indebted to Ms. Chandrika Bahadur, Director of the SDG Academy, for the partnership between the Academy and KDI School for the production of “The Korean Story: Secrets of an Economic Miracle,” as part of the Academy’s prestigious MOOC series on sustainable development, now available at <https://sdgacademy.org/course/the-korean-story>. The present volume is the outgrowth of this MOOC and has been produced in support of the online course. We also owe a profound gratitude to Professor Jeffrey Sachs, Director of the UN Sustainable Development Solutions Network (SDSN), for making this partnership possible in the first place, as well as for encouraging and blessing the Korean Story MOOC project by contributing its opening module with five inspiring lectures on the subject matter of this course. The present publication would not have been possible without the support of these two distinguished leaders of global education on sustainable development.

Taejong Kim, Ph.D.  
Chair, Master of Development Policy Program &  
MOOC Project Director  
KDI School of Public Policy and Management

Soogil Young, Ph.D.  
Visiting Professor & MOOC Project Advisor,  
KDI School of Public Policy and Management;  
Leading Professor, State University of New York  
(SUNY) Korea

## List of Abbreviations and Acronyms

CO <sub>2</sub>	Carbon dioxide
DAC	Development Assistance Committee
ECB	Economic Planning Board
FDI	Foreign direct investment
GDP	Gross domestic product
GHG	Greenhouse gas
GNI	Gross national income
HCI	Heavy and chemical industries
IT	Information technology
KDI	Korea Development Institute
KRW	Korean won
LMIC	Low and middle-income countries
MDG	Millennium Development Goal
MOU	Memorandum of understanding
NGO	Nongovernmental organization
OECD	Organisation for Economic Development and Cooperation
R&D	Research and development
SDG	Sustainable Development Goal
UHC	Universal health coverage
UN	United Nations
US	United States
USD	United States dollars
KwH	Kilowatt hour
2030 Agenda	The 2030 Agenda for Sustainable Development

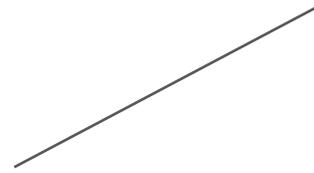
Table 2.1	Nine targets and four additional points under SDG 3	66
Table 2.2	Availability of health workforce per 10,000 population in the world	70
Table 2.3	Selected indicators of Health-related MDGs and Health Financing in South Korea (1980-2013)	72
Table 2.4	Economic and Health Indicators in South Korea (1977-2008)	80
Table 2.5	Number of Insured for Types of Health Insurance Funds	81
Table 4.1	Illiteracy Rate in Korea from 1945 to 1958	111
Table 4.2	Changes to Qualification Systems by Stage	119
Table 4.3	Changes in Vocational Training System	121
Table 4.4	Number of South Korean Students in US	122
Table 4.5	GRI and Developed Technologies	126
Table 5.1	Development Criteria for the Development of Villages	136
Table 6.1	Implementation of Women's Policies and Development History	166
Table 6.2	Overview of KIGEPE Training Programs for Public Officials	169
Table 6.3	Comparison of Female Economic Participation Rate among Key OECD Countries (2009-2014)	171
Table 6.4	Impact of Affirmative Action Policy on Number of Female Workers and Managers (2012-2014)	174
Table 6.5	Revision of the Political Parties Act Related to the Women Nomination Quota (2000-2004)	176
Table 6.6	Women in Parliament Before and After the Gender Quota (1988-2012)	177
Table 7.1	Comparison of "Green Growth" Definitions	186
Table 7.2	Amounts of Energy Imports to South Korea (1981-2013)	187

Table 7.3 Final Energy Consumption of South Korea (1981-2013).....	188
Table 7.4 CO2 Emissions of Top 20 Countries (1970-2012).....	189
Table 7.5 Global CO2 Emissions per capita (1970-2012) .....	190
Table 7.6 South Korea’s Air Pollutant Emissions by Year (1988-2012).....	193
Table 7.7 Status of South Korea’s Water Pollution by Year (1981-2013) .....	194
Table 7.8 South Korea Forest Land Area and Growing Stock (1952-2010) .....	196
Table 7.9 Water Quality of Lake Sihwa (1997-2012).....	198
Table 7.10 South Korea’s First and Second 5-Year Plan for Green Growth Goals and Strategies .....	202

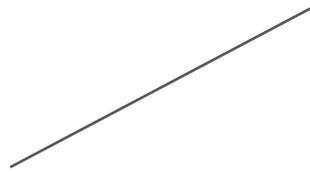
Figure 1.1 South Korea’s Path of Compressed Economic Development (1960-2015) .....	26
Figure 1.2 South Korean National, Urban and Rural Poverty Rates (1961-1993) .....	27
Figure 1.3 South Korea’s Average Economic Growth Rate per Period (1953-2005) .....	29
Figure 1.4 Political Geography of South and North Korea .....	30
Figure 1.5 Values of South Korean Exports and Imports Relative to GDP (1960-2014) .....	32
Figure 1.6 Historic CPI Inflation Rate in South Korea (1953-1999).....	37
Figure 1.7 Import Liberalization Rate and Tariff Rates in South Korea in 1981 & 1995.....	38
Figure 1.8 17 United Nations Sustainable Development Goals (SDGs).....	56
Figure 1.9 The 2018 SDG Dashboard for South Korea .....	57
Figure 1.10 SDG Achievement Trends for South Korea as of 2018.....	57
Figure 2.1 Contribution of Health to Sustainable Development.....	68
Figure 2.2 Links between Health and GDP per capita .....	68
Figure 2.3 Source of Health Financing as a Percentage of Total Health Expenditure by World Bank-define Income Group (2011).....	69
Figure 2.4 Ratio of the use of six primary-care services for low and high economic quintiles of the population among LMICs in six regions of the world .....	71
Figure 2.5 Source of Health Financing as a percentage of Total Health Expenditure, South Korea (1980-2013).....	73
Figure 2.6 Source of Health Financing as a percentage of GDP, South Korea (1980-2013).....	73
Figure 5.1 Rural Income Increase During the Saemaul Movement .....	135
Figure 5.2 The Spread of Self-Reliant Villages (percent).....	136
Figure 5.3 Income Reinvestment Principle Diagram .....	141

---

Figure 5.4 Village Assembly Meeting Minutes.....	142
Figure 6.1 International and Domestic Circumstances.....	162
Figure 7.1 Per capita Income and CO2 Emissions Trends for South Korea (1960-2012) .....	191
Figure 7.2 Before (2002) and After (2005) the Cheonggye Stream Restoration.....	197
Figure 7.3 Before (1998) and After (2011) Sihwa Lake Tidal Power Station .....	199
Figure 7.4 Korea-to-World Green Trade (1976-2015).....	204
Figure 7.5 World Green Trade Share.....	205
Figure 7.6 Green Growth and Sustainable Development .....	206



# **Introduction**



**By**

**Soogil Young**

Visiting Professor & MOOC Project Advisor  
KDI School of Public Policy and Management

The Republic of Korea, commonly known as South Korea, holds the record of the highest long-term growth performance in the modern history of the world. In 1962, South Korea launched and maintained economic growth of an average of 8 percent per year for more than three decades. This growth is all the more remarkable because it followed Korea's history of impoverishment during Japan's 35-year colonial rule, Korea's liberation in 1945, and the Korean War, which resulted in the separation of South and North Korea. South Korea's gross national income (GNI) per capita increased from USD 91 in 1962 to surpass USD 3000 in 1987 and exceed USD 10,000 in 1994 (Korean Statistical Information Service 2018). During this period of economic growth, the South Korean economy increased by more than 16-times in terms of real gross domestic product (GDP), and the country achieved what Sir Angus Deaton (2013), the 2015 Nobel laureate in economics, called the "Great Escape" from extreme poverty.<sup>1</sup> This Great Escape, further followed by the leap to prosperity that South Korea achieved is, in essence, what is often called the "Korean Economic Miracle." Economic growth, however, is only one dimension to South Korea's developmental success in the latter half of the 20th century, one which may be summarily described as "compressed development".

South Korea achieved another Great Escape when it transitioned from an authoritarian regime to a fully democratic government in 1988. South Korea shifted its focus from industrial to democratic development, focusing on political freedom, human rights, social modernization, and distributive justice. South Koreans celebrated their new prosperity and democracy by hosting the 1988 Summer Olympics and initiating formal diplomacy with all socialist economies, barring North Korea, making this Olympics the largest ever held.

By the early 2000s, South Korea completed comprehensive financial and structural reforms that dismantled the remaining legacy of government intervening in banking on behalf of large conglomerates and their businesses. South Korea's industrial development had been accompanied by technological breakthroughs that enabled the country to emerge as a global competitor in a number of capital- and technology-intensive industries, such as steel products, automobile and ship construction, consumer electronics, and information technology (IT). By 2017, South Korea was the world's fifth largest merchandise exporter (Central Intelligence Agency 2016).

According to the World Bank (2017a), by 2017 South Korea ranked 12th globally in terms of GDP after Russia and ahead of Australia. In terms of GNI, South Korea ranked 31st after New Zealand and ahead of Spain with USD 38,260 per capita (World Bank 2017a). According to Korean Statistical Information Service (2018) estimates, South Korea's GNI was 85 times as large as North Korea's in 2013 and its GNI per capita (USD 26,179) was 42 times higher than North Korea's USD 622.

---

1 Deaton did not specifically refer to South Korea in this book.

South Korea has grown into one of the most influential middle-power countries in the world. It has made and can continue to make significant contributions to global development and human betterment. The United Nations (UN) 2030 Agenda for Sustainable Development (2030 Agenda), which launched at the UN Summit on September 25, 2015, offers some perspective on the pioneering lessons that South Korea can contribute to global sustainable-development efforts (United Nations 2015a). Target 9 of Goal 17 of the UN's 17 Sustainable Development Goals (SDGs) recognizes the need to “enhance international support for implementing effective and targeted capacity-building in developing countries to support national plans for implementing all the sustainable development goals” (United Nations 2015b). In this regard, based on its own development experience, South Korea is uniquely situated to show currently developing countries ways to accelerate their own development process.

The 2030 Agenda broadened the concept of development, previously viewed primarily as economic, to sustainable development that seeks development across three dimensions – economic but also social and environmental – in a balanced and integrated manner. The 2030 Agenda operationalized this new concept of development in 17 SDGs. Under the Agenda, all governments will implement the 17 SDGs as part of their own national development efforts. However, while setting the SDGs as the goals, the 2030 Agenda did not specify strategies and policies for achieving them, except to state that measures should take “into account different national realities, capacities and levels of development, and respect national policies and priorities” (United Nations 2015a). Formulating the strategies and policies to achieve the SDGs will be a challenge for all countries, especially developing countries. In this regard, developing countries can study the experiences of other countries, especially those that have successfully solved many developmental problems, such as South Korea.

Development aid from industrialized nations was especially important to South Korea before the 1960s, during its years of extreme poverty. When South Korea joined the Organisation for Economic Development and Cooperation (OECD) as its 29<sup>th</sup> member in 1996, it was still listed as a recipient of official development assistance (ODA); however, it had already begun to provide development aid to other countries. In fact, South Korea had established the Korea International Cooperation Agency (KOICA) in 1991 to administer such aid. In 2010, however, South Korea formally shifted its status from aid recipient to donor by joining the OECD Development Assistance Committee (DAC), currently a 30-member group of many of the largest bilateral funders of aid. South Korea's accession to the DAC signified the country's commitment to pay forward the benefits it had received from development aid by assisting other developing countries. In addition to providing development cooperation in the form of financial assistance and development projects, South Korea also offers “Knowledge-Sharing Programs” (KSP) through various organizations and institutions.

One of these institutions, the Korea Development Institute (KDI), established the KDI School of Public Policy and Management in 1998 to produce international experts in the field of development economics and public policies. Over the past 20 years, the KDI School has developed outstanding international masters programs for Development Policy, Public Policy, and Public Management. The Network of Public Policy, Affairs, and Administration (NASPAA) accredited the KDI School masters programs in 2014, 2017, and 2018 for meeting global standards for public-service education.

As of 2018, the KDI School boasted an alumni network of more than 2000 graduates from 133 countries. The KDI School launched its first KSP in 2005. A KSP typically runs for two years; by attending seminars, going on field trips, and speaking with relevant Korean officials, experts, and businesspeople, students from partner countries learn how successful Korean policy and institutional experiences might inform or solve specific policy objectives in their own countries. As the number of partner countries grew, the range of policy objectives and institutions covered by the KSPs also grew. This growing interest prompted the KDI School to synthesize the content into a Massive Open Online Course (MOOC) and thus open the knowledge base to anyone across the world interested in learning “the secrets” of South Korea’s remarkable compressed-development performance. An eminent thought-leader in sustainable development, Dr. Jeffrey Sachs facilitated a partnership between the KDI School and the SDG Academy so that “The Korean Story: Secrets of an Economic Miracle” MOOC could be produced and uploaded onto the SDG Academy’s edX platform. This volume, a collection of papers on South Korea’s Economic Miracle, has been written to support the MOOC’s online material with more in-depth analyses of Korea’s development policies.

“The Korean Story: Secrets of an Economic Miracle” MOOC reveals how South Korea’s successful compressed development stemmed from various long-term development strategies, including investment in industrial, social, and human capital, and in physical and technological infrastructure. Such investment enabled export-led economic growth and rapid industrialization. But it was also directed at other objectives, such as social equity, inclusiveness, and balanced national development. Pursuit of those objectives was necessary to sustain South Korea’s economic growth and industrialization.

The MOOC’s online material and the present volume intend to describe the strategies and policies, especially those that apply to specific SDGs, for the benefit of those who are interested in South Korea’s development experiences, particularly officials, academics, and practitioners in developing countries. As do the online materials, this volume presents the views of several South Korean professionals who are leading experts in the strategies and policies pursued by South Korean governments throughout its development process. In their respective chapters, the authors discuss the relevance of South Korea’s experiences for specific SDGs in

the following policy areas: health, political mobilization, education, public health, rural vitalization (*Saemaul Undong*), women's empowerment, and environmental policies.

This volume begins with Chapter One, "The Korean Economic Miracle: Its Secrets and Lessons" by Dr. Soogil Young, a Visiting Professor at the KDI School of Public Policy and Management, a Leading Professor at the State University of New York in Korea, and the founding Chairman of the Sustainable Development Solutions Network (SDSN) Korea. Dr. Young provides a comprehensive overview of South Korea's economic miracle, focusing on how development policies shifted with various challenges in the course of the country's compressed development. He details how the authoritarian governments of Park Chung-hee and his successor, Chun Doo-hwan, and the subsequent democratic governments that followed them effected the country's rise. Dr. Young concludes with an explanation of the United Nations 2030 Agenda for Sustainable Development including the 17 SDGs at its core, and suggests which aspects of the South Korean developmental experience may be leveraged by developing countries in pursuit of sustainable development.

Chapter Two, "South Korean Health Policy and Universal Health Coverage" by Dr. Soonman Kwon of Seoul National University at the Graduate School of Public Health, begins with a succinct explanation of the critical importance of good public health in low-income countries' development, and goes on to discuss how public health policies and institutions have evolved in South Korea to support its long-term development. In particular, Dr. Kwon explains how South Korea constructed a network of public health centers across the country by the early 1980s, and describes its free immunization programs. Dr. Kwon also describes how South Korea managed to achieve target 3.8 of the third SDG (good health and well-being) by 1989, providing universal health coverage to its population. Dr. Kwon further offers an in-depth look at how South Korea is currently coping with the challenge of managing its universal health-insurance system in terms of institutional design and financing.

Chapter Three, "Political Foundations for Sustainable Development in South Korea" by Dr. Byoung-joo Kim of the KDI School explains how Korea's development was politically managed and sustained through the authoritarian era and the subsequent democratization process. In particular, Dr. Kim lays out the conditions for a system of sustainable development that the author argues should be based on constant, two-way interactions between bottom-up demand channeling and top-down mobilization in order to align interests between individuals, groups and the government. He reveals how each new policy paradigm throughout South Korea's political history mobilized public support in order to undertake necessary reforms and preserve growth momentum.

In Chapter Four, “South Korea Accumulates Human Capital for Sustainable Development,” Dr. Ju-Ho Lee, a professor at the KDI School and a former Minister of Education, Dr. Hyeok Jeong, a professor at the Seoul National University Graduate School of International Studies and Dr. Song Chang Hong, Director of Planning and Evaluation at the KDI Center for International Development, discuss how South Korea invested in human capital through educational reforms. The authors explain Korea’s approach to three specific educational challenges for economic development: universal education for citizens, educating skilled workers to support industrial development, and investing in educated minds for innovation-led development.

Chapter Five, “The South Korean *Saemaul Undong* Model for Sustainable Development,” by Professor Do-Hyun Han, from the Academy of Korean Studies, offers a comprehensive introduction to the Korean rural vitalization program known as *Saemaul Undong* or New Village Movement. In the 1970s, President Park implemented the *Saemaul Undong* as a nationwide movement to modernize rural villages as vibrant economic communities. Based on the three principles of diligence, self-help, and cooperation, the movement incentivized rural residents to organize lucrative non-farm activities, work together to repair and upgrade infrastructure for their villages, empower women, and participate in a nationwide reforestation campaign. While no longer an active domestic program, demand from developing countries for rural-vitalization experience-sharing has globalized the *Saemaul Undong* campaign.

In Chapter Six, “The Advancement of Education and Human Rights for Women in South Korea,” Dr. Eun Kyung Kim, a Senior Fellow at the Korean Women’s Development Institute, offers an overview of how women’s status in South Korean society evolved during the development process and how social norms and government policies changed to empower women. In her analysis of Korean experiences, Dr. Kim underlines the importance of women’s education and women’s grass-roots movements as the twin drivers of those changes.

In Chapter Seven, “Shifting the South Korean Development Paradigm Toward Green Growth,” by Dr. Sung Jin Kang of Korea University examines the environmental consequences of South Korea’s industrialization and its belated responses to environmental degradation. Dr. Kang also describes how the green growth strategy launched by President Lee Myun-bak in 2008 proposes to harmonize environmental protection and economic growth at both the national and global levels.

While the above chapters provide essential additional detail to their respective authors’ online presentations, unfortunately the present volume does not cover all of the subjects presented in the online material. Readers who view “The Korean Story: Secrets of an Economic Miracle” MOOC can access two additional modules: an introduction to the SDGs and South Korea’s related development efforts, and a detailed look at South Korea’s transportation sector.

In the MOOC “Introduction” module, Dr. Jeffrey Sachs, Professor at Columbia University, Special Advisor to the UN Secretary-General on the SDGs, and Director of the UN Sustainable Development Solutions Network (SDSN) opens the course by giving five inspiring video lectures that explain the concept of sustainable development and highlight the importance of balanced, long-term investment in various kinds of capital. Dr. Sachs puts special emphasis on human capital and national planning, summing up his lectures with ten lessons from South Korea’s development experience.

The other additional MOOC module covers South Korea’s remarkable transportation system. Dr. Jae-hak Oh, President of the Korea Transport Institute (KOTI) discusses the development of South Korea’s transportation network; it exemplifies how persistent long-term planning supported the building of efficient modern infrastructure in many areas over many decades.

The KDI School hopes that readers of this volume (and viewers of its related MOOC) will find many helpful insights into South Korea’s successful long-term development, and that these secrets may help identify paths toward sustainable development and effective SDGs implementation in developing countries.

## References

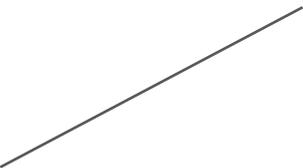
- Central Intelligence Agency 2016, *The World Factbook*, US Government Printing Office, Washington, DC, viewed 19 December 2018, <https://www.cia.gov/library/publications/the-world-factbook/index.html>
- Deaton A. 2013, *The Great Escape: Health, Wealth, and the Origins of Inequality*, Princeton University Press, Princeton.
- Korean Statistical Information Service 2018, “GDP and GNI by economic activity (original, real, quarterly and annual)” [database], KOSIS, Seoul, viewed 27 November 2018, [http://kosis.kr/statHtml/statHtml.do?orgId=301&tblId=DT\\_102Y011&conn\\_path=I3](http://kosis.kr/statHtml/statHtml.do?orgId=301&tblId=DT_102Y011&conn_path=I3).
- United Nations 2015a, “Transforming our world: the 2030 Agenda for Sustainable Development,” Division for Sustainable Development Goals, viewed 29 November 2018, <https://sustainabledevelopment.un.org/post2015/transformingourworld>.
- 2015b, “Sustainable Development Goals,” viewed 18 December 2018, <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>.
- World Bank 2017a, “Data Catalogue Gross domestic product 2017,” World Bank Group, Washington, D.C., viewed 21 December 2018, <http://databank.worldbank.org/data/download/GDP.pdf>.
- 2017b, “Data Catalogue Gross national income per capita 2017, Atlas method and PPP,” World Bank Group, Washington, D.C., viewed 21 December 2018, <http://databank.worldbank.org/data/download/GNIPC.pdf>.

Chapter

01



**The Korean Economic Miracle:  
Secrets and Lessons**



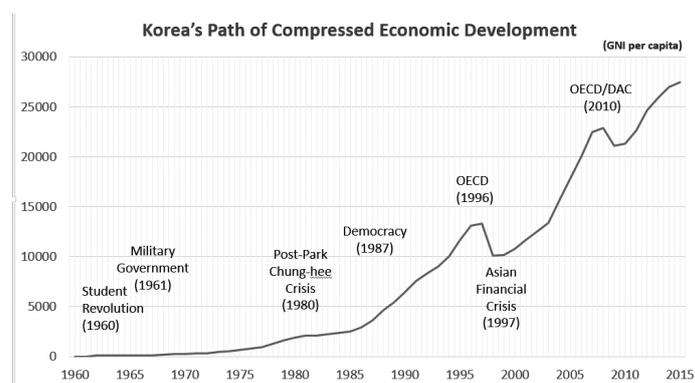
By

Soogil Young

## I. Introduction<sup>2</sup>

For 35 years, during the colonial rule of Imperial Japan from 1910 to 1945, Korea was an impoverished agrarian society. Korea remained a poorly developed nation during the early modern years after liberation. A division between the Republic of Korea (South Korea) and Democratic People's Republic of Korea (North Korea) followed Korea's liberation, culminating in a war between the two from 1950 to 1953. South Korea experienced years of economic and political turmoil after the Korean War. In 1962, however, South Korea launched and maintained economic growth that averaged 8 percent per year until the onset of a financial crisis in 1997. During these 35 years, South Korea recorded the highest economic growth performance in the shortest time ever seen in modern world history, one that set the stage for further growth through 2015 and beyond (Figure 1.1). This period of compressed economic development is known as the "Korean Economic Miracle," or the "Miracle of the Han River." During this period, the South Korean economy increased more than 16-fold in terms of real gross domestic product (GDP). Gross national income (GNI) per capita increased from USD 91 in 1962 to USD 3467 in 1987, when South Korea became a middle-income country, and further increased to USD 13,077 in 1996, when South Korea surpassed the mark for high-income countries (World Bank 2018a). That same year, South Korea became the 29<sup>th</sup> member of the Organisation for Economic Development and Cooperation (OECD), a club of high-income democratic countries that promotes the harmonious development of market economies and democracy (Gurria 2016).

Figure 1.1 South Korea's Path of Compressed Economic Development (1960-2015)

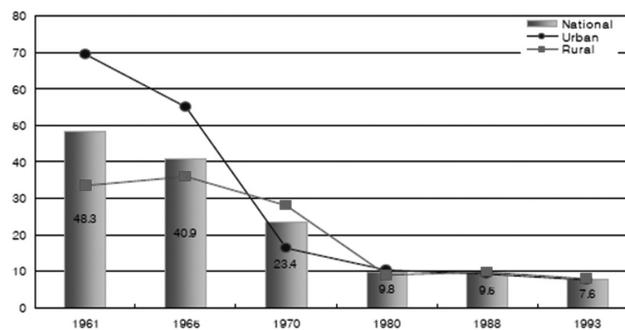


Source: Korean Statistical Information Service

2 Much of the policy information and statistics about the South Korean economy in this chapter come from *The Korean Economy: Six Decades of Growth and Development*, (Sakong, Kho & Committee for the Sixty-year History of the Korean Economy 2013), a five-volume work first published in Korean in 2010 by the Committee for the Sixty-year History of the Korean Economy; it was chaired by Il Sakong and supported by the Ministry of Planning and Finance. Many government institutions participated in the publication of these volumes, which the Korea Development Institute coordinated. Unless otherwise cited, statistics about South Korea come from KOSIS, the database of Statistics Korea.

As part of the Economic Miracle, South Korea achieved what Sir Angus Deaton, the 2015 Nobel laureate in economics, called a “Great Escape” from extreme poverty by the mid-1980s (Deaton 2013) (Figure 1.2).<sup>3</sup> South Korea’s escape from poverty enabled another Great Escape in 1987: one from the suppression of democracy by the authoritarian government that General Park Chung-hee launched when he seized power in 1961.

Figure 1.2 South Korean National, Urban and Rural Poverty Rates (1961-1993)



Source: Kim (2008)

The Economic Miracle provided a foundation for South Korea’s subsequent rise in the 2000s as a global competitor in technology-intensive industries, such as steel, automobile, ship building, semi-conductors, consumer electronics, and information technology (IT) products (Sharma 2012). Furthermore, South Korea built a world-class digital economy and eventually ranked second (after Sweden) in information and communications technologies among more than 160 countries according to the 2007 International Telecommunication Union’s (ITU) ICT Development Index (Oh & Larson 2011). South Korea further solidified its position as a world-class digital economy by the late 2010s, ranking first among 169 countries from 2010 through 2016 according to the 2017 ITU ICT Development Index (ITU 2017). South Korea’s technological development in the 2000s indicated that South Korea had entered the post-catchup phase of technological development, playing alongside and in competition with leading industrial countries.

As of 2018, South Korea, a middle-power on the international stage, plays a responsible role in global development and human betterment. In 2017, South Korea ranked 12<sup>th</sup> in GDP, just behind Russia and ahead of Australia, and 31<sup>st</sup> for GNI per capita of USD 38,260 based on purchasing power parity (PPP), just behind Israel and ahead of Spain (Kim & Cho 2018). By 2017, South Korea had become the fifth largest merchandise exporter on the global market, behind Germany and Japan and ahead of France and the Netherlands (Central Intelligence Agency 2016). These figures reveal the South Korean Economic Miracle in a nutshell.

<sup>3</sup> Deaton uses this expression to refer to an escape from extreme poverty, in general, and does not refer to the South Korean experience, in particular.

Following the expiration of the Millennium Development Goals (MDGs) campaign which was geared to the ultimate goal of eradicating extreme poverty around the world by 2015, the world community of nations at the United Nations (UN) Summit held on September 25, 2015 unanimously adopted the 2030 Agenda for Sustainable Development (2030 Agenda) with 17 Sustainable Development Goals (SDGs) at its core as a new global development agenda to be shared by all countries. The 2030 Agenda commits all nations, developed and developing alike, to achieving the three dimensions of sustainable development – economic, social, and environmental – by implementing the 17 SDGs and their constituent 169 targets in a balanced and integrated manner by 2030. Subsequently, all countries have begun to mainstream the SDGs into their goals for national development, aligning their strategies and policies with these goals and targets. The 2030 Agenda raises an important question about South Korea’s Economic Miracle: how does South Korea’s development achievement measure up to the SDGs and what, if any, lessons can South Korea provide to developing countries as they pursue sustainable development by the terms of the SDGs?

This chapter will discuss South Korea’s Economic Miracle and post-Miracle experiences in order to identify what may be considered the “secrets” of its Economic Miracle, explaining how South Korea managed its remarkable rise as a new industrial country and overcame a series of social, economic, and political challenges and crises. It will also assess South Korea’s current development standing against a SDG-achievement scorecard in order to identify the country’s development challenges for the future. This chapter concludes with a discussion of the implications of South Korea’s experiences and challenges for developing countries today.

## **II. The Korean Economic Miracle by Epoch**

Technological leaders have propelled the world’s economic development since the onset of the Industrial Revolution. “Late industrialization” is a process in which a number of later-day developing countries, such as South Korea, Taiwan, Brazil, China, India, and members of the Association of Southeast Asian Nations (ASEAN)<sup>4</sup>, have been engaged since the mid-20<sup>th</sup> century. It can be considered to be an effort to catch up to already-industrialized countries by closing technological gaps between countries. A diffusion of advanced technologies from developed to developing countries characterizes this process (Sachs 2015). This diffusion, or “absorption” from the viewpoint of developing countries, allows developing countries to achieve a higher rate of economic growth. From this perspective, Korea’s Economic Miracle is a story of successful and rapid

---

4 ASEAN member states: Cambodia, Brunei Darussalam, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, Viet Nam.

absorption of modern technologies that began in the 1960s and rapid endogenous growth that followed, averaging 9.2 percent through 1991, and 8.4 percent from 1962 to 2011 (Figure 1.3). By the early 2000s, South Korea largely closed the technology gap with the leading industrial countries, drawing a curtain on its Economic Miracle.

Figure 1.3 South Korea's Average Economic Growth Rate per Period (1953-2005)

Period	GDP Growth Rate (% p.a.)
1953-1961	4.1
1962-1971	8.9
1972-1981	8.8
1982-1991	10.0
(1962-1991)	(9.2)
1992-2001	5.7
2002-2011	4.9
(1962-2011)	(8.4)
2012-2015	2.8

Source: Korean Statistical Information Service

## 1. South Korea's Geopolitics and National Security

Through the 19<sup>th</sup> century, Korea was a pre-modern feudal kingdom that Koreans called Chosun<sup>5</sup> (or Joseon). Korea was an agrarian hermit kingdom, a vassal to China, and closed to all other countries. Militaristic Imperial Japan invaded Korea in the late 19<sup>th</sup> century and colonized it in 1910. Korea remained a Japanese colony for 35 years until 1945, when the end of World War II saw Japan's surrender to the Allied Forces. Liberated from Japan, the former Korea divided across the 38<sup>th</sup> parallel in 1948 into the Republic of Korea (or South Korea), a capitalist state backed by the U.S., and the Democratic People's Republic of Korea (or North Korea), a communist state backed by the Soviet Union (Figure 1.4). In 1950, North Korea launched a war against the South, attacking by surprise, and U.S.-led UN forces saved South Korea from defeat. The war ended with the Korean Armistice Agreement in 1953, which is still in effect, but ongoing military tensions along the Demilitarized Zone (DMZ) that lies between North and South Korea constantly pose security threats to South Korea. For this reason, national security against the North has been crucial to the economic development of the South. A Mutual Defense Treaty agreed between South Korea and the U.S. after the Armistice provides a security blanket for South Korea; it has served as a foundation for South Korea's economic development.

5 The word means "morning calm".

Figure 1.4 Political Geography of South and North Korea



Source: Worldatlas.com 2018

## 2. “Struggling in Despair on the Verge of Starvation” (Up to the Early 1960s)

Prior to the 1960s, South Korea faced economic ruin. Japan’s abrupt departure from the Korean peninsula in 1945 brought about destabilizing socio-political changes, including an ideological division between socialism and capitalism, and the economic shock of departing Japanese administrators, businessmen, and technicians who had controlled the economy. The post-war South Korea of the 1950s suffered from the sudden rupture of economic interdependence with North Korea, human casualties of approximately 1,500,000, and the loss of nearly half of its industrial capital stock and infrastructure. The government of Syngman Rhee, the first President of the Republic, is credited for having launched a market economy based on private property; it was formally democratic but also manifestly corrupt and incompetent. At the time, the political situation was so hopeless that in 1952, *The Times* wrote that “expecting democracy to bloom in South Korea is like hoping for a rose to bloom in a garbage bin” (qtd. in Hwang 2012).

Throughout the 1950s, South Korea remained impoverished despite U.S.-assisted post-war reconstruction efforts, which stimulated economic growth by only 3.8 percent per year from 1953 to 1960. Near the end of the 1950s, strong inflationary pressure undermined economic growth, slowing it to a crawl as anti-inflationary policies kicked in and the United States began to curtail reconstruction aid to South Korea. The republic’s gross national product (GNP) per capita was USD 79 by 1960. At the beginning of the 1960s, South Korea ranked 101st among 125 countries in terms of income level (World Bank 2018a). On May 16, 1961, General Park Chung-hee toppled the democratically-elected government of Prime Minister John Myun Chang

and described the plight of South Koreans as “struggling in desperation on the verge of starvation” in his Revolutionary Pledge, thereby justifying his military coup. Unconstitutional as it was, the military coup was General Park’s response to the country’s widespread sense that it was undergoing a crisis of destitution.

### **3. Taking Off (1960s)**

After taking power, General Park Chung-hee initiated South Korea’s drive for economic growth. His military government promised to deliver the nation from poverty by building a “self-reliant economy,” by which he meant a prosperous economy. Poverty was indeed pervasive across South Korea. According to the United Nations Development Program (UNDP), approximately 60 to 70 percent of South Korea’s population lived in poverty until the mid-1960s (Henderson et al. 2002). General Park’s military government established an Economic Planning Board and launched South Korea’s first 5-Year Plan for Economic Development (1962-1966) in 1962. These two initiatives marked the beginning of what would become the Korean Economic Miracle.

A civilian yet still-authoritarian government succeeded the military government when Park Chung-hee won the presidential election in 1963. His government implemented a series of economic reforms in order to shift the weight of South Korea’s industrial-development strategy from import substitution to export promotion. For this purpose, the government implemented measures to promote exports during the 1960s, including unifying exchange rates that had been differentiated by type of foreign exchange transaction. The new exchange-rate system devalued the South Korean won (KRW) by half against the U.S. dollar (USD). South Korea also introduced a comprehensive export-incentive regime, which included export-finance loans, tax subsidies for export earnings, exemptions from import restrictions on the purchase of intermediate goods for exporters, and other measures. Additionally, the government introduced administrative support for exporters and export targeting per firm. It also set up monthly meetings (chaired by President Park) to implement export targets and created both the Korea International Traders Association (KITA) and the Korea Trade Promotion Authority (KOTRA). These combined measures prompted a rise in exports and imports over the next 50 years (Figure 1.5).

Figure 1.5 Values of South Korean Exports and Imports Relative to GDP (1960-2014)  
(percent per annum)



Source: Korean Statistical Information Service

In terms of industrial policy, with the First 5-Year Plan, South Korea focused on investment for import substitution in basic industries, such as cement, fertilizer, industrial machinery, and refinery. In the Second 5-Year Plan (1967-1971), South Korea focused on investment in heavy and chemical industries (HCI), such as steel, machinery, petrochemicals, and ship building, along with textile, electronics, and non-ferrous metals. South Korea also emphasized investment in infrastructure that enabled rapid economic growth, such as water, electricity, and transportation. In particular, South Korea began to construct a network of expressways which included, in 1970, the Seoul-Busan Expressway,<sup>6</sup> the longest in South Korea; it connected Seoul to the Port of Busan, South Korea's largest seaport and main gateway to global markets.

However, domestic savings could not finance the high levels of investment needed to enable robust economic growth. The government introduced measures to facilitate the inflow of foreign capital. For example, it merged existing laws into a Foreign Capital Inducement Law in 1966 to strengthen incentives for foreign investment. It also reinforced government-supported credit guarantees for foreign commercial loans, although the government maintained restrictions on the types and manner of foreign direct investment in order to nurture domestic entrepreneurship and facilitate technology transfer. In 1965, the government concluded

<sup>6</sup> Inspired by the autobahns he saw during his visit to West Germany in 1964, President Park Chung-hee pushed the construction of the Seoul-Busan Expressway, even when there were not many paved roads in the country, despite a chorus of objections, including from the World Bank. Construction launched in February 1968 and proceeded under the supervision of President Park. It was completed in July 1970, at one-tenth of the total cost estimated by international organizations. Construction took two and a half years, beating the general observation that it would be a 10-year project. Chairman Ju-Yung Chung, the founding Chairman of Hyundai Construction Company, was President Park's private-sector partner for the project. This expressway connected the greater Seoul industrial zone and Busan, Korea's largest container seaport (Lankov 2010).

negotiations with Japan for the “normalization” of diplomatic relations on the condition that Japan make reparation payments of USD 300,000,000 for its past colonial occupation, USD 200,000,000 of concessional loans, and at least USD 300,000,000 of commercial loans. President Park Chung-hee moved these negotiations forward despite fierce protests from students and opposition-party politicians who called Park a “pro-Japan traitor” (Moon 2009). Measures to attract foreign capital, the opening of formal relations with Japan, and strong policies to promote industrialization all served to bring about a rapid increase in commercial loans as well as direct investment from abroad. A major measure to deregulate the domestic interest rate in 1965, which allowed it to rise much higher than international rates, also facilitated foreign capital inflows.

As a result of these efforts, the South Korean economy took off toward export-led growth. The GDP grew by 9.1 percent in 1963, and growth averaged 8.9 percent during the first two 5-Year Plans, until 1971. Exports led economic growth that, in real terms, increased at an annual average rate of 28 percent, and investment in fixed assets increased at an annual average rate of 23 percent. Imports also increased 23 percent per annum in real terms. A rapid increase in employment accompanied such high economic growth, especially since it was led by labor-intensive exports. The unemployment rate, which was 8.1 percent in 1963, dropped to 4.4 percent in 1971. The consumer price index (CPI) showed that the inflation rate was 20.7 percent in 1963 and 29.5 percent in 1964; it decreased to an average rate of 12.6 percent per year from 1965 to 1971.

#### **4. Investing in Heavy and Chemical Industries (1970s)**

Following up on the Second 5-Year Plan’s HCI focus, President Park Chung-hee launched an enhanced HCI investment drive in 1973 in order to upgrade South Korea’s export capabilities which, with their concentration on cheap, labor-intensive light-manufactured goods, he thought were too fragile to sustain export-led economic growth for long. With many other developing countries joining the league of light-manufactured goods exporters, such goods faced growing competition in international markets and saw increased protectionism from advanced countries. South Korea also needed to strengthen its self-defense capabilities by developing HCI. In this regard, Park’s HCI drive was also a response to the Nixon Doctrine announcement in 1969, which stated that the U.S. intended to withdraw military forces from East Asia and asked its allies in the region to strengthen their own defense capabilities (Nixon 1969). For these reasons, President Park passionately doubled down on the HCI drive.

In January 1973, President Park issued the Declaration of Heavy and Chemical Industries Promotion. In June, a dedicated planning team issued the Plan for HCI Promotion; it proposed to raise the share of HCI in manufactured products from 35 percent in 1972 to 51 percent by 1981 and, in manufactured exports, from 27 percent in 1972 to 65 percent by 1981. The planners’ ultimate goals were to increase GNP per capita from

USD 324 in 1972 to USD 1000 and total exports from USD 1,600,000,000 in 1972 to USD 10,000,000,000 by 1981. The Plan for HCI Promotion designated six strategic industries: steel, non-ferrous metal, machinery, shipbuilding, electronics, and chemicals. South Korea implemented the plan under President Park's close supervision for the next seven years, until April 1979, when the government issued a comprehensive plan for economic stabilization in the face of mounting inflation.

South Korea had to rely on domestic financing for the HCI drive. The South Korean government mobilized various means to reach its goals. It formed a National Investment Fund (NIF) in 1974, with deposits from all financial institutions supplying long-term funds at low interest rates. The NIF constituted 57 percent of facilities-investment loans made by financial institutions from 1974 to 1981. To augment the NIF, South Korea required banks to provide loans directly to HCI businesses. A major portion of foreign loans financed purchases of foreign capital goods for HCI. South Korea introduced a Tax Rebate and Exemption Act in 1975 in order to subsidize HCI businesses. Additionally, South Korea raised import barriers for HCI goods and spent 50 to 70 percent of government research and development (R&D) expenditure on HCI technologies development.

South Korea achieved most HCI drive goals far in advance of their target year. Notably, instead of taking until 1981 as planned, by 1977, South Korea's GNP per capita surpassed USD 1000 and exports increased to USD 10,000,000,000, primarily due to increased HCI exports. The HCI share of manufacturing exceeded 50 percent by 1979. However, this achievement proved unsustainable.

Implementation of the HCI drive resulted in several problems for the South Korean economy. Because it was capital-intensive, HCI required large amounts of financial capital for investment and big businesses as investors. In order to mobilize the necessary capital, the government intervened in banking, directing low-interest loans to businesses that invested in HCI. This directed lending distorted the flow of funds and suppressed the banks' autonomy. In particular, the preferential treatment of HCI encouraged the abuse of the preferential measures and induced excessive and overlapping investment from big businesses. Many of those businesses went into HCI and ended up with excess capacity by the late 1970s.

In the meantime, light-manufacturing industries, where small and medium-size enterprises (SMEs) were concentrated, suffered from a shortage of loanable funds. Government intervention in the banking system for directed lending weakened the central bank's control of the money supply and added to inflationary pressures. These were brought on by large inflows of foreign exchange that stemmed from an unprecedented construction boom in Middle East following the first international oil price shock in 1974. A second international oil-price shock in 1979-1980 (triggered by the 1978 Iranian Revolution), followed by a U.S.-led steep rise in international interest rates and a global recession, caused stagflation in South Korea and

exacerbated both the emerging HCI excess-capacity problems and non-performing loans problems in bank portfolios. A higher debt-service burden on large international loans weakened corporate balance sheets and worsened South Korea's current account balance.

In addition, government mobilization of big businesses for the HCI drive facilitated the enlargement of business groups that founder families controlled; these groups, known as chaebols, concentrated business ownership and economic power. With the rapid growth of South Korea's leading business groups, such as Samsung, Daewoo, and Hyundai, the chaebols have become one of the most controversial economic and political issues to arise in South Korea since the 1970s.

## **5. Dismantling a Paternalistic Government (Late 1970s and Early 1980s)**

The external shocks severely impacted the South Korean economy, slashing the growth rate to minus 1.9 percent in 1980, doubling the CPI inflation rate from 15 percent in 1978 to 29 percent in 1980, and increasing the producer price index from 12 percent to 39 percent over the same period. The country's current account deficit widened, from 2.0 percent of GDP in 1978 to 6.6 percent in 1979 and 8.3 percent in 1980. Furthermore, a spell of cold weather in the summer of 1980 caused rice crop yields to decline by 25 percent, a historically unprecedented crop failure that forced the government to scramble to secure emergency imports of the dietary staple from international markets. In this way, South Korea plunged into an economic crisis without precedent since the early 1960s.

President Park's HCI drive was the culmination of the government-led industrial-development strategy and policy practice of directing bank lending that had been implemented since the 1960s. However, strong government intervention in the allocation of resources to industries reduced the flexibility of the economy and its ability to adjust to changing environments at home and abroad (Baliño & Ubide 1999). The economic crisis revealed the non-sustainability of Korea's government-led industrial development paradigm,<sup>7</sup> one based on the government's investment drive in specific industries; its nurturing of these industries with protections, subsidies, and big-business partnerships; its inflationary financing of industrial investment; and an overreliance on foreign borrowing rather than foreign direct investment.

---

7 The problems of South Korea's industrial development regime in the 1970s were first identified and analyzed by Soogil Young, et. al., 1982, *The Basic Role of Industrial Assistance Measures and Proposal of Their Reform*, Korea Development Institute (in Korean). Recommendations made in this report were incorporated into the comprehensive reform of Korea's industrial-incentive system, including trade policies, which was implemented in the 1980s.

These characteristics of South Korea's 1970s industrial-development paradigm manifested the paternalistic leadership of an authoritarian president, an industrial-policy regime characterized by protection rather than competition, and the prioritization of economic growth over price stability. These characteristics deprived the Korean economy of resilience to external shocks, reduced the international competitiveness of its industries, and dulled incentives for businesses to invest in innovation and efficiency. Thus, the economic crises of the late 1970s and early 1980s revealed a number of problems with the government-led, -subsidized and -protected aggressive industrial-development regime, showing that such an approach was not sustainable. This realization compelled the next government to make a series of far-reaching economic reforms, which, in effect, shelved the legacy of President Park Chung-hee's paternalistic government and shifted the country's industrial-policy paradigm from protection to competition.

An unexpected political development facilitated this shelving of legacies from the 1960s and the 1970s: the assassination of President Park Chung-hee<sup>8</sup> in October 1979. This incident threw South Korea into political confusion and led to the emergence of General Chun Doo-hwan as the self-appointed manager of what he called a "national emergency." Through his military coup, General Chun quelled any hopes for restoring democracy that had been kindled by President Park Chung-hee's death.<sup>9</sup> In October 1980, Chun was elected the president of the Republic of Korea through an indirect presidential election that he arranged.

Serving a seven-year term as another authoritarian president, Chun Doo-hwan was determined to claim legitimacy for his rule by overcoming the economic crisis. His government engineered a shift from an existing paradigm that guided and protected domestic firms and industries to one that was open to international competition and ceded market leadership to private businesses. President Chun placed economic policies entirely in the hands of a team of capable technocrats (including the U.S.-trained economists both in the government and at the Korea Development Institute [KDI]) who shared a firm conviction in the efficacy

---

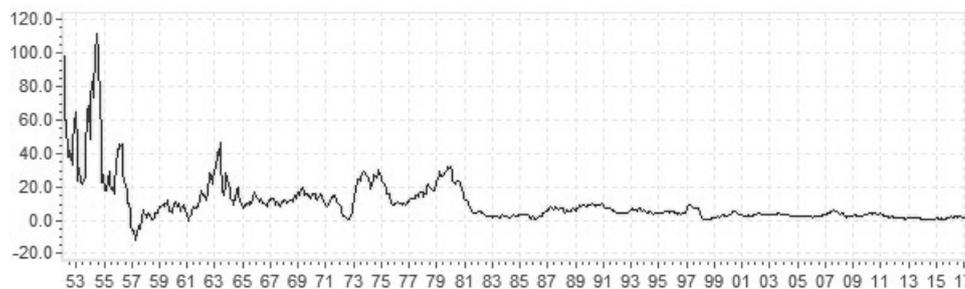
8 President Park Chung-hee was shot to death by Kim Jae-kyu, Director of the South Korean CIA and one of his two closest aides. He was killed while he attended a private dinner to discuss how to handle the escalating student and worker protests against the suppression of opposition and workers on October 26, 1979. The other aide in attendance was Cha Ji-chul, the president's security chief and Kim's fierce political rival. Their discussion developed into a quarrel between Kim and Cha when Kim suddenly pulled out his pistol and shot Cha to death. He then also shot President Park. Both killings were apparently unpremeditated. This incident thrust South Korea into a maelstrom of political confusion and instability and opened the opportunity for General Chun Doo-hwan to emerge as a self-appointed successor to Park. Kim Jae-kyu was executed on the charge of "an attempted rebellion and murders for that purpose" by the military court 40 days after the incident.

9 Citizens of Gwangju, a provincial capital city, staged a massive protest on May 17, 1980, subsequently called "Gwangju Uprising," against General Chun Doo-hwan's unconstitutional assumption to power. General Chun crushed the demonstrating citizens with military force, which resulted in the death of hundreds of citizens. He was brought to a trial in 1996 on a number of charges, including treason against the country, the bloody suppression of this uprising and corruption, was found guilty on most charges, and sentenced to death, although his sentence was later reduced. He was eventually pardoned after serving 751 days in prison.

of market competition and the importance of price stability. By dismantling the paternalistic, government-managed economy of Park Chung-hee, the technocrats brought South Korea into a new epoch of modern economic development. They replaced the previous economic regime with a market-led economy where companies struggling for survival in a competitive environment would promote efficiency and innovation for sustained industrial development. In such an economy, individual firms' autonomy and creativity would provide resilience and flexibility so that the economy could adjust to changing environments at home and abroad.

The Chun Doo-hwan administration, including an interim body that preceded his inauguration as president, implemented forceful measures to stabilize the economy; these included an austerity budget for the government, wage and agricultural support-price restraints, and a “pain-sharing” public-relations campaign to foster citizen acceptance of these austerity measures. Thus, the government succeeded in bringing down CPI inflation from 21 percent in 1981 to 7 percent in 1982, and kept it below 3 percent thereafter (Figure 1.6). South Korea finally exited decades of inflationary financing of economic growth and entered an era of price stability.

Figure 1.6 Historic CPI Inflation Rate in South Korea (1953-1999) (percent per annum)



Source: Inflation.eu

In 1980, the Chun Doo-hwan government also took measures to expose monopolistic big businesses to competition by launching a new competition law, called the Monopoly Regulation and Fair Trade Act. Even more significantly, the government took steps to open domestic industries and businesses to international competition. It implemented unilateral import liberalization programs; these consisted of a five-year import deregulation program (1984-1988), accompanied by a five-year tariff reform program (1984-1988) that was built on an 8 percent “central rate” system that cut import tariff rates by approximately two-thirds on average

and sought to eliminate as many tariff rates above 8 percent as possible (Figure 1.7).<sup>10</sup> After a one-shot 20 percent devaluation of the KRW to the USD in 1980, South Korea also shifted from a USD-linked currency in a fixed exchange-rate system to a managed, floating exchange-rate system. Another market-opening measure liberalized foreign direct investment (FDI), previously restricted in order to protect national firms and nurture domestic technological capability. The FDI program was meant to facilitate inflows of advanced foreign technologies that would augment and accelerate domestic R&D.

Figure 1.7 Import Liberalization Rate and Tariff Rates in South Korea in 1981 & 1995

**Percent of product groups free of import restrictions**

<u>1981</u>	<u>1995</u>
60.7	92.0

**Average legal tariff rates (%)**

<u>1981</u>	<u>1995</u>
34.4	9.8

Source: 60 Years of the Korean Economy (2010: Korean Government)

Source: Sakong, Kho & Committee for the Sixty-year History of the Korean Economy (2013)

The Chun Doo-hwan government addressed the problem of excess HCI investment that Park Chung-hee's drive had created in the 1970s, forcefully realigning, downsizing, or merging HCI plants, targeting power-generation facilities, shipping companies, copper refineries, and manufacturers of automobiles, heavy construction equipment, heavy electrical machinery, diesel engines, and electronic telephone switch boards. Adjustment subsidies accompanied these investment-rationalization programs. These restructuring and rationalization measures ended the HCI industrial policy launched by Park Chung-hee. A 1986 Law for Industrial Development shelved industry-specific supports and sought to facilitate market-led industrial development by extending function-specific supports, such as R&D and manpower training, serving as the final ending to Park's industrial policy.

As the focus of South Korea's industrial-policy regime moved from protection to competition and stabilization, this shift allowed the economy to steadily recover from the aftermath of the heavy-handed HCI drive of the 1970s and the external shocks of the early 1980s. As a result, the country's current account deficit began to steadily abate.

<sup>10</sup> This was done via a policy recommendation put forward by Soogil Young, et.al., 1983, *The Basic Role of Industrial Assistance Measures and Proposal of Their Reform*, KDI, and "Proposal of Comprehensive Tariffs Reform" at the Korea Development Institute Symposium on Tariff Rates Reform, July 6, 1982.

## 6. A Historic Shift to a Current Account Surplus (Mid-1980s)

The South Korean economy entered a new epoch in the mid-1980s as it experienced a trio of fortuitous international developments; called “the Three Lows,” they accelerated the ongoing improvement in South Korea’s economic situation. The most impactful of the Three Lows was a major devaluation of the KRW against the Japanese yen (JPY) that followed a 50-percent devaluation of the USD against the JPY under the Plaza Agreement in September 1985. As a result, the real effective exchange rate of the KRW depreciated by 24 percent from 1985 to 1987, accelerating an increase in exports. A steep fall in the international price of oil and a decline interest rates constituted the other two “Lows” that accompanied the KRW depreciation.

South Korea’s early 1980s economic reforms enabled domestic firms and industries to take advantage of these external developments with agility and to relaunch export-led high economic growth. From 1986 to 1988, the country’s exports increased more than 20 percent per year in real terms and the economy grew 12 percent per year. As a result, GNI per capita more than doubled from USD 2400 in 1985 to USD 5718 in 1989. The restructured HCI sector served as a growth engine for exports and the economy, speeding Korea’s transition to a path of technology-based industrial development.

During the late 1980s, the Three Lows and the wide swath of earlier reforms caused a historic shift in South Korea’s current account deficit. Since the founding of the Republic, South Koreans had been exposed to national “patriotism” campaigns that exhorted them to live thrifty lives and avoid purchasing foreign products because the country suffered from chronic current account deficits that increased its foreign debt. The late 1980s shift from deficits to the first enduring surpluses<sup>11</sup> was historic. Together with an extraordinarily high economic growth rate, it signaled a new era of prosperity. In fact, high economic growth continued into the early 1990s. From 1982 to 1991, the two consecutive 5-Year Plan (for the fifth and sixth periods) saw average annual GDP growth of 10 percent; per capita GNI rose from USD 1686 in 1980 to USD 6505 in 1990 (Korean Statistical Information Service 2018).

## 7. Democratization at Last (1987)

The South Korean people waged an incessant fight for democracy against the authoritarian governments of Park Chung-hee and Chun Doo-hwan; their battles took the form of frequent street demonstrations by college students, a clamor for democracy by courageous opposition leaders, and self-restrained yet critical reporting from the press. Both authoritarian governments brutally suppressed the democracy movement, however, on

---

11 Just once before 1986, in 1977, there was a surplus on the current account due to large earnings from the construction boom in Middle East, but it was small and transitory.

the grounds that political instability would make South Korea vulnerable to aggression from North Korea and/or anti-government agitation from communist sympathizers in the underground.

The democracy movement remained isolated and lacked support from the general public until the late 1970s. With rising prosperity, however, South Koreans grew increasingly confident about the strength and future of their economy as well as about their country's ability to defend itself from North Korea. A decisive democracy movement was inflamed when the torture and death of a dissident student at the hand of Chun's government was exposed in 1987. This brought enraged ordinary citizens into the streets to join student protest demonstrations.

On June 29, 1987, President Chun Doo-hwan gave into the voices of the citizens and issued a "pledge of democratization" through Roh Tae-woo, Chun's handpicked presidential candidate, also a former military general. This opened the floodgates to a spontaneous and powerful socio-political democratization wave across the country. Following his own pledge, President Chun Doo-hwan held a fully democratic presidential election in December 1987, which Roh Tae-woo won against an opposition divided between two leading pro-democracy fighters, Kim Young-sam and Kim Dae-jung. The three-way competition among the presidential candidates created a National Assembly that had three main parties and no single majority, making Roh Tae-woo's party unable to dictate its agenda to the opposition parties. The two "civilian" politicians went on to win subsequent presidential elections in turn.<sup>12</sup>

Democracy brought about a radical change in the paradigm for South Korea's governance. Citizens whose voices had been suppressed by previous governments – the socially marginalized, various interest groups, non-governmental organizations, and political groups – began to raise their voices, demanding retribution for what they considered to be social, economic, and political injustices committed by the repressive Park and Chun governments. The government of President Roh Tae-woo sought to integrate as many of those demands as possible into the government's policy agenda. In this way, people's voices began to chart the path of national development.

Therefore, rather than focusing solely on economic growth, President Roh's policy agenda promoted political development, socially inclusive development, and investment in infrastructure that had been neglected from the viewpoint of inter-regionally balanced territorial development. In the first year of his presidency,

---

12 A constitutional amendment in 1988 limited the presidency to a one five-year term.

President Roh Tae-woo appointed a Presidential Committee on Economic Restructuring<sup>13</sup> and gave it a mandate to develop and submit a comprehensive agenda for inclusive social development and economic internationalization. The Committee's report, submitted in late 1988, provided guidelines for President Roh's economic and social reforms (Presidential Committee on Economic Restructuring 1988). Ultimately, South Korea saw democracy as a means of balancing various dimensions of development in accordance with demands expressed by the population.

Under President Chun Doo-hwan, the South Korean government had begun to focus attention on social development and social-investment goals as it tried to withdraw from the market. The Chun administration's fifth 5-Year Plan (1982-1986) set out a plan for economic *and social* development for the first time. But it was under President Roh Tae-woo that the government began to *prioritize* social investment goals. For example, President Roh launched the National Pension System in 1988 for all workshops with more than nine employees, completed the introduction of universal health insurance and began supplying permanent rental housing to low-income households in 1989, and extended the national pension system to all businesses with five or more employees in 1992. The pension system was further extended to all rural residents in 1995 and to all urban residents in 1999.

Following Roh, President Kim Young-sam, who served from 1993 to 1998, focused on improving quality of life for the population. In 1993, he enacted the Law for Employment Insurance, and, in 1995, the Law for Promotion of Public Health, Framework Act for Social Insurance, and the Framework Act for Women's Development. President Kim also launched a Planning Office on People's Well-being. Emphasizing population quality and welfare, he abolished a 1960s' population-control policy in 1996 and passed the Prevention of Domestic Violence and Victim Protection Act in 1997, among other reforms (Cho n.d.; Presidential Commission on Women's Affairs 1997). President Kim Young-sam also legislated three far-reaching measures to eradicate corruption<sup>14</sup> and took measures to prohibit the military's political activities, purging "political soldiers" from the ranks.

Following democratization and economic reforms to transition to a competition-based market-economy, the South Korean government could no longer manage the economy by directing the market and private

---

13 Modelled after Japan's Maekawa Commission (1986), this committee consisted of 36 experts on South Korea's economic, social, and internationalization challenges. The Korea Development Institute served as its secretariat. The present author, Soogil Young, was one of its members.

14 President Kim Young-sam introduced three related anti-corruption measures. First, he surprised capital markets with a Presidential Emergence Decree on Real-name Financial Transactions in August 1993 to prohibit financial transactions under false names. Second, he followed up on this reform the same year with a law requiring all senior officials to submit an annual report of changes in all assets they held. Third, in 1995, he introduced a law prohibiting real-estate transactions under false names.

businesses. The Kim Young-sam administration responded to this new reality by proposing a “New Economy” geared to “a small but strong government,”<sup>15</sup> that featured financial deregulation, privatization of public corporations, and relaxed financial restraints on *chaebol*-controlled business groups. Furthermore, President Kim Young-sam terminated the practice of five-year development planning in 1993 and closed the Economic Planning Board in 1994.

### III. The Rite of Passage to a Developed Country

#### 1. The Financial Crisis: Shedding the Final Legacy of a Paternalistic Government (1997-2001)

Park Chung-hee’s pursuit of compressed development left three legacies which haunted South Korea’s economy over the subsequent decades: recalcitrant labor unions, *chaebol* business groups financed through bank loans, and a government-controlled banking sector. The failure of Kim Young-sam’s New Economy to address these legacies, together with the government’s lack of proper oversight of the financial and corporate sectors, brought about a financial crisis of unprecedented severity in late 1997.

As described above, during the 1960s and 1970s, President Park Chung-hee had launched an outward-oriented industrialization strategy led by the large businesses that *chaebols* owned and that government policies fostered (Baliño & Ubide 1999). Park Chung-hee considered *chaebol* group leaders strategic partners for his HCI investment drive<sup>16</sup> and encouraged their investment in “new” industries, providing various incentives and support for their investments, such as making government-guaranteed bank loans available virtually on demand. This amounted to the government sharing private-sector investment risks and encouraged the *chaebols* to ignore risk when making investments. Commercial banks were also willing to finance risky investments, even those without government backstops, because prudential banking regulation was weak.

Even after the HCI drive ended, the Chun Doo-hwan government, which followed the Park Chung-hee administration, pressured banks to rescue troubled companies and restructure their debt on favorable terms. It also mandated industrial consolidation, forcing sound corporations to acquire troubled ones and requiring commercial banks to grant preferential loans for such company mergers. In return, the commercial banks

---

15 “The 5-Year Plan for a New Economy (1993-1997)” was released by the Economic Planning Board on July 2, 1993.

16 For a rigorous, in-depth analysis of the causes of Korea’s 1997 financial crisis and the role of *chaebols* and the banking sector, see Baliño & Ubide (1999).

received subsidized loans from the central Bank of Korea. In this way, the government validated the implicit assumption that it would not allow banks to fail and that large corporations were “too big to fail” (Baliño & Ubide 1999). This, in turn, created a moral hazard for the *chaebols*; they could disregard risk when expanding and diversifying their businesses, instead transferring risks to lenders. The *chaebol* groups disliked having to raise funding from capital markets because the groups did not want to dilute their business ownership and/or control. This problem of moral hazard remained embedded in South Korean banking and business practices long after the authoritarian governments expired; the latter effectively created the diehard problems of *chaebol* groups concentrating business ownership and national economic power.

The *chaebol* group was a complex cross-holding structure for component companies that enabled the family of the group’s founders to exercise control despite its small net investment, since the families relied on bank loans rather than capital markets or their own equity capital. In the 1990s, *chaebol* business groups raced to launch new businesses and secure necessary funding from a domestic banking sector that included many newly licensed merchant banks owned by *chaebol* businesses themselves. South Korean commercial and merchant banks made short-term borrowings from foreign banks in order to supply long-term loans to *chaebol* groups. This not only bloated the South Korean economy’s external short-term liabilities, but created a maturity mismatch on the balance sheets of the banking sector and the business groups.

As the business groups continued to expand, South Korea’s short-term debt ballooned, making the economy vulnerable to a liquidity crisis. The average debt-to-equity ratio of the 30 largest *chaebols* reached 519 percent in 1997. South Korea’s total outstanding foreign debt was USD 42,800,000,000 at the end of 1992, but increased to USD 161,800,000,000 by November 1997. More than 60 percent of loans had short-term maturities (less than one year). At the end of 1977, South Korea’s central bank held foreign reserves of USD 20,000,000,000, three times less than the amount of short-term foreign debt outstanding.

Many business groups deteriorated to the brink of bankruptcy, which contributed to the financial crisis. The real effective exchange rate of the KRW began a rapid appreciation in 1989, and, reinforced by the problems of “high cost, low efficiency” that beset the Korean economy by the mid-1990s, concerns grew over prospects for exports and the economy. A sharp drop in South Korea’s economic growth rate, from 9 percent in 1995 to 7 percent in 1996, and the concurrent widening of current account deficit from less than 2 percent to 5 percent of GDP, confirmed these concerns. This economic trend resulted from “too-high costs” of doing business and “too-low efficiency” both due to rigidities that emerged with democratization in various sectors, including the labor market. Against this background, most *chaebol* businesses reported operating losses and began to demand bail-out money. In the midst of these economic woes, the government was at a loss over how to respond even as the Bank of Korea was rapidly running out of foreign-reserve holdings, especially since foreign

banks were withdrawing funds from South Korea in the wake of the ongoing financial crisis in Southeast Asia. The government refused to admit that the South Korean economy was facing an impending crisis. This caused international financial markets to lose confidence in South Korea, triggering capital flight and bringing the South Korean economy to the brink of a meltdown by late November 1997. Ultimately, the South Korean government was forced to request a bailout from the International Monetary Fund (IMF) (Lee 1999).

On December 3, 1997, the South Korean government and the IMF agreed on a stand-by credit arrangement to bail out South Korea from national bankruptcy on the condition that South Korea accept a deep-cutting structural adjustment program. The content of this program amounted to a complete overhaul of the South Korean economy. On December 18, 1997, South Korea elected Kim Dae-jung, a pro-labor and pro-common-people politician and a long-time opposition leader, as their new president. As President-elect, Kim Dae-jung began to reform the South Korean economy in order to shed the remaining legacies of government-led economic growth by mainstreaming the IMF's program in his own policies for economic reforms.

Addressing the three legacies mentioned above, the government forced itself to withdraw intervention in banking, leaving banks entirely on their own. The too-big-to-fail moral hazard was uprooted with reforms to corporate governance, strengthened bank regulations, enforced business and banking operational transparency, and closure of half of the 30 largest business conglomerates, including the Daewoo Group, which boasted the largest global presence among the 30 *chaebol* business groups. These measures helped South Korean business groups become self-reliant and competition-driven.<sup>17</sup> However, even President Kim Dae-jung, with his well-known pro-labor credentials, could not work out a cooperative partnership between big businesses and labor unions. As a result, adversarial labor relations survived the crisis and continue to bedevil the South Korean economy to this day.

South Korea's GDP growth recorded a minus 7 percent rate in 1998, but rebounded to 9.5 percent and 8.5 percent in 1999 and 2000 respectively, before falling to 3.8 percent in 2001. The country formally graduated from the IMF program in August 2001, paying back the USD 19,500,000,000 in bail-out money it had borrowed and completing its transition from a long-time government-managed economy to a market-led economy. Its GNI per capita reached USD 14,161 in 2003, surpassing the pre-crisis peak of USD 13,077 in 1996. Years of price stability and current account surpluses followed, but economic growth remained subdued

---

17 The IMF-prescribed structural adjustment program had one serious flaw: it forced the South Korean government to introduce overly restrictive monetary and budgetary policies during the early months of 1998 in order to restore surpluses on the international current account; interest rates subsequently rose above 30 percent at one time. As a result, the current account turned from minus 1.6 percent of GDP in 1997 to a record high surplus of 11 percent in 1998. However, this was accompanied by a massive wave of bankruptcies among large and small enterprise and a spike in the unemployment rate from 2.6 percent in 1997 to 7.0 percent in 1998, which drove numerous small businessmen and households into deprivation.

at an average of 4.9 percent per year from 2001 to 2007, considerably below the average 7.7 percent rate from 1990 to 1997. In the meantime, exports continued the trend that emerged in the 1990s towards increasingly high-value and differentiated final products and intermediate goods, such as parts, materials, machinery, and equipment, increasingly produced with South Korean technology. In the 2000s, the country solidified its position as a leading player in the global markets for leading-edge industrial products, as noted at the beginning of this chapter.

Thus, in the 2000s, South Korea finally joined the league of leading industrial countries, competing with its highly-advanced technologies. From this perspective, South Korea's 1997 financial crisis and subsequent struggle to dismantle its too-big-to-fail financial and corporate sectors was a rite of passage into the ranks of industrialized nations. The South Korean economy grew 3.8 percent per year from 2001 to 2015, within the band of "normal growth rates" for a developed country. As of 2017, its GDP per capita was USD 38,335 according to the World Bank (2018b) as measured by purchasing power parity (PPP) in international dollars. With a Human Development Index of 90.3 in 2018, South Korea ranks 22<sup>nd</sup> out of 189 countries (UNDP 2018). South Korea has grown into an internationally influential middle power as the fifth-largest trader in the world, a member of the OECD Development Assistance Committee (DAC), and a member of the G20, the world's "premier forum for international economic cooperation" (Group of 20 2009).

## 2. The Miracle Years Defined

The definition for the Korean Economic Miracle period is open-ended. The term refers to South Korea's exceptionally high economic growth over a sustained period. Using this definition, we can consider 1962 through 1996 to be the years of the Miracle. The growth rate fell precipitously from 7 percent in 1996 to 4.7 percent in 1997, at the onset of the financial crisis after which the South Korean economy entered a new era of subdued growth performance. In retrospect, however, signs in the early 1990s foretold the impending financial crisis.

As described above, these signs included bloated *chaebol* business groups that were increasingly assertive vis-à-vis the government. They were also emboldened by the moral hazard of believing that they were too-big-to-fail; the banking sector validated this belief out of the same moral hazard and continued to finance the expansion of the chaebol business groups even as they were losing international competitiveness. Increasingly acrimonious labor relations in big businesses were another sign of an impending crisis. All contributed to the "high-cost, low efficiency" of *chaebol*-dominated industries that resulted in South Korea's weakened export performance and trade and current account deficits from 1990 to 1997 (except for small surpluses in 1993). These problems worked to create a crisis of confidence in the South Korean economy while the Kim Young-

sam government demonstrated its ineptitude in coming to grips with the impending crisis by simply replacing the Economic Deputy Prime Minister every several months as foreign-exchange reserves were being depleted. Whatever secrets of the Economic Miracle may have worked in the past were rapidly losing their efficacy in the 1990s. In this sense, the curtain began to fall on the Economic Miracle in the early 1990s.

The end of the South Korean Miracle was, in fact, an implicit theme advanced by Mark L. Clifford, a South Korea correspondent for the *Far Eastern Economic Review* during 1987-1992. Clifford summed up his view of the secrets of the South Korean Economic Miracle in terms of the “Korea, Inc.” paradigm, the essence of which was a business-government partnership (Clifford 1994). Writing at the dawn of the crisis, he then argued that “Korea, Inc.” was an old order that was shriveling, but that the new order had yet to be born.

## **IV. Secrets of the Economic Miracle: Securing the Right Fundamentals**

The secrets of South Korea’s Economic Miracle can be summarized in four elements: (1) a clear vision for national development; (2) an outward industrial development strategy; (3) an effective governance system; and (4) investing in capabilities for long-term development. Those four secrets of the Economic Miracle may in turn be summed up as securing the right fundamentals.

### **1. A Clear Vision for National Development**

The foundation of the Economic Miracle was laid by President Park Chung-hee as he launched South Korea’s high economic growth to eradicate poverty and realize a prosperous national economy. For most of his tenure, he exercised firm and effective leadership, setting the South Korean economy on a path toward high economic growth by pursuing it as the country’s priority goal on a sustained basis. For this goal, he inspired people with his slogan “Let’s work for prosperity!”<sup>18</sup> He managed to instill a “can do” spirit in South Koreans by setting and achieving ambitious goals. He earned the citizens’ trust by personally practicing integrity and frugality. He mobilized capable officials based on a strict meritocracy and maintained a system of effective “economic policy governance,” including a structure and practices for economic policy-

---

18 The better-nuanced translation of the original Korean expression might be “Let us, too, achieve and enjoy prosperity!” or “Achieve and enjoy prosperity, yes, we, too, can!”

making and management (Henderson et al. 2002) and a close partnership with business leaders.<sup>19</sup> President Park Chung-hee demonstrated his commitment and utmost sincerity to this goal by building fundamental institutional capabilities for its implementation, including the Economic Planning Board, 5-Year Plans for Economic Development, and the Monthly Economic Review Meeting, which he personally chaired. The can-do spirit that was inspired by President Park Chung-hee remained prevalent among South Koreans up to the early 1990s. Although economic growth no longer remained the priority goal that it was under President Park Chung-hee, each subsequent president set clear policy goals and pursued them by mobilizing capable technocrats. The economic policy governance paradigm that Park Chung-hee built, and close coordination and collaboration among ministries for 5-year plans as its foundation, supported the continuation of the Economic Miracle at least until the early 1990s.

Despite the disputed constitutional legitimacy of his presidency, Chun Doo-hwan contributed to the continuation of the Economic Miracle by reforming the country's industrial development paradigm in order to promote sustained economic growth. He pursued a triad of policy goals with clarity: price stability, market autonomy, and market opening. He was remarkably successful in achieving price stability and market opening. He also made strides towards a market autonomy, although he did not completely achieve market autonomy insofar as he failed to address government intervention in commercial banking. The secrets to his achievements included assembling a team of capable senior economic technocrats who had been well-trained in modern economics and proposed the three economic policy goals to him. To his credit, President Chun delegated full responsibility for those goals to the technocrats and used his authoritarian presidency to support them.

## **2. An Outward-oriented Industrial Development Strategy**

The Economic Miracle arose as South Korea launched an outward-oriented industrial development strategy. The key to this was the promotion of export-led economic growth that was based on labor-intensive manufacturing in the 1960s. In the 1970s, South Korea promoted a shift to capital- and technology-intensive heavy and chemical manufacturing for exports in the 1970s. The effort paid off by laying the foundation for HCI-led exports and industrial development that accelerated in the 1990s. The shift rested on a heavily

---

19 As discussed by Clifford (1994), over time this partnership nurtured collusive and corrupt relationships between big businesses, on one hand, and politicians and bureaucrats, on the other hand, undermining the independence of the banking sector and facilitating the sprawling of chaebol business groups with complicated consequences for the South Korean economy, such as contributing to the financial crisis in 1997, in particular. It is also true, however, that the partnership between the government and big businesses that was nurtured by Park Chung-hee played a critical role in "building" the South Korean Economic Miracle.

interventionist approach in the form of government-directed investment in HCI and protection and subsidization. This approach reflected the paternalistic development paradigm of an authoritarian president. As seen above, it brought the South Korean economy a major economic crisis in 1979 and the early 1980s, showing the fallibility of an authoritarian government. However, the subsequent revival of export-led growth that was achieved under Chun Doo-hwan's presidency demonstrated the robustness of South Korea's outward-oriented economic strategy. With the extensive import liberalization of manufactured goods in the 1980s, the accelerated increase in imports facilitated increases in exports. This led the South Korean government to rebrand its growth strategy as a trade-led economic growth.

### **3. An Effective Economic-Governance System**

President Park Chung-hee developed and operated an effective system of economic policy-making and implementation. As has already been noted, South Korea created the Economic Planning Board (EPB) as a super economic ministry to establish 5-Year Plans for Economic Development as well as the annual budget plans to implement the 5-Year Plans. The Minister of the EPB was also the Economic Deputy Prime Minister who supervised and coordinated all economic and other related ministers. President Park appointed ministers and senior officials strictly on the basis of personal competence and dedication to work and exercised strict accountability in overseeing them. President Park was fond of engaging officials of all ranks in discussions with him on policy issues at the Monthly Economic Review Meetings he chaired.

President Park Chung-hee and his successors established a series of specialized research institutes to assist the government with research, policy recommendations, and public discussions in order to make up for the lack of in-depth specialized knowledge and insights on the part of the government employees who were constantly rotated between different posts. The forerunners of these research institutions were the Korea Institute of Science and Technology (KIST), established in 1966, and the Korea Development Institute (KDI), established in 1971. The main body of researchers consisted of experts with Ph.D. training from abroad, mostly from the U.S. Generous salaries and amenities, such as apartment housing and chauffeur-driven cars, lured researchers back to their home country. As of today, there are 26 governmental research institutes working in humanities, economics, and social sciences, and 25 governmental research institutes working in the natural science and technology fields, for the purpose of assisting ministries with in-depth specialized research and policy advisory services.

#### **4. Investing in Capabilities for Long-term Development: 5- and 10-Year Plans**

Five-Year Plans consisted of investment plans in various sectors for long-term economic development. The fifth 5-Year Plan also covered social development and was renamed the 5-Year Plan for Economic and Social Development (1982-1986). The sixth 5-Year Plan (1987-1991) was the last plan. The seventh 5-Year Plan (1992-1996) was replaced in 1993 by a 5-Year Plan for the New Economy (1993-1997). The latter was not a comprehensive development plan; instead it focused on fiscal and financial reforms that aimed to promote fair competition and deregulation rather than investment; however, this New Economy Plan failed to forestall the 1997 financial crisis.

The six 5-Year Development Plans served as blueprints for investment in capabilities essential for long-term national development. Implemented over 30 years, these plans focused on promoting investment in various sectors and had far-ranging yet differentiated priorities for each period: agriculture and rural development, basic and strategic industries, energy security and power generation, water resources, transportation including expressways and metropolitan subways, telecommunications, various other types of physical infrastructure, national territorial development, forestation, public health, education and training, promotion of exports, and development of science and technologies. Infrastructure built according to the plans included a national network of Industrial Complexes across the country. In 2018, there were at least 38 industrial complexes in operation.

These 5-Year Plans collaborated with supportive sectorial multi-year plans. For example, the 5-Year Plans for Economic Development was accompanied by successive 5-Year Plans for the Promotion of Science and Technology. South Korea also established 10-Year Comprehensive Plans for Territorial Development in 1971. The 5-Year Plan for the Promotion of Electronics Industry (1966-1970) initiated South Korea's electronics industry. There were also a series of 5-year plans for telecommunications from 1961 to 1981. In 1987, South Korea released the Framework Plan for the National Artery Computer Network. Although the 5-year development-planning practice was discontinued in 1993, the practice of long-term planning continued for specific strategies. For example, in 1996, South Korea implemented the First Framework Plan for Informatization, and in 1997, released a Comprehensive Development Plan for Information and Communication Industry.

#### **5. Using Major Crises to Launch Paradigm-shifting Reforms**

South Korea has experienced at least three profound economic crises in its modern history. The first was the "crisis of destitution" that occurred in the early 1960s when the economy was stagnant, poverty was rampant, and political and social instabilities prevailed. Approximately 60 to 70 percent of South Korean citizens

were impoverished before the mid-1960s (Henderson et. al. 2002). This situation provided an opportunity for Park Chung-hee to take control of the country with a military coup and launch an export-led industrial development strategy followed by comprehensive reforms to the country's economic paradigm. The second major crisis was a "crisis of industrial protectionism" in which the government sought to select and protect many infant industries as future winners. Various protective interventions in the market deprived the economy of resilience to external shocks and hampered its ability to sort out and nurture winning industries and firms in the context of market competition. This resulted in stagflation and a serious domestic recession. South Korea seized the subsequent economic crisis as an opportunity to reset its paradigm for economic growth and industrial development. The third major crisis struck the South Korean economy in late 1997 as part of the Asian Financial Crisis. It can be called a "crisis of sclerosis" because it was caused by the sclerotic reactions of the *chaebols*, banks, labor unions, and President Kim Young-sam's government to mounting signs of a crisis; all acted like the proverbial frog in slowly boiling water. Prodded by the IMF, South Korea used this crisis as a valuable opportunity to dismantle the remaining legacy of government interference in the allocation of resources between industries and between businesses that had begun in the early 1960s.

Each of these crises triggered or contributed to a change of government, and each new government saw crisis as an opportunity to reset the country's economic paradigm through multiple reforms. In each crisis, the new leader, that is, the new president, focused on the structural causes of economic problems and proposed solutions that would earn the support of citizens. They may not have liked their new president, but South Koreans nonetheless supported reform to the extent that they agreed on its necessity and their support helped make the reforms successful.

## **V. The Role of Authoritarian Presidency in Development**

Presidents Park Chung-hee and Chun Doo-hwan were both authoritarian presidents who presided over the main part of South Korea's Economic Miracle. There are two issues, however, that arise from the role played by these authoritarian presidencies. First, one may misread the South Korean experience as advocacy for an authoritarian approach to development. Second, it is crucial to understand that, although South Korea's authoritarian approach to development underpinned its Economic Miracle, it was accompanied by problems that haunt the South Korean economy to this day.

## 1. Is an Authoritarian Approach to Development Recommended?

If Park Chung-hee's authoritarian presidency contributed to the Economic Miracle, it is not the authoritarian presidency per se that did the work but rather Park's personal merits. His firm grip on the government enabled him to exercise those merits. Park's strong attributes included a long-term view of South Korea's development challenges, managerial abilities that stemmed from his training as a military officer, creativity stimulated by his deep commitment to overcoming obstacles to economic development, and the integrity that he tried to encourage from himself and his government officers. History shows that most authoritarian leaders are unlikely to possess those positive attributes; in fact, it shows that authoritarian leaders are more likely to be a detriment to the development of their country. Like virtually all authoritarians, Park Chung-hee also had problematic inclinations, such as an intolerance for critics and democracy; however, he was not a typical authoritarian ruler. President Chun Doo-hwan could claim credit for recruiting capable senior economic technocrats and entrusting them with full responsibility for implementing a timely reform agenda for the economy. As will be elaborated later in this chapter, the good practices implemented by Park Chung-hee and Chun Doo-hwan can be emulated or taken up by democratic governments without incurring the ill consequences of authoritarianism.

## 2. The Downsides of South Korea's Authoritarian Approach

Although Park Chung-hee ran an effective government for economic development, his approach counts at least five drawbacks. First and perhaps foremost, he suppressed civil rights, including freedom of speech, workers' labor rights, and protests from dissidents, journalists and opposing politicians. President Park used the Korean Central Intelligence Agency, police, and prosecutors as instruments to suppress critics and opponents under the pretext of anticommunism. During his tenure, President Park grew increasingly intolerant of critics – particularly pro-democracy critics – and sought to suppress resistance to his authoritarian rule over the country. This culminated in his assassination in the middle of a quarrel with his two closest aides over the issue of how to deal with the mounting protest demonstrations against him (Breen 2010a). Park's suppression of civil rights set South Korea's political development back and undermined the government's ability to reflect citizen voices and appropriately balance the nation's development path.

Second, Park's suppression of critics drove most intellectuals into one of two groups – a conservative camp and a progressive camp – a polarization that continues to divide many South Korean intellectuals and politicians to this day. The “right wing” conservatives are ideological heirs of the so-called “industrializers,” the businesspeople and government officials who collaborated with Park's power elites. At the time, they enthusiastically participated in the Park Chung-hee-directed economic development drive while staying

clear of political discussions. Today as then, they value economic growth, market competition, and business freedom. They are anti-communists and criticize the North Korean regime for the suppression of its people and their human rights. At the same time, they consider South Korea's military alliance with the U.S. critical for South Korea's survival and development. In contrast, the "left wing" progressives are the ideological heirs of the so-called "democratizers" who fought against the authoritarian regimes. They openly criticized Park Chung-hee for suppressing free speech and workers' rights, and staged protests at the risk of physical harassment and incarceration. Present-day progressives prioritize social equity and environmental protection over economic growth; they distrust the so-called neoliberal economic policies. They further argue that South Korea's Economic Miracle was built on sacrifices made by the working class and remain highly critical of the chaebols and their business groups. Progressives also tend to be sympathetic to the North Korean regime and critical of the U.S. for its past support of South Korea's authoritarian governments. Inter-Korean unification is a priority goal for them. Thus, largely as a legacy of Park Chung-hee's authoritarian 18-year rule, South Korean politics remain bitterly divided between conservatives and progressives on almost all issues.

Third, both authoritarian leaders harshly suppressed labor unions. In particular, they coerced industrial peace and wage stability by collaborating with big-business employers at the expense of the rights and safety of the working class. Their suppression of labor rights was followed by adversarial labor relations in the years after democratization. Such relations remain an underlying factor for South Korean labor-market inflexibility today.

Fourth, the authoritarian governments focused on economic growth without much regard for environmental protection. South Korea's rapid economic growth and industrialization was accompanied by increasingly widespread soil, air, river, and surface-water degradation, at the expense of the environment and public health. Environmental consciousness rose rapidly with industrialization, but the government tended to regard pro-environment activists as irritants until the mid-1980s. The government began to take environmental protection seriously in response to a series of water pollution scandals in the 1980s and 1990s, particularly as democracy fueled pro-environmental activism. The South Korean Economic Miracle, however, includes one important environmental initiative under President Park Chung-hee: the reforestation of mountains, the success of which has earned the country international recognition as "a reforestation model for the world" (Breen 2010b) (also see e.g., Chapter 7 in this volume).

Fifth, Park Chung-hee's authoritarianism infected the South Korean bureaucracy with an authoritarian culture. This culture bred top-down policy-making and encouraged a regulatory approach to problems. It also bred favoritism and corruption. President Park's partnership with *chaebol* business leaders for the HCI drive further encouraged an unhealthy business climate and the spread of corruption in the 1970s. By the 1980s, South Korea was a highly corrupt society. As elaborated below, an investigation ordered by President Kim

Young-sam revealed that two of the most corrupt government officials during this era were former Presidents Chun Doo-hwan and Roh Tae-woo.

## VI. The Role of Democracy in Development

South Korea's authoritarian approach to economic growth delivered the Economic Miracle but also fostered a number of long-lasting problems. The new democracy prompted efforts to redress many of these issues. Democratization restored all civil rights, including freedom of speech and association. It gave voice to all people and encouraged unconstrained social dialogue, airing many of the grievances that the earlier authoritarian governments would not hear, and making room for various imbalances in the national development agenda.

Democracy contributed to balancing national development across economic, social, and environmental dimensions in three principle ways. First, the South Korean policy agenda under the new democracy prioritized various social issues. This opened a two-decade-long era of rapid social development after democratization in 1987. Social protection and insurance for the economically and socially marginalized, including workers, were extensively enhanced. By the mid-2000s, South Korea had established a social welfare system that closely resembled those in other advanced countries.

Second, democracy encouraged environmental protection. South Korea upgraded the existing Agency for Environment, established in 1980, to the Office of Environment in 1990, and to the Ministry of Environment in 1994. The Office and the Ministry of Environment greatly contributed to various measures for environmental protection. South Korea introduced local autonomy in 1994, allowing local residents to elect the heads of their local governments. This grass-roots democracy contributed a great deal to the strengthening of environmental protections across the country because local residents were the most knowledgeable as well as the most sensitive about local environmental problems.

Third, democracy facilitated measures to uproot corruption. President Kim Young-sam introduced a law to ban financial transactions under false names in 1993 (Young 1994).<sup>20</sup> President Kim followed this reform with legislation that required all senior officials to register the amount and composition of their wealth holding

---

20 In his capacity as Senior Counsellor to the Economic Deputy Prime Minister in 1993, the present author contributed to this reform, which took the form of an "Emergency Presidential Decree on Real-name Financial Transactions" (August 13, 1993), to ban all financial transactions under false names. The author brought the idea of the "emergency presidential decree" to the attention of President Kim Young-sam; its promulgation would take the financial market by surprise and block capital out-flight due to the ban.

once a year and a law banning transactions for real estate in false names. Prosecution of corrupt politicians and officials, beginning with two former ex-military presidents Chun Doo-hwan and Roh Tae-woo, followed the implementation of this financial transparency law<sup>21</sup>

South Korea's experiences with its new democracy also revealed five major difficulties in balancing development. First, because of South Korea's five-year, one-term system for the presidency, the incumbent has limited planning horizons for economic development. This makes long-term planning nearly impossible and promotes "short-termism" in the setting and implementation of policy agendas, an especially serious problem in South Korea.

Second, lacking long-term visioning exercises for the nation, a population will have no shared vision and goals for development. The country as a whole, then, will lack a unified set of action norms and agendas that could otherwise facilitate coherent actions from the population.

Third, a change of government, especially between opposite parties, tends to cause a pendulum movement of policies from one position to an opposing position, creating oscillating and unstable policies that confuse the market, further making it virtually impossible for people and companies to make meaningful long-term plans. This has occurred in South Korea since the early 2000s.

Fourth, effective social dialogue is very important for ironing out differences among social groups and pursuing collaboration and cooperation at the national level. Pursuit of the so-called "collective egoism" on the part of individual interest groups would promote confrontation among such groups and impede cooperative solutions to problems. This was the exact situation with tripartite negotiations on labor-market flexibility among the government, labor unions, and big businesses in South Korea during the lead-up to the financial crisis and post-crisis economic-adjustment process. This limited the success of President Kim Dae-jung's Tripartite Committee.

Fifth, democracy tends to encourage individualism on the part of governmental ministries, weakening inter-ministerial consultation and collaboration. This exacerbates the "silos" phenomenon among individual ministries and hurts consistency and effectiveness in the government as a whole. This occurred in South Korea in the 1990s in the lead-up to the 1997 financial crisis after the abolition of 5-Year Development Plans and the Economic Planning Board.

---

21 Chun Doo-hwan and Roh Tae-woo each served more than two years in jail as a result of their prosecution.

## VII. Challenges for Sustainable Development in South Korea Today

From 2000 to 2015, the United Nations adopted and pursued eight Millennium Development Goals (MDGs) in order to help poor countries around the world achieve their main developmental goals: eradicate extreme poverty and hunger; achieve universal primary education; promote gender equality and empower women; reduce child mortality; improve maternal health; combat HIV/AIDS, malaria, and other diseases; ensure environmental sustainability; and develop a global partnership for development (United Nations 2000). Encouraged by the considerable success achieved in implementing these goals (Sachs 2012), as the end of the MDG period approached, member countries attending the 2012 United Nations Rio+20 Summit agreed to develop and adopt a set of development goals for the whole world, beginning in 2015, as a successor to the MDGs. After two years of extensive global consultation at various levels, including civil society, attendees of the UN Summit held on September 25, 2015 adopted a consensus document entitled the “United Nations 2030 Agenda for Sustainable Development” (2030 Agenda) with 17 Sustainable Development Goals (SDGs) as its core.

The 2030 Agenda commits all countries, developing and developed alike, to taking action to eradicate poverty in all its forms and dimensions and further to achieve sustainable development in all its three dimensions: economic, social, and environmental. The 2030 Agenda signifies that no country can achieve its sustainable development alone, that actions must achieve economic and social development as well as environmental sustainability, and that countries can only achieve such development collectively and collaboratively. Under the Agenda, countries have agreed to implement 17 SDGs and 169 targets by 2030 (Figure 1.8). The Agenda includes a pledge to “leave no one behind” and to include all counties, regions, races, ethnicities, sexes, age groups, incomes, and other social groups in the development process. The UN subsequently developed 230 indicators to gauge countries’ implementation of the 17 SDGs and 169 targets over time.

The 15-year time horizon for the goals and targets was meant to overcome short-termism. Integrating all relevant considerations into an indivisible set of goals and targets, the well-crafted SDGs were meant to help overcome the “silos” problem and decentralized government. The 2030 Agenda constitutes a framework for a global partnership for sustainable development while emphasizing that cohesive, nationally-owned sustainable development strategies should be at the heart of the global efforts. The Agenda further states that “each country has primary responsibility for its own economic and social development and that the role of national policies and development strategies cannot be overemphasized” (United Nations 2015b). Accordingly, the Agenda requires each country to reset its own development goals, strategies, and policy agendas in order to mainstream the SDGs, using the goals and targets as a checklist for national goals (Sustainable Development Solutions Network 2015). Likewise, the SDG performance indicators should be used as a scorecard to measure a country’s progress toward sustainability targets. Furthermore, the targets and indicators should be quantified

and applied at the national level and further disaggregated to regions, races and ethnicities, sexes, age groups, incomes, and other social groups. The idea is that such targeting and tracking will help ensure that no one is left behind, and hold governments and all other stakeholders accountable.

Figure 1.8 17 United Nations Sustainable Development Goals (SDGs)



SOURCE: UN Homepage

Source: United Nations 2015b

The SDGs include Goals 1-7 which focus on social issues addressing human basic needs, Goals 8-11 which focus on economic growth and development, Goals 12-15 which focus on global environmental protection, Goal 16 which focuses on justice and institutions, and Goal 17 which focuses on the multi-stakeholder partnership at the global and national levels for the implementation of all other Goals, including partnerships to support developing countries. The 17 SDGs underscore how complicated a task it is for countries and the world to shift to a path of sustainable development. The need to implement these goals in an integrated manner, recognizing and managing interdependence among them, is particularly challenging.

Since 2016, Bertelsmann Stiftung and the Sustainable Development Solutions Network annually published the “SDG Index and Dashboards Report” in which, in an illustrative informal exercise, the development standing of individual countries is assessed in terms of their distance to the target values of the indicators to be achieved by 2030 and the overall SDG Index value aggregated over all goals.

Figure 1.9 The 2018 SDG Dashboard for South Korea

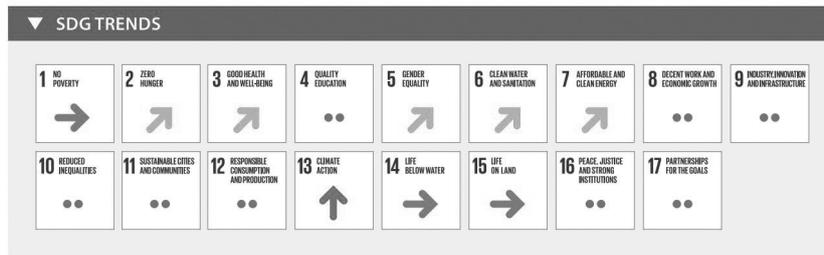


Note: Color signals indicate distance from worst position to targets: already achieved (green), more than halfway (yellow-Targets 1, 2, 4, 8, and 11), less than halfway(brown-Targets 3, 6, 7, 9, 10, 12, 14, 15, and 16), and long way (red-Targets 5, 13, and 17)

Source: Bertelsmann Stiftung & SDSN 2018

Figure 1.9 reproduces the SDG Dashboard for South Korea as of 2018. The report assigned an overall SDG Index value of 77.4 percent and ranked South Korea as 19<sup>th</sup> among 156 countries with comparable data. This is a good development standing relative to the country’s ranking in terms of other indicators, such as the per capita GDP. However, Figure 1.10 also shows that, despite its remarkable development record thus far, including that of its much-touted Economic Miracle, South Korea has not yet fully achieved any of the goals. The country has a long way to go to fully implementing all SDGs, especially gender equality (G5), climate actions (G13), and global partnerships (G17). South Korea is currently also less than halfway to the 2030 goals for health and well-being (G3), water and sanitation (G6), clean energy (G7), infrastructure and innovation (G9), gender equality (G10), responsible consumption and production (G12), below-water ecosystems (G14), terrestrial ecosystems (G15), and justice and institutions (G16).

Figure 1.10 SDG Achievement Trends for South Korea as of 2018



SDG Trend Indicators:



Source: Bertelsmann Stiftung & SDSN 2018

Figure 1.10 reports an assessment of South Korea's SDG trends, that is, whether South Korea is moving forward or backward in the pursuit of individual SDGs. According to the assessment, South Korea is moving in the wrong direction on climate action (G13) and terrestrial ecosystems (Goal 15). South Korea is stagnating on education (G4), below-water ecosystems (G14), and justice and institutions (G15). The country has to accelerate efforts for poverty eradication (G1), health and wellbeing (G3), gender equality (G5) and clean energy (G7), while it is on track for food and agriculture (G2), water and sanitation (G6), and infrastructure and innovation (G9). Sufficient data has to be collected and analyzed to assess the policy trends for the remaining goals. This analysis helps to identify the areas in which major policy reforms are warranted. A further analysis of indicator values and their trends will help identify specific challenges and where policy direction is needed. The analysis presented in Figure 1.10 is only an illustrative exercise to demonstrate how SDGs, targets, and indicators may be deployed by national authorities in order to determine an appropriate policy agenda for their national sustainable development.

## **VIII. Lessons from South Korea for Developing Countries**

The challenges for developing countries today include setting long-term development goals, measuring the distances to these goals, “backcasting” the paths to the goals, identifying priority issues and tasks therein, and looking for sustainable solutions for goal implementation. South Korea's earlier experiences with its Economic Miracle, together with the guidelines in the 2030 Agenda, suggest the following five lessons and raises a couple of questions.

First, on setting the vision and policies for development: long-term national goals for 2030 and beyond, and strategies for their implementation, should be clearly identified by type of issue, and well communicated to citizen, including all stakeholders. National goals should be inclusive of the SDGs and related targets, but the prioritization and sequencing of approaches to them should reflect the country's own national realities, capacities, and development (United Nations 2015c).

Second, on the governance of development policies: setting up the right institutional arrangements for the inclusive and participatory governance of policies is a prerequisite for setting the right goals and strategies and communicating about them to citizens. Sustainable development requires a continuous, society-wide dialogue – one that is open to all citizens, transparent, and democratic – in order to ensure that the views and wishes of all citizens are integrated. Such integration allows policy planning and implementation to take place in a balanced way and helps hold all stakeholders accountable for effective implementation. The 2030 Agenda suggests that such dialogue and integration of citizen voices requires the following institutional arrangements:

- Creating a whole-of-government council for inter-ministerial coordination to integrate economic, social, and environmental goals and issues, as well as for vertical coordination between the central and local governments;
- Launching a national follow-up and review process on progress toward implementing goals. This process should be transparent and open to all stakeholders, institutions, citizens, and regions;
- Monitoring progress based on real-time data disaggregated by sex, age, ethnic distinction, region, and other social characteristics in order to leave no one behind;
- National and local parliaments should support the process (United Nations 2015).

Third, on the fundamentals for sustainable development: long-term planning will bring into focus the critical importance of securing the right fundamentals for sustainable development through balanced investment in long-term capabilities and/or capital of various kinds, ranging from financial resources to human (education and health), natural, intellectual, social, and infrastructure.<sup>22</sup> South Korea's early investment in long-term capabilities emphasized universal education at the primary and secondary levels, basic public health, and hard and soft infrastructure, including electricity, public transportation, water resources, rural community development, science and technology, and competent public administration and bureaucracy. South Korea did not prioritize environmental protection against industrial pollution in the early stage of its development. However, it did initiate forestation of the mountains and countryside very early with urgency and consistency, because the authorities realized that reforestation required a sustained, long-term effort. Such efforts provide an example of good pro-sustainable development policy prioritization.

Fourth, on securing the national leadership of the right kind. Our discussion of South Korea's Economic Miracle highlighted the meritorious qualities with which President Park Chung-hee orchestrated the early portion of the Miracle: his long-term outlook on national development challenges and solutions, abilities and creativity to successfully manage many policies and projects, and personal integrity that was exemplary among government officials. However, we also highlighted how Park could put those qualities at the service of the nation only because he was an authoritarian leader and we noted that his authoritarian rule had several detrimental consequences for South Korea's long-term development, including his increasing oppressiveness in ruling over the country. Authoritarian governance is no longer a political option in most parts of the world, nor is it sustainable or something to recommend. The relevant question, therefore, is whether a country can be democratic and also secure political leadership that has the better of Park's qualities. The answer is

---

22 Dr. Jeffrey Sachs emphasizes the importance of this point in his introductory module to "The Korea Story" MOOC.

that specific individuals may not be found, but the form of a country's institutional arrangements can satisfy the first and the second points above, that is, a long-term approach to planning and the recommended arrangements for democratic governance of development policies. These two points are, in fact, the core of the 2030 Agenda recommendations for SDG governance arrangements. Ensuring a leader's integrity and, in fact, that of all government officials, is a different matter that may be approached by ensuring the transparency of all financial transactions involving the government and public officials.

Fifth, we may wonder if there is any lesson to be drawn from South Korea using major economic crises as an opportunity to undertake reforms and reset the economic development paradigm. The lesson is, of course, that a crisis provides a valuable opportunity to change the status quo and that such an opportunity should not be wasted. There is a broader lesson here, as well. All governments typically are hostile to criticisms of their policies and the state of their countries. The lesson that can be drawn from South Korea's experience of responding to crises with development-enhancing reforms is that governments should take in, and actually welcome, all criticisms with an open mind and make use of crises to critically reassess present policies and look for room to improve those policies.

Finally, South Korea's experience shows that an authoritarian approach to economic development may work for a while under the best of circumstances, however authoritarianism is unlikely to work for long without running into resistance and giving way to democratization. If economic development yielded the fruits of prosperity as intended, this would make people value human rights and political freedom more highly and demand more of both as development progressed. Democracy thus seems to be an inevitable outcome of economic success in countries that began without it. An authoritarian regime's resistance to people's demands for democracy will either bring an end to the regime or will engender measures that undermine the social cooperation necessary to develop an economy. Thus, it seems that democracy is both an eventual outcome of economic development and a necessary condition for long-term economic development.

At a more fundamental level, democracy should be seen as the very means of realizing sustainable development, because a society can meaningfully determine how to balance its path of development among various goals, not only economic, but also social and environmental, solely through democratic processes. "Balancing" here is essentially the political process of polling the preferences of the people and integrating citizen views into a society's goals. This is to say that, when planning for a transition to sustainable development by pursuing the SDGs, the governments of developing countries should plan to transition to a democratic order, or to improve their democratic institutions, by way of implementing the first two lessons given above on citizen communication and participation. An important proviso must be met here: as they participate in social decision-making processes, the people should be provided with the necessary and right sets of information about their choices.

## References

- Baliño, J.T. & Ubide, A. 1999, “The Korean Financial Crisis of 1997 – A Strategy for Financial Reform,” Working Paper 99/28. International Monetary Fund, Washington, D.C., viewed 31 December 2018, <https://www.imf.org/external/pubs/ft/wp/1999/wp9928.pdf>.
- Bertelsmann Stiftung & Sustainable Development Solutions Network (SDSN) 2016, “2016 SDG Index & Dashboards,” viewed October 2018, [www.sdgindex.org](http://www.sdgindex.org).
- 2018, “SDG Index and Dashboards Report 2018: Global Responsibilities – Implementing the Goals,” viewed 19 December 2018, [www.sdgindex.org](http://www.sdgindex.org).
- Bonk, M.B. 2014, “Health in the Post-2015 Development Agenda,” World Health Summit, viewed 18 December 2018, [http://www.worldhealthsummit.org/fileadmin/downloads/2014/WHS/YearbookEssays/WHS\\_Yearbook2013\\_Bonk.pdf](http://www.worldhealthsummit.org/fileadmin/downloads/2014/WHS/YearbookEssays/WHS_Yearbook2013_Bonk.pdf).
- Breen, M. 2010a, “Assassination of President Park Chung-hee in 1979,” *The Korea Times*, 24 October, viewed 31 December 2018, [https://www.koreatimes.co.kr/www/news/special/2012/09/178\\_75100.html](https://www.koreatimes.co.kr/www/news/special/2012/09/178_75100.html).
- Breen, M. 2010b, “Forestation Greened the Country,” in Eung-kyuk Park & Chang-seok Park, eds., *Korea: From Rags to Riches*, Korea Institute of Public Administration, Seoul.
- Central Intelligence Agency 2016, *The World Factbook*, US Government Printing Office, Washington, DC, viewed 19 December 2018, <https://www.cia.gov/library/publications/the-world-factbook/index.html>.
- Cho, N-H. no date, “Achievements and Challenges of the Population Policy in Korea,” Hangyang University, Seoul, viewed 31 December 2018, [https://iussp.org/sites/default/files/event\\_call\\_for\\_papers/Extended\\_paper\\_Nam-Hoon\\_CHO.pdf](https://iussp.org/sites/default/files/event_call_for_papers/Extended_paper_Nam-Hoon_CHO.pdf).
- Clifford, M.L. 1994, *Troubled Tiger: Business, Bureaucrats & Generals in South Korea*, M.E. Sharpe, Inc., New York.
- Deaton, A. 2013, *The Great Escape: Health, Wealth, and the Origins of Inequality*, Princeton University Press, Princeton.
- Group of 20 2009, “Leasers’ Statement, The Pittsburgh Summit, September 24-25,” U.S. Department of the Treasury, Washington, D.C., viewed 31 December 2018, [https://www.treasury.gov/resource-center/international/g7-g20/Documents/pittsburgh\\_summit\\_leaders\\_statement\\_250909.pdf](https://www.treasury.gov/resource-center/international/g7-g20/Documents/pittsburgh_summit_leaders_statement_250909.pdf).

- Gurria, A. 2016, "The OECD and Korea: Celebrating a milestone," *OECD Observer*, viewed 31 December 2018, [http://oecdobserver.org/news/fullstory.php/aid/5645/The\\_OECD\\_and\\_Korea:\\_Celebrating\\_a\\_milestone.html](http://oecdobserver.org/news/fullstory.php/aid/5645/The_OECD_and_Korea:_Celebrating_a_milestone.html).
- Henderson, J., Hume, D., Phillips, R., & Kim E.M. 2002, "Economic Governance and Poverty Reduction in South Korea," Globalization and Poverty Programme, Department for International Development, U.K.
- Hwang, D. 2012, "Korea pays tribute to patriots, war veterans," viewed 18 December 2018, <http://www.korea.net/NewsFocus/policies/view?articleId=100598>.
- Inflation.eu, 2018, "Historic inflation South Korea - CPI inflation," viewed 31 December 2018, <https://www.inflation.eu/inflation-rates/south-korea/historic-inflation/cpi-inflation-south-korea.aspx>.
- ITU 2017, "Measuring the Information Society Report 2017," ITU, Geneva, viewed 31 December 2018, <https://www.itu.int/net4/ITU-D/idi/2017/index.html>.
- Kim, J.K. 2008, "Korean Economic Development: Shared Growth and Implementation of Reforms," Lecture note presented at KDI School of Public Policy and Management
- Kim, I-O. & Cho, J. 2018, "S. Korea's GDP rank falls to 12th, per-capita GNI sharply up in '17," *Pulse by Maeil Business News Korea*, August 16, viewed 31 December 2018, <https://m.pulsenews.co.kr/view.php?year=2018&no=514444>.
- Korean Statistical Information Service (KOSIS), viewed October 2018, <http://kosis.kr/>.
- Lankov, S. A. 2010, "Seoul-Busan Expressway," in E.-K. Park and C.-S. Park (eds.), *Korea: From Rags to Riches – 60 Great Stories of Korean Miracle*, The Korea Institute of Public Administration, Seoul.
- Lee, H.H. 1999, "Korea's 1997 Financial Crisis: Causes, Consequences and Prospects," *Agenda*, vol.6, no.4, pp.351-363, viewed 31 December 2018, <http://press-files.anu.edu.au/downloads/press/p95511/pdf/article05.pdf>.
- Moon, S. 2009, "The Cultural Politics of Remembering Park Chung Hee," *The Asia-Pacific Journal*, vol.7, no.5, viewed 31 December 2018, <https://apjif.org/-Seungsook-Moon/3140/article.pdf>.
- Nixon, R. 1969, "Vietnamization Speech, November 3," viewed 31 December 2018, <http://www.let.rug.nl/usa/presidents/richard-milhoux-nixon/vietnamization-speech-1969.php>.

- Oh, M. & Larson, J.F. 2011, *Digital Development in Korea: Building an Information Society*, Routledge Advances in Korean Studies, Routledge.
- Presidential Commission on Women's Affairs 1997, *The Prevention of Domestic Violence and Victim Protection Act, Presidential decree No. 15826*, Asia Pacific Forum on Women, Law and Development (APWLD), Chiang Mai, Thailand, viewed 31 December 2018, [https://www.wcwoonline.org/pdf/lawcompilation/Korea\\_PreventionAct-1998.pdf](https://www.wcwoonline.org/pdf/lawcompilation/Korea_PreventionAct-1998.pdf).
- Presidential Committee on Economic Restructuring 1988, *The Reform Agenda for Economic Advancement: The Report of the Presidential Committee on Economic Restructuring*, Korea Development Institute, Sejong City.
- Sachs, J.D. 2012, "From Millennium Development Goals to Sustainable Development Goals," *The Lancet*, vol.379, no.9832, pp.2206-2211.
- 2015, "A Brief History of Economic Development," *The Age of Sustainable Development*, Columbia University Press, New York.
- Sakong, I. & Kho, Y. & Committee for the Sixty-year History of the Korean Economy, 2013, *The Korean Economy: Six Decades of Growth and Development*. Cengage Learning Asia Pte Ltd., Singapore.
- Sharma, R. 2012, "Gold Medalist," *Breakout Nations*, W.W. Norton & Company, New York.
- Song, W.G. & Lee, S.H. 2005. "The Business Structure of Korean Chaebols and Concentration of Economic Power," Nanam, Seoul (in Korean).
- Sustainable Development Solutions Network 2015, *An Action Agenda for Sustainable Development*, viewed 19 December 2018, [www.unsdsn.org](http://www.unsdsn.org).
- United Nations 2000, "Resolution adopted by the General Assembly [without reference to a Main Committee (A/55/L.2)] 55/2. United Nations Millennium Declaration," United Nations, New York, viewed 31 December 2018, <http://www.un.org/millennium/declaration/ares552e.htm>.
- United Nations 2015a, "Open Working Group proposal for Sustainable Development Goals," viewed 18 December 2018, <https://sustainabledevelopment.un.org/content/documents/1579SDGs%20Proposal.pdf>
- 2015b, "Sustainable Development Goals," viewed 18 December 2018, <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>.

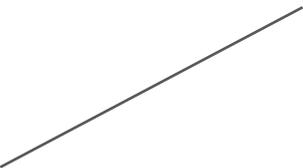
- 2015c, “Launch of new sustainable development agenda to guide development actions for the next 15 years,” viewed 18 December 2018, <https://sustainabledevelopment.un.org/?page=view&nr=1021&type=230&menu=2059>
- United Nations Development Programme (UNDP) 2018, “Human Development Report 2018,” viewed 31 December 2018, <http://hdr.undp.org/en/countries/profiles/KOR>.
- Worldatlas.com 2018, “Korean Peninsula Map, Map Of North And South Korea, Korea Information And Facts,” Valnet, Inc., Montreal, viewed 31 December 2018, <https://www.worldatlas.com/webimage/countrys/asia/koreanpn.htm>.
- World Bank 2018a, “World Development Indicators,” *Data Catalog*, viewed 19 December 2018, <https://datacatalog.worldbank.org/dataset/world-development-indicators>.
- World Bank 2018b, International Comparison Program database, viewed 31 December 2018, <https://data.worldbank.org/indicator/NY.GDP.MKTP.PP.CD?locations=KR>.
- World Commission in Environment and Development 1987, “Report of the World Commission on Environment and Development: Our Common Future,” Oxford University Press, Oxford, viewed 31 December 2018, <http://www.un-documents.net/wced-ocf.htm>.
- World Health Organization 2015, “Towards a Monitoring Framework with Targets and Indicators for the Health Goals of the Post-2015 Sustainable Development Goals,” viewed 18 December 2018, [http://www.who.int/healthinfo/indicators/hsi\\_indicators\\_sdg\\_targetindicators\\_draft.pdf](http://www.who.int/healthinfo/indicators/hsi_indicators_sdg_targetindicators_draft.pdf).
- Young, S., et.al. 1982, “Proposal of Comprehensive Tariffs Reform,” Symposium on Tariffs Reform, Korea Development Institute, Sejong City.
- 1983, *The Basic Role of Industrial Assistance Measures and Proposal of Their Reform*, Korea Development Institute, Sejong City.
- 1994, “Korea’s Financial Reform: Reshaping Society,” *International Economic Insights*, vol.5, no.1, Institute for International Economics, Washington, D.C.

Chapter

**02**



**South Korean Health Policy and  
Universal Health Coverage**



By

Soonman Kwon

# I. Health, Sustainable Development, and Universal Health Coverage

Health gives value to life, gives people the capacity to learn and grow at intellectual, physical, and emotional levels, and enables personal and universal development (Sachs 2001). The United Nation’s 17 Sustainable Development Goals (SDGs) explicitly include health in the third goal: to attain healthy lives for all at all ages. SDG 3 outlines three key elements to a holistic approach to health: Universal Health Coverage (UHC), accelerating progress on the unfinished health Millennium Development Goal (MDG) agenda, and reducing the burden of non-communicable diseases (NCDs). The importance of health cannot be overemphasized, and health is implicitly relevant to all 17 SDGs. For instance, health is relevant to SDG 1 (to end poverty in all its forms) because poor health may reduce an individual’s ability to work, generate income, or invest in education, or SDG 5 (to achieve gender equality and empower all women and girls everywhere) because women are the majority caretakers in households, and women’s empowerment impacts their ability to make decisions for maternal and child health (Every Woman Every Child 2015).

## 1. Sustainable Development Goals and Health

Table 2.1 outlines the nine targets and four additional points within SDG 3, including three targets associated with the MDGs, three targets aligned with the emerging agenda for NCDs and injuries, and three targets focused on UHC (World Health Organization 2015a).

Table 2.1 Nine targets and four additional points under SDG 3

Association	Target/point	Content
MDGs	1	By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births
	2	By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at most 12 per 1,000 live births and under-5 mortality to at most 25 per 1,000 live births
	3	By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, waterborne diseases and other communicable diseases
NCDs and injuries	4	By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being
	5	Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol

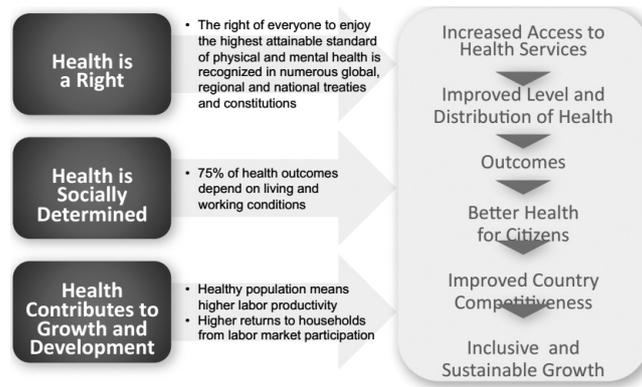
Association	Target/point	Content
	6	By 2030, reduce by 50 percent the number of global deaths and injuries from road traffic accidents and, by 2020, stabilize and then reduce global deaths and injuries from road traffic accidents
Mix	7	By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programs
	8	Achieve universal health coverage, including financial risk protection, access to quality health-care services, and access to safe, effective, and affordable medicines and vaccines for all
	9	By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water, and soil pollution and contamination
	a	Strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate
	b	Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries; provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all
	c	Substantially increase health financing and the recruitment, development, training, and retention of the health workforce in developing countries, especially in least developed countries and small island developing states
	d	Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction, and management of national and global health risks

Source: United Nations 2015

## 2. Healthcare Financing and UHC in Low-Income Countries

There is a close link between health and economic development. Many countries, however, underestimate the qualitative and quantitative significance of health during investment decision-making. As a result, the rise of non-communicable and communicable diseases in low-and middle-income countries (LMICs) severely impede economic progress (Haines et al. 2012; Sachs 2001). Figure 2.1 summarizes the impact health can have on a society's economic development:

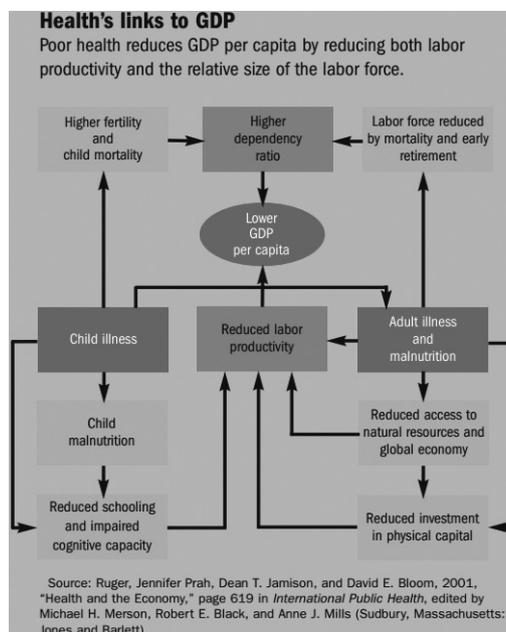
Figure 2.1 Contribution of Health to Sustainable Development



Source: Vega 2015

The World Health Organization (WHO) reported in 2001 that the The Commission on Macroeconomics and Health proved that disease in many low-income countries (LICs) has often been a barrier to economic development (Sachs 2001). In order to see economic improvement, health has to become part of development strategies in LICs through policy changes, such as the poverty reduction strategy papers (PRSPs) and the MDGs (Suhrccke et al. 2005). Figure 2.2 illustrates the various ways health affects per capita income:

Figure 2.2 Links between Health and GDP per capita

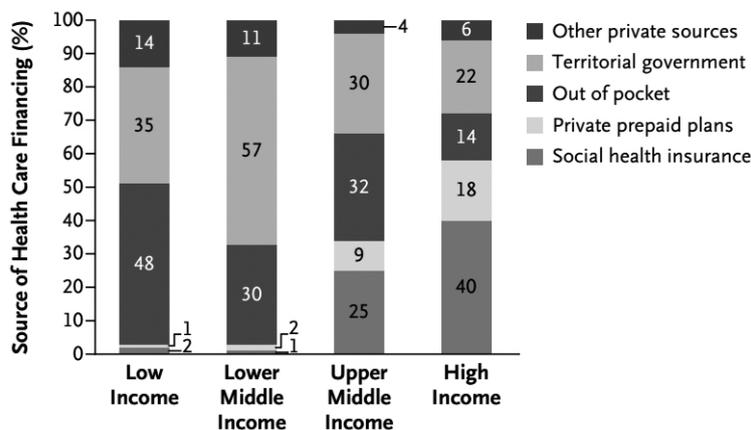


Source: Bloom et al. 2004

The experience of high-income countries in Europe reveals that health contributes to economic development in four ways. First, health impacts labor productivity. Physically and mentally healthier people increase productivity per working hour through a more effective use of technology or equipment and demonstrate more efficient time-management or flexibility. Second, health contributes to an increase of labor supply. Good health reduces the number of workers' sick days, which increases productivity and wages, which leads to higher worker incentive and increased labor supply. Third, a population with good health is more likely to achieve higher education, and an educated population can be more productive and earn higher incomes. Finally, people with better health enjoy a higher life expectancy; therefore, they may save more money than people with poorer health because the healthy may expect returns over a longer time frame, which may result in a higher willingness to invest in physical or intellectual capital (Suhrcke et al. 2005).

The relationship between health and development is bi-directional (Figueras & McKee 2011; Spence & Lewis 2009; Suhrcke et al. 2005). Economic growth improves health in several ways, including increased food availability and affordable health services (Spence & Lewis 2009). Figure 2.3 shows how LMICs rely heavily on out-of-pocket payments (OOPs) for healthcare services (an average 30-48 percent of the total health expenditure (THE)) (Mills 2014; Tangcharoensathien et al. 2011). In LMICs, approximately 50 percent of THE comes from OOPs, compared with 14 percent of THE in high-income countries (Mills 2014). Households with high OOPs without proper prepaid payments drove the adoption of the 2005 World Health Assembly Resolution across the Member States (Tangcharoensathien et al. 2011). UHC aims to secure access to appropriate promotive, preventive, curative, and rehabilitative services for all without generating financial hardship (Tangcharoensathien et al. 2011).

Figure 2.3 Source of Health Financing as a Percentage of Total Health Expenditure by World Bank-define Income Group (2011)



Source: Mills 2014

OOP is an important determinant of equity in healthcare (Kwon 2011). High OOP for health services indicates health services are a market commodity, can limit the accessibility of health services in LMICs, and causes catastrophic healthcare expenditure and impoverishment (Kwon 2011). A 1 percent increase in the share of OOP in the THE relates to a 2.2 percent increase in households that have catastrophic health payments (Tangcharoensathien et al. 2011). A lack of financial protection for healthcare expenditure forces approximately 100,000,000 people below the poverty line each year in LMICs (Mills 2014). Universal Health Coverage is a possible solution to high OOP and its consequences. UHC requires a functioning health system, including quality services and sound health financing systems.

LMICs have seen an increased participation in service delivery from private providers. Although the involvement of private providers could invite the privatization and commodification of healthcare, the low capacity of the public sector in LMICs suggests utilizing both public and private providers is a realistic policy option for LMICs (Mills 2014; Saksena et al. 2010). According to the 2010 WHO report, 27 out of 39 LMICs offered more than 50 percent of outpatient services at public facilities. The study suggested that individuals in the richest quintile tend to use private facilities more than the lowest income quintile; however, even among the lowest income quintile, private facilities used more than 20 percent of total outpatient visits (Saksena et al. 2010). Table 2.2 reveals the much lower density of health workforce infrastructure in LMICs compared to high-income countries.

Table 2.2 Availability of health workforce per 10,000 population in the world

Country group	Hospital beds	Doctors	Nurses	Pharmaceutical personnel
Income group				
Low-income	21	2.4	5.4	0.5
Lower middle-income	10	7.8	17.8	4.2
Upper middle-income	32	15.5	25.3	3.1
High-income	54	29.4	86.9	8.4
WHO region				
Africa <sup>23</sup>	Not available	2.6	12	0.9
Americas <sup>24</sup>	23	20.8	45.8	6.7
South-East Asia	10	5.9	15.3	3.8

23 "Africa" includes Algeria and all sub-Saharan African countries except Sudan, Eritrea, and Somalia (World Health Organization).

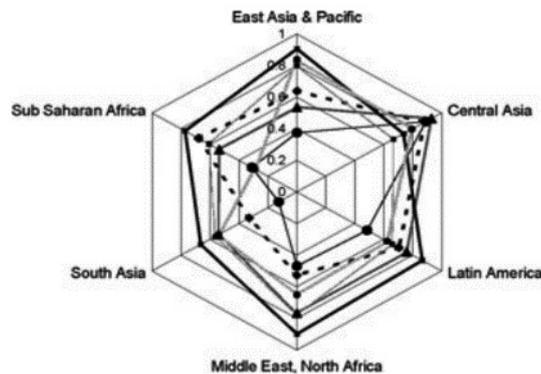
24 "Americas" includes US, Canada, and Latin and South America (Pan American Health Organization).

Country group	Hospital beds	Doctors	Nurses	Pharmaceutical personnel
Europe	53	33.1	80.5	5.1
Eastern Mediterranean	8	11.4	16.1	6.1
Western Pacific	43	15.3	25.1	4.5
Global	27	14.1	29.2	4.3

Source: World Health Organization Statistics 2015b

Figure 2.4 demonstrates the disparities in healthcare utilization across six regions in the world.

Figure 2.4 Ratio of the use of six primary-care services for low and high economic quintiles of the population among LMICs in six regions<sup>25</sup> of the world



Source: Peters et al. 2008

There are several factors for accessing healthcare in LMICs. Geographic accessibility and safe road conditions are important for health facilities, the distribution of drugs and medical supplies, and emergency referrals. Health services must be readily available, but can be impacted by limited hours, long waiting times, lack of drugs, and absentee health workers – all common issues in LMICs. Financial accessibility, which relates to the affordability of and financing health services, is also crucial. Finally, acceptability of services, which links to cultural norms, such as gender inequity, is equally important for accessible healthcare in LMICs (Peters et al. 2008).

<sup>25</sup> Regions include East Asia and the Pacific, Central Asia, Latin America, Middle East and North Africa, South Asia, and sub-Saharan Africa

### 3. History of Health and Sustainable Development in South Korea

Table 2.3 shows selected indicators for health-related MDGs and health financing in the Republic of Korea from 1980 to 2013:

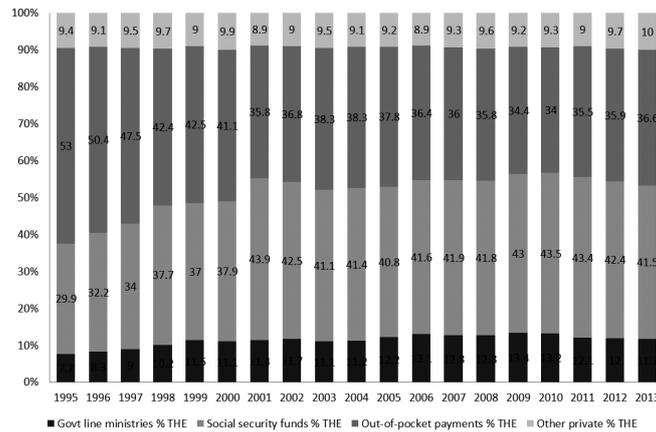
Table 2.3 Selected indicators of Health-related MDGs and Health Financing in South Korea (1980-2013)

Indicator	1980	1985	1990	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Under-five mortality rate	14.3	10	7.1	5.5	5.3	5.3	5.5	5.8	6.1	6.4	6.5	6.4	6	5.6	5.2	4.8	4.5	4.3	4.1	4	3.8	3.7
Infant mortality rate	12	9	6	5	5	5	5	5	5	6	6	5	5	5	5	4	4	4	4	3	3	3
Proportion of 1 year-old children immunized against measles	89	89	93	93	89	85	85	90	95	96	97	96	99	99	99	99	92	92	93	98	99	99
Maternal mortality ratio			18	18					19					18					21			27
Proportion of births attended by skilled health personnel			98			100																
Contraceptive prevalence rate		70.4				80.5			79.3			84.5		80.2	79.6			80				
Incidence of tuberculosis (per 100,000)			164	101	93	86	81	79	79	80	84	88	93	97	101	103	104	104	103	102	100	97
Proportion of population with sustainable access to an improved water source, urban and rural				90.6	91.2	91.8	92.3	92.9	93.4	94	94.5	95.1	95.6	96.1	96.6	97.1	97.6	97.6	97.6	97.6	97.6	97.6
Proportion of population with access to improved sanitation, urban and rural				100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Govt line ministers% THE				7.7	8.3	9	10.2	11.5	11.1	11.4	11.7	11.1	11.2	12.2	13.1	12.8	12.8	13.4	13.2	12.1	12	11.7
Social security funds% THE				29.9	32.2	34	37.7	37	37.9	43.9	42.5	41.1	41.4	40.8	41.6	41.9	41.8	43	43.5	43.4	42.4	41.5
Out-of-pocket payments% THE				53	50.4	47.5	42.4	42.5	41.1	35.8	36.8	38.3	38.3	37.8	36.4	36	35.8	34.4	34	35.5	35.9	36.6
Other private% THE				9.4	9.1	9.5	9.7	9	9.9	8.9	9	9.5	9.1	9.2	8.9	9.3	9.6	9.2	9.3	9	9.7	10
THE % GDP				3.8	4	4	4.1	4.4	4.4	5	4.9	5.2	5.2	5.7	6.1	6.4	6.6	7.2	7.3	7.4	7.6	7.2
OOP % GDP				2	2	1.9	1.7	1.9	1.8	1.8	1.8	2	2	2.2	2.2	2.3	2.4	2.5	2.5	2.6	2.7	2.6
GHIE% GDP				1.4	1.6	1.7	2	2.1	2.2	2.8	2.6	2.7	2.8	3	3.3	3.5	3.6	4.1	4.2	4.1	4.2	3.8

Source: World Health Organization 2015b; World Bank 2015

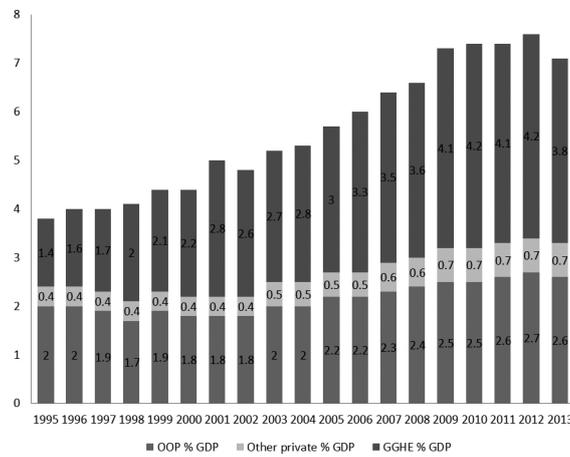
In South Korea, OOP as a percent of THE has decreased by 16.4 percent from 1980 to 2013. However, OOP as a percent of GDP has increased by 2.6 percent from 2003 to 2013. Figures 2.5 and 2.6 show the source of health financing as a percent of THE and as a percent of GDP, respectively, in South Korea from 1980 to 2013:

Figure 2.5 Source of Health Financing as a percentage of Total Health Expenditure, South Korea (1980-2013)



Source: WHO Global Health Expenditure database

Figure 2.6 Source of Health Financing as a percentage of GDP, South Korea (1980-2013)



Source: WHO Global Health Expenditure database

## II. Public Health Centers and Immunization Programs in South Korea<sup>26</sup>

### 1. Public Health Centers<sup>27</sup>

Under United States (U.S.) support, Korea initiated the Korean Health Center Project following the nation's liberation from Japan in 1945. At that time, health centers provided preventive healthcare services for only the low-income population. The Korean War, however, destroyed the majority of health centers. Following the war, the remaining health centers offered preliminary treatments, prevention services, and relief support. In 1956, South Korea enacted the Public Health Center Act to establish municipal and provincial health centers. South Korea revised the Act in 1962 to establish health centers directed by city and county governments and specify health center responsibilities, which included the prevention of infectious diseases, maternal and child health, and family planning. The development of public health centers in South Korea can be divided into four stages: the initial period (1945-1952), the formation period (1953-1976), the settlement period (1977-1989), and the developing period (1990–present).

In 1977, South Korea introduced public health insurance and the Medical Aid Program for the low-income population. The majority of patients that received Medical Aid also utilized health centers, as many private medical institutions had medical fees too high for low-income patients. As the number of Medical Aid patients increased, the government increased investment in health centers to meet the demand. The government chose the primary health management project as the national health policy and introduced the Special Act for Healthcare in Rural Areas (SAHRA) in 1980. The SAHRA laid a foundation to dispatch Community Health Practitioners (CHPs) to rural areas, construct Primary Health Care Posts (PHCP), and send public health doctors to sub-health centers. South Korea introduced the Community Health Act in 1995, which designated health centers as the central organizations of health management in communities.

Following the Korean War, the gap between the health of urban and rural residents widened, accelerated by rapid urbanization, the concentration of private medical institutions in large cities, and insufficient medical resources in rural areas. In 1979, 90 percent of doctors and 82 percent of hospital beds were located in cities, where only 55 percent of the total population lived. Along with 5-Year Economic Development Plans, the government emphasized the development of the public medical system to reach South Korea's low-income population. Although the first three 5-Year Economic Development Plans from 1962 to 1976 implemented

---

26 Research assistance by Inuk Hwang is gratefully acknowledged.

27 This case is based on "Healthcare Improvement Activities of Public Health Centers in Rural Areas" by Yong Ae Shin, KDI School, 2012.

healthcare projects focused on providing medical workers to unstaffed locations, disease prevention and control, and family planning, the healthcare budget was less than 1 percent of the national budget. The fourth and fifth phases of the development plan from 1977 to 1986 improved the public healthcare system in rural areas. In addition to sending Public Health Doctors (PHDs) to sub-health centers, the government located CHPs to PHCPs in rural areas. CHPs could perform simple medical practices in medically underserved areas. As a result, all South Korean counties became staffed with medical personnel by 1983.

The Ministry of Public Administration and Security is responsible for the general administration of health centers, such as employment. The Ministry of Health and Welfare (MOHW) is responsible for centers' policies and work plans. Local governments supply health center workers. The organization of the center varies depending on locality and can be classified under one of the following: Seoul, metropolitan, mixed urban/rural, city (urban), gun (rural), or hospital. Depending on its type, the organization of health centers varies in their size and departments. For instance, city health centers consist of health administration, medicine, communicable disease control, house calls, and health promotion, and rural centers consist of health administration, preventive medicine, health promotion, and local health and sanitation. Initially, South Korea required health centers to have officers of medical consultation, pharmacy, health, nursing, health education, radiology, germ control, and statistics. The guidelines now include specialized officers, such as traditional medical doctors, midwives, nurse aids, and others. In 1999, of 19,126 employees in 243 nationwide health centers, 27.2 percent had nurse's licenses, 19.8 percent had nurse aid's licenses, and 10.5 percent had doctor's licenses. Through a number of legislations, health centers expanded to include the management of medical records and mental health in 1991. In 1999, health centers added health promotion projects, such as tobacco and alcohol control, physical activity, and nutrition. The recent work of health centers includes smoking cessation, nutrition improvement, exercise consultation, community-based rehabilitation, medical expense support, and patient home visiting programs.

In 1973, South Korea introduced the Standards of Health Service Institutions to set guidelines on health center construction. In 1982, the government mandated that health centers in metropolitan areas be two-stories high and cover 900 square meters. South Korea undertook the construction and renovation of health center buildings primarily in the 1980s and 1990s. In 1994, the government legislated the Special Tax for Rural Development Act to provide additional funds for equipment and facilities. The budget of health centers consisted of subsidies from both central and local governments, but many centers suffered from insufficient budgets due to limited support from local governments.

To resolve the regional imbalance of medical resources, the government introduced legislature to create sub-health centers in 1969. The law required that at least one sub-health center be established in every county with one commissioned doctor, staff in family planning, maternal, and child health, and tuberculosis workers. However, treatment in sub-health centers lagged due to bureaucratic processing, limited facilities, and legal complications for the status of physicians. In response, the government abolished the operation committee of sub-health centers and turned the status of the Public Health Doctor (PHD) into a special local public official in 1993. Many public physicians worked in sub-health centers short-term as a substitute for a mandated three-year military duty. As of 1995, an average of five public employees worked in each sub-health center. In the beginning, sub-health centers largely followed the work of health centers, but their work expanded to include primary healthcare, control of chronic diseases, visiting health management, maternal and child health, and health improvement programs for the elderly.

The imbalance of medical personnel between urban and rural areas has concerned the government since the creation of health centers. In 1985, health workers, termed multi-purpose health workers, became full-time officers. Following the change in status, South Korea required each worker to attend a three-month training program; afterwards they had to work in maternal and child healthcare (MCH), family planning, tuberculosis control, and home healthcare. Since 1981, Korea has maintained a pool of more than 3,000 available public health doctors for health centers. The pool consists of general practitioners, board-certified specialists, dentists, and traditional medical doctors. More than 1,000 specialists have been registered since 1996. In 1992, the government mandated all mayors and governors provide job training programs to PHDs and report the results to the Minister of Health and Welfare. PHDs received training consisting of pre-training to learn the functions of primary care and post-training to learn public health work. PHDs are responsible for medical consultation, preventive programs, and health education. According to a study in 1992, 90 percent of PHDs focused on consultation.

Following the Public Health Center Act in 1956, MCH became a formal task of health centers. In the 1960s and 1970s, MCH workers and family planning staff promoted family planning at each local community. MCH staff were mainly midwives and nurses but nurse aids gradually replaced both. South Korea established MCH centers in 1980 to decrease maternal deaths during home births and increase institutional delivery in vulnerable areas, such as low-income and rural areas. The hospital delivery rate in 1982, before MCH centers, was 35.3 percent in rural areas but increased to 73.3 percent in 1988.

Following a pilot project in 1976, the government approved plans to train, dispatch, and manage CHPs. In 1981, the government dispatched CHPs to PHCPs in rural and remote areas. The government required CHPs to work in their initial workplace for at least two years, record their work in a workbook, live in the

jurisdiction, retire at the age of 60, and attend a training course once a year to update their knowledge and skills. PHCPs authorized CHPs to use selected types of medicines that fall within the scope of primary healthcare.

To encourage community participation, the government established a village steering committee, attended by residents of the community. Many operation committees initially supported CHPs by donating land or lending buildings to construct PHCPs. As South Korea stabilized the CHP system in 2001, however, 84 percent of the CHPs reported that the committee did not contribute to the operation of the post. To encourage liaisons between residents and posts, the government created the role of village health workers. Village health workers were women older than 20-years-old who had graduated from middle school. Their work included reporting health statistics, healthcare projects for infants, children, and pregnant women, family planning, tuberculosis control, and emergency care. The government supported posts through a budget for capital and labor costs. After the initial provisions of the budget, however, the post funded operation through its own income. In 2000 and 2001, medical consultation fees were 74 percent of posts' net income.

## 2. National Immunization Programs<sup>28</sup>

Following the Korean War, there was a sharp increase in the spread of infectious diseases. To resolve this issue, the government established immunization centers in towns, sub-counties, and neighborhoods, and appointed at least one certified professional to each center. The central and local governments provided free immunizations. To raise public awareness for immunization programs, the government distributed education materials via newspapers and other media. Health centers also played an important role in immunizing infants as part of the Maternal and Infant care program, especially in rural and remote areas.

In the past, the biggest concern in South Korea regarding infectious diseases was herd immunity. Consequently, healthcare staff visited schools and other populated places to implement mass immunizations, which significantly increased immunization coverage. South Korea enacted the Law for the Prevention of Infectious Diseases in 1954 and amended the law in 1999. The law required guardians to immunize all children under 14. In 1999, South Korea reached the goal immunization coverage rate, and the government abolished mandatory child immunization. The most recent law on infectious disease management in South Korea is the Law of the Prevention and Management of Infectious Diseases, enacted in 2011. As of 2018, the national, provincial, and county government shares 50 percent, 15 percent, and 35 percent, respectively, of the cost

---

28 This case is based on "Korean National Immunization Program for Children," by Sok-Goo Lee, So-Youn Jeon, Keon-Yeop Kim, Ho-Jin Nam, and Kyung Lee, 2013.

of the immunization program. Mandatory immunization, which include 11 immunizations, is based on professional review, and complementary immunization is administered in cases of sudden epidemic. Since 2009, the public has access to required immunization services from private providers, which is reimbursed by national health insurance. As of 2012, immunizations in public health centers are free, but one must bear the cost up to KRW 5000 (about USD 5) per immunization at private health institutions.

As of 2018, approximately 7,000 private providers offer immunizations. In 1999, the Division of Quarantine, the sub-unit responsible for infectious diseases in the Ministry of Health, transferred to the National Institute of Health (NIH). In 2002, the Task of Immunizing Children of the MOHW merged with the Task of Adult Immunizations administered by the NIH Quarantine Division. In 2003, the government established the Korea Center for Disease Control and Prevention (KCDC) to expand the tasks previously covered by the NIH and set up the first separate immunization division. In the following years, South Korea employed a variety of efforts to improve the quality of the immunization program, including individual records management systems and systematic training of the workforce. The introduction of the National Immunization Registry Information System (IRIS) in 2002 marked the change in South Korea's immunization policy from group immunizations to quality management through personal immunizations. The government also implemented various public health programs to fight communicable diseases, including tuberculosis and leprosy.

Following its formation in 2003, the KCDC addressed tasks related to immunization under different government agency oversights, including testing, purchasing, supplying vaccines, setting up prevention plans, and managing immunization programs. In particular, the Diseases Policy Division of the MOHW set the majority of immunization policy and the Korea Centers for Disease Control decided technical judgments about immunizations and the operation of the immunization programs. The provincial government fiscally supported immunization programs in the city, county, and district health centers. The health centers were responsible for offering immunizations and overseeing the practice of immunizations in medical institutions under their jurisdiction.

Immunizations at the national level are under the jurisdiction of the Infectious Disease Management Committee of the Ministry of Health and Welfare. It deliberates on the methods and standards of conducting immunizations and the pre-purchase, production, and stockpiling of medicines and equipment. A sub-committee, the Immunization Expert Committee, deals with the designation of diseases that should be targeted through immunizations, immunization criteria and methods, policies on tackling infectious diseases with immunizations, and the control of diseases. Another sub-committee, the Expert Committee on Compensation for Immunization Victims, holds hearings on injuries or other related situations that arise from immunization.

Both public health centers and private medical institutions currently provide immunization services. Public health centers offer the most immunization services and are responsible for the national immunization program. Sub-health centers also perform immunizations. Private institutions acquire vaccinations directly from the manufacturer and public health centers receive vaccinations through the Public Procurement Service. Since 2012, South Korea developed the Vaccine Supply Monitoring System, connected to IRIS, to track the status of vaccine supplies at health centers and to respond to vaccine shortages.

South Korea has seen tremendous success through its immunization policies in largely eliminating the spread of diseases, such as hepatitis B, measles, and the influenza A virus H1N1. To increase the public participation and awareness of immunizations, South Korea implemented four tools. First, since 2011, South Korea has participated in the annual Korean Influenza National Immunization campaign which provides free influenza vaccinations to children from infants 6-months-old to children 12-years-old and adults over 65-years-old (Korea Centers for Disease Control & Prevention). South Korea also offers free immunization services for other infectious diseases, such as diphtheria, polio, and hepatitis, to children from age 6-months to 12-years under a national immunization program. Second, the Korea Centers for Disease Control established an immunization reference website that provides information, such as immunization schedules, immunization related programs, and immunization records. Third, South Korea established a messaging service for immunization confirmations and notifications of the next immunization schedule. In 2002, South Korea developed and installed IRIS in all public health centers, and, in 2004, expanded to include private medical institutions. IRIS systematically manages immunization related data, makes a list of recipients in need of vaccinations, and sends recipients reminder notifications. As of 2018, the IRIS database registers nearly all newborns. Moreover, since 1982, the Korean Immunization Survey has been conducted as part of the National Survey on Fertility, Family Health and Welfare in South Korea. Since 2011, the immunization rates have been determined by a nationally standardized survey method to determine the immunization rate at the national, metropolitan, and province level. The target populations of the survey are 3- to 7-year-old children whose immunization records have been registered in IRIS at least once. Fourth, South Korea offers extensive vaccination training for healthcare providers.

### III. National Health Insurance and Universal Health Coverage in South Korea

In the healthcare system, where the majority of hospitals were private, and public hospitals charged a nontrivial user fee, health insurance value was very high. Rapid economic growth in the 1970s and 1980s contributed to the extension of population coverage in South Korea. Employees of businesses with more than 500 workers were the first group to be covered by health insurance in 1977. Health insurance covered the low-income population, school employees, and public sector workers in 1999, followed by employees of smaller corporations. The government implemented pilot programs for the self-employed in five localities (four rural and one urban). In 1988, the self-employed in rural areas joined the health insurance system.<sup>29</sup> The health insurance system also adopted a family-based membership, which required all dependents to be covered by the insurance of the head of the family. South Korea achieved universal population coverage in 1989. Table 2.4 offers key economic and health indicators of South Korea during the period of health insurance initiation:

Table 2.4 Economic and Health Indicators in South Korea (1977-2008)

	1977	1989	2000	2014
GDP per capita (in USD) <sup>a</sup>	1,042	5,430	11,347	28,180
Life expectancy <sup>b</sup>	64.8	71	76	81.8 (2013)
Mortality (per 100,000 persons) <sup>c</sup>	690	542.3		527.3
Infant mortality (per 1,000 births) <sup>b,c</sup>	38 (average over 1970-1975)	12	5.8 (average over 1999-2002)	3 (2013)
Number of physicians (per 10,000 persons) <sup>b</sup>	5 (1981)	8	13	22
Number of beds (per 10,000 persons) <sup>b</sup>	17 (1981)	23	47	110
Number of physician visits per capita <sup>b</sup>	3.7	6.2	10.6 (2002)	15
Number of admissions per capita <sup>c</sup>	-	0.06 (1990)	-	0.12 (2013)
Number of hospital days per admission <sup>b,c</sup>	12	13.6	13.8 (2002)	16.5 (2013)

Note: 1977 marked the introduction of health insurance; 1989 marked the onset of universal coverage

Sources: Kwon 2018, p. 12 using data from a Bank of Korea 2016; b OECD 2016 a & b; c Statistics Korea 2015

<sup>29</sup> See Kwon (2009) for details.

## 1. Development of Health Insurance for Universal Health Coverage

Before the merger of statutory health insurance funds into a single insurer in July 2000, the national health insurance system consisted of multiple not-for-profit insurance funds, which were subjected to strict regulation by the MOHW. Except for the review and assessment of claims submitted by providers, health insurance funds did not actively exercise their purchasing power and had no selective contracting with providers. Fee scheduling, along with the regulation of balance billing, contributed to the financial protection of the insured and cost control. There was no competition among insurance funds to enroll the insured, and each insurance fund covered one of three well-defined population groups: employees and their dependents (36.0 percent of the population), school and government employees and their dependents (10.4 percent), and the self-employed, also called regional health insurance (50.1 percent) (Table 2.5). As of 1998, the Medicaid program for the poor, funded by a government budget, covered the remaining 3.5 percent of the population. In 1998, there were 227 insurance funds for the self-employed (92 in rural and 135 in urban areas) established as sub-districts of the city. There were 142 funds for employees and a single insurance fund for school and government employees.

Table 2.5 Number of Insured for Types of Health Insurance Funds

(Unit: 1,000 persons)

		1988	1989	1990	1995	1999	2000
Total		33,196	44,168	44,110	45,429	46,821	47,466
Health insurance		28,906	39,922	40,180	44,016	45,184	45,896
Employee	Sub total	22,129	20,982	20,759	21,559	21,717	22,404
	Insured	6,966	6,479	6,511	7,166	6,803	7,268
	Dependents	15,163	14,503	14,247	14,393	14,914	15,136
Self employed	Insured	6,777	18,940	19,421	22,457	23,467	23,492
Medical Aid		4,290	4,246	3,930	1,413	1,637	1,570

Source: Kwon 2015, p. 6 using data from National Health Insurance Corporation 1999, 2015 and Health Insurance Review and Assessment Service, 2010, 2015.

All insurance funds provided the same statutory benefits package to enrollees and same reimbursement to healthcare providers. Insurance systems based self-employed contribution rates on income, property, and household size, but based employee contribution rates only on wage income. Each insurance fund set their contribution rate within the range dictated by the MOHW. The government worried that providers would not want to join the health insurance program due to tight fee scheduling, so it mandated all medical providers treat insurance patients rather than contract with them.

The government provided subsidy only to the insurance funds for the self-employed, intending to cover administrative expenses and a part of the contribution for lower-income groups. Over time, the government increased subsidy to self-employed insurance funds, but health expenditure increased faster, and the proportion of government subsidy in the total revenue of the self-employed funds decreased. In 1988, the relative share of government subsidy in the revenue of the insurance funds for the self-employed was 44.1 percent, which decreased to 25.6 percent in 1999. The decrease in government subsidy resulted in the increase of contribution for the self-employed, but, as low-income in rural areas limited the ability to pay contribution, many insurance funds for the self-employed suffered chronic fiscal deficits. In response, the government introduced a risk sharing mechanism, called the fiscal stabilization fund, to reallocate contribution revenues across all insurance funds, which benefitted the funds but still failed to solve their financial insolvency. As of 1998, the relative share of the revenue from the fiscal stabilization fund in the total revenue of the self-employed insurance funds was 10.9 percent, down from 13.6 percent in 1997 (National Health Insurance Corporation 1999).

Medical care utilization was the highest in school and public employee funds and the lowest in self-employed funds, due to the fact that the school and public employees funds listed a larger proportion of elderly enrollees and dependents, and the self-employed funds served a lower-income population. The burden of contribution compared with capacity to pay for members of self-employed insurance funds in low-income areas was greater than for those in wealthier regions. As a result, many self-employed insurance funds in rural areas experienced serious fiscal deficits that were further aggravated as rural areas experienced a decrease in population size but an increase in the elderly population. The government grew concerned that gaps in fiscal status between higher-income urban and lower-income rural insurance funds threatened social solidarity and fiscal sustainability of the National Health Insurance (NHI) system.

Extending health insurance to the self-employed incited debate on whether health insurance for the self-employed should adopt the pluralistic approach of multiple insurance funds or if it should create a new single insurer system by merging with existing insurance funds. Through nation-wide risk pooling, the single insurer system could serve as a smooth extension of health insurance to the self-employed, with better fiscal sustainability. However, the difficulty of income assessment and contribution collection from the self-employed deterred the merger. Differences in setting contribution – for example, some insurance funds for employees included base salary only, while others were based on total compensation – caused horizontal inequity across insurance funds. Proponents of the merger maintained that the surplus of employee health insurance funds could be used to extend insurance to the self-employed. As of 1997, accumulated surplus of employee health insurance funds amounted to more than 113 percent of one year's health expenditure while self-employed insurance funds were 30 percent of one year's expenditure. Parliament, supported largely

by rural residents, passed the law on the merger of employees and self-employed insurance funds, but the president vetoed the law. The Ministry of Finance, especially, wanted to keep the existing multiple insurance funds to minimize the government's role in healthcare financing and worried that a nation-wide single fund system would require a huge budget subsidy, resulting in a fiscal burden on the government.

## 2. Healthcare Reform and the Merger of Health Insurance Funds

In order to improve the efficiency of health insurance, the health insurance funds for school and government employees and for the self-employed merged to create the National Health Insurance Corporation (NHIC) in October 1998. In July, 2000, employee health insurance funds merged into the NHIC, and the national health insurance in South Korea changed into a single insurer system. As a result, the single insurer applied a nation-wide contribution schedule for the insured and increased the pooling capacity and the bargaining power of the insurer in health insurance contribution. The merger not only introduced a new single insurer agency, NHIC, but also created a new insurance review agency, independent of NHIC, called Health Insurance Review and Assessment (HIRA).

Although the South Korean population faced the same contribution schedule, benefits coverage, and provider payment, management of the health insurance system divided into two agencies. The two agencies hoped to mitigate the inefficient bureaucracy of a single insurer. NHIC, renamed the National Health Insurance Service (NHIS), handled premium collection, fund pooling, reimbursement to providers, and social security programs, and HIRA handled purchasing claim reviews, benefits packages, and provider payment systems. Negotiations between NHIS and each provider associations determine the fee level of the fee-for-service payment system. In the case of pharmaceuticals, HIRA determines positive listing of new medicines based on cost-effective economic evaluation, then NHIS and the pharmaceutical manufacturer negotiates the reimbursement price of medicines. In the 2000s, NHIS expanded health insurance benefits coverage to include screening programs for five cancers, reduced coinsurance rates for catastrophic conditions, and introduced ceiling for cumulative out-of-pocket payment for covered services. The savings in administrative expense of NHIS contributed to a fiscal space for benefits expansion.

Since the emergence of the single insurance agency, NHIS became a major policy issue for politics and the central government. The Ministry of Health and Welfare heavily affects insurance policies implemented by NHIS and HIRA through budget approval and appointing agency officials. In a health system where the majority of hospitals are private, the MOHW does not play the role of service provider but regulates healthcare providers and formulates health insurance policies. Also, after experiencing a major financial deficit in 2001, the health insurance system introduced the Health Insurance Policy (Deliberation) Committee,

which approves major decisions on health insurance, such as contribution rates, benefit packages, and pricing (Kwon 2007). NHIS and HIRA provide technical input to the health insurance policy committee. The committee is a tripartite committee of payers, providers, and public agencies, which has 25 members and the Vice Minister of Health and Welfare as the chair. Eight members are from payer representatives, eight from provider representatives, and eight from public interests.

Healthcare financing reform introduced a paradigm change in Korean health policy making (Kwon & Reich 2005). The government's interest in health policy has led to democratization in public policy and a more pluralist context. Civic groups played an active role in the policy process by shaping proposals for reform, a major change from the closed group of experts, bureaucrats, and medical professionals that dominated the authoritarian process.

## **IV. Challenges and Lessons for Universal Health Coverage**

### **1. Future Challenges for UHC**

Although South Korea achieved universal coverage of population, it still falls short of universal expenditure coverage. Out-of-pocket payment still accounts for more than 30 percent of total healthcare expenditure in South Korea. High OOP results in unmet needs, catastrophic health expenditure, and illness-based impoverishment. High OOP mainly results from full payment for services not covered by health insurance. High OOP, however, is not simply a matter of a benefit package, but is also affected by provider behavior. South Korea has experienced a rapid increase in uncovered services because they are not subject to fee scheduling which results in high-profits for providers. South Korea must increase benefits coverage while minimizing the negative effects on the financial sustainability of the health insurance system. Although health expenditure as a percentage of GDP in South Korea is lower than the Organisation for Economic Cooperation and Development (OECD) average, its rate of increase is one of the highest in OECD countries. Without changing the current payment system of fee-for-service for providers, inefficiency in healthcare provision will lead to the challenges of expenditure control and financial sustainability. Improving the efficiency of the healthcare delivery system by strengthening primary care and reducing the reliance on large tertiary-care hospitals is also a challenge for financial sustainability of the healthcare system.

Wage income dictates health insurance contribution for employees. The current contribution setting is inefficient, however, because it discourages labor participation in the formal sector. The contribution setting is also inequitable because it treats wage income less favorably than other types of income. South Korea must

expand the income base for health insurance contribution, which should be charged on all types of income, including rental income and financial income.

South Korea has experienced a rapid aging of population due to an increase in life expectancy and decline in fertility. Health expenditure of the elderly has rapidly increased in South Korea and accounted for more than 35 percent of national health expenditure in 2013. South Korea introduced public long-term care insurance in 2008 in order to reduce social admissions in acute-care hospitals (Kwon 2008). However, the overall healthcare system is not ready to cope with the rapidly aging population, and the coordination of healthcare and long-term care is a critical issue. A continuum of care from preventive care, acute care, rehabilitative care, long-term care, and community-based welfare services not only saves expenditure but also increases the quality of life for the elderly.

In a healthcare system where more than 90 percent of hospitals are private, the threat of strike by physicians discourages the single insurer agency from fully exercising its monopsonistic power. For example, payment system reform to prospective case-based payment has faced opposition from healthcare providers. The financial sustainability and the efficiency of the South Korean health insurance system hinges on its capacity to use its purchasing power over providers and implement effective payment systems other than fee-for-service, such as capitation, diagnosis-related group-based DRG-based inpatient prospective payment systems,<sup>30</sup> and global budgeting (Kwon 2009). Furthermore, South Korea must reconsider the contractual relation between the insurer and medical providers. South Korea may not need to require all medical providers to join the health insurance system, as it already has a sufficient supply of providers who cannot survive without participating in the system of universal health insurance. In fact, the mandate is a barrier for the monopolistic purchasing power of the single insurer because the single insurer cannot selectively contract with providers based on their performance. Selective contracting faces opposition from the Korean Medical Association and civic groups who worry that some leading hospitals may not want to join the NHI system.

## 2. Policy Lessons for UHC and Sustainable Development

In the 1970s and 1980s, the South Korean government mobilized public and school resources to implement immunization campaigns and actively supported community organizations for family planning programs. South Korea found that mandatory insurance was crucial for implementing UHC income-based contribution.

---

<sup>30</sup> Under the inpatient prospective payment system (IPPS), each case is categorized into a diagnosis-related group (DRG). Each DRG has a payment weight assigned to it, based on the average resources used to treat Medicare patients in that DRG. For more information, see <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/AcuteInpatientPPS/index.html>.

A financial commitment to provide subsidy for the low-income population is also vital to UHC. Because a healthy population contributes to economic development, the implementation of a sustainable healthcare financing mechanism will lead to economic growth. A top-down policy process by an authoritarian political regime also contributed to the rapid expansion of population coverage when the government avoided opposition from employers who had to pay half of the contribution of employees and healthcare providers who had to accept the tight fee regulation. The South Korean government drove the design and implementation of health insurance development, which resulted in a minimum difference across insurance funds.

Compared with the formal sector, the capacity of the informal sector to pay and contribute to NHI is more difficult to assess. In most LMICs, the informal sector accounts for more than half of the labor force. If the government fully subsidizes the informal sector, population coverage will rapidly increase, but the government must have the financial capacity to provide budget subsidy for informal sectors. Informal sector workers do not pay contribution, and formal sector workers do, but full subsidy to the informal sector can increase the informalization of the formal sector labor. If the government does not pay any subsidy to the informal sector, however, it is difficult to extend coverage to the informal sector because of limited capacity to pay. Alternatively, the government can pay partial subsidy to the informal sector, which provides incentive for the informal sector to join health insurance.

UHC aims to reduce the financial barrier to quality healthcare for the entire population. Either NHI or tax-based financing can achieve UHC by minimizing OOPs and maximizing the role of the pre-paid public financing mechanism. As a result, UHC focuses on the amount of people covered by a public financing scheme and the percentage of healthcare cost covered by the public pre-paid scheme. South Korea found it difficult to prioritize over population coverage and benefits coverage. Policy priority over rapid coverage of the population with a low contribution resulted in limited benefits coverage and limited financial protection. If South Korea began with generous benefits coverage, however, the rapid extension of population coverage would not have been possible due to the required high contribution. If a government has the commitment to regulate the behavior of providers along with efficient payment systems for providers, it will be more beneficial to implement policy priority on population coverage rather than benefits coverage. In terms of institutional structure, a single risk pool for health insurance systems makes it possible to better pool risks and cross-subsidize from high- to low-income populations. Starting with multiple insurers, however, may contribute to a rapid extension of population coverage. Therefore, starting with multiple pools, but minimizing the differences in contribution, benefits, and provider payments across pools, can be a more beneficial option. Centralized claim reviews and information systems also reduces the differences across the pools and enhances the efficiency and equity of health insurance systems.

UHC should be supported not only by a financing mechanism but also by a service delivery system to provide quality healthcare. If the quality of healthcare dissatisfies enrollees, they may drop out from health insurance. At the same time, health insurance, as a purchasing mechanism, is an effective tool to encourage hospitals to provide quality, cost-effective healthcare. The purchasing agency can selectively contract providers, operate a tight claim review and quality assessment system, and design provider payment systems. The rapid increase in the supply of private providers motivated to increase productivity had several positive effects on the development of the health insurance system in South Korea, such as increased capacity in healthcare delivery, responding to consumer needs, and improved quality of care. The predominance, however, of private providers or passive privatization has led to the diminishing role of primary healthcare and the rapid increase in the role of specialists and hospital-based care. Private provider dominance impacted health politics as well as health expenditure. Healthcare reform is inherently political with vested interest groups. In South Korea, private health providers have been a very strong opponent to healthcare reforms, including payment system reform toward case-based payment. Healthcare delivery in South Korea, dominated by private providers that are financed by a fee-for-service system, is vulnerable to cost increase and fiscal crisis. Under the fee-for-service, medical providers have incentives to increase the volume and intensity of services and to choose treatments with a greater margin.

In general, a single payer system is efficient because it can utilize the economy of scale in management, has a greater risk pooling capacity, and can better use its financial leverage while bargaining with providers (Kwon 2011). Efficiency, however, can also be achieved by reasonably large insurers. After a certain threshold, increasing the size of an insurance pool may have a marginal effect on the increase in risk pooling and bargaining capacity of the insurer. Equity may also be achieved by uniform benefits packages, contribution settings, and provider payment systems across insurance funds; although, it requires a strong governmental role. Therefore, LMICs should consider their own context in the decision to move toward a single payer system or a system of a few well-regulated insurers.

## References

- Bank of Korea 2016, *ECOS Economics statistics system*, electronic database, The Bank of Korea, Seoul, viewed 30 November 2018, [https://ecos.bok.or.kr/flex/EasySearch\\_e.jsp](https://ecos.bok.or.kr/flex/EasySearch_e.jsp).
- Bloom, D. E., Canning, D., & Jamison, D. T. 2004, "Health, Wealth, and Welfare," *Finance and Development*, vol.41, pp.10-15.
- Every Woman Every Child 2015, *The Central Role of Health in the Post-2015 Sustainable Development Agenda*, Pfizer and GSK, Business & Health Action Group for Post-2015, UN Foundation, GBC Health and the Global Health, viewed 30 November 2018, Council [http://www.everywomaneverychild.org/images/Health\\_in\\_the\\_SDGs\\_v10\\_6April15\\_2.pdf](http://www.everywomaneverychild.org/images/Health_in_the_SDGs_v10_6April15_2.pdf).
- Figueras, J., & McKee, M. 2011, *Health Systems, Health, Wealth and Societal Well-being: Assessing the Case for Investing in Health Systems*, McGraw-Hill Education, United Kingdom.
- Haines, A., Alleyne, G., Kickbusch, I., & Dora, C. 2012, "From the Earth Summit to Rio+ 20: Integration of Health and Sustainable Development," *The Lancet*, vol.379, no.9832, pp.2189-2197.
- Health Insurance Review and Assessment Service 2010, *The 10 years of History of Health Insurance Review and Assessment Service*, Health Insurance Review and Assessment Service, Seoul.
- 2015, Health Insurance Review and Assessment Service, Seoul, viewed 30 November 2018, <http://www.hira.or.kr>.
- Korea Centers for Disease Control & Prevention 2017, Policy & Services Overview, viewed 9 November 2018, <http://www.cdc.go.kr/CDC/eng/contents/CdcEngContentView.jsp?cid=74267&menuIds=HOME002-MNU0576-MNU0586>.
- Kwon, S. 2007, "Fiscal Crisis of the National Health Insurance in Korea: In Search of a New Paradigm," *Social Policy and Administration*, vol.41, no.2, pp.162-178.
- 2008, "Future of Long-term Care Financing for the Elderly in Korea," *Journal of Aging and Social Policy*, vol.20, no.1, pp.119-136.
- 2009, "Thirty Years of National Health Insurance in Korea: Lessons for Universal Health Care Coverage," *Health Policy and Planning*, vol.24, no.1, pp.63-71.
- 2011, "Health Care Financing in Asia Key Issues and Challenges," *Asia-Pacific Journal of Public Health*, vol.23, no.5, pp.651-661.

- 2015, “Republic of Korea: Merger of statutory health insurance funds,” WHO/HIS/HGF Case Study 15.8, Department of Health Systems Governance and Financing, Health Systems and Innovation, World Health Organization, Geneva, viewed 29 November 2018, [http://apps.who.int/iris/bitstream/handle/10665/186860/WHO\\_HIS\\_HGF\\_CaseStudy\\_15.8\\_eng.pdf](http://apps.who.int/iris/bitstream/handle/10665/186860/WHO_HIS_HGF_CaseStudy_15.8_eng.pdf).
- 2018, “Advancing Universal Health Coverage: What Developing Countries Can Learn from the Korean Experience?” Universal Health Care Coverage Series No. 33, World Bank Group, Washington, DC., viewed 29 November 2018, <http://documents.worldbank.org/curated/en/418791516185685994/pdf/122818-WP-RDC-Korea-case-study-pages-fixed-PUBLIC.pdf>.
- Kwon, S., & Reich, M. 2005, “The Changing Process and Politics of Health Policy in Korea,” *Journal of Health Politics, Policy and Law*, vol.30, no.6, pp.1003-1026.
- Lee, S.-G., Jeon, S.-Y., Kim, K.-Y., Nam, H.-J., & Lee, K. 2013, *Korean National Immunization Program for Children*, KDI School of Public Policy and Management, Sejong City.
- Mills, A. 2014, “Health Care Systems in Low-and Middle-Income Countries,” *New England Journal of Medicine*, vol.370, no.6, pp.552-557.
- National Health Insurance Corporation 1999, “국민건강보험통계” (National Health Insurance Statistics), viewed 30 November 2018, <http://www.nhis.or.kr>.
- 2015, “국민건강보험통계” (National Health Insurance Statistics), viewed 30 November 2018, <http://www.nhis.or.kr>.
- Organisation for Economic Development and Cooperation 2016a, *Hospital beds*, electronic database, OECD Publishing, Paris, viewed 30 November 2018, <https://data.oecd.org/health/hospital-beds.htm>.
- 2016b, *Health care use*, electronic database, OECD Publishing, Paris, viewed 30 November 2018, <https://data.oecd.org/health.htm>.
- Pan American Health Organization/World Health Organization, “PAHO Countries and Centers: Subregion,” Regional Office for the Americas, viewed 9 November 2018, [https://www.paho.org/hq/index.php?option=com\\_wrapper&view=wrapper&Itemid=2005&lang=en](https://www.paho.org/hq/index.php?option=com_wrapper&view=wrapper&Itemid=2005&lang=en).
- Peters, D. H., Garg, A., Bloom, G., Walker, D. G., Brieger, W. R., & Hafizur Rahman, M. 2008, “Poverty and access to health care in developing countries,” *Annals of the New York Academy of Sciences*, vol.1136, no.1, pp.161-171.

- Sachs, J.D. 2001, *Report of the Commission on Macroeconomics and Health*, World Health Organization, Geneva, viewed 20 November 2018, <http://www1.worldbank.org/publicsector/pe/PEAMMarch2005/CMHReport.pdf>.
- Saksena, P., Xu, K., Elovainio, R., & Perrot, J. 2010, *Health Services Utilization and Out-of-Pocket Expenditure in Public and Private Facilities in Low-Income Countries*, (World Health Report, Background Paper 20), World Health Organization, viewed 30 November 2018, <http://www.who.int/healthsystems/topics/financing/healthreport/20public-private.pdf>
- Shin, Y. A. 2012, *Healthcare Improvement Activities of Public Health Centers in Rural Areas*, KDI School of Public Policy and Management, Sejong City.
- Spence, M., & Lewis, M. A. (eds.) 2009, *Health and Growth*, The International Bank for Reconstruction and Development/The World Bank, Washington, DC.
- Statistics Korea 2015, “인구총조사 2015” (Population Statistics 2015), Korea National Statistics Office, Seoul.
- Suhrcke, M., McKee, M., Arce, R. S., Tsoлова, S., & Mortensen, J. 2005, *The Contribution of Health to the Economy in the European Union*, Office for Official Publications of the European Communities, Luxembourg.
- Tangcharoensathien, V., Patcharanarumol, W., Ir, P., Aljunid, S. M., Mukti, A. G., Akkhavong, K., Banzon, E., Huong, D.B., Thabrany, H., & Mills, A. 2011, “Health-Financing Reforms in Southeast Asia: Challenges in Achieving Universal Coverage,” *The Lancet*, vol.377, no.9768, pp.863-873.
- United Nations 2015, *Sustainable Development Goals*, United Nations Publications, New York, viewed 9 November 2018 <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>.
- Vega, J. 2015, *Universal Health Coverage, Sustainable Development and the Post-2015 Agenda*, Sustainable Development Knowledge Platform, United Nations, viewed 30 November 2018, [https://sustainabledevelopment.un.org/content/documents/1861OWG\\_UHC\\_RF\\_Presentation percent20June13 percent20Final.pdf](https://sustainabledevelopment.un.org/content/documents/1861OWG_UHC_RF_Presentation%20June13%20Final.pdf).
- World Bank 2015, DataBank World Development Indicators, electronic database, The World Bank, Washington DC, <http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators>.
- World Health Organization 2015a, *Towards a Monitoring Framework with Targets and Indicators for the Health Goals of the Post-2015 Sustainable Development Goals*, Global Reference List of Core Health

Indicators, Geneva, viewed 30 November 2018, [http://www.who.int/healthinfo/indicators/hsi\\_indicators\\_sdg\\_targetindicators\\_draft.pdf](http://www.who.int/healthinfo/indicators/hsi_indicators_sdg_targetindicators_draft.pdf).

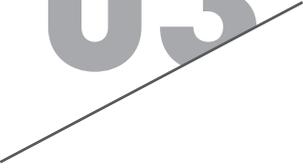
— 2015b, Global Health Observatory (GHO) data, Geneva, viewed 30 November 2018, <http://www.who.int/gho/en/>.

— 2018 “WHO African Region Country Offices,” Regional Office for Africa, viewed 9 November 2018, <https://afro.who.int/countries>.

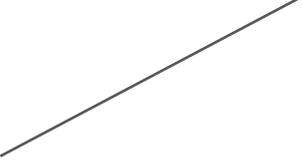


Chapter

**03**



**Political Foundations  
for Sustainable Development in South  
Korea**



By

**Byoung-Joo Kim**

## I. Conceptualizing the Political Side of Economic Development

Politics play a critical role in sustainable economic development. In fact, sustainable economic development is not possible without politics setting the rules for reforming and maintaining the economy. Through collective action, politics determine economic foundations, such as property rights and the protection of property rights, resource mobilization and income distribution, and providing solutions to national problems.

Economic development in developing countries largely revolves around mobilizing and channeling resources. Mobilization is a process by which economic actors, such as the government, businesses, and individual citizens, assemble resources in order to contribute to collective action, such as economic development. Mobilization is most effective when it is based on a vision shared among all economic actors. In some cases, the mobilization of some resources may occur at the expense of opportunity costs – the potential losses resulting from a particular use of that resource, as opposed to another use that may result in different benefits. The proactive, collective participation of all economic actors, despite individual opportunity costs, can yield especially efficient results.

In industrializing economies that follow industrialization forerunners, such as the United Kingdom (U.K.) and the United States (U.S.), mobilization often takes place when political leadership directs the public toward the use of resources. This is called “top-down mobilization.” In top-down mobilization, political leadership decides which resources to mobilize and where to allocate them. These choices are made with opportunity costs in mind. Opportunity costs are often borne by the public, as it may have to give up an option of seeking potentially greater short-term individual benefits, in favor of the government’s decision for long-term collective benefits; therefore, decisions must be effectively communicated to the public so that the public will accept and understand the leaderships’ vision and directions.

Top-down mobilization, however, is often not sustainable on its own. It can become obsolete once a political regime changes or when the economy grows large enough that it produces sets of information too large to be processed by the limited resources of a top-down system. Top-down leadership in such situations may quickly lose its effectiveness. In order to guarantee the continued success of mobilization, the public must demand that the leadership adopt different options in order to continue to perform in the country’s best interest. The process by which the public holds the government accountable is called “bottom-up demand channeling.” In such situations, the public may demand that the government retreat from the day-to-day management of the economy and ask for market liberalization.

Sustainable Development Goal 16 (to promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable, and inclusive institutions at all levels) highlights the importance of public participation in sustainable development. Public participation and collective decision-making are vital elements for inclusive and responsive governmental policy-making. Ultimately, political leadership can serve the public interest only if leaders can accommodate and satisfy the public's demands as they are channeled from the bottom-up. The public will eventually hold the government accountable for its decisions and performance or, if necessary, can demand a change in leadership.

Countries or communities may often have their own macro-level interests that are separate from micro-level interests of smaller groups and the individuals that constitute them. For instance, a country may need economic development, but some individuals may have an interest in not allowing it to happen. For a community, such as a country, or a group, such as a company, to achieve sustainable development, these varying interests must properly align. When interests get coordinated at all levels, macro and micro, collective action issues become much easier to solve. The interaction between top-down mobilization and bottom-up demand channeling, what management theorists define as “interest alignment,” often results in a foundation for sustainable mobilization and economic development.

Classical economist Adam Smith assumed that a market-based economy will naturally align the development of the national economy to the mutual benefit of individuals. Karl Marx, however, rejected such natural alignment and believed a communist education under a proletariat dictatorship could alter the minds of the people to align their interests with the ultimate communist vision of the country. What Smith and Marx both envisioned, although they approached the idea through different avenues, was interest alignment between individuals and communities.

The South Korean experience over the six decades since the 1960s offers a case of successful interest alignment during South Korea's industrialization process. Interest alignment was particularly successful from the 1960s to the mid-1980s. Top-down leadership mobilization from the South Korean government and bottom-up demand channeling from the population resulted in interest alignment across different social levels in the country and eventually sustained economic development. In this process, the South Korean media often played an important role by discerning national objectives in order to align interests between the public and the government.

## **II. Dramatic Development and Correction: Park (1962-1979), Chun (1980-1987) and Roh (1988-1992) Governments**

### **1. Survival and Development: The Park Government (1962-1979)**

A military coup in the early 1960s established Park Chung-hee as the president of the Republic of South Korea. Park Chung-hee was South Korea's third president since the country's liberation from Japan in 1945. He came after Syngman Rhee, who served for nearly a decade and a half, and Yun Bo-seon, who was in power only briefly. Park Chung-hee's government promised to bring political stability and economic development to South Korea. Many South Koreans welcomed the coup; they hoped to leave behind the poverty and hardships left in the aftermath of Japan's colonization and the Korean War. The Park government eventually delivered the economic prosperity it promised through a drive for manufacturing-based, export-focused growth, a success that lasted through the 1960s into the 1970s. Following this success, the government sought a next step forward, but, by then, the people demanded a new direction for economic and political development.

The Rhee government, established in 1948 as the first independent government after South Korea's liberation from Japan, failed to respond to popular demand for national economic building and was unable to raise the South Korean economy out of poverty. The government tried to secure as much foreign aid as possible, but the economy remained in ruin. The Rhee government wasted a large amount of foreign aid on corruption rather than economic turnaround when government officials, military generals, and others often stole foreign money and goods for private use. Democratic political development also failed to occur, and the public feared President Rhee sought to remain in power for life.

In 1960, the South Korean people, led by young students, called for the end of the Rhee government. They staged street protests for days. Eventually, Rhee gave in to the public's demands, marking South Korea's first regime change by means of popular political protest. For a year, the new democratic government, headed by President Yun Bo-seon, failed to stabilize the nation, and political turmoil persisted. The South Korean people yearned for progress, but they were left only with disappointment. Progressives wanted more time to be given to the democratic government, but conservatives hoped for a quick change that would bring stability and order, a change that finally came in 1961 when a young general, Park Chung-hee, led a military coup against President Yun Bo-seon and promised that his new government would bring stability and prosperity. Park won the popular vote in the presidential election, and the South Korean people watched the new leadership with mixed feelings of hope and wariness. Park immediately addressed the need to legitimize his leadership and devoted himself to rectifying the political discord his coup created. Initially, Park sought more foreign aid

but there was not enough foreign money available to finance South Korea's industrialization and Park quickly realized that South Korea had to rely on itself in order to move forward.

President Park borrowed the idea of the 5-Year Economic Plan from the preceding government in order to deliver the economic prosperity the South Korean people wanted. In 1961, South Korea had a small number of economic players and its businesses were still in early development stages. It was not too difficult, therefore, for the Park government to gather a near-complete assessment of the economy. The government assigned highly educated bureaucrats the role of analyzing information, and this combination of talent and evaluation resulted in economic strategies that could move the country forward.

At this stage, South Korea's advantage sprang from its human resources and emphasis on the education and hard work of its citizens. A comparative advantage was South Korea's light manufacturing, which soon flourished despite a lack of available capital or accumulated experience. At first, South Korea produced low-quality manufactured goods that were sold overseas because the domestic market was too underdeveloped to rely on itself. Export-led industrialization was necessary to finance national development through foreign exchange earnings. The political leadership successfully shared this vision with the public through media campaigns and education. It coined the term "export war front" to mobilize the nation's efforts. School children memorized the National Education Charter, which began with a declaration: "We were born in this land with a historic mission to revitalize our nation." As South Korea sold more labor-intensive, light manufactured products overseas, its product quality improved and foreign earnings increased rapidly. The South Korean public bought into the idea, and soon the reality, of a virtuous economic cycle.

After the 1960s recorded nearly double-digit economic growth every year, President Park Chung-hee envisioned a drive into a new phase of heavy manufacturing. On the political front, justified by national security arguments that centered on the communist threat from North Korea, he worked on extending his presidential tenure during the early 1970s. However, political opposition mounted fiercely against President Park's move, but the general public eventually complied with Park, persuaded by his economic achievements during the previous decade.

The government quickly mobilized the economy for a shift to heavy industries. Under government direction, banks channeled large amounts of capital to new heavy-industry investments. Some economists were concerned that, due to an excessive amount of resources channeled into heavy industries, the economy would lose its balance. Additionally, the mid-1970s were a turbulent time for the global economy because of oil shocks and other issues. Heavy-industry investments in South Korea could not produce quick returns within the global conditions, and exports slowed on most fronts. Meanwhile, with worldwide hyperinflation, the cost of borrowing capital skyrocketed and South Korean banks, with their money sunk in newly-built heavy

industries, could not recover. The financial sector grew unstable, manufacturing industries suffered, and South Korea's citizens complained about the rising cost of living and the slowing economy.

Political opposition mounted against the Park government, and a sense of crisis spread across the country. The nearly two-decade-long period of growth and industrialization faced critical challenges when the South Korean people began to question the legitimacy of Park's leadership. A leadership that had succeeded, with the public's help, in mobilizing the nation for growth saw that same public turn its back on it. Street protests broke out in southeastern South Korea in 1979. Citizens demanded change. In the midst of political turmoil, President Park was assassinated by J.K. Kim, his intelligence chief, in October 1979.

## **2. Correction and Liberalization: The Chun Government (1981-1987)**

The end of the Park government offered another opportunity for democratization, but just like in the Korea of 20-years before, this hope was crushed by a military coup and political upheaval. Economically, South Korea continued to grow. The new government, led by General Chun Doo-hwan, needed to secure legitimacy for their rule by delivering what the public wanted. Eventually, the government succeeded in delivering economic results by stabilizing and liberalizing the economy. This led to another period of dramatic economic growth throughout the 1980s. While the population enjoyed a new level of affluence, towards the later part of the decade they once again demanded full political freedom, which eventually led to the beginning of an era of full democracy in 1987.

In 1980, after the new military regime came into power through a coup, it quickly identified action targets to win the public on the economic front. The public's economic concerns were clear: the South Korean people were tired of high inflation, particularly rising real estate prices, and economic imbalances, such as those in regional development and those caused by the turn to heavy industrialization. The economy had outgrown the government and the public pressed the government to let the market operate as freely as possible.

South Korea's new president, former Army General Chun Doo-hwan, delegated economic policy-making power to Western-trained economists. President Chun fervently backed the economists' policy-making and froze a government budget increase when advised to do so. The economists continued to introduce ideas for economic stabilization, and the new president resolutely continued to implement those ideas. The economists thought South Korean industries received excessive government protection and believed the only way to make the industries more competitive and sustainable was to lift trade protections, cut government support, and let South Korean companies compete on their own in the global market. South Korea soon implemented unilateral trade market openings, which removed various import barriers.

The government undertook public campaigns to overhaul public values related to economic issues. They challenged the traditional mercantilist thinking of negating imports. At first, this reversal in reasoning confused the public, but the results of the new economic policy, such as lower prices, wider choices, and better-quality goods available in the market, satisfied the people. The 1980s marked continuous policy adjustments that brought rapid economic growth. Due in part to liberalization, the growing national wealth translated into rising income for the population. Low oil prices, low interest rates, and the low value of the U.S. dollar relative to the Korean won, which made imports cheaper, also helped improve the economy. South Korea's international trade marked a major surplus for the first time, bringing considerable foreign currency into the country.

For the first time, the South Korean people enjoyed the fruits of their new prosperity. With this growing wealth, the population turned their attention to politics and insisted on a fully democratic presidential election. In 1987, with the 1988 Seoul Olympic Games approaching, democracy advocates saw a golden opportunity to seek political change. For the third time in the latter half of the 20th century, the South Korean people took to the streets, demanding a new constitution. In the end, President Chun gave in to the population and, for the first time in nearly two decades, South Koreans went to the ballot to elect a president directly, ending the previous era when President Park installed an indirect election system to keep himself in the office for life in the early 1970s.

### **3. Openness and Growth: The Roh Government (1988-1992)**

The political transition that South Korea faced after the election was a gradual one, however. The South Korean people elected the most conservative candidate, Roh Tae-woo, a former general and the previously designated successor to President Chun. He won over his rivals, politicians from the democracy movement who were unable to support a single candidate. Despite this, the new president was extreme different from past leaders, and demonstrated an elevated sensitivity to popular demand. Some called him "Fuzzy Roh," highlighting a style of leadership that was much softer than the two previous authoritarian strongmen, Park Chung-hee and Chun Doo-hwan.

The popularly-elected President Roh worked on addressing the public's concerns for the housing market and infrastructure. During his term, demand for further democratization poured out in many areas of society. In the economy, labor relations were particularly turbulent.

By the end of the 1980s, the South Korean people wanted to fully enjoy the benefits of the three-decades-long economic development. Leading up to that point, many South Koreans sacrificed themselves for the sake of their communities, family, and country. That tradition began to change by the end of the 1980s. With an increased awareness of economic fairness, many South Koreans observed large real-estate investment gains. The causal mechanism for the property boom was simple: a rapidly growing population combined with increased wealth, due in part to a Middle East Oil Boom that brought U.S. dollars into South Korea through Korean-built construction projects in the Middle East, meant greater liquidity in the economy and a bolstered housing market. Those who could not acquire housing in newly built apartment buildings felt excluded from this prosperity. In response to the shifting public sentiment, the Roh government introduced plans to dramatically increase the housing market supply. To accommodate the public, the government planned and built gigantic residential satellite cities. Domestic housing construction, particularly that of apartment buildings, became an essential part of the national economy and mortgage financing became a central element of consumer banking businesses.

The Roh government also needed to upgrade South Korea's infrastructure. The country's infrastructure until the late 1980s was built largely during the early period of industrialization. The economy had vastly expanded since then, and people's expectations rose for higher-quality infrastructure. Thus the government initiated projects for building high-speed railways and a new main international airport.

In the meantime, South Korean citizens prompted the labor market to rectify past practices, particularly practices that took place during the pre-democratization era, when the government, business leaders and the Korean public in general discouraged wage hikes and labor movements for the sake of industrialization. Laborers organized in large numbers to protest their past treatment. Two decades<sup>31</sup> of underground movements had made labor leaders unusually confrontational. Some unions had turned increasingly militant since their official launch at the end of the 1980s. Subsequently, many labor leaders moved into politics, where most joined opposition and progressive parties, and few joined the conservative ruling party. As labor activism surged, labor costs dramatically increased. Many South Koreans came to believe the days of labor-intensive manufacturing were ending.

---

31 South Korea's labor movement dated back to the 1970s, but labor unions were not allowed to be formed until 1987.

### **III. Internationalization and Reform: Kim Young-sam (1993-1997) and Kim Dae-jung (1998-2002) Governments**

#### **1. Transparency and Internationalization: The Kim Young-sam Government (1993-1997)**

As the Roh presidency ended, South Koreans elected Kim Young-sam as the new president; he was a prominent politician who had fought for democracy for decades. President Kim Young-sam acted against the political corruption that became entrenched under the two previous presidents, Chun and Roh. More than ever before, the South Korean people expected greater rule of law, heightened transparency, decreased corruption, and overall system maturity from their government. President Kim Young-sam responded to these expectations.

For thirty years, from 1961 until 1992, former army generals ruled South Korea. President Kim Young-sam, the first full-term civilian president in three decades, had plenty of work to do to resolve past political issues. People demanded belated justice for the 1980 military coup that resulted in the death of many civilians. Previous presidents Chun and Roh stood trial for the coup and corruption that followed during their tenures as president. They had created large slush funds during their reigns and South Korean citizens wanted to separate from past corrupt-money practices in politics. President Kim's Ministry of Justice held Chun and Roh accountable for their crimes and jailed both men.

The popular sentiment of the South Korean people drove President Kim Young-sam to work on strengthening rule of law and building a new principles-based political system. The public expected him to build a political system that was driven not by the personal will of the president but by broad public consensus. President Kim Young-sam announced a government-wide initiative to upgrade the nation's institutions, political system, and economy to global standards, hoping that this initiative would define his legacy. For this, he focused his efforts on South Korea joining the Organization for Economic Development and Cooperation (OECD). Even though it looked as if this initiative belonged to President Kim Young-sam, it resonated well with South Koreans' desire to leave behind the country's past challenges on the way to further democratization and economic development. For OECD membership, South Korea had to undertake an extensive range of economic liberalization, particularly in finance, and opened the country further to global financial flows.

President Kim Young-sam streamlined an economic policy-making apparatus and reformed fiscal and financial systems. The most visible action was the introduction of a "real name" system for finance. Before the action, South Koreans could deposit money in other people's names. This practice greatly compromised

transparency and justice. Abusers of the system could evade taxes and channel money for criminal purposes. Because of popular demand, both Presidents Chun and Roh tried to introduce the real-name finance system, but neither succeeded. Resistance from those with money and influence overturned their proposals. Kim Young-sam successfully implemented the reform in 1993 when he announced the measures overnight, without any prior notice, leaving no time for any opponents to organize against them. Actions were taken quickly and meticulously, allowing no room for reversal.

In 1995, President Kim Young-sam moved forward with a real-name system for real estate, as well; this sent another shockwave through the nation and earned more popular support. With the two real-name systems in place, South Korean citizens could no longer hide their wealth and financial transactions, and the country secured a foundation for tax justice. Money laundering and illegal transactions became much more difficult.

Based on the government's efforts to improve fiscal and financial systems, South Korea succeeded in joining the OECD in 1996. When the Asian financial crisis hit South Korea the following year, critics blamed South Korea's excessive OECD-accession-related liberalization, claiming that it made the country vulnerable to speculative international capital flows.

Before Kim Young-sam entered his office in 1992, he competed against two rivals in the campaign process. One of them was Chung Ju-yung, the founder of the Hyundai group of companies. While Chung's bid excited some South Koreans, others questioned the increasing financial influence between businesses and politicians. Through investigations, the nation learned that a tremendous amount of money transferred from the hands of chaebols, South Korea's family-owned conglomerates, into the pockets of politicians during the 1980s.

The 1980s' rapid economic growth led to various social imbalances, including the exponential growth of the chaebol conglomerates, along with regional imbalance and the growing wealth gap between those with property investments and those without. By the mid-1990s, a small number of chaebols generating a large amount of foreign earning in just a handful of industries made observers nervous about South Korea's economic vulnerability to external shocks. Furthermore, weaknesses in the financial sector, which opened up before the 1996 OECD accession, received negative attention as well. Foreign borrowing became easier for South Korean banks, and they borrowed heavily from overseas and lent the money to large South Korean companies. This link between South Korean banks and foreign money triggered a credit-freeze chain reaction when the 1997 financial crisis hit East Asia. Sometime before then, a growing number of skeptics had already sensed that South Korea would soon face the consequences of its splendid economic success during the 1980s and 1990s.

## 2. Rationalization and Reform: The Kim Dae-jung Government (1998-2002)

The consequences for South Korea's economic success in the 1980s and the 1990s came sooner than most skeptics anticipated. The 1997 financial crisis was the biggest economic challenge that South Korea ever faced. South Korea declared a moratorium on loan payments to its external creditors and went to the International Monetary Fund (IMF) for help. The IMF, together with leading economies of the world, came to South Korea's rescue, promising to help South Korea reach greater financial liquidity. In return, the IMF put forward its "conditionalities" – primarily a demand to dramatically restructure the economy. The IMF conditions were painful to accept and implement, but the South Korean government, companies, and citizens fully cooperated. The sense of national crisis was widely shared. The public prioritized national interests and set aside personal interests. The South Korean people rose up, united, and did everything in their power to help the country. Even housewives brought precious metals out of their homes and donated them to the government in order to boost the country's capital reserves.

South Korea chose a new national leader in the midst of this crisis. With a united popular response, the public expected the new president to offer decisive leadership and define a new economic turnaround. The new government of President Kim Dae-jung, the most progressive among the top presidential hopefuls for decades leading up to his election, surprised both supporters and critics when he announced a set of sweeping market-friendly reforms. President Kim Dae-jung responded to those who saw problems with excessive, overlapping chaebol expansions; his economic reforms sought to further streamline the banking industry and strengthen the equity market. To those who argued for the need of domestic-demand-driven growth, the Kim Dae-jung government responded with policies for consumer credit expansion. Observers later argued that this policy direction triggered a dramatic increase of credit-card issuance.

Economists disagreed on the key causes of South Korea's 1997 financial crisis. Many believed that South Korea faced a simple liquidity crisis as foreign exchange reserves dried up in the midst of an Asia-wide financial panic. Others thought the situation was the inevitable result of fundamental structural problems of the economy. The Kim Dae-jung government embraced the latter view. The government went as far as calling the crisis a "blessing in disguise," an opportunity to address structural impediments and overhaul the economy for long-term sustainability. The government's vision for the future was reasonably coherent: a smaller government that did not dictate the business and financial sector, chaebols that accepted more transparent corporate-governance systems and tightened corporate finance, and a financial sector where banking and equity markets developed simultaneously.

The Kim Dae-jung government named their initiative “4 Sector Reform” because it targeted reforms in the corporate, labor, financial, and public sectors. The government asked various chaebols to sell poorly performing businesses and close highly leveraged subsidiaries. This drove parts manufacturers, suppliers, and contractors out of business. Unemployment skyrocketed and people were driven out of what they once believed to be life-time jobs. Furthermore, the government simply shut down numerous banks, and sold many of the remaining banks to new owners, including foreign investors.

The government also requested that corporations should rely on shareholders instead of borrowing from banks. This required open and transparent corporate governance. The South Korea government asked banks to strengthen independent loan evaluation rather than relying on government guidance. Corporations and banks were asked to forget about the “too big to fail” myth. The government knew that it now had to let some of South Korea’s biggest and most-indebted companies go bankrupt. Eventually, banks reduced their dependency on corporate loans and focused more on consumer banking. Across the economy, South Korea encouraged transparency and openness.

Transparency went hand in hand with technological development. Expanding infrastructure for online financial settlements resulted in tax collectors securing greater monitoring ability. Additionally, the government encouraged consumers to use credit cards. Increased credit-card use further enhanced transparency since all transactions were recorded, unlike cash purchases; it also opened a promising new revenue source for banks. As the equity market played a greater role for corporate finance, banks had to find new avenues for the future: they promoted consumer retail banking and assisted the credit card boom. The government hoped greater consumer borrowing would lead to greater consumer demand, but instead it led to an alarming growth of consumer debt at the beginning of the 21st century.

#### **IV. Applying South Korea’s Experience to Theory and Practice**

South Korea’s experience revealed that, for an economy or a company to work toward sustained and sustainable economic development, beyond following a formula of market liberalization, financial-sector restructuring, housing construction, or other standard “remedies,” its members, subunits, and groups must act together. The leadership may need to enact top-down mobilization by allocating and setting the direction for resources, and the people have to demand socially-positive performance from their leadership, channeling their demands from the bottom up. Bottom-up demand channeling requires that the public engage in a dialog about their collective interests and ways to make their collective action feasible. South Korea’s experience demonstrates that development is largely about mobilizing the nation. Successful mobilization includes

the population's willingness to set aside varying personal interests and act together for a shared cause. As exemplified in South Korea, a people's persistent expectations for the government's performance can force one leader after another to deliver what the people want and the country needs.

### **1. Preconditions for Top-down Mobilization and Bottom-up Demand Channeling**

To develop a society in which the mechanism of top-down mobilization and bottom-up demand channeling could work together, South Koreans continuously enacted active social discourse, sometimes beneath the surface and other times openly. The media played a critical role in the process of social discourse, ever since Japan's colonial rule. Even in times of political oppression, journalist and intellectuals never ceased searching for ways to define collective interests and to align interests at different levels of society, both national and individual, articulating what the country should do collectively and what individual South Koreans should do to help the common cause. For this discussion to continue to take place in South Korea, an educated public must take part in the conversation. For other countries to draw lessons from the South Korean experience, they must examine how macro issues and micro interests have been discussed through collective discourse in South Korea.

Most importantly, to achieve sustainable development, countries need to examine – in South Korea's experience and elsewhere – how they can create more opportunities for empowering their population so that individuals have the ability to make demands for their needs. South Korea's story during the second half of the 20th century focused on its people demanding changes from their leadership. It is critical for all countries seeking sustainable development to empower their populations and allow them to take ownership over the nation through democracy. Democracy may take different forms at different stages of national development, but the spirit of democracy has always been to make the people see themselves as proactive owners of their nation, demanding that politicians ensure sustainable development for all.

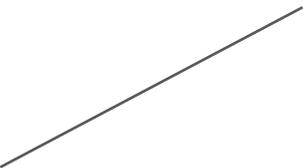


Chapter

04



# **South Korea Accumulates Human Capital for Sustainable Development<sup>32</sup>**



**By**

**Ju-Ho Lee**

**Hyeok Jeong**

**Song Chang Hong**

---

<sup>32</sup> This chapter is an abridged version of “Accumulating Human Capital for Sustainable Development,” the first chapter of *Human Capital and Development: Lessons and Insights from Korea’s Transformation* (Lee, Jeong & Hong, 2018).

# **I. Human Capital and Development in South Korea**

## **1. Sustainable Development and Human Capital**

Sustainable development requires economic prosperity, social inclusion, and environmental sustainability, which should be harmonized each other, as indicated in the United Nations 2030 Agenda for Sustainable Development (United Nations General Assembly 2015). All goals and targets to be achieved should be pursued by and for people. In this sense, human capital is a vital component to sustainable development. Human capital refers to the various dimensions that a human being can contribute to a society, accumulated through the qualitative dimensions of an individual, such as education, vocational skills, health, culture, and values.

Human capital develops primarily through improved education and training. Education includes formal schooling and any activity that seeks to develop knowledge, skills, perspectives, and values that empower learners of all ages to assume responsibility for creating a sustainable future (UNESCO 2010, p.19). This expanded conception of education frequently results in increased employment and income and decreased income inequality (Becker 1993; Lee & Francisco 2010).

A sustainable economy requires a literate population that is equipped with proper vocational training, which fosters rapid technological progress across a broad spectrum of industries. A properly trained workforce can adapt to changing market demands; it can also exploit and benefit from innovative technologies for clean energy, the environment, health, and infrastructure (International Labour Office 2010). The economy cannot sustain itself without technological progress, which alters and enhances production capabilities. Technological and scientific breakthroughs result from the research and development of talented, educated people who are supported by public institutions or private businesses.

## **2. Human Capital in South Korea**

The experience of the Republic of Korea in the latter half of the 20th century reveals a remarkable feat of sustained developmental growth. A series of combined efforts contributed to South Korea's sustained growth, and it is impossible to exclude the development of human capital through multiple educational programs from those efforts.

South Korea faced many difficulties in the initial stage of education development, most of which are explained by South Korea's history and traditions. Traditionally, South Korean students attended school and college to acquire white-collar jobs, resulting in a limited blue-collar workforce, including few technicians or vocationally-

trained workers in industries. Additionally, the Japanese colonial rule prohibited Korea from accumulating capital for industrial development, and the Korean War severely devastated the country's economic and social infrastructure. The first government of the Republic of Korea, established in 1948, laid grounds for a modernized liberal democracy and market economy. Later, the military government that took power in 1961 implemented a series of economic development drives which transformed the structure of the economy.

Within a decade after the establishment of government, South Korea successfully universalized mandatory education. Consequently, more than 80 percent of the country's youth attended secondary schools by the mid-1980s, and more than 50 percent of high school graduates advanced to tertiary education by the mid-1990s. South Korea now has the highest enrollment rate for higher education in the world. Moreover, in 2010, South Korea ranked third in the world in terms of average years of schooling for the working-age population, after New Zealand and the United States. A more-educated public also resulted in a dramatic change in the composition of workers. In 1980, more than 50 percent of the workforce was made up of graduates from primary or lower secondary education, and only 6.7 percent of the workforce had received some amount of tertiary education. By 1987, workers with upper secondary education composed 33.9 percent of the workforce, exceeding those with only primary or lower-secondary education (33.7 percent), for the first time. By 2011, university graduates composed 40 percent of the workforce, exceeding the 39.8 percent of high school graduates (Statistics Korea).

After transforming itself from an agricultural to an industrialized country by the 1980s, South Korea invested even more in human capital in order to continue national innovation. After 2000, the number of researchers in the population rapidly grew. In the mid-1990s, South Korea's ratio of researchers to population was smaller than that of other advanced countries, but South Korea surpassed most other countries by 2010. An international comparison of the size of investment in research and development (R&D) revealed that, in 2018, South Korea ranked fifth in the world, following the United States, China, Japan, and Germany (National Science & Technology Information Service 2018).

South Korea's expanded education also increased student performance scores and equity. The results of the Organisation for Economic Co-operation and Development (OECD) Program for International Student Achievement (PISA) tests in 2015 showed that South Korea is one of the five highest performing OECD countries in science, mathematics, and reading. In addition, the relationship between test scores of students and their socio-economic status in South Korea is below the average of other advanced countries, which means South Korea has a comparatively equitable educational system among advanced countries (OECD 2018).

With the successful universalization of basic education within a short period of time, the South Korean government monitored the sequential expansion of secondary and tertiary education under its centralized bureaucratic administration system. The government also considered the supply and demand for manpower and distributed the student population across academic disciplines in order to meet workforce demand. During the developmental stage, the participation of private schools and households supplemented the shortage of the government's financial resources. Technical assistance and financial support from foreign countries also helped South Korea strengthen its education and training capacity. Vocational training contributed to building a new culture for technicians who were indispensable for the modernization and industrialization of South Korea. Government-targeted industries were supported by the manpower policies of related ministries and vocational education, and the National Technical Qualification System's close relationship with industry prompted specific training for skilled workers. Government-led skills development strategies contributed significantly to closing the productivity gap. Investment for skill development, R&D, and general education was a critical factor for national innovation.

## **II. Expanding Education with Equality**

### **1. Early Focus on Literacy and Basic Education**

After liberation from the Japanese, the illiteracy rate in South Korea was approximately 80 percent. South Koreans suffered under the imposed official language of Japanese during the colonial period and a lack of educational opportunities. After the liberation in 1945, Korean was adopted as the official language and the government focused on two educational tracks with a strong emphasis on literacy: mandatory primary education for children and literacy education for adults. Literacy is a key element of economic growth and sound societal governance. Literacy can help eliminate poverty, raise the standard of living, and prompt self-efficacy and social participation. For example, once a population can read and write, they can understand manufacturing-site manuals, medical prescriptions, improve their knowledge of products before purchasing, and better educate themselves before voting for government officials.

In 1949, the government enacted the National Education Law which established Citizenship Training Schools across the country. Citizenship Training Schools were three-year elementary school programs for illiterate adults, located especially in rural areas. Farmers had to attend at least one 200-hour class for a minimum of 70 days. Training Schools offered most classes during off-season in winter. Table 4.1 charts the progression of the illiteracy rate from 1945 to 1958. The illiteracy rate dropped to 4.1 percent by 1958, according to the education ministry.

Table 4.1 Illiteracy Rate in Korea from 1945 to 1958

Year	Population above age 12	Number of the illiterate	Illiteracy rate
1945	10,253,138	7,980,902	77.8
1948	13,087,405	5,411,080	41.3
1953	12,269,739	3,145,259	25.6
1954	12,269,739	1,709,020	13.9
1955	12,269,739	1,524,041	12.5
1956	13,911,678	1,419,205	10.2
1957	13,713,873	1,145,293	8.3
1958	13,713,873	562,982	4.1

Source: Ministry of Education 1958; Kim 2015, p.120

The National Education Law also required that every child, beginning at age six, attend elementary school, but the plan faced many challenges, including the Korean War from 1950 to 1953 and a lack of financial resources from the government. Even worse, many families could not afford to pay tuition, and parents usually prioritized sending the eldest boy to school. Thus many girls and younger siblings did not receive formal education. As soon as the Korean War ended, however, the government enforced mandatory education more actively with a Six-year Compulsory Education Expansion Plan that lasted from 1954 to 1959. Parents or guardians now risked fines if they did not send their children to schools. The plan targeted a 90 percent enrollment of elementary school-aged children by 1959. The government allocated approximately 80 percent of the educational budget for compulsory education and spent most foreign aid for education on repairing or building classrooms. Owing to strong law enforcement from the government and the support of families, by 1957 the enrollment rate surpassed 90 percent and, in 1959, reached 96.4 percent (Lee et al. 2010, p.73).

The new and repaired classrooms, however, were not enough to accommodate all new students. During this period, 40 percent of all classrooms were utilized for double or triple shifts per day,<sup>33</sup> and the classes were overcrowded, with more than 100 students packed into small classrooms in some urban areas. To tackle a shortage of teachers, the government established temporary teacher training centers and “Normal Schools” at the secondary level for training elementary school teachers. Although it was important to establish logistics for the National Education Law, such as classrooms, teachers, and textbooks, it was more important to emphasize the significance of education in setting the next generation free from ignorance and poverty.

33 Typically, schools operated two to four different batches of classes. After one batch of students attended morning class, another batch of students attended afternoon class in the same room.

A belief that only education can liberate the children from vicious cycle of poverty brought them into the classroom. People believed that new opportunities and values created by economic growth would be distributed to individuals on the basis of merit and accomplishments that cannot be achieved without education and learning. The following sections explain how education and the South Korean economy developed together, reinforcing each other: human capital was the nexus of development.

## **2. Sequential Expansion**

After successfully universalizing basic education, the government expanded its focus on education sequentially, moving through secondary, to vocational, and then tertiary education. An increasing enrollment rate at each education level followed the trends of prior levels. Enrollment in higher education stabilized by the 1980s because of a strong intervention system the Park government established in 1961.

When the Park government initiated a strong economic and industrial policy, national leaders realized that the education system failed to supply the necessary qualified workforce, so they established a centralized control system for public and private schools. The government enforced new enactments and regulations for admission, graduation, curriculum, teacher qualification, and supervision for all education levels. South Korea also institutionalized a coordination mechanism between education and industry; this included an enrollment quota system by majors and universities, a national skills qualification system, and university and industry cooperation. During the 1960s, the government encouraged the establishment of new secondary and vocational schools, closed down several underperforming colleges, and transformed some colleges into vocational institutions.

Increased primary-education enrollment in the 1950s resulted in increased demand for secondary education, making admissions highly competitive. In the 1960s and 1970s, parents who could afford private tutors hired them for their children to better prepare for middle and high school entrance examinations. In order to relieve the burden of private tutoring and to prevent unfair admission practices, the government replaced the entrance examination system with an admittance lottery for middle schools in 1969, and for high schools in 1974. The government also made all schools, including private institutions, qualitatively equal in terms of teachers, funding, facilities, and curriculum. This equalization policy resulted in a less costly admission process for secondary schools. More than 90 percent of elementary graduates advanced to middle school in 1979, and the same ratio of middle-school graduates advanced to high school in 1985. Thus, universalized secondary education guaranteed access to education for the general population, provided South Korea with more equitable workforce opportunities, and accumulated more human capital for the economy.

This rapid expansion of education opportunities, however, was, to some extent, at the expense of education quality. Classrooms were over-crowded and teachers were overwhelmed with students. In the 1960s, the average number of students per classroom was 65.4 in elementary schools, 60.7 in middle schools, and 59.8 in general high schools. The ratio of students to teachers was 62.4 to 1 in elementary schools, 39.4 to 1 in middle schools, and 32.2 to 1 in general high schools.

The government gradually expanded tertiary education, especially junior colleges, in response to increasing industrial demands for advanced technicians during the late 1970s. Higher education opportunities remained limited, however, and college admission was competitive. Once again, most households paid for private tutors, which affected educational opportunities and social equity.

Finding itself at the threshold of technological progress and a new economy in the 1980s, South Korea needed to nurture globally competitive scientists and engineers; this called for expanding access to tertiary education. In July 1980, the new military government announced comprehensive education reforms, including the expansion of higher education enrollment. In the 1981 academic year, the total number of students in tertiary education grew by 29.4 percent compared to the previous year. In addition to increasing the number of colleges and universities, a policy change to the graduates-quota system, beginning with the freshmen quota, also contributed to the expansion of higher education opportunities.<sup>34</sup> Under a new and temporary scheme, higher education institutions were allowed to recruit 30 percent more freshmen than the targeted number of graduates. The authorities expected it could promote a competitive learning environment among students, and bring in more tuition revenue for institutions as well. The reforms also banned private tutoring and abolished written tests administered by individual universities in order to relieve students of the burden of extra educational spending. As a result, the net enrollment rate in tertiary education jumped from 6.7 percent in 1975 to 11.4 percent in 1980 and 22.9 percent in 1985. In the 1990s, deregulation of the operations of higher-education institutions, such as simplifying the process of establishing a new university or relaxing regional universities' student-enrollment limits, led to achieving 52.5 percent enrollment by 2000, at which point tertiary education was considered universalized.

These expanded higher education opportunities – the government's response to rising economic and social demands in the 1980s – contributed to South Korea's economic growth and social mobility. Moreover, universalized higher education promoted citizen monitoring of political power and encouraged democratic

---

34 Beginning in the early 1960s, the education ministry approved the number of freshmen or graduates for each institution and its department every year, based upon individual institutions' faculty and facility capacities and national manpower forecasting.

participation in community activities. The advancement of higher education contributed to a peaceful transition of autocratic governments in 1988 and the launch of a democratic and civil government in 1993.

### **3. Active Private Sector Participation**

The active participation of the private sector was another important factor in the development of South Korea's human capital. Public sector resources by themselves could not provide a free education for the entire population. In the 1950s and 1960s, government resources insufficiently covered even universal primary schooling, let alone secondary or tertiary education. While the government concentrated on expanding access to elementary schooling, the private sector filled the gaps for secondary and tertiary schooling. Many donors and households shared the financial burden by donating their land and assets to build secondary schools and colleges. From 1955 to 1967, Korea established an equal number of private and public schools, although private participation was more active in higher education. The lack of educational opportunities during the Japanese colonial rule turned into a national private education movement immediately after liberation. From 1946 to 1960, 32 private universities were reopened or newly established. Active private sector donations resulted in 74 percent of college students and 59 percent of high school students enrolling in private schools in 1980. In general, households were also important stakeholders in public education, sharing the burden of expenses, such as tuition, Parent and Teacher Association fees, textbooks, and special activity fees. In fact, educational expenses paid by households almost equaled the size of the education budget of the government.

Also, after 1950, the effect of land reforms on human capital accumulation cannot be ignored. Thanks to the restructuring of land ownership, tenant farmers transformed into independent farmers and their incomes increased. As their incomes rose, farmers could send more of their children to schools, spending more on education than any other household expenses. Thus, education became the most important vehicle for social mobility and income equality in the South Korean society.

### **4. Effective Education Financing System**

The South Korean government effectively utilized foreign financial and human resources to establish basic educational infrastructure and build policy capacity for sustainable conditions. Foreign aid and technical assistance supplemented scarce domestic financial resources and weak educational leadership. From 1952 to 1963, the South Korean government received about USD 100,000,000 in official aid for education. Education authorities prioritized investment in building and repairing classrooms, which consumed the largest portion of donor funding, USD 70,000,000. South Korea invested the second largest portion, USD 19,000,000, in

tertiary education institutions, including Seoul National University. South Korea allocated another USD 9,000,000 to teacher education, in partnership with the George Peabody Teacher College, and USD 7,800,000 for materials for vocational education (McGinn et al. 1980).

During the 1960s, the South Korean government began to rely on loans rather than foreign aid. From 1959 to 1999, South Korea allocated 4.6 percent of public loans from multilateral development banks and foreign governments to human-capital building, such as education, R&D, and health. In education, relevant authorities utilized these borrowed resources mainly to modernize vocational and technical education facilities and to support tertiary education. Specifically, training facilities and R&D equipment accounted for 94 percent of total borrowing (Lee 2004).

Meanwhile, to secure finances for education, the government legislated the Educational Grant Act in 1971 which automatically allocated a certain percentage of the national tax revenue to the education budget. To enhance educational equality among regions and stabilize the education budget, the central government provided the most funding of regional governments for their primary and secondary schooling by linking the resources with domestic tax revenue. The percentage of total domestic tax allocated to finance regional education, originally 12.98 percent in 1971, increased to 13 percent in 2000, and 20.27 percent in 2010.

### **III. Linking Education to the Economy**

#### **1. Difficulties in the Early Stages**

Even though universalized primary education provided light manufacturing industries with an adequate workforce, the economy still needed skilled workers to transition to technology-intensive heavy and chemical industries. Most South Koreans looked down on vocational education or technical training because of the deep-rooted tradition of Confucianism, which praised scholars of the humanities and agriculture and had little regard for manufacturing and trade professions. In spite of liberation and the establishment of a modern government, this legacy of Confucianism prevented economic transformation. Even in the 1970s, industries lacked skilled workers, while many college graduates remained unemployed. A report prepared by the Ministry of Science and Technology in 1972 pointed out that problems included a lack of skills in primary-school graduates who did not move on to secondary education, a lack of a practical ways to utilize secondary-school graduates as professional technicians, an unclear role for vocational high schools, and a need to revise the system to allow practical education and field experience in tertiary educational institutions (Hong et al. 2013; Ministry of Science and Technology 1972).

## 2. Building a New Culture

In the early 1970s, the government pledged to mobilize a heavy-manufacturing and chemicals industrialization drive, but still lacked enough technical workers to realize its ambitions. The shortage of technical personnel in industrial fields stemmed from the population's negative attitude toward blue-collar workers. To change this mindset and boost manufacturing industries, the government grouped skilled workers into three categories: craftsmen, technicians, and engineers. In the 1970s, South Korea rebranded all blue-collar workers as "technical professionals" and, through a national campaign, praised them as "flag-bearers – or forerunners – of [the] modernization of the country" (Maeil Kyungje Shinmun 1977).

The primary objective of the national campaign, called the "scientification movement," was to "change the mode of thinking and living among the [Korean] people." The campaign wanted all people, from housewives to scientists, to acquire and apply practical technical skills. South Korea's professional workers, the highest level among technical personnel, were asked to reach beyond domestic borders to gain "internationally recognized qualifications." One of the responsibilities of technical personnel included a proficiency in adaptable skills for new technology that could contribute to national development through R&D for new industrial technology (Cho 2010, p.92; Song 2008).

Moreover, when the Economic Planning Board (EPB) announced six Economic Development Plans during the period of 1962 to 1997, the plans were supported by manpower forecasting and skill-development plans from several ministries. The Ministry of Science and Technology (MOST) and the Ministry of Education (MOE) forecasted manpower supply and demand for craftsmen, technicians, and engineers of every industry; the ministries filled gaps by controlling the number of graduates from high schools and colleges in certain academic fields. Policy-makers gathered predictions on demand for manpower and prepared a supply plan that aimed to meet those needs. Government officials, businessmen, and experts seriously and periodically monitored plan progress. The monitoring mechanism for the plans was much more important than the plan itself.

The first Manpower Development Plan in 1962 emphasized supplying engineers by increasing the quota for science and engineering freshmen in universities and the number of graduates from technical high schools. The plan also included in-plant vocational training and technical training in the military. In 1967, the second plan decreased the quantitative expansion of colleges and general high schools, strengthened the quality of education in science and technology, and supported the expansion of vocational training. The third and fourth plans in the 1970s, a period of heavy and chemical industrialization, focused on high education for a larger supply of skilled workers. The third plan specifically underscored the importance of university and graduate school education, reinforcing the education system for skill development and securing specialized manpower in medicine, teaching, and marine technology. In 1977, the fourth plan highlighted graduate school education

for fostering scientists, specialized universities to secure engineers in the heavy and chemical industries, technical high schools to promote middle-level engineers, the necessity of technical universities, and the improvement of the National Technical Qualifications System.

In the 1980s, to meet the demand for technology-intensive industries, the fifth and sixth plans emphasized securing human capital in order to adapt to industries' technological changes. The government planned to increase overseas technical training in advanced economies and to invite more experts from overseas. The sixth plan aimed to secure high-level scientists and technicians who could lead technical innovation and expand the number of research personnel with doctoral degrees in engineering (Lee & Hong 2013, pp.45-48; Kim 2002).

In the freshmen quota system, the Ministry of Education determined the number of freshmen admitted into each department of each university. In principle, when distributing students, the ministry considered the demand from the government's strategic industries, other industries, and institutions' regional conditions. The Special Act on Education, prepared by a military ruling committee in 1961, authorized the education ministry to adjust the number of classes and students of public and private colleges. A presidential decree confirmed this control in 1966; it lasted more than 20 years before it was eased in 1990.

### **3. Vocational Education System**

To strengthen the link between educational institutions and industry, the government legislated the Industrial Education Promotion Act on September 19, 1963. The act included the promotion of vocational education by central and local governments, provided funds for experiments and practice, required teacher qualifications, and created scholarships. It also established the Central Industrial Education Council, which invited experts from various industries to ensure that curriculum reflected the experience of the industrial sector (Lee & Hong 2013, p.71).

The government also initiated the Science and Technology Education Promotion Plan for vocational training, which lasted from 1967 to 1971. The plan fostered scientific creativity, promoted science in daily life, accelerated technological innovation and scientific inventions, and cultivated scientific capabilities for technicians. It focused especially on expanding industrial vocational high schools to increase the supply of technical manpower. It also allowed an increase in the enrollment quota of science and engineering universities and established more industrial related majors in high schools and colleges. South Korea also enacted new legislation for guidelines for science experiments and practical lessons for school students and promoted industry-education cooperation at the tertiary level (Lee & Hong 2013, p.71).

When the Park government initiated economic development plans in the 1960s, the government also emphasized the practical uses of education and curriculum. The second educational curriculum, started in 1963, highlighted life experience rather than academics. The reform also developed a special curriculum for vocational high schools, offering an increased number of specialized subjects to promote practical skills and technologies. The third revision also strengthened job-readiness education through obligatory field experience and national engineer certification examinations (Lee & Hong 2013, pp.52-54).

The Specialization Initiatives for Technical High Schools (SITHS) was another project to bring education and industry closer. South Korea adopted the SITHS to support the heavy-manufacturing and chemical industrialization policy of the 1970s. The quality of vocational schools at the time was not high enough to nurture the skilled workers needed in industrial sites, and policymakers found it too difficult to enhance the quality of all schools at the same time. Thus, the government rejected a one-size-fits-all approach and adopted a “selection and concentration strategy” instead. With limited resources, the government invested in a small number of institutions to foster a higher chance of successful vocational education.

In 1973, the SITHS divided technical high schools into four categories: mechanical technical high schools, experimental schools, specialized schools, and generalized high schools. Mechanical technical high schools developed precision workers for the machinery and defense industries. Specialized technical high schools nurtured technicians for the electronics, chemicals, construction, iron, and railways sectors. Experimental technical high schools trained manpower to work overseas. Experimental schools, at least one designated for each province, served as models for exemplary school management, which hopefully would translate to other general technical high schools (Kim 1992; Kim 2002; Lee & Hong 2013, p.74; MOE 1980).

#### **4. WorldSkills Competitions and Job Qualifications**

To encourage participation with modern technology, beginning in 1967, the government prepared young technicians for WorldSkills Competitions.<sup>35</sup> South Korea hailed WorldSkills medalists as heroes, parading them from the airport to the city to be welcomed by the president. Additionally, some students in vocational schools benefited from full scholarships, dormitories, and stipends. Government officials often visited schools to encourage students and teachers, and awarded presidential scholarships to students who acquired precision licenses. The strong support for vocational education garnered many talented students, often from

---

35 WorldSkills coordinates a biennial global championship for vocational skills where young people compete in different professional trades, including technology, electronics, mechanics, construction, and many other skills (WorldSkills 2018).

underprivileged and rural area; it also opened up new career paths for technicians. Rewarded with stable jobs, graduates from vocational schools went on to form the South Korean middle class (Ryu & Kim 2011).

The National Technical Qualification System (NTQ), installed in 1973, also promoted vocational and technical training. The Ministry of Science and Technology devised the system to cultivate technical talents for industrial fields. The NTQ categorized technical sectors into engineers and technicians, and all students of technical colleges, technical high schools, and vocational schools had to take the NTQ examination before graduation. Those who passed received employment opportunities. Engineers and technicians with the highest qualifications of Professional Engineer or Master Craftsman were considered to be equivalent with academic PhDs. This system corroded deeply rooted disdain for blue-collar workers and increased respect for technicians and skilled workers.

Table 4.2 Changes to Qualification Systems by Stage

Stage	Technical, Vocational Education and Training (TVET)	National Technical Qualification (NTQ) System
Before NTQ (1945-1972)	<ul style="list-style-type: none"> <li>- Fostering technicians</li> <li>- Infrastructure for technical training (vocational training centers by aid and loans)</li> </ul>	<ul style="list-style-type: none"> <li>- license system by individual industry acts</li> <li>- Introduction of certified technician system</li> <li>- Promotion of skilled personnel assisting certified technicians</li> </ul>
Introduction of NTQ (1973-1981)	<ul style="list-style-type: none"> <li>- Expanding technical high schools, technical skills university and 24 public training centers</li> <li>- Operating national skills competition and participating World Skills Olympics</li> </ul>	<ul style="list-style-type: none"> <li>- Legislation of the National Technical Qualification Act and implementation agency</li> <li>- Integrating the qualification items in all industrial areas, and adopted the grades for skill levels</li> <li>- Reinforcing regulations (the prohibition of similar or overlapping qualification items)</li> </ul>
Development of NTQ (1982-1997)	<ul style="list-style-type: none"> <li>- Training course to foster high-level skilled personnel</li> <li>- Industry-academic cooperation course and training course for incumbents</li> </ul>	<ul style="list-style-type: none"> <li>- Refresher training, qualification renewal system</li> <li>- Service area added to technology and skill</li> <li>- Establishment of irregular test system</li> <li>- Computerization of item bank and operation of qualification information system</li> </ul>
Maturity of NTQ (1998)	<ul style="list-style-type: none"> <li>- Needs for in-service program for unemployed, and employee</li> <li>- Training for incumbents</li> <li>- Course for re-employment and vocational training for seniors</li> </ul>	<ul style="list-style-type: none"> <li>- Reorganization of 5-grade system</li> <li>- Diversification of testing techniques</li> <li>- Easing qualifications for exam</li> <li>- New qualification items in service area</li> <li>- Commissioned tests for specialized items</li> </ul>

Source: Park et al. 2012

## 5. Employee Training

The public and private sectors of South Korea also jointly worked to improve workers' industrial skills. In 1967, the Vocational Training Act required companies to train their employees with specific qualification instructors, public training institutes, and in-company training facilities. The number of training recipients increased from 10,000 in 1967 to 30,000 in 1970. Both public vocational training and private in-plant vocational training, however, relied heavily on government budgets or subsidies; this raised concerns about training-program sustainability (Lee 2005; Ra & Kang 2012). In order to address the shortage of skilled workers more forcefully, the Vocational Training Special Measures Act was adopted in 1975. The new measure required enterprises in certain industries and with more than 500 employees to provide self-funded in-plant vocational training programs.<sup>36</sup>

In 1976, the Basic Vocational Training Act merged the Vocational Training Act with the Vocational Training Special Measures Act, extending the latter's scope to companies with 300 or more employees. The 1976 Act also entitled the government to annually decide the number of trainees for each company, reflecting demands for skilled workers within 10 percent of the total workforce. Enterprises could now pay training levies instead of complying with in-plant training requirements. In 1978, about 70 percent of relevant companies operated in-plant programs, while the rest of them chose to pay levies (Ra & Kang 2012, pp.32-34). By 1986, two-thirds of the enterprises required to provide in-plant training chose, instead, to pay training levies (Lee 2005).<sup>37</sup>

In addition, to tackle the shortage of financial resources and technical expertise, the government set up vocational training centers with grant support from Germany in 1971 and Japan and Belgium in 1976, and loans from the Asian Development Bank from 1973 to 1976, and the World Bank from 1977 to 1980 (Ra & Kang 2012, pp.36-39).

In the 1990s, the advances in information and communication technology (ICT) and dynamic global value chains changed the circumstances of the knowledge-based global economy, and the South Korean government realized it needed to shift its skill-development strategy toward bringing in more active participation from the private sector. With the 1994 adoption of the Industrial Manpower Supply and Skills Development Restructuring Plan, businesses could take a leading role in adopting a voluntary training

---

36 Those industries are mining, manufacturing, electricity, gas and water supply, construction, transportation, storage, communications, and services (Ra & Kang 2012).

37 Many developing countries in Latin America, which implemented a training levy system, set up independent public vocational training agencies that used collected training levies. However, the agencies' financial independence prevented them from responding to enterprises' demands to provide training courses, instructors, location, and equipment, thereby exposing their weaknesses, such as low training practicality and efficiency (Ra & Kang 2012, p. 43).

program for their employees and the government could support private sector efforts through an incentive system. In the following year, the government introduced the Employment Insurance System, which replaced the mandatory vocational training system. Additionally, the focus on skills development shifted from training a new workforce to supporting lifelong skills for incumbent workers. All enterprises shared an obligation to pay vocational training levies but had the opportunity for levies to be refunded upon provisional training (Ra & Kang 2012, pp.46-47).

The vocational skills development system continues to accommodate the needs of workers and their new working conditions. The government established the Workers Vocational Training Promotion Act in 1997 and the Workers Skills Development Act in 2004. Table 4.3 outlines the changes in vocational training systems from the 1960s to the 2000s.

Table 4.3 Changes in Vocational Training System

	Economic backgrounds	Strategies for Skill development	Enactment and revision of legislation
1960s	<ul style="list-style-type: none"> <li>- 1<sup>st</sup>, 2<sup>nd</sup> EDP</li> <li>- Shift from agriculture to light industry</li> <li>- Rising demands for workers</li> </ul>	<ul style="list-style-type: none"> <li>- Vocational high schools</li> <li>- New vocational training system</li> <li>- Vocational training subsidy system</li> </ul>	<ul style="list-style-type: none"> <li>- Vocational Training Act (1967)</li> </ul>
1970s	<ul style="list-style-type: none"> <li>3<sup>rd</sup>, 4<sup>th</sup> EDP</li> <li>- Shift to HCI</li> <li>- Serious shortage of skilled workers</li> <li>- Unlimited supply of unskilled workers from rural to urban areas</li> </ul>	<ul style="list-style-type: none"> <li>- Strengthening vocational education, and public training centers</li> <li>- Obligatory training system of business and training levy system</li> </ul>	<ul style="list-style-type: none"> <li>- Vocational Training Special Measures Act (1974)</li> <li>- Basic Vocational Training Act (1976)</li> <li>- Vocational Training Promotion Fund Act (1976)</li> </ul>
1980s	<ul style="list-style-type: none"> <li>5<sup>th</sup>, 6<sup>th</sup> EDP</li> <li>- Stabilization,</li> <li>- Transition to high-tech industries</li> <li>- Falling demand for in-plant vocational training</li> </ul>	<ul style="list-style-type: none"> <li>- Reinforcement of public vocational training (Korea Vocational Training Management Agency, 1982)</li> <li>- Advanced vocational training courses (master craftsman courses)</li> </ul>	<ul style="list-style-type: none"> <li>- 4<sup>th</sup> amendment to Basic Vocational Training Act (1987)</li> </ul>
1990s	<ul style="list-style-type: none"> <li>- Moderate growth low and unemployment</li> <li>- Economic crisis of 1997</li> <li>- Growing need to raise incumbent workers' skill levels</li> </ul>	<ul style="list-style-type: none"> <li>- Incentive for voluntary vocational training by employers</li> <li>- Training as social safety net for unemployed people</li> </ul>	<ul style="list-style-type: none"> <li>- Employment Insurance Act (1995)</li> <li>- Workers Vocational Training Promotion Act (1999)</li> </ul>

	Economic backgrounds	Strategies for Skill development	Enactment and revision of legislation
2000s	<ul style="list-style-type: none"> <li>- Knowledge-based global economy,</li> <li>- Sluggish growth</li> <li>- Flexible labor market</li> </ul>	<ul style="list-style-type: none"> <li>- Lifelong vocational training system</li> <li>- Strengthening of training for vulnerable groups</li> </ul>	<ul style="list-style-type: none"> <li>- Workers Vocational Skills Development Act (2004)</li> </ul>

Source: Ra & Kang 2012

## IV. Promoting Brain Gain

### 1. Studying Abroad

At the initial stage of development, South Korean society faced what is referred to as “brain drain” when it lost many of its students to study abroad. After the end of the Korean War in 1953, the United States (U.S.) began to receive an influx of South Korean students. From 1953 to 1967, approximately 8000 students left to study abroad (Table 4.4); this was comparable to the total number (9096) of undergraduate students enrolled in Seoul National University in 1966. Among them, only 12.2 percent returned to South Korea.

Table 4.4 Number of South Korean Students in US

Year	No. of South Korean Students
1950	302
1960	2310
1970	3857
1980	6150
1990	23360
2000	59022

Source: Cho 2010; Institute of International Education, Open Doors.

## 2. Active Programs to Promote Brain Gain

The increasing number of students who left the country to study abroad were initially regarded as “brain drain.” These students, however, later became a reservoir for “brain gain” and could function as priming water for “brain circulation,” a term defined as the flow of high caliber talent from one country to another (Saxenian 2002). Many experts acknowledged that a skilled workforce would expedite the socio-economic transformation of a poor agriculture-based economy<sup>38</sup> In addition to establishing a modernized educational system, the government sent students abroad for training and invited foreign experts to design new systems for technological advances. The Seoul National University (SNU) project, the Korea Institute of Science and Technology (KIST) project, and the Korea Advanced Institute of Science project (KAIS) project supported by the U.S. government accelerated brain circulation between the U.S. and South Korea.

The South Korean and American governments initiated the SNU project, undertaken by the University of Minnesota, in 1954. American professors acted as consultants, residing in South Korea and molding the SNU after the American university model. They oversaw the construction of buildings, procured necessary research materials, and selected South Korean professors for an American education that would bring them up to date with current research, legitimize their expertise, and identify them as conduits of modern education (Cho 2010, p.37).

The SNU project was undertaken over six academic years, with the first class entering in the 1955-1956 academic year and the last entering in 1960-1961. The first phase involved training teaching staff at the SNU’s schools of medicine, agriculture, and engineering, with veterinary medicine and nursing as subfields. The second phase of the project worked to establish the School of Public Administration, which included recruiting new faculty members. South Korea contracted University of Minnesota professors to develop the new departments and choose its first faculty members, who were immediately sent to Minnesota for training. Participants for the second phase came from South Korean bureaucratic offices and various universities in South Korea. During the two phases, 226 members of the SNU faculty studied at the University of Minnesota (Cho 2010, p. 67).<sup>39</sup>

Besides the SNU project, many other international development-aid agencies also operated technical training programs for South Korea. For example, the World Bank, International Monetary Fund, and Vanderbilt University operated training and scholarship programs for South Korean public officials from 1956 to 1970 as well (Cole et al. 2015).

---

38 For example, the Nathan Report (Robert, 1952), and the Tasca Report (Tasca, 1953).

39 57 professors in agriculture, 64 in engineering, 78 in medicine, and 27 in public administration were trained by the SNU project.

However, South Korea still lacked the innovative capacity needed to transform its economic and industrial structure. In the 1960s, the role of tertiary educational institutions remained limited to replicating theoretical textbook knowledge that had little impact on the industrialization of the economy. Shortsighted domestic businesses were not mature enough to recognize the importance of R&D investment, nor were they ready to absorb advanced technologies from foreign countries. At the same time, the U.S. announced that it would withdraw military forces from the peninsula, creating another challenge for South Korea: a threat to national security. The promotion of heavy and defense industries was one of few options that political and business leaders could choose. As they were preparing to develop chemical, steel, and machinery industries, the leaders targeted the global market and pursued export-oriented strategies by promoting these new industries. Thus, the new capital-intensive industries benefitted from international markets' scale, overcoming the limits of a comparatively small domestic market.

While preparing for industrial restructuring, the South Korean government realized that highly trained scientists and engineers were difficult to retain because most were educated abroad. Also, officials noted that domestic universities focused more on theories than practical training. Industrial development saw mounting demand for domestic graduate education. Dr. Jeong Geun-mo, a South Korean scientist in the U.S. and alumni of the School of Public Administration of Seoul National University, drafted a proposal for a specialized graduate school in science and engineering, hoping for USAID support. In March 1970, the Ministry of Science and Technology drew up plans for the school. The U.S. government dispatched a delegation, led by Frederic E. Terman, former Vice President of Stanford University and a founder of Silicon Valley, to investigate the new science and engineering graduate school in South Korea. Based on Terman's recommendations, South Korea established the Korea Advanced Institute of Science (KAIS) within the Seoul Research Development Park in Hong-neung in April 1971. The KAIS hired 40 professors and officially opened in September 1973. 92 students graduated in the first class of 1975. Many KAIS alumni lessened the shortage of high caliber scientists in South Korea (Hong et al. 2013, pp.85-86).<sup>40</sup>

Moreover, the top leadership also decided to establish the Korea Institute of Science and Technology (KIST) in 1966 to expedite South Korea's internalization of foreign advanced technologies. As the first modern, comprehensive applied-research institute in South Korea, KIST provided fundamentals for becoming up-to-date on science, technological catch-up, and self-reliance through domestic R&D capabilities (Hwang & Kang

---

40 In 1990, KAIST graduates comprised 73 percent of total doctorate degree winners in South Korea in the science and engineering sector. 30.6 percent of the KAIST graduates entered the education sector, while 36.8 percent and 27.6 percent joined research institutions and the industry, respectively. Also, 35 percent of KAIST's master's program graduates entered the private industry sector to develop new technologies (Korea Advanced Institute of Science and Technology, 1992).

2011, p.84). KIST ran an innovative operation system with limited government interference despite public financial support. It could recruit scientists from abroad with exceptionally high compensation and initiated dynamic research activities, which would not have been possible with too much governmental oversight (Hwang & Kang 2011, pp.59-60).

The Korea Development Institute (KDI), a comprehensive public think tank for economic research and policy review, also contributed to the return of South Korean economists and scholars who had studied and were working abroad. Professionals who returned were later deeply engaged with national development planning and major socio-economic policy reforms, with patronage from top political leadership. The government also allowed autonomy to the KDI, in addition to providing public financial support, similar to the KIST.

Government-funded research institutions (GRIs) like the KIST and the KDI supported the government by implementing and monitoring policies while working as brain reservoirs for technical fields. GRIs provided an opportunity to many South Korean specialists staying abroad to contribute to the localization of advanced technologies and take a leading role in modern scientific and technological development in South Korea (Hwang & Kang 2011). GRIs especially contributed to South Korea when Korean universities and business were incapable of renovating the country and GRIs rose as a key player in the National Innovation System (NIS). GRIs, together with South Korea's modern universities that offered globally competitive education, contributed to national innovation and effective brain gain, working as conduits that bridged South Korea's domestic society with global communities.

### **3. Promoting R&D and Innovation**

In order to retain the domestic economy's sustainable growth, South Korea's industries had to survive in the global market through innovation. In the early stages of industrialization, during the 1950s and 1960s, the South Korean government took on large-scale foreign loans and invested them into selected industries, leading to massive foreign capital goods imports and turnkey plants. South Korea's major source for technological advancement was original equipment manufacturing (OEM) for light industries' production arrangements. South Korean businesses had to reverse-engineer imported capital goods to acquire technology for heavy industries. The government legislated the Science and Technology Promotion Act and the Science Education Act in 1967 in order to encourage more technological advances (Chung 2011; Kim 1997).

When the economy shifted from light to heavy and chemical industries in the 1970s, the government arranged for massive investment projects to establish facilities for those industries. The turnkey plants for chemical industries and foreign licensing for heavy machinery required domestic industries to assimilate and apply

transferred technologies. The government helped private businesses adopt technologies by establishing GRIs. The Korea Institute of Machinery and Metals, the Electronics and Telecommunications Research Institute, the Korea Research Institute of Chemical Technology, the Korea Research Institute of Standards and Science, the Korea Institute for Energy Research, and the Korea Ocean R&D Institute brought technological education to private businesses (Chung 2011; Kim 1997). Table 4.5 outlines which GRIs were responsible for developing and commercializing which technologies.

**Table 4.5 GRIs and Developed Technologies**

Government-funded research institution	Technologies
Korea Institute of Science and Technology	polyester film, semiconductor lead frame technology, computerizing technology
Korea Institute of Machinery and Materials	automation system, software and design technology used for CAD/CAM
Korea Chemical Technology Research Institute	antibiotic substances, advanced chemical materials
Electronics and Telecommunications Research Institute	domestic computers, 4M DRAM semiconductors, digital switching system called time-division exchange (TDX) series
Korea Atomic Energy Research Institute	localization of nuclear fuel, Korean nuclear Reactor

Source: Hwang & Kang 2011, pp.84-85

Economic development and competition in the global market in the 1980s demanded more sophisticated and advanced technologies from industry. South Korea responded with a policy shift from technology assimilation to technology development. The government facilitated several private R&D activities, including tax incentives, financial assistance, procurement, and other promotional actions. The government also employed new R&D investment strategies that allowed cooperation between private industries and the public sector. The Ministry of Science and Technology launched the National R&D Program in 1982, which was followed by the Industrial Base Technology Development Program of the Ministry of Commerce, Industry, and Energy, the Information and Communication Technology Development Program of the Ministry of Information and Communication, and other programs (Chung 2011; Kim 1997). Private industries increased R&D investment and surpassed government investment in 1981. Private industries accounted for more than 75.4 percent of total national R&D investment in 2016 (National Science & Technology Information Service 2018).

#### 4. Limits and Challenges

South Korea acquired abundant human capital for research and development through its expanded undergraduate and graduate education. South Korea's ratio of researchers to population is fourth in the world behind Finland, Denmark, and Singapore. South Korea has spent as much as 4.23 percent of the GDP for R&D in 2016 (Lee et al. 2015; National Science & Technology Information Service 2018). In spite of the rapidly increasing output, however, concerns persist about the quality of South Korea's research and its impact on industry and the national economy.

National innovation, for which R&D plays a critical role, should run parallel to the economic vitality of a country. The strategy transition from assimilation to creation in South Korea, however, has had few tangible impacts on the economy. South Korea's economic potential growth rate is expected to stay at approximately 3 percent per year between 2008 and 2050 (International Monetary Fund 2006). Additionally, a low fertility rate and lagging productivity in the service sectors result in a diminished growth potential. Additionally, export growth that once accelerated is now less effective at boosting domestic consumption or creating jobs (OECD 2014).

South Korea has many challenges to overcome in order to encourage sustainable economic development through innovation-driven growth. R&D capacities must be examined and reoriented. The majority of R&D takes place in a few large businesses with an emphasis on "applied research," without ample support for "basic research." Applied research involves the expanded research, development, and applications of technology that has already been explored, as opposed to basic research, which seeks to innovate science and technology through a better understanding of scientific foundations. Applied research without strong innovation propelled by basic research can limit the progress of R&D by relying too heavily on past practices, which may become outdated (National Science Foundation 1952; Stokes 1997). Furthermore, an old-fashioned focus on rote learning in education, which mirrors the focus of applied research in R&D, instead of critical thinking, the heart of basic research, has also hampered creative innovation in the education system and economy (Stokes 1997; Connell 2013; Kim 2001; Lee et al. 2013).

South Korea has already proven, however, through extensive efforts, its ability to develop a strong basis for human capital through educational reforms. The path toward innovation-driven development in R&D and other sectors requires a similar focus on the nurturing of human capital through continued critical thinking and creative learning. Just as the South Korean government was able to elevate public opinion and increase educational capacity for technical professions in the past, South Korea must now adopt a more positive attitude towards risk-taking and promote active entrepreneurship in order to move toward sustainable, innovation-driven growth. Human capital was a critical factor in transforming the country's agriculture-based

poor economy to a technology- and manufacturing-based rich economy; human capital will again be a key to harmonizing economic, social, and environmental values in the rapidly-changing and knowledge-intensive global economy.

## References

- Cho, J. J. 2010, "Immigration through Education: The Interwoven History of Korean International Students, US Foreign Assistance, and Korean Nation-State Building," Doctor of Philosophy, University of California, Berkeley.
- Chung, S. C. 2011, *Innovation, Competitiveness, and Growth: Korean Experiences*, Annual World Bank Conference on Development Economics 2010, The International Bank for Reconstruction and Development / The World Bank.
- Cole, D., Choi, C. & Han, S. 2015, *Overseas Training Programs for Korean Government Officials*, KDI School of Public Policy and Management, Sejong City.
- Connell, S. 2013, "Building a Creative Economy in South Korea: Analyzing the Plans and Possibilities for New Economic Growth," *Korea Economic Institute of America*, viewed December 10, 2013, <https://www.files.ethz.ch/isn/175553/api111.pdf>
- International Labour Office 2010, *A Skilled Workforce for Strong, Sustainable and Balanced Growth: A G20 Training Strategy*, International Labour Office, Geneva.
- International Monetary Fund 2006, *IMF Country Report, Republic of Korea* (Report No. 6/381), IMF, Geneva.
- Kim, L. 1997, *Imitation to innovation: The Dynamics of Korea's Technological Learning*, Harvard Business School Press, Boston.
- 2001, "The Dynamics of Technological Learning in Industrialization," *International Social Science Journal*, vol.53, no.168, pp.297-308.
- Kim, Y. C. 1992, "직업기술교육체제 발전 방안 연구" (*A Study on the Development of Vocational Technical Education System*) (Report No. RR92-41), Korea Education Development Institute, Deoksan-myeon.
- Kim, Y. H. 2015, "한국 산업화 시기의 교육과 경제성장" (*Education and Economic Growth during Korean Industrialization*), Kyoyukguhaksas, Seoul.
- Kim, Y. T. 2002, "한국 인적자원개발정책의 분석 및 평가" (*Analysis and Evaluation of Human Resource Development Policies in Korea: 1962-2002*) (Report No. 02-38), Korea Research Institute for Vocational Education and Training Research, Seoul.
- Lee, C. J., Kim, S. Y., & Adams, D. 2010, *Sixty Years of Korean Education*, SNU Press, Seoul.

- Lee, J. H. (ed.), 2013, *Positive Changes: The Education, Science & Technology Policies of Korea*, edn, rev., Korean Economic Daily and Business Publications Inc., Seoul.
- Lee, J. H. & Hong, S. C. 2013, *2011 Modularization of Korea's Development Experience: The Development of Vocational High Schools in Korea during the Industrialization Period*, KDI School of Public Policy and Management, Sejong City.
- Kim, K., Hong, S. C., & Yoon, J. H. 2015, *Can Bureaucrats Stimulate High-Risk High-Payoff Research?*, (Report No. 15-06), KDI School of Public Policy and Management, Sejong City, Korea.
- Jeong, H., & Hong, S. C. 2018, *Human Capital and Development: Lessons and Insights from Korea's Transformation*, Edward Elgar Publishing, Cheltenham.
- Lee, J. W. & Francisco, R. 2010, *Human Capital Accumulation in Emerging Asia, 1970–2030*, (ADB Economics Working Paper Series No. 216), Asian Development Bank, Manila.
- Lee, K. K. 2004, “한국에 대한 개발원조와 협력” (*Development Aid and Cooperation on Korea*), Korea International Cooperation Agency, Seoul.
- Lee, K.-W. 2005, “How Effective Were Government Strategies for the Small and Medium Enterprises Training Consortium?” *KOSBI Quarterly Economic Outlook*, vol.27, no.2, pp.175-203.
- Maeil Kyungje Shinmun 1977, “공업기술 선진국 대열로, 기능공우대 시대 곧 온다” (*The Age of Technician Comes as we Advance to top Technical Nations*). Maeil Kyungje Shinmun (Daily Economic Newspaper), 19, July, p. 1., viewed 2 December 2018.
- McGinn, N., Snodgrass, D., Kim, Y., Kim, S., & Kim, Q. 1980, *Education and Development in Korea: Studies in the Modernization of the Republic of Korea 1945–1975*, Harvard University Press, Cambridge, MA.
- Ministry of Science and Technology 1972, “A Study for the Improvement of the Science and Technology Qualifications System,” pp.3-5, Ministry of Science and Technology, Seoul.
- National Science & Technology Information Service 2018, viewed 9 October 2018, <http://www.ntis.go.kr/rndsts/Main.do>
- National Science Foundation 1952, *The Second Annual Report of the National Science Foundation: Fiscal Year 1952*, Government Printing Office, Washington, D.C.

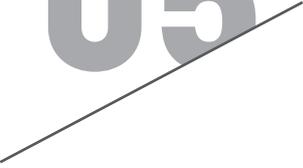
- Organisation for Economic Co-operation and Development 2014, *OECD Economic Surveys: Korea*, OECD Publishing, Paris, viewed 30 November 2018, [http://www.oecd.org/eo/surveys/Overview\\_Korea\\_2014.pdf](http://www.oecd.org/eo/surveys/Overview_Korea_2014.pdf)
- 2018, *PISA 2015: Result in Focus*, OECD Publishing, Paris, viewed 10 December 2018, <https://www.oecd.org/pisa/pisa-2015-results-in-focus.pdf>.
- Park, J. H., Lee, G., Jang, S., & Son, B. 2012, *2011 Modularization of Korea's Development Experience: Role and Function of the National Technical Qualification System in the Development of Vocational Ability*, Human Resources Development Service of Korea, Ulsan.
- Ra, Y.-S. & Kang, S.-H. 2012, *2011 Modularization of Korea's Development Experience: Vocational Training System for a Skilled Workforce*, Korea Research Institute for Vocational Education and Training, Sejong City.
- Robert, R. 1952, *Preliminary Report on Economic Reconstruction of Korea* (Report No. UNKRA/AG/13), The UNKRA, Washington, D.C.
- Ryu, S. & Kim, H. 2011, “1970년대 기능공 양성과 아산 정주영” (*Mr. Chung Ju-yung and Nurturing Technical Personnel in 1970s*), Asian Social Welfare Foundation, Seoul.
- Saxenian, A-L. 2002, “Brain Circulation: How High-Skill Immigration Makes Everyone Better Off,” Brookings, viewed 31 October 2018, <https://www.brookings.edu/articles/brain-circulation-how-high-skill-immigration-makes-everyone-better-off/>.
- Song, S. 2008, “전국민의 과학화운동”의 출현과 쇠퇴” (The Rise and Fall of ‘Scientification’ of all Nation Movement), *Journal of the Korean History of Science Society*, vol.30, no.1, pp.171-212 (in Korean)
- Statistics Korea, “Economic Activity Census (various years),” *Korean Statistical Information Service*, viewed 10 March 2017, <http://kosis.kr/index/index.do>.
- Stokes, D. 1997, *Pasteur's Quadrant: Basic Science and Technological Innovation*, Brookings Institution, Washington, DC.
- Tasca, Henry J. 1953, *Relief and Rehabilitation Recommendations Contained in the Report to the President by Dr. Tasca* (Report No. NSC 176), Government Publishing Office, Washington, DC.
- UNESCO 2010, “Tomorrow Today,” *UNESCO*, p.9, viewed 2 December 2018, <http://unesdoc.unesco.org/images/0018/001898/189880e.pdf>.

United Nations General Assembly 2015, “Transforming Our World: The 2030 Agenda for Sustainable Development” (United Nations General Assembly Resolution A/RES/70/1.), viewed 10 December 2018, <https://sustainabledevelopment.un.org/post2015/transformingourworld>.

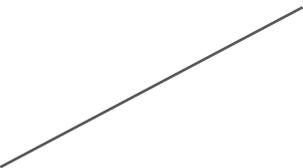
WorldSkills 2018, *WorldSkills International*, viewed 11 November 2015, <https://www.worldskills.org/skills/>.

Chapter

05



# **The South Korean Saemaul Undong Model for Sustainable Development**



By

Do Hyun Han

## **I. Understanding the Saemaul Movement**

The Republic of Korea's rural landscape changed immensely in the 1970s. The Saemaul Undong, or New Village Movement, was a main force behind South Korea's rural modernization. The Saemaul Movement showed how local leadership could enable an entire society to eradicate poverty, increase agricultural productivity, increase educational opportunities, and improve living conditions overall (Sachs 2010).

The Saemaul Undong was not simply a rural development policy; it was an enormous national movement. The Movement accomplished many large rural development tasks. It produced broad-based and inclusive economic growth, improved the living conditions of individual village residents, and contributed to the reforestation of South Korea. The Saemaul Movement succeeded because of the self-reliance of the villagers, the supporting policies of the South Korean government, and dedication to grassroots innovation.

The United Nation's Sustainable Development Goals (SDGs) share many of the Saemaul Movement's concentrations, including eradicating poverty, improving health, increasing education, empowering women, and reforestation. Thus, the Saemaul Movement's success holds important implications for the achievement of SDGs in other developing countries.

### **1. Principles of the Saemaul Movement**

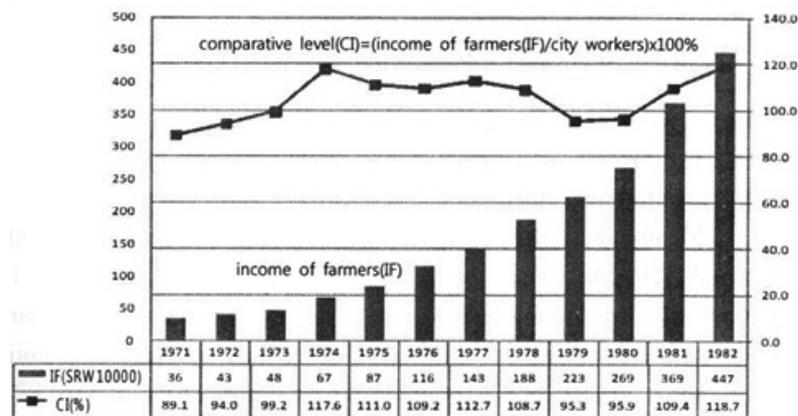
When the Saemaul Movement began in the 1970s, South Korea's impoverished rural areas often experienced the Barley Hump, a period of famine in the spring before the barley harvest. Off-season, many people living in rural areas occupied themselves with gambling and drinking because of the lack of work (Goh 2010, p.15). In 1970, the electricity supply of rural villages was approximately 27 percent, and many people used oil lights (Park 2005, p.19). Approximately 60 percent of villages could not be accessed by automobile. Modern bathrooms and water supply were also very low, and approximately 80 percent of farmhouses had straw roofs (Goh 2010, p.15).

The Saemaul Movement was a comprehensive rural village development movement that aimed to improve the conditions of all villages in South Korea's rural areas. Its slogan was "Living a Good Life." The Saemaul Movement adopted multiple reforms which revitalized rural communities through cooperative engagement between the self-sufficient village societies and the financial and administrative support of the government (Chung 2014).

## 2. Achievement of the Saemaul Movement

The Saemaul Movement resulted in significant rural development. It accomplished many of its goals targeted for 1980 by 1977. The average income of rural residents increased by approximately eight times between 1971 and 1979, and, by the fourth year of the Saemaul Movement, the average income of a rural resident surpassed the average income of an urban resident. Figure 5.1 charts the income increase of rural residents during the Saemaul Movement from 1971 to 1982.

Figure 5.1 Rural Income Increase During the Saemaul Movement



Source: Jun 2010, p. 75

Additionally, the Saemaul Movement supplied almost all rural areas with electricity and water. By 1977, approximately 98 percent of rural residents had electricity (Park 2005, p.125). Improved roads made automobile transportation possible. Farmers grew in confidence as their income rapidly increased and living conditions improved. This kind of self-efficacy became a valuable asset for the continued development of rural areas, and, according to many social surveys, the Saemaul Movement ranks as one of the proudest moments in South Korea's contemporary history (Han 2010).

The Saemaul Movement hoped to achieve broad-based and inclusive development that reduced socioeconomic gaps between South Korean regions. The Movement achieved this goal by targeting all rural villages in the country as well as individual families. South Korea evaluated and classified village development as either Basic, Self-help, or Self-reliant (or Advanced). South Korea based the classification on indicators that depended on objective criteria, were easy to understand, and could encompass various issues into one composite value. South Korea divided the evaluation into five different criteria: rural area infrastructure, residential environment, agricultural base, cooperative livelihood, and project income. Table 5.1 outlines specific conditions Self-help and Self-reliant villages were responsible for within the five criteria:

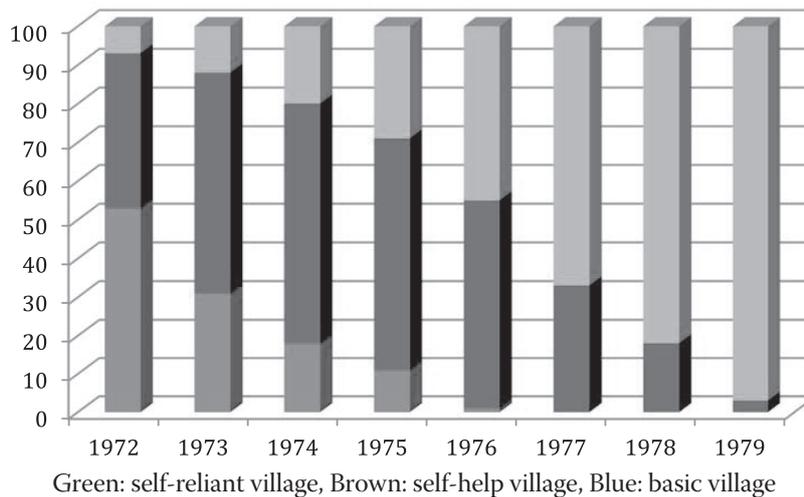
Table 5.1 Development Criteria for the Development of Villages

Project	Self-Help Village	Self-Reliant Village
Farm roads	Completion of village roads	Completion of Main road to village
	Improvement of village roads	Construction of bridges less than 20meters
Housing Environment	Roof Improvement of village houses, more than 70%	Roof Improvement of village houses, more than 80%
	Embankment of drains	Fence Improvement, more than 80%
Farming Base	Farmland Irrigation, over 70%	Farmland Irrigation, over 85%
	Reclamation of streams in villages	Reclamation of streams surrounding villages
Cooperative Life	One or more of the following: town hall, warehouse, workshop, etc	two or more of the following: town hall, warehouse, workshop, etc
	Total assets in village fund, over 500,000 won	Total assets in village fund, over 1,000,000 won
Income Projects	One or more community income creation project	Creation of non-farming income project
	Average annual income per Household, over 800,000 won	Average annual income per Household, over 1,400,000 won

Source: Ministry of Home Affairs 1980a, pp.23-24

Self-reliant villages became more prevalent from the beginning of the Saemaul Movement until 1979. Figure 5.2 outlines the spread of self-reliant villages.

Figure 5.2 The Spread of Self-Reliant Villages (percent)



Source: Ministry of Home Affairs 1980a, p.22

South Korea defined a village unit as a living unit with 50 to 100 households. A village unit's living conditions and production base were linked to a farmer's individual profits. For example, in the early 1970s, an individual farmer seeking to sell his products in the market could not, by his effort alone, improve the roads connecting

the farms and main roads. He needed the development of the village unit as a whole in order to increase his own income. As a result, the Saemaul Movement adopted the principles of cooperation, diligence, and self-sufficiency, where each principle was mutually dependent on the other (So 2013).

Villager initiative during the Movement played a large part in the planning, monitoring, and implementation of village projects. The government provided steel and cement to villages but villagers, at general assemblies, decided how to use the materials. Also, whenever the government gave a project grant to a village, it did so without specific project plans or targets, giving full responsibility to villagers for the development of their village.

The Saemaul Movement achieved public-private cooperation when villagers worked to improve the living conditions of the village and the government financially supported villages and promoted policies for rural modernization, such as electricity supply and land-line distribution. The government monitored the results of the movement through a village foreman and a Saemaul leader placed in each village but also depended strongly on trust between the villages and the government. In 1970, the government could not have delivered free cement to all villages if the government had not trusted the villages to use the cement for village development projects. The government also held villages accountable for their development and introduced an element of competition between villages when they awarded more financial support, often through Presidential grants, to villages with higher evaluations. For instance, in 1970, the government distributed 355 sacks of cement to all villages but, in 1971 distributed another 500 sacks of cement only to villages evaluated as “outstanding” after the previous year.

## **II. Business Models of the Saemaul Movement**

### **1. Job Creation**

The Saemaul Movement developed various business models in order to increase the income of farmers. When the Saemaul Movement began, a South Korean farm household cultivated less than one hectare of its rural land and villages suffered from severe unemployment. South Korean cities were home to major industrial facilities that provided employment to urban residents. Rural areas, however, needed jobs catered to the circumstances of a rural area. Jong-Ho Kim (1973, pp.109-110), Director of the Department of the Saemaul Movement within the Ministry of Home Affairs, maintained the importance of keeping farmers busy during the off-season. He said, “rather than receiving a wage, there is no greater virtue than finding gratification in work.” Creating off-season employment opened the possibility for decreasing idleness and increasing both income and self-gratification.

The government created jobs utilizing two main methods: projects by direct management and projects by contract. Through the management of infrastructure projects in cities, districts, towns, and townships, direct management sought the participation of and provided wages for citizens in construction projects that increased villagers' non-farming income. Under this method, wages were given either in full or half of the market-price. Businesses that paid full market-price worked on projects that did not directly benefit villagers and could not be completed by relying only on volunteer work. Businesses paying half the market-price, however, worked on projects which, because they entailed a direct benefit to villagers' lives, justified a certain extent of volunteer work.

Projects by contract were projects run by the government with independent contractors or directly with villagers. Before the Saemaul Movement, civil engineering projects could, according to the Construction Law, only be carried out through businesses with a construction license (Kim 1973, p.104). The Saemaul Movement began by making construction contracts with villagers' organizations or village development committees. Using this method, if the government signed a contract with the village development committee, a provincial construction project – one under KRW 3,000,000, for instance – could be executed by the villagers instead of another private company.

In addition to construction, another important source of employment for rural villages was village tree-nursing projects. The Saemaul Movement emphasized village reforestation by encouraging villagers, through the Village Forest Cooperative, to cultivate seedlings purchased by the government. Additionally, the Saemaul Movement utilized government loans for joint projects where villagers with a strong "Saemaul mentality" received loans under KRW 200,000 for projects such as managing livestock or cultivating plants. Project managers distributed profits according to villagers' labor and participation.

Other than public work, the Saemaul Movement also emphasized side jobs in accordance with the Off-Season Production Policy, which promoted activities, such as making straw bags and straw ropes, crafting bamboo, cultivating "bush clover" (the tree used to make brooms), tie-dying, sewing, making toys, folk craft, and other projects that did not require special skills and could be done with low capital during the off-season period.

Furthermore, the construction of factories increased non-farming income and reformed the regional industry structure by producing labor for rural areas. Upgrading existing family businesses into factories, opening new farming equipment factories, and diversifying rural light industries created many job opportunities (Ministry of Home Affairs 1980, pp.466-471). The establishment of Saemaul factories is very similar to the Private Public Partnership (PPP) that exists in South Korea today.

## 2. Grassroots Innovation

After the Saemaul Movement began in the 1970s, the off-season disappeared from South Korea's rural areas through new farming practices, such as raising hogs, poultry, cattle, cash-crops, and what was known as the "white revolution," which introduced new farming techniques, including the use of greenhouses. The new farming methods supported entrepreneurial businesses instead of traditional subsistence agriculture, which led to many grassroots reforms within villages.

Although the government made project or model suggestions for village reforms, village development committees and village assemblies handled the execution of reforms according to a village's specific conditions. The South Korean government directly transferred grants to villages without interference from experts or government officials. The villagers deposited the grant in a bank account, directly managed the funds, and decided which projects to invest in.

In the terms of the Saemaul Movement, grassroots innovation refers to the villagers' ability to implement reforms in concordance with the specific circumstances of their village. In order to increase the income of farming households, rather than introducing high-skill farming techniques, grassroots innovation targeted what is now termed the "diffusion of appropriate techniques." For example, appropriate grassroots innovation in fishing communities may have included oyster farming, common fisheries, laver farms, or anything else that appropriately applied the techniques of that specific community. For example, Chon Ch'ang-Kyu, leader of a village in Kong-Chu County in Ch'ungnam province, suggested breeding cows instead of the country office's suggestion of breeding chickens because the bad smell of chickens would inconvenience the village. Compared to breeding poultry, however, breeding cows was a costlier investment and required more skill. Nevertheless, upon receiving financial support from the government, Chon Ch'ang-Kyu raised 500 cows for the village, which greatly contributed to its income growth.

Exemplifying the spirit of grassroots reforms, many Saemaul village leaders used their own houses as educational sites. For example, Ha Sa-Yong taught greenhouse techniques from his house; the house of Choi Wang-Ki, in Kyönggi province, overflowed with farmers wanting to learn about the poultry industry; and, in Ch'ungbuk province, Yu Yong-Mo wrote a textbook about red pepper cultivation modeled on the experience of his village.

### 3. Income Reinvestment Project

Self-reliant villages incentivized projects based on the “Income Reinvestment Principle.” The Income Reinvestment Project was a business model of the Saemaul Movement that became a PPP widely adopted in the rural areas after 1973. Because villages lacked start-off capital, the Income Reinvestment Project used funds from the government to establish businesses. After establishing businesses, the Income Reinvestment Project increased the development-fund and self-sufficiency of villages.

South Korea adopted the Income Reinvestment Principle in 1973 as a method to boost income projects in villages. In 1970, the government carried out many small-scale civil engineering projects aimed at improving the living conditions and reorganizing the product base of rural areas. Usually, in a small-scale civil engineering project, the government worked with local contractors who hired villagers. Under the Income Reinvestment Principle, however, the government contracted with the Village Development Committee instead of local contractors. By doing business directly with the village, villagers’ income and project ownership increased. Constructions based on the Income Reinvestment Principle gave villagers a way to find employment. Upon receiving a grant from the government, the village transformed from being a stagnant pastoral village to a business enterprise.

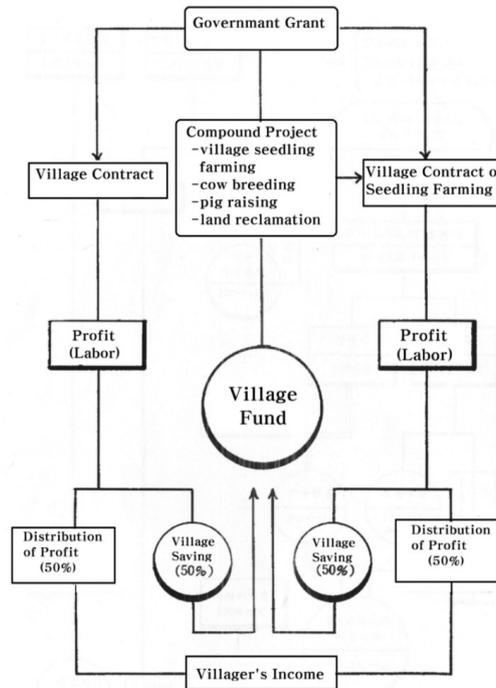
The first step of the Income Reinvestment Project was a government grant. If the government gave a grant, “G,” to a village, the Village Development Committee contracted with the local government for the project, “P1.” Villagers participating in P1 received wages. Because villagers had already planned the budget during village assemblies, however, they were not only workers but also participating managers.

The government granted money for projects under the condition that villagers participating in the projects would invest half their wages in the Village Fund, which could then be invested in a subsequent income-increase project, “P2.” Farmers decided P2 and its implementation business at village meetings and, while investing, the farmers also participated as owners of P2. When P2 began, farmers who also worked on the project invested half their earned wages in the Village Fund. The profits from P2 were proportionately divided according to the amount invested by individual villagers and could then be invested into another project, “P3.”

Through the repetition of G1 à P1 à P2 à P3, the Income Reinvestment Principle continuously promoted projects. In this way, villagers increased their income through both earned wages and investment profits and developed a sense of ownership for projects. This business model turned villagers simultaneously into workers, managers, and investors of projects that enabled the continuous development of their village. The Village Fund increased as projects continued, so villages built a basis for sustainable development without

further external support. Figure 5.3 outlines the process through which a government grant contributed to the Income Reinvestment Principle.<sup>41</sup>

Figure 5.3 Income Reinvestment Principle Diagram



Source: Kim 1973, p.49

Income Reinvestment Projects operated under strict guidelines. Villages decided projects during assemblies held at town halls or the village leaders' houses. The assembly elected a business committee and inspection committee to prepare the project. The managers of the village project developed a plan that corresponded to the village conditions; any aspects of the plan that fell outside of the villagers' skills were the responsibility of an external expert. The assembly deposited the government's grant in either a village credit-cooperative or bank account in the name of a village representative. When withdrawing or depositing money, joint subscribers signed off on transactions and a member of the auditing committee audited expenses weekly. The assembly held a village meeting once a week to report how they delivered the project's expenses and material supplies, which were also announced on the village bulletin board. Village assemblies prevented corruption and increased transparency by reporting all stages of the project to the entire village. Aside from material costs and technicians' wages, the assembly divided the remaining profits among the villagers (Han 2013, pp.141-149).

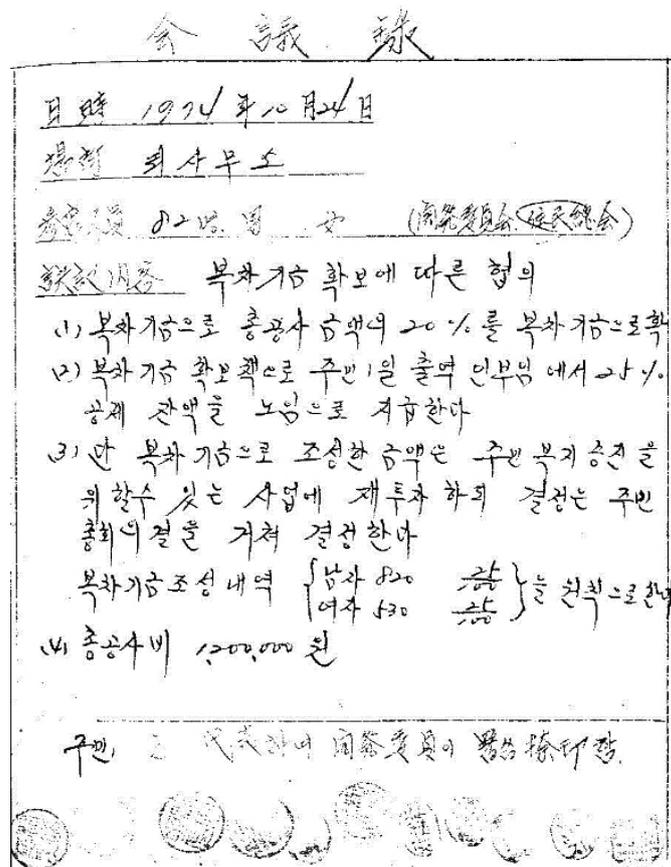
41 An expanded explanation of the Income Reinvestment Principle can be found in the Textbook for Saemaul Movement Leaders, 1973.

### III. Local Initiative and Responsibility

#### 1. Village Meetings and the Village Development Committee

One of the core principles of the Saemaul Movement was the active participation of villagers. The government's financial and policy support was also important, but villagers played a leading role in implementing projects. The village general assembly controlled the design, implementation, and monitoring of village projects. The village general assembly was more than just a space for decision-making; it was also a place for education and cooperation (Chung 2008, p.66). Training programs taught village leaders about the handling of village meetings (Figure 5.4). The Saemaul Movement Guideline suggested that, during assemblies, villagers should establish long-term and project plans for the village, analyze results, discuss the acquisition and management of joint property, enact and revise village regulations, and elect village leaders (Ministry of Home Affairs 1975, p.1032). During the Saemaul Movement, the attendance of village assemblies was 80-90 percent of the village population (Han 2013, pp.149-152).

Figure 5.4 Village Assembly Meeting Minutes



Source: Saemaul Undong Central Training Institute, n.d.

Along with village general assemblies, the village development committee also contributed to new projects. The committee enforced decisions made at the village assembly. Approximately 15 villagers – including a foreman, a Saemaul leader, a president of the committee, and a development member – manned the village development committee (Chung 2008, p.66). Government officials or people from outside the village could not serve on the committee. The village development committee functioned as a leadership team that mediated between different interests and stimulated project development. Even though a village contained only about 40 to 100 households, the committee observed a variety of opinions based on gender, age, and class. The Saemaul Movement Handbook recommended that a core group in the village implement projects alongside the village Saemaul leader. The village development committee could play the role of that core group (Korea Saemaul Undong Center 2003, p.12).

## 2. Saemaul Leaders

The role of Saemaul leaders cannot be overlooked in rural villages during the Saemaul Movement. Traditionally, each of South Korea's villages had a village head who dealt with administrative matters and connected the village with the government. While keeping the village head's role intact, the government created the Saemaul leader to divide labor; the village head managed administrative tasks and the Saemaul leader was in charge of development. Throughout the country, the government promoted the election of one male and one female Saemaul leader per village. Traditionally, the person in charge of development was either an external expert or government official, but, during the Saemaul Movement, a fellow villager, elected by the village assembly, took on this role.

Villages required that Saemaul leaders possess entrepreneurial skills, including project-planning, project-implementation, accounting and evaluation, understanding new techniques, the ability to implement village reforms, and marketing skills. There were many similarities between entrepreneurship education and the Saemaul leadership training offered at the Saemaul Leaders Training Institute. It was important for Saemaul leaders to commit to their work as a leader and ground themselves in an entrepreneurial mindset.

When a village assembly elected Saemaul leaders, they usually chose one male and one female leader. Female village leaders, who also led the village women's association, worked toward the empowerment of rural women during the Saemaul Movement. In the 1970s, the societies of underdeveloped villages were more conservative than urban society. During the Saemaul Movement, women, before thought of as only wives and mothers, became leaders who contributed to the village development and cultural reform. In the initial stages of the Saemaul Movement, women mainly participated in anti-gambling campaigns, family planning, and removing bars from villages, but later they contributed to income-generation and other economic reforms.

## **IV. The Saemaul Movement and Cooperatives**

In the 1970s, one of the business models that the Saemaul Movement adopted was “cooperatives.” Cooperatives were organizational methods and platforms rather than an income-generating project like the other business models adopted by the Saemaul Movement (Zamagni & Zamagni 2010).

### **1. Role of Cooperatives in the Saemaul Movement**

The “Village Fund” was another name for credit cooperatives in the Saemaul Movement. The Village Fund was a cooperative organization built with the mutual help and interest of villagers. It promoted a regular savings method for its members and provided low-interest loans for small-scale businesses. The Village Fund could be considered a non-profit credit cooperative which allotted business profits to its members. The Village Fund adopted eight standards based on the principles of a credit cooperative: the democratic principle (each one person received one vote), voluntary membership, autonomy and independence, fairness and equity, cooperation, political and religious neutrality, educating its members, and the development of union members, organizational structure, funds, etc. (National Association of Village Fund 1977).

The rural Village Fund evolved from the Catholic Credit Associations of the 1960s. In 1972, the Village Fund became part of major projects in the Saemaul Movement (Chung 2009, p.104). Under the legal foundations established by the Credit Unions Act, the Village Fund model spread extensively during the Movement. The South Korean government offered standard instructions so that villagers could establish a Village Fund (Ministry of Home Affairs 1980, 352). The government also provided education for Village Fund members. The Village Fund movement contributed to decreasing high-interest loans and increasing villagers’ savings, income, and economic capacity. From a micro-financing perspective, the Village Fund was similar to a micro-credit bank because it specialized in low-interest loans to villagers based on trust rather than collateral. Unlike a micro-credit bank, however, it was owned by villagers, was democratic, and granted loans between members. The Village Fund operated without external interference and offered unsecured credits with low interest-rates solely on the basis of a member’s credit file (Kim 2013, pp.26-27).

The Village Fund often reduced high-interest loans and increased income in rural households. The Village Fund movement in the poor village of Chibuk, Sunch’ang County, Chŏnbuk province, was a particular striking example of Village Funds during the Saemaul Movement. Village member KwonSook-Young received a Village Fund education in November 1971 and established a Village Fund with 26 other members. Despite initial hardships, the reserves of the Village Fund grew rapidly and, in 1974, the village was awarded the Prime-Minister Award in the Village Fund Category at the Provincial Saemaul Leader Convention. The Village Fund

settled all high-interest loans and increased the income in Chibuk. Between 1971 and 1978 the assets of the Fund increased from KRW 23,000 to over KRW 33,000,000. Household incomes in Chibuk rose from KRW 245,000 to almost KRW 2,000,000 (Ministry of Home Affairs 1979, pp.496, 507).

The Village Fund typically managed the Consumer Cooperative. Since many leaders of village women's associations were trained in savings movements in the 1960s and the 1970s, village women's associations were a driving force in managing Village Funds and Village Consumer Cooperatives. Generally, members of the women's association in a village managed the Village Consumer Cooperative through a monthly chairman rotation system. Because the education level of rural housewives was extremely low, managing the Village Consumer Cooperative was not an easy task, and the Village Consumer Cooperative received help from the female Saemaul leader or the village development committee.

## **2. Agricultural Cooperatives**

The role of the Agricultural Cooperative was another cooperative system that promoted the Saemaul Movement. The Agricultural Cooperative was in charge of duties, such as purchasing fertilizer, pesticide, and tools, supplying farming funds and tax deduction, purchasing farm products on behalf of the government, marketing agricultural products, and teaching members farming skills. The highest level of the Agricultural Cooperative was the National Federation of Agricultural Cooperative, followed by the County Agricultural Federation and the Unit Agricultural Cooperative, respectively. The government's strong influence on organizational management limited the Agricultural Cooperative's self-governing practices. The Agricultural Cooperative, however, still greatly contributed to the development of rural areas. It provided loans to farmers, reduced high-interest loans, helped members purchase daily necessities, and modernized the distribution system between production and consumption sites (Park, Park & Shin, 2012).

## **V. The Saemaul Movement and the Empowerment of Women**

The Saemaul Movement also contributed to the empowerment of women in rural areas. It was impossible to carry out the Saemaul Movement without the participation of women. Women usually managed the village credit cooperatives, were active in income-generating businesses, and prevented gambling and drinking. In the Saemaul Movement, women actually participated in the movement more actively than men (Goh 2010; Han 2013).

## **1. Women's Education**

In the 1970s, South Korea created women's associations in all rural villages and the chairperson of the women's association became the female Saemaul leader. Becoming the chairperson meant spearheading the modernization of the village and "village cultural reforms." Women were the driving force behind consumer co-op projects, the village credit cooperatives movement, the savings movement, and the cultural revolution against drinking and gambling. These types of movements required both organizational and accounting skills, so the government introduced capacity-building programs aimed at helping women reform the rural culture.

In the 1950s and 1960s, South Korea promoted women's education for saving-movements, family planning policies, and village credit-cooperative movements. It was not until the Saemaul Movement, however, that women's empowerment improved throughout South Korea. In the early 1970s, men dominated the South Korean rural society, and the majority of rural women did not benefit from a modern education. Most women faced discrimination, were illiterate, and did not attend elementary school. Thus, women could not compete with men in terms of leadership and other skills (Chang 2008; Yu 2001).

Women elected as village leaders received educational opportunities. Although there was leadership education for women in urban areas, a leadership program targeting housewives from the rural area was a new concept, especially considering that most village housewives had not received any modern education. The idea of a village wife, for whom even leaving the house to visit her parents was unusual, leaving the house during the week to train as a Saemaul leader was groundbreaking. Women's education at the Saemaul Leader Training Institute did not center on being a "good mother and good wife." Specific education included reform-awareness directed at changing the villages' wasteful culture of gambling and drinking, income-raising methods, women's economic empowerment, managing the village credit cooperative, promoting Saemaul projects, organizational management, and methods for holding a meeting (Saemaul Leader Training Institute 1982, p.333).

## **2. Self-Reliance and Empowerment**

Female Saemaul Leaders focused their efforts on the empowerment of other women in the villages. Leaders shared the education they received with other women and provided practical education through jointly implementing projects. For village women without a modern education, projects, such as consumer cooperatives and village credit cooperatives were new concepts, and women "learned by doing" by using "rotation of responsibility" as a management method. A study written by Hyoungh Cho, representative scholar of women studies in South Korea, and Irene Tinker (1981, p. 359) revealed that women's education at the

Saemaul Leader Training Institute contributed to the overall improvement of women's positions in rural societies and families. Saemaul education gave women a sense of honor and pride. The majority of female Saemaul leaders expanded their scope beyond the village towards townships and counties, where some became advisors to local authorities.

The Saemaul Leadership Training Institute invited women, as examples of success, to give lectures about their experience in the Saemaul Movement. Many village women who gave lectures received additional invitations from large companies and public institutions and went on to present across the country. During the first nationwide Saemaul Leaders' Convention in November 1973, under the eyes of the president and 4000 people, the convention presented two successful cases: one was the case of a male Saemaul leader and the other of a female leader. The case under discussion was Kim Yong-Sun from Ankang-Ub village in Wolsung County, Kyungbuk province. Kim Yong-Sun, a simple housewife from the rural area, spoke in front of the president, high-level officials, members of the national assembly, the media, and other Saemaul leaders. A rural housewife speaking at the convention was a remarkable event in South Korean history.

## **VI. The Saemaul Movement and Leadership Education**

The evaluation of the first year of the Saemaul Movement, conducted in 1970-1971, confirmed the importance of leadership in village units. Additionally, in 1973, a team of experts visited 100 rural villages and declared leadership one of the main reasons for village success (Kim 1983, p.23). There was a difference between the Saemaul leader and the traditional village leader or local influential figure that existed before the Saemaul Movement. The Saemaul leader was an entrepreneur who managed modern businesses and modern organizations. Saemaul leaders developed business management skills through capacity-building. Often this education was not obtained in a classroom, but from co-workers or direct observation through study trips. The Saemaul Leaders Training Institute, established in July 1972, trained outstanding farmers for Saemaul leadership through practical entrepreneurship education centered on examples and fieldwork (Saemaul Leaders Training Institute 1982, pp.141-158).

### **1. Educational Content**

The Saemaul Leaders Training Institute divided its education into three parts: the "New Mindset of the Saemaul Movement," entrepreneurial business-management skills, and organizational management skills (Han 2013).

The primary goal of developing a “Saemaul mindset” was overcoming the sense of destiny and submission to one’s fate that was widespread in rural areas, and inspire a mindset of self-reliance. Kim Chun, President of the Saemaul Leaders Training Institute, emphasized self-reliance in his classes and had a lasting influence on his students. The Saemaul Leaders Training Institute offered courses on “patriotism,” “establishing love for the nation,” “creating a new history,” “principles for the modernization of the rural area,” “development of the cooperative mind,” and “the development of the rural area as a model for other countries.” The concentration on self-reliance helped students develop the pride and self-esteem needed to overcome poverty and adapt to a productive and modernized rural lifestyle. The Saemaul leader volunteered to develop his village, and, because leaders were not paid, their only motivation was their pride and belief in their village. Saemaul Leaders Training Institute used examples of successful village leaders to encourage a “mindset education” in other leaders. According to a 1980 survey, trainees ranked “mindset education” and “successful examples” as the most useful course content taught at the Saemaul Leaders Training Institute (Hwang 1980)

The second goal of Saemaul leaders’ education was developing entrepreneurial skills, such as farm-management, improvement of distribution channels, Saemaul income planning, managing livestock, and civil engineering techniques. The third goal of Saemaul leader’s training was establishing methods that allowed a leader to manage a village like a small company and included learning how to organize village assemblies, guide farmers, and resolve conflict. Saemaul leaders also had to learn how to draw-up business plans and learn business management and distribution.

## **2. Educational Methods**

The Saemaul Leaders Training Institute adopted various educational techniques to increase the impact of their training. One of the most effective aspects of the Institute was its isolation from the outside world. The Institute prohibited television, newspapers, and radio within the Institute so students could fully focus on their studies. Training also took place during a strict 5:30am to 11:00pm schedule (Han 2013, p.119).

Students often learned from the success stories of other farmers, which encourage learning through mutual circumstances. The Institute presented success stories followed by group discussions, a method called “community of practice” that encouraged mutual exchange between peers instead of a student-teacher dynamic. The Institute also encouraged study tours where Saemaul leaders visited successful villages in order to benchmark the success of the village. The teachers of the Saemaul Movement were not development experts; they were fellow Saemaul leaders who had set successful examples. This “peer teaching” method was highly successful because it connected villages, townships, and counties and promoted the diffusion of successful examples, or “Best Practice” cases.

Besides the practical education offered by the Saemaul Leaders Training Institute, the Movement also offered special education for leaders of underdeveloped villages. Upon receiving basic education at the Institute, leaders of an underdeveloped village stayed in an exemplary village for four days to receive on-site training. Therefore, although the Saemaul Movement emphasized competition among villages, it also encouraged cooperation between villages so the development of all villages advanced (Chung 2008, p.137; Han 2013, pp.123, 172-176).

## **VII. The Saemaul Movement and Reforestation**

In the face of several natural and manmade environmental factors, reforestation has become an important worldwide issue. South Korea's reforestation success, achieved through village-based forestation during the Saemaul Movement, gained worldwide attention. Village-based forestation of the Saemaul Movement is the same as Community-based Forestry Management (CBFM), a reforestation campaign managed by villagers who benefit from reforestation by-products (Chung 2014, p.243). CBFM has not been successful in all developing countries, but South Korea successfully implemented it during the 1970s. In South Korea, CBFM utilized the mutual trust between the government and villagers during the Saemaul Movement. The government viewed reforestation as a national task and supported villagers' efforts administratively and financially. At the same time, villagers participated in reforestation policies and enjoyed the material benefits of reforestation, such as the income received from selling seedlings to the government at the market price and the supply of fire wood from the participating forests (Lee 2013, p.239).

The government also implemented Saemaul erosion control projects, which were small-scale projects that restored denuded land around villages. Contracts under the Income Reinvestment Principle between the village and the government promoted erosion control projects. Between 1973 and 1975, the Saemaul Movement accounted for 70.7 percent of the erosion control projects across South Korea (Lee 2013, p.285).

### **1. Cultivating Seedlings in the Village**

In 1973, South Korea planned to reforest 10,000 hectares of land in the mountain area over a 10-year period. The Saemaul Movement implemented seedling-cultivation projects to meet this demand. The government purchased the seedlings and villagers nurtured them. Between 1973 and 1978, the Saemaul Movement cultivated 34.8 percent of the seedlings needed for the national reforestation project. The villagers' income increased through government-funded land rentals and the selling of seedlings to the government (Lee 2013, pp.264-269).

The South Korean government considered reforestation a project that improved living conditions, so they implemented the project without wages. In 1977, Saemaul reforestation accounted for 60.5 percent of the national reforestation total. Villages planted fruit trees (mostly chestnut and persimmon), rapid-growth trees, long-term trees, ornamental trees, and fuel forest trees (Lee 2013, pp.276, 294).

## **2. The Village Forestry Cooperative**

After the Korean War, the government passed the Forest Land Protection Temporary Measures Law to encourage reforestation in the country. In December 1961, the government revised the Forest Law and enforced the Forestry Cooperative. Villagers became members of the Forestry Cooperative in order to harvest forest fuel in the nearby hills. The duties of the Forestry Cooperative included self-regulated forest protection, local solutions to forest fuel, erosion control projects, increasing the income of members by planting trees, and participating in joint projects according to Forestry Management plans (Lee 2013, p.312). The Forestry Cooperative became the Saemaul Forest Cooperative in 1973 in order to better cooperate with the Saemaul Movement, although its organizational features remained largely unchanged.

## **3. Crosschecking Planting Trees**

The South Korean government implemented the “check on the tree plantation” principle, a term coined by the Ministry of Home Affairs, in order to combine planting and follow-up cultivation into one process. The government carried out the first inspection at the city and county level and crosschecked the second inspection with the performance of the province. To avoid favoritism, different cities and counties inspected one another. The third inspection, supervised by the National Forestry Service, crosschecked all nine provinces. Due to these three inspections, the survival rate of seedlings between 1973 and 1980 was 88-92 percent (Lee 2013, p.259).

## **VIII. Successful Cases and Lessons for Developing Countries**

The results of the Saemaul Movement exceeded government expectations. Villagers experienced the success directly in their villages, success that only served to further encourage neighboring villages.

Based on the principle giving priority support to the better performed villages, the government supported successful villages for further development. In the Movement’s second year, South Korea gave further support to successful villages, which were half of the total number of villages. The government annually published

pamphlets introducing successful stories and distributed them to village leaders. Popular publications included *Footprints of Glory: The history of the Saemaul Movement in the Village Unit* and *Correspondence Teachings of the Saemaul Movement*. Television, newspapers, radio, and movies or dramas also publicized Saemaul Movement success stories. The book *The Road to a New Village* featured the following two success stories (Case 5.1 and Case 5.2).

**Case 5.1 Ms. Jeong Mun-Ja (Born in 1940, Female Saemaul Leader, Oryu-ri Village in Imsil County, North Cholla)<sup>42</sup>**

Jeong Mun-Ja was the female village Saemaul leader of Oryu-Ri, Imsil County in North Cholla. Although it was rare for women to graduate elementary school in the 1950s, Jeong Mun-Ja was a high school graduate. After high school, she trained as a seamstress for six months. Before the Saemaul Movement, she and her family lived on a mountain roughly four kilometers from Oryu-ri. In 1968, she received funds through a government program entitled Special Income-Generation Project for Farming and Fishing Villages, and invested in Korean cattle, but she lacked knowledge about cattle farming and the investment failed.

Even though her husband was a government official, Jeong Mun-Ja lived an impoverished and lonely life. Her four children lacked educational opportunities, so, in 1971, the family left the mountain and went to live in the village. Jeong Mun-Ja joined the village's "Mothers Association for Family Planning." Witnessing the cycle of domestic violence, drinking, and gambling among the village men inspired her to launch an economic movement to improve women's economic power.

With the women's association, Jeong Mun-Ja made and sold school uniforms to students from a nearby elementary school. She sold approximately 100 uniforms. She used the money from the uniforms as capital for a Village Fund. She also began a rice savings movement: where housewives saved one spoon of rice everytime they cooked it and brought the saved rice to the rice savings association at the end of each month.

When Oryu-ri received cement for Saemaul projects, Jeong Mun-Ja and other village women wanted to transform village kitchens from traditional kitchens where women cooked sitting down into modern kitchens where women worked standing up. The cement could only be used for the village's common-use facilities, however, so women were not allowed to use the cement for their private kitchens. Thus, the women association looked for another solution; five women donated their wedding rings and bought cement to make their own bricks for their kitchens.

<sup>42</sup> Information in this section came from Mun-Ja Jeong's 1975 report "Women of Oryu-ri" from *The Way to Saemaul: The Report on the Inspection of Japan's Agriculture Industry and Success Stories* published by the Saemaul Leader Training Institute.

Afterward, Jeong Mun-Ja asked the county governor for 2,000 chestnut trees for the women's association. She received the trees free of charge and made an agreement with the mountain owner for harvesting the trees. 30 percent of the trees went to the mountain owner and 70 percent went to the women's association. The county governor was moved by Jeong Mun-Ja's efforts and also gave the women association 500 sacks of cement for the kitchens, more than the men had been given. With this cement, the women's association modernized 100 percent of the kitchens in the village.

To raise more funds for the women's association, the members organized a joint farming group. Every morning before cooking breakfast, the women, as a team of farm workers, met to work at a farm and received wages from the owner to be saved in the women's association fund. The women's association also succeeded in closing all three bars in the village. After reforming the gambling and drinking culture of the village, the women's association held periodical feasts for the elderly and provided them soymilk tea every morning to improve their health.

Stories of Jeong Mun-Ja and the women's association spread across the country. The mayor of Seoul brought them three calves as a present. The women's association managed the animals through a cow bank until each member of the association eventually became an owner of a cow. Jeong Mun-Ja expanded her efforts to include Saemaul projects. She persuaded the director of a factory company in Kangkyong Town to build a small-scale factory where young women could work in her village. The women working at the factory were elementary school graduates, but Jeong Mun-Ja and the church minister organized evening middle-school courses for them.

In 1974, Jeong Mun-Ja received a Presidential Prize for her success in the Saemaul Movement. With the prize of KRW 2,000,000, she invested in the construction of a bridge across the village river. She lacked enough funds for the project, however, and she presented her case at the Saemaul Leaders Training Institute. The president of a plywood business who listened to her presentation financed the remaining funds for the bridge. The villagers named the bridge "The Bridge of Women's Heart" in honor of Jeong Mun-Ja and her women's association (Jeong 2012). Jeong Mun-Ja's story was later adapted into a film named "The Ladies of Oryu-ri" in 1974.<sup>43</sup>

---

43 [http://archives.saemaul.com/jsp/saemaul/leader\\_represent\\_Jmj.jsp](http://archives.saemaul.com/jsp/saemaul/leader_represent_Jmj.jsp)

**Case 5.2 Mr. Im Gwang-Muk (Born in 1934, Male Saemaul Leader, Chulpo-ri village, in Dangjin County, South Chungcheong Province)<sup>44</sup>**

Im Gwang-Muk was a male Saemaul leader in Chulpo-ri village in Dangjin County, South Chungcheong Province. Chulpo-ri village was a poor fishing and farming village. Under the Saemaul Movement, the village began farming oysters and their income greatly increased. Oyster farming did not require many technical skills, but did require the full cooperation of the villagers (Im 2008).

Based on their success, the villagers developed a reclamation project in order to develop more land for agriculture. Chulpo-ri villagers believed that “we can be rich only when we reclaim land from the sea” (Im 1975, p.88). In the 1960s and early 1970s, two businessmen from outside the village attempted the same project but failed. In 1972, Chulpo-ri resolved to undertake the project with no advanced machinery or equipment. Instead, they used existing technology, such as A-frame carriers, cooling racks, and handcarts. As an incentive, the village promised each household 3,300 square meters of farmland upon the completion of the project. The village completed the project on May 26, 1972.

Because of the poor technology, the constructed embankment collapsed twice before completion. In order to repair the collapsed embankment, the villagers requested heavy equipment from the government but did not receive any support, despite the fact that the resulting farmland greatly contributed to sustainable income-generation in the village. Chulpo-ri is not unique; many successful villages during the Saemaul Movement succeeded without government assistance.

In 1972, Chulpo-ri developed further through reclamation projects, oyster farming, and the improvement of rooftops. In 1973 the government certified the village as self-reliant, and it ranked fourth in Dangjin County among successful villages during the Saemaul Movement. It also received a self-reliant village award from South Chungcheong Province. The villagers decided to dedicate the award money to a self-reliance program for impoverished farmers in the village. In 1974, the village received a Presidential Grant, which they used to finance an Income Reinvestment Project. With the Presidential Grant, the village carried out a stream straightening project. The village saved 25 percent of the labor income in a village development fund for the next income-generating project. The villagers in Chulpo-ri decided to invest the village development fund in oyster farming. The oyster farming project became the signature project of Chulpo-ri and significantly increased the income level of the village.

<sup>44</sup> Information in this section comes from the archived material *Collection of Village Documents: Leader Im Gwang-Muk I* from the Saemaul Undong Central Training Institute. n.d.

Im Gwang-Muk became a Saemaul Movement teacher for fellow farmers. He lectured at the Saemaul Leaders Training Institute about the success story of his village many times. His house also became a training place where Saemaul leaders of less successful villages stayed to observe the Saemaul achievement of the Chulpo-ri village and receive practical lessons from it.

The success stories of Im Gwang-Muk and Jeong Mun-Ja's villages are only two out of many success stories during the Saemaul Movement. Many villages learned and benefited from the examples of Chilpo-ri and Oryu-ri. The developing countries of the 21st century can now learn from the success of South Korea's Saemaul Movement as a whole. Developing countries can apply the same tools of self-reliance, public-private cooperation, and optimism utilized by the Movement in the 1970s for their current pursuit of the Sustainable Development Goals.

## References

- Chang, M.-K. 2008, "The Formulation and Change of Identity of Saemaul Women Leaders in the Developmental State Period: Focusing on the successful cases or essays of Saemaul Women Leaders," *Social Sciences Review*, vol.16, no.1, pp.175-190
- Cho, H. & Tinker, I. 1981, "Women's Participation in Community Development in Korea," in M.-G. Lee (ed.), *Toward a New Community Life*, Institute of Saemaul Undong Studies, Seoul National University, Seoul, pp.343-386
- Choi, J.-H. 2012, "Transcript of Oral Recording of the Saemaul Undong Leader: Jae-Hee Choi," Han Do-Hyun, The Academy of Korean Studies.
- Chung, K.-J. 2008, *Korea's Experiences and Lessons from Saemaul Undong*, K. Builder, Seoul.
- Chung, K. H. 2014, *A Modular Framework for International Saemaul Undong ODA and Modules of Projects*, Korea International Cooperation Agency, Seongnam.
- Goh, K. 2010, "Saemaul (New Village) Undong in Korea: Factors of the Success and Their Transferability," SMU 40<sup>th</sup> Anniversary International Symposium, Korea Saemaul Undong Center, Seoul.
- Han, D.-H. 2010, "President Park Chung-Hee and The Saemaul Undong" in J.-S. Lee (ed.), *Revisiting the Period of Park Chung Hee*, Seonin, Seoul, pp.41-89
- 2013, *Village Leaders and Their Community Activities*, Ministry of Strategy and Finance, Seoul.
- Hwang, I.-C. 1980, *Management of Rural Change in Korea: The Saemaul Undong*, Seoul National University Press, Seoul.
- Im, G.M. 1975, "The Saemaul Leader who reclaimed the land from the sea," *The Way to Saemaul: The Report on the Inspection of Japan's Agriculture Industry and Success Stories*, Saemaul Leader Training Institute, Seongnam, pp. 85-127.
- 2008, "Transcript of Oral Recording of the Saemaul Undong Leader: Lim," Han Do-Hyun, The Academy of Korean Studies.
- Jeong, M.-J. 1975, "Women of Oryu-ri," *The Way to Saemaul: The Report on the Inspection of Japan's Agriculture Industry and Success Stories*, Saemaul Leader Training Institute, Seongnam, pp.147-195.

- 2012, “Transcript of Oral Recording of the Saemaul Undong Leader: Mun-Ja Jeong,” Han Do-Hyun, The Academy of Korean Studies.
- Jun, S.-I. 2010, “Direct View and Re-recognition of Saemaul Undong,” SMU 40<sup>th</sup> Anniversary International Symposium, Korea Saemaul Undong Center, Seoul.
- Kim, J.-H. 1973, “Leading Principles of Saemaul Undong for Rural Income Increase,” *Local Administration*, vol.22, no.5, pp.40-51.
- Kim, J. K. 2013. “Why the Saemaul Undong is So important to Understanding Korea’s Social and Economic Transformation,” *New Research on Saemaul Undong: Lessons and Insights from Korea’s Development Experience*. KDI School of Public Policy and Management, Sejong City.
- Kim, Y.-M. 1983, *A Study on the Saemaul Undong*, Gohyeon, Seoul.
- Korea Saemaul Undong Center 2003, *Handbook for Saemaul Movement*, Korea Saemaul Undong Center.
- Lee, K.-J. 2013, *Saemaul Undong and Forest Rehabilitation in Korea: Saemaul Income Boosting Project and the Role of the Village Forestry Cooperative*, Ministry of Strategy and Finance, Seoul.
- Ministry of Home Affairs, 1975, *The Guide for Saemaul Undong*, Korea Local Administration Mutual Fund, Seoul.
- 1975, *Saemaul Undong: From the Beginning Until Now*, Ministry of Home Affairs, Seoul.
- 1979, *The Footprints of Glory: the History of Promoting the Saemaul Undong Vol.2.*, The Headquarter of Village Libraries, Seoul.
- 1980a, *A Ten Years History of the Saemaul Undong: Data and Sources*, Ministry of Home Affairs, Seoul.
- 1980b, *A Ten Years History of the Saemaul Undong*, Ministry of Home Affairs, Seoul.
- National Association of Village Fund 1977, *Basic Textbook for Village Credit Cooperative*, National Association of Village Fund.
- Park, J.-H. 2005, *President Park Chung-Hee’s Korean Modernization and Saemaul Undong*, Committee for Commemoration of President Park Chung-Hee, Seoul.
- Park, S.-J., Park, J., & Shin, K. 2012, *Operation of Agricultural Cooperatives for Rural Development*, (Report No. 2011 KSP), Ministry of Strategy and Finance, Seoul.

Sachs, J. 2010, "How to End the Poverty?" Public Lecture, 8 November, Daegu, Korea.

Saemaul Leader Training Institute 1982, *A Ten Years History of Saemaul Leader Training Institute*, Saemaul Leader Training Institute, Seongnam, Korea.

Saemaul Undong Central Training Institute. n.d., *Collection of Village Materials: Leader Im Gwang-Muk I*, Saemaul Undong Central Training Institute Archive Material.

So, J.-K. 2013, *Reforming Governments for Saemaul Undong*, Ministry of Strategy and Finance, Seoul.

Yu, J.-M. 2001, "An Analysis on the Experience of Women who Participated in State-Led Development: Focusing on the example of Female Saemaul Leaders," Masters in Women's Studies, Ehwa Womans University, Seoul.

Zamagni, S. & Zamagni V. 2010, *Cooperative Enterprise: Facing the Challenge of Globalization*. Edward Elgar Publishing, Inc., Northampton, MA.

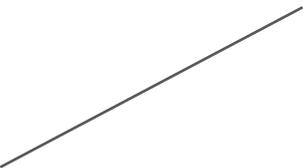


Chapter

**06**



**The Advancement of Education and  
Human Rights for Women in South Korea**



By

Eun Kyung Kim

# I. Overview of the Status of Women in South Korea

## 1. Gender Agenda in the SDG Development Framework

In the 1960s and 1970s, feminists in the Republic of Korea criticized the industrialization strategies of sustainable development and the international market economy for not effectively improving the lives of women or the impoverished. South Korea's market economy, with production based on family labor, had provided men with near-exclusive opportunities but left women behind in the household (Boserup 1970; qtd. in Kim, et al. 2014, p.6). If sustainable development now hopes to integrate women into the development process, it has to not only eliminate discriminatory practices and laws, but also incorporate the following factors: equal access to economic resources, universal access to safe reproductive health and education, equal access to healthcare services, and equal rights and access to ownership and control over property, financial services, inheritance, and natural resources (Kim, et al. 2014, p.8).

Unpaid and unfairly distributed labor greatly affects gender equality, and financing women's rights is a prerequisite for sustainable development (Kim, et al. 2014, pp.239-240). A key challenge, however, remains for strengthening a human rights agenda: often the people suffering from inequality do not have the capacity to translate their rights into reality. Policy planning, therefore, proves vital for implementing tangible human rights development (United Nations 2012). In South Korea, women's collective action played an important role in translating rights into capacity and capacity into rights (Kabeer 2013; qtd. in Kim, et al. 2014, pp.238-239).

## 2. Women in South Korea<sup>45</sup>

In South Korea, socio-economic inequality increased consistently after President Park Chung-hee's authoritarian government adopted an unbalanced growth policy in the 1960s. Although an authoritarian regime can successfully produce outstanding economic growth, such modernization was often pushed forward by a small group of elites, leading to a socio-economic imbalance that favored the elites but deprived the middle class and laborers. Political resistance from workers and citizens played a pivotal role in the 1987 democratization movement. The South Korean people hoped that political democratization and economic liberalization would encourage sustained economic growth, curtail corruption, improve social justice, and create a conducive inflow of foreign capital. South Korea discarded their unbalanced growth policy after a

---

45 This section summarizes the article "Political and Economical Dynamics of Unbalanced Growth Policy, Human Rights, and Democracy in Korea" by Yeonho Lee, Professor in the Department of Political Science and International Studies, Yonsei University.

financial crisis in 1997, but the legacy of socio-economic inequality persisted. The government was aware that a conglomerate-centric economic structure caused inequality, but South Korea needed the cooperation of industrial capital in order to overcome the financial crisis. Therefore, South Korea could not fundamentally reconstruct the export and conglomerate-oriented economic and industrial structure. As a result, socio-economic inequality continued to persist after democratization and the financial crisis.

South Korea's socio-economic inequality especially impacted women's opportunities and empowerment. South Korean women lacked educational and employment opportunities because of the economic conditions and patriarchal culture of their country. A low education rate for women paralleled a low economic participation rate, which, in 1963, was half that of men's economic participation rate. Many women could not find employment and, if they did, were compelled to retire after getting married or giving birth, thus socially conforming to their housewife roles. Additionally, employment often offered women poor labor conditions and low wages. In the 1970s, women received about 43 percent of the average wage that men received (Choi 2013, pp.11-15).

## II. Women's Policies in South Korea

Despite these obstacles, South Korean feminists pushed the government and civil society to achieve many social developments and policy changes, such as promoting gender equality during the 1970s Saemaul Movement (see chapter five in this volume), improvements in women's policy infrastructure, and increasing women's political representation. Women's policy infrastructure has been especially critical to women's empowerment in South Korea. The establishment of the Korean Women's Development Institute (KWDI), the Ministry of Gender Equality and Family (MOGEF), and the Korean Institute for Gender Equality Promotion and Education (KIGEPE) have all contributed tremendously to policy change for women in South Korea.

### 1. The Korean Women's Development Institute<sup>46</sup>

The United Nations declared 1975 "International Women's Year" and the following decade the "UN decade for Women." In response, South Korea created national machinery that tackled women's issues, specifically the Korea National Council of Women. Additionally, in the mid-1970s, South Korea's Ministry of Health and Social Affairs hoped to establish a new government-funded institute for women's issues, preliminary named the

---

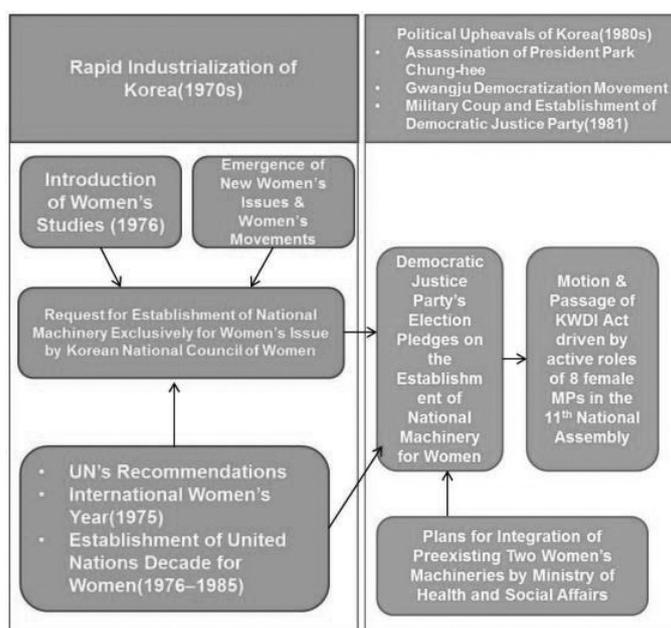
46 This section summarizes Hyun Joo Chung's 2013 article, "The Establishment of the Foundation of Women's Policy R&D: The Case of Korean Women's Development Institute."

“National Commission in Women’s Welfare,” to replace two existing organizations: the National Commission on Women’s Employment and the National Commission on Women’s Welfare (Chung 2013, pp.11-12).

In 1981, a new political party named “Democracy and Justice” emerged in South Korea. The party focused on developing female human resources and declared that women’s social and economic activities should be central in institutional reforms. South Korea’s eleventh National Assembly elected eight women legislators who were deeply invested in gender equality. Recognizing the plan to establish the National Commission of Research on Women’s Welfare, the women legislators instead suggested creating one comprehensive organization that followed the concept of other government-funded institutes such as the Korea Development Institute (established in 1970). They named their proposal the Korean Women’s Development Act (KWDI Act) (Chung 2013, pp.11-13).

After the government appointed a female legislator, Jungrye Kim, as the Minister of Health and Social Affairs in May 1982, the KWDI Act gained momentum. Forty-two legislators proposed the bill for the KWDI Act during the 14th National Assembly on November 23, 1982. In accordance with the KWDI Act, the Korean Women’s Development Institute began in 1983 as a government-funded research institute. Government support secured offices, classrooms, dormitories, and international conference halls for the KWDI. The first president, Young-jung Kim, a professor at Ewha Womans University was appointed on March 29, 1983 (Chung 2013, pp.9-14, 88). Figure 6.1 outlines the international and domestic circumstances that led to the establishment of the KWDI.

Figure 6.1 International and Domestic Circumstances



Source: Chung, 2013, p.9

The KWDI aimed to “conduct research and education/training on women’s issues, support women’s groups, promote women’s participation in society and improve women’s welfare” (Chung 2013, p.3). During its first 30 years, the KWDI supported women’s organizations and women’s volunteering, encouraged women’s cultural activities, and promoted gender-equal media and awareness of gender equality (Chung 2013, p.74). The KWDI’s most important task was devising a national mid- to long-term basic framework for women’s policy by drawing together short-term women’s policies. South Korea enacted its Framework Act on Women’s Development in 1995 and launched its first Five-year Basic Plan for Women’s Policy, which enabled women’s rights to serve not only as a policy agenda but also as a stepping stone to political discourse (Chung 2013, pp.36-37, 89). The South Korean government revised the Framework Act on Women’s Development in December 2002 to include a basis for gender impact assessment. In 2004, the Ministry of Gender Equality and Family secured KRW 600,000,000, the largest amount in the history of South Korea’s women’s policy research, and commissioned the KWDI to institutionalize gender-sensitive polices. The MOGEF designated the KWDI as the Central Gender Impact Assessment Center. In the 2010s, the KWDI provides consultations to central government agencies, manages a gender impact assessment database, develops best practices and promotion strategies, and maintains a nationwide support network among regional gender impact assessment centers<sup>47</sup> (Chung 2013, pp.41-43).

In 2007, the MOGEF commissioned the KWDI to research a mid- to long-term plan for gender impact assessment (Chung 2013, pp.43-44). The KWDI published “The White Paper on Women” in 1985 and “Social Statistics and Indices on Women” in 1986, and, from 1994 to 2007, it annually published “The Year Book on Women-related Statistics,” which was renamed “South Korea’s Gender Statistics” in 2008. The KWDI began operating a gender statistics information system in 2006, compiled a regional gender statistics database in 2007 and an international gender statistics database in 2008, and offered an English-language website dedicated to gender statistics<sup>48</sup> (Chung 2013, p.48).

Additionally, beginning with research on women’s political participation in 1988, the KWDI expanded women’s political participation through extensive research (Chung 2013, pp.51-52). By holding public hearings in which major women’s organizations and female National Assembly members participated, the KWDI pressured political circles to implement a 30 percent female candidate quota in the Political Party Act (Chung 2013, p.52). The KWDI also engaged in a wide range of policy research designed to secure equal educational opportunities for both men and women. This research spans across many aspects of education, including curricula, textbooks, teacher’s education, and career guidance for students (Chung 2013, p.60).

---

47 See the KWDI Gender Impact Assessment Center at <http://gia.kwdi.re.kr/main.do>

48 See the KWDI Gender Statistics Information System at <http://gsis.kwdi.re.kr/gsis/kr/main.html>.

In 1960, South Korea introduced the family headship, or *hoju*, system into the Civil Code, which mandated patrilineage in families and served as an obstacle in gender equality. The family headship system was finally abolished in 2005 and replaced by the Act on the Registration of Family Relationships in 2008. This new family registration system relaxed the principle of the paternal family name and encouraged a more gender-equal family register (Chung 2013, pp.62-64). As family dynamics diversify with the socio-economic environment, however, South Korea needed a more universal family policy. As part of this process, the KWDI conducted studies on the formation of family policies, including the Report on the National Survey on Families in 2003, A National Survey on Families in 2005, a National Survey on Childcare in 2005, Research on Divorce and Support Policies for Divorced Families in South Korea in 2005, Division of Roles and Conflicts among Working Mothers in 1998, Research on the Support System and Legislative Efforts for Single-parent Families in 2011, and A Survey on Single-parent Families in 2013. Additionally, the institute helped modify the Mother and Fatherless Child Welfare Act of 1989 into the 2003 Single-parent Welfare Act and the 2008 Single-parent Family Support Act (Chung 2013, pp.65, 89).

The KWDI also studied the issue of violence against women and sponsored a wide range of nationwide surveys for counseling centers, shelters, probation centers, expert workshops, and seminars. In 2001, the KWDI provided an overview of policies regarding violence against women through Research on Comprehensive Measures to Prevent Violence against Women, Research on Measures to Prevent Prostitution, and proposed the Act on the Prevention of Prostitution Including Brokerage (Chung 2013, pp.70-73). The KWDI worked on legislation and modification for three bills on women's human rights: the Special Act on Sexual Crimes in 1994, the Act on Prevention of Domestic Violence and Protection, etc. of Victims in 1997 and 2004, and the Gender Impact Analysis and Assessment Act in 2010 (Chung 2013, pp.89-90).

Before the government's involvement in gender recognition, the KWDI worked with international organizations and domestic nongovernmental organizations (NGOs) for relevant research, pilot projects, and training to develop gender sensitive policies. Relevant policy actions reflected many of the KWDI's research outcomes, such as women professor quotas in public universities or women candidates in public election offices and supporting framework for women scientists (Chung 2013, pp.90-91). The KWDI's successes, however, would not have been achieved without its dedication to the opinions of various women's groups and collaboration between parliament and academia in an effort to reach a national approval for such an institute. A close relationship with parliamentarians and government officials who were interested in women's issues was critical for the KWDI's budget approval and initial 164-employee staff. The commitment of the KWDI's employees was also important, as a strong sense of vocation drove the KWDI forward. Later, the KWDI introduced systems and institutions to improve research quality and comprehensive research evaluations for a more effective research topic selection. The KWDI brought in international and domestic experts to enable

institutional considerations of women's issues. Global partnership, including international organizations such as the UN, helped leverage the outcomes of similar women's issues in other countries (Chung 2013, pp.93-94).

## 2. The Ministry of Gender Equality and Family<sup>49</sup>

During the 1950s, South Korea approached women as part of the refugee and orphan group that needed relief and protection after the Korean War. At the time, the Women's Bureau in the Ministry of Health and Welfare was responsible for abolishing prostitution, conducting research, and studying labor conditions for improving women's welfare. In the 1960s, policies integrated women and children's issues. This period focused on family planning and programs that promoted "healthy families." The Mother and Child Health Act passed in 1973 and the Family Law was revised in 1977, laying the foundation for policies that controlled the birth rate and population growth rate in the 1970s. During the 1980s, women's policies expanded to no longer only focus on the welfare of married women (*bunyeo*), but to focus on all females (*yeoseong*).

The democratic movement, which grew in tandem with the women's movement from the late 1980s to the 1990s, resulted in a presidential election, local elections, and other political changes that encouraged the government to think of women as voters. The government launched the Ministry of Political Affairs, the precursor of the MOGEE, and legislated laws, such as the Mother and Fatherless Child Welfare Act in 1989, the Gender Equality Employment Act in 1987, the Act on the Prevention of Sexual Assault in 1994, and the Prevention of Domestic Violence Act in 1997.

International pressure also brought about changes in women's policies in South Korea. In 1985, the UN held their third World Conference on Women in Nairobi, Kenya that promoted women-related agencies in UN countries, and, in 1979, the UN adopted the Convention on the Elimination of All Forms of Discrimination against Women. South Korea dispatched government representatives to the annual UN Commission on the Status of Women. In 1995, South Korea legislated the Framework Act on Women's Development, which mandated a basic plan for women's policy every five years and provided a systematic framework to improve the status of women in South Korea.

In 1999, six South Korean government agencies (the Ministry of Government Administration and Home Affairs, the Ministry of Justice, the Ministry of Health and Welfare, the Ministry of Education, the Ministry of Agriculture, and the Ministry of Labor) established offices that handled women's policies. In 2001, the Kim Daejung Administration declared the need for a single government agency that solely dealt with women's

---

49 This section is a partial summary of "A research on the selection of gender ODA programs for the establishment of Korean ODA Model" by Eun Kyung Kim, et al. (2012)

issues and launched the Ministry of Gender Equality. With one office and three bureaus, the Ministry of Gender Equality prohibited and regulated sexual discrimination and improved the position of South Korean women in society.

During 1994, the National Assembly operated a Presidential Commission on Women's Affairs that was later reorganized into the Commission on Women's Affairs. This commission was under the jurisdiction of the MOGEF and could introduce legislative bills. It also had the right to pre-deliberate the budget, operate the women's development fund under the ministry, and investigate government agencies and the ministry. Table 6.1 summarizes the South Korean government's implementation of women's policies and development history.

Table 6.1 Implementation of Women's Policies and Development History

Year	Agency	Department		
		Department	Bureau	Division
1946	Ministry of Health and Welfare	-	· Women's Bureau	-
1948	Ministry of Social Affairs	-	· Women's Bureau	-
1950	Ministry of Social Affairs	-	· Women's Bureau	· Women's Division
1963	Ministry of Social Affairs	-	· Women's Bureau → Women and Children's Bureau	· Established the Mother and Child Health Division
1970	Ministry of Social Affairs	-	· Women and Children's Bureau	· Children's Division · Women's Division
1981	Ministry of Social Affairs	-	· Women and Children's Bureau → Family Welfare Bureau	· Women's Division → Renamed Women's Welfare Division · Newly established Family Welfare Division
1988	Launched the Ministry of Political Affairs directly responsible to the Prime Minister			
1997	Ministry of Health and Welfare	Office of Social Affairs Policy Officer	Family Welfare Bureau	Women's Welfare Division → Renamed to Women's Affairs Policy Division
1998	Established the Presidential Commission on Women's Affairs. Six ministries and offices set up offices that handled women's policies			
2001	Established the Ministry of Gender Equality			
2005	Expanded to Ministry of Gender Equality and Family			
2007	Reformed to Ministry of Gender Equality			
2010	Reformed to Ministry of Gender Equality and Family			

Source: Author based on Kim 2005.

The Women's Policy Committee, established in 1983, and the Ministry of Political Affairs and the Presidential Commission on Women's Affairs, both established in 1998, preceded the Ministry of Gender Equality. However, these organizations were limited by a lack of coordinating or policy advisors with legislative or voting rights. As a central agency, the Ministry of Gender Equality, however, did have voting rights in the Cabinet Council and legislative and enforcement functions. A women's affairs agency with effective legislative power was vital for substantive change in women's policies. As the South Korean government gradually caved in to international pressure to pursue democratic changes within their civic society, women transformed from

being beneficiaries of policy to partners in national development. South Korea implemented women's policy at the central government level and also at the local government level.

Another factor for women's policy change in South Korea was women's groups. Women's groups helped build a gender governance that improved awareness of women's issues within South Korea's largely patriarchal society. Women's groups spearheaded the establishment of agencies that focused on women's issues, legislation of key laws, abolishment of hoju, and illegalization of sex trafficking. The Korean Women's Association United and many other major women's groups in South Korea developed with the help of foreign aid. After South Korea established the Ministry of Gender Equality and Family, the MOGEF implemented joint programs with women's groups. Every time the MOGEF enacted an important policy, it received feedback from women's groups.

### **3. The Korean Institute for Gender Equality Promotion and Education<sup>50</sup>**

South Korea installed the KWDI in 1983 as a government agency that exclusively addressed women's issues and instigate gender training for public officials. The KWDI's Office of Education and Training was responsible for training female leaders and developing vocational training and pilot education programs. In 1984, the Office of Education and Training offered training for mid-level female managers in order to expand gender equality awareness in the country. South Korea delivered the 1999 Guidelines on the Training of Public Officials, which raised awareness about gender equality and discriminatory practices against women, to training institutions affiliated with central or local governments (Kim & Song 2013, pp.21-30). During the period of 1991 to 2002, public servant training institutions and the KWDI officially took charge of gender training for public officials. Public servant training institutions were affiliated with central or local government agencies and generally featured a two-hour unit on gender awareness within a three- to five-day general training program. Units included "Awareness of Gender Equality," "Women's Policy," "Female Leadership," and "Women's Status and Capacity Development" (Kim & Song 2013, pp.26-31). The Framework Act on Women's Development in 1995 established a foundation for gender training, prompted by the 1995 Beijing Conference on Women and the inception of the MOGEF. The inauguration of the Korean Institute for Gender Equality Promotion and Education in 2003 became another watershed moment in South Korea's gender training (Kim & Song 2013, p.17).

---

50 This section is a summary of Jae-In Kim and In-Ja Song's 2013 article, "Gender Training for Public Officials."

The Korean Institute for Gender Equality Promotion and Education (KIGEPE) is a professional gender-sensitivity training institute for public officials aimed at eradicating gender-discriminatory perceptions and practices. On March 30, 2006, South Korea reestablished the KIGEPE as a legal entity in accordance with Article 21-3 of the Framework Act on Women's Development. Since its inception, the KIGEPE provided diverse education that targets a wide range of public officials, including the administrative, legislative, and judicial branches of the government, National Assembly members, local council members, and aides of National Assembly and local council members (Kim & Song 2013, p.46). The KIGEPE arranges program content while considering the characteristics of its clients, the amount of education required for each item, and the characteristics of specific areas (Table 2). Gender training for public officials can be divided into education on gender equality policy, gender sensitivity improvement, Gender Impact Assessment (GIA), and gender budgeting (Kim & Song 2013: pp. 67, 79).

In order to increase the efficiency of education and maximize its applicability in the field, programs included gender training on curriculum construction principles and could be adapted to suit the situations of participants through five- to one-day programs. Training did not just involve the simple transfer of knowledge, but also required a commitment to gender equality through the reassessment of personal beliefs and values. Gender sensitivity education was critical for government and civilian leaders who held influence over society so that the changed values and beliefs of leaders could impact society as a whole. The KIGEPE especially tailored its programs to high-level government officials, judges, prosecutors, and media professionals (Table 6.2) (Kim & Song 2013, pp.59-60, 82-83).

Table 6.2 Overview of KIGEPE Training Programs for Public Officials

Title	Goals	Methods	Targets
Creation of gender sensitive policies	<p>Increase expertise to reflect gender perspectives in the establishment and implementation of policy</p> <p>Improve the ability to implement gender-sensitive policies</p> <p>Promote commitment and the ability to put into practice gender equality in order to expand policies on work-life balance as a response to the falling birth rate</p>	<p>Understanding the concept of gender equality</p> <p>Gender perspectives and gender-sensitive policies</p> <p>Changing paradigms of gender equality and gender mainstreaming</p> <p>Laws and policies related to gender equality</p> <p>Gender equality and government policies (education, human resources, agriculture, welfare, employment, etc.)</p> <p>Crafting gender-sensitive policies and administrative efforts</p> <p>Establishing action plans</p>	<p>Public officials at all levels</p> <p>Council members</p> <p>Government committee members</p> <p>High-level employees at public companies</p>
Gender sensitive training	<p>Improve the ability to implement policies with a gender perspective</p> <p>Improve the ability to create a gender-sensitive organizational culture</p> <p>Achieve work-life balance through equal partnerships</p>	<p>Understanding the concept of gender awareness</p> <p>Laws and policies related to gender equality</p> <p>Shifting paradigms of gender equality and gender mainstreaming</p> <p>Gender communication within an organization</p> <p>Understanding organizational culture and gender partnership training</p> <p>Discussion of the issue of gender equality and establishing action plans</p>	<p>Public officials at all levels</p> <p>Council members</p> <p>Military personnel and police officers</p> <p>High-level employees at public companies</p>

Title	Goals	Methods	Targets
GIA and gender budgeting	Strengthen the substance and efficacy of GIA to accompany the enactment of the Gender Impact Analysis Act (March 16, 2012)	Understanding gender equality in order to implement GIA Understanding the concept and methods of GIA	Working-level public officials in charge of GIA Public officials in managerial positions related to GIA Public officials in charge of gender budgeting
	Increase the ability to reflect a gender perspective in the establishment and implementation of policy and practical ability to implement GIA	Studying overseas cases regarding GIA Practicing case analysis by project	Consultants and other experts on GIA High-level officials in administration, council members, public organizations
	Implement the provisions related to gender budgeting in Articles 16, 26, 34, and 57 of the National Finance Act	Concept and methodologies of GIA and gender budgeting Understanding gender perspectives and the budgeting system	
	Implement the provisions related to gender budget settlements in Article 15-2 of the National Account Act	The National Finance Act and gender budgeting Understanding gender budgets/settlements	
	Implement the provisions related to gender budgeting in Articles 3, 36, and 53 of the Local Finance Act	Theories and methods of gender budget analysis Gender budgets/settlement and gender statistics	
	Improve the ability to reflect a gender perspective in establishing the budgets and settlements on policies and programs		

Source: Kim and Song, 2013, pp.80-81

### III. Economic Empowerment of Women<sup>51</sup>

South Korea's equal employment policies continued to advance since the enactment of the Equal Employment Act in 1987. In 2007, the government revised the Act into the Equal Employment Opportunity and Work Family Balance Assistance Act. This Act initially prohibited discrimination against female workers and then

<sup>51</sup> This section is a summary of "Equal Employment Policies in Korea: An Introductory Guide" by Heekyoung Kim and Myung-Sook Jun.

prohibited a wide range of discriminatory treatment against women, including granting equal opportunity in recruitment and hiring, and prohibiting discrimination in education, assignment, and promotion. It also stipulated a provision on the definition of discrimination and established provisions on equal pay for work of equal value, indirect discrimination, prohibition of sexual harassment in the work place, capability development, Affirmative Action, maternity protection, and work family assistance.

## 1. Policies for Supporting Women Workers

Although women's education levels and job skills were not lower than men's, the South Korean corporate environment often undervalued the labor provided by women and inefficiently utilized women as human resources. Table 6.3 reveals how the South Korean women's economic participation rate has lagged behind many OECD countries.

Table 6.3 Comparison of Female Economic Participation Rate among Key OECD Countries (2009-2014) (percent)

Classification	2014	2013	2012	2011	2010	2009
Korea	57.0%	55.6%	55.2%	54.9%	54.5%	53.9%
Japan	66.0%	65.0%	63.4%	63.0%	63.2%	62.9%
US	67.1%	67.2%	67.6%	67.8%	68.4%	69.0%
OECD Average	62.8%	62.6%	62.3%	61.8%	61.8%	61.5%

Source: OECD Employment Outlook, 2015

South Korea's discriminatory corporate culture, however, conflicted with the mounting social demand for competitive diversity in corporations. Businesses began to value the stronger competitive edge that a variety of viewpoints and opinions, rather than just a homogeneous group opinion, provided. Additionally, the aging rate in South Korea is significantly faster compared to other advanced nations. By 2026, South Korea expects to become a super-aged society where over 20 percent of the population will be over 65-years-old, and they face a future shortage of labor and hindered economic growth if they do not alter their employment policies (Miskolczi & Cséfalvaiová 2013, p.1022).

The Equal Employment Opportunity and Work Family Balance Assistance Act stipulated various systems in order to assure equal opportunity and treatment in employment. Based on this act and relevant laws, including the Labor Standards Act and the Mother and Child Health Act, the South Korean government implemented policies to support equal employment within companies, taking into consideration possible difficulties, such as childbirth and childcare, unique to women employees.

Maternity protection included within the Equal Employment Opportunity and Work Family Balance Assistance Act provided various measures to relieve economic activity constraints for women with children. It granted women a protective leave of a total of 90 consecutive days before and after childbirth, with at least 45 days of the 90 allocated to after childbirth. The Employment Insurance Fund subsidized maternity-leave benefits, and, upon returning to work after maternity leave, maternity protection guaranteed women a job and wage equal to the job and wage she held before leave. Additionally, for miscarriages and stillbirths after 16 weeks of pregnancy, maternity protection granted 30 to 90 days of leave and guaranteed paid benefits that were based on the same subsidy standards as maternity leave. Also, an employer must allow a pregnant woman worker to take requested time off for prenatal examinations and could not cut wages for reasons such as prenatal examinations. Maternity protection also supported paternity leave in that men could request a leave for up to 3 days within 30 days of their spouse giving birth.

The Equal Employment Opportunity and Work Family Balance Assistance Act provided guidelines for employee childcare. A worker with a child eight-years-old or younger could take up to one year of leave with 40 percent of the ordinary wage before childbirth within the bracket of KWR 500,000 to KRW 1,000,000. A childcare leave was at least 30 consecutive days, and the employment insurance subscription period covered at least 180 days. In cases where both parents took childcare leave alternately for the same child, the leave could be accumulatively two years. In cases where both parents took childcare leave simultaneously, benefits were paid to only one person. Childcare systems prohibited unfavorable treatment or termination of those who requested childcare leave, and, upon returning to work, workers were guaranteed the same work. Additionally, for up to one year, a worker could choose to work shorter working hours, between 15 to 30 weekly hours, instead of taking a childcare leave. The government paid KRW 200,000 per month to employers for the duration of childcare leave or shortened working hours for 30 days or more. For employers who hired substitute workers during childcare leaves or shortened working hours, the government subsidized KRW 300,000 per month for every new worker hired during the period of employment as substitute labor. To facilitate the changeover, employers hired substitute labor 30 days prior to the start of the childcare leave or shortened working hours. Additionally, the government executed various childcare policies to support work and family balance. For example, the government provided employers and employer groups with financial support to build childcare facilities and funded construction, acquisition, rent, repair, facility-conversion, or labor costs for teachers.

## 2. Affirmative Action

Although legal institutions secured a foundation for gender equality, gender discrimination still persisted in areas of recruitment, employment opportunities, and promotions. affirmative action supporters hoped to facilitate the use of female human resources by improving indirect discriminatory practices. Broadly, affirmative action included all tentative measures taken by the state, local government, or employer to redress existing forms of discrimination or to promote equal employment. Narrowly, affirmative action included all procedures based on Article 17 Clause 3 of the Equal Employment Opportunity and Work Family Balance Assistance Act. The procedure required companies whose submitted data on men and women workers ratio that fell below the 60 percent mark of the average of companies in the same size bracket or industry to voluntarily implement plans for improving the employment of women.

Affirmative action applied to public organizations and private companies with the yearly average of 500 or more full-time equivalent employees. After March 1, 2006, the Ministry of Strategy and Finance implemented an affirmative action policy in private companies and public institutions with 1000 or more full-time equivalent employees and applied a two-year grace period to private companies with 500-999 full-time equivalent employees. The headquarters and local branches of the Ministry of Employment and Labor were in charge of affirmative action and the operation of the system was entrusted to the Korea Labor Foundation.

Affirmative action began when a company submitted data by job and position via the AA-NET website by March 1st of each year. Companies with insufficient women employment submitted implementation plans for improvement. An implementation plan contained the following demands:

- Analyze human resource utilization and employment management plan for imbalances in male and female resources.
- Set annual employment goals for women in all occupational categories. Occupational categories include managers, experts and related practitioners, office workers, service workers and sales workers, technicians and related technical practitioners, including machine operators and assembly workers, manual workers, and skilled workers in agriculture, forestry, and fisheries.
- Set an employment management improvement plan to achieve employment goals in a designated implementation period.
- Note case-specific difficulties, such as difficulties in improving the percentage of women in a short period of time, employer's opinions about necessary policy measures to expand women's employment, etc.

By March 31<sup>st</sup> of each year, a substandard workplace submitted an implementation plan to the AA-NET website. The Ministry of Employment and Labor categorized plans according to three levels: “satisfactory,” “partial supplementation needed,” or “redraft.” If a company received a “partial supplementation needed” or “redraft” evaluation, the company resubmitted the plan according to the evaluation’s specific requirements.

By March 31<sup>st</sup> of the following year, a workplace that submitted an implementation plan reported the implementation results. The Ministry of Employment and Labor categorized reports as “satisfactory,” “average,” or “implementation required.” The ministry gave further implementation deadlines to companies that received an evaluation of “implementation required.” Companies with exceptional implementation results were awarded with a certificate every April for demonstrating outstanding equal employment. The implementation report included the following:

- Results of the goals for women’s employment compared with the implementation plan goals
- Status of new employment recorded by the percentage of women employees and women managers for the given year
- Results of employment management improvement plan compared with the employment management improvement plan goals

In 2006, the Ministry of Employment and Labor first applied the affirmative action policy to a total of 546 public institutions and companies. In 2014, 1945 workplaces were subjected to affirmative action. The percentage of women employees at companies subjected to affirmative action increased from 35.24 percent in 2012 to 37.09 percent in 2014. The percentage of women managers also grew from 16.62 percent in 2012 to 18.37 percent in 2014. Table 6.4 details changes in workplaces as the result of affirmative action.

Table 6.4 Impact of Affirmative Action Policy on Number of Female Workers and Managers (2012-2014) (person, percent)

<b>Classification</b>	<b>Workers</b>	<b>Female Workers</b>	<b>Average Ratio of Female Workers</b>	<b>Managers</b>	<b>Female Managers</b>	<b>Average Ratio of Female Managers</b>
'14	3,259,781	1,158,126	37.09	278,044	45,008	18.37
'13	3,050,363	1,055,336	36.04	255,751	37,227	17.02
'12	2,906,004	987,047	35.24	286,758	37,221	16.62

Source: Status of Affirmative Action, Korea Labor Foundation, 2012-2014

The effect of the affirmative action policy was clear, but changes are still needed in the details of the current system, conditions within companies, and the sociocultural environment. In South Korea, women's employment is mostly non-regular employment – temporary employment under a contract that must be periodically renewed – so percentages do not necessarily consider the qualitative aspects of achieving short-sighted goals. Therefore, the qualitative aspect must be supplemented by reports about employment status. South Korea's affirmative-action system drew many of its methods from the United States. The latter, however, legally required affirmative action whereas South Korea left affirmative action up to the discretion of companies. Lacking a legal enforcement mechanism, South Korea should develop incentives to attract private company participation. The high tendency of women to leave a job because of marriage, childbirth, or child care serves as another reason that companies may be reluctant to hire women. Preventing women, through continuous career management, from becoming economically inactive, requires the expansion of the social infrastructure, such as additional support services for childbirth and child care. Also, affirmative action efforts must increase awareness about the advantages of hiring women, including enhancing competitiveness.

## **IV. The Political Participation of Women**

The improvement of women's political representation in South Korea was largely made possible through the adoption of a gender quota system in politics. The gender quota system guaranteed a certain percentage of women participants in the political and other administrative arenas, which ensured diversified opinions in the political process and allowed the government to focus more on women's policies (Kim & Oh 2010, p.158). Women's political participation resulted in many remarkable achievements, one among them being the elimination of the Family Headship System, a system that perpetuated paternal bloodlines from father to eldest son throughout generations (Song n.d, p.3).

### **1. Process of the Gender Quota System**

After June 1987, the domestic political and social environments surrounding the rapidly developed democracy, as well as the 1995 World Conference on Women held in Beijing, facilitated discussions about the gender quota system in South Korea (Kim 2014, p.21). Politically active women's groups formed the Gender Quota System Women's Alliance in the 1990s. These women's groups commonly recognized that a gender quota system would have to be introduced to expand women's political participation. The Women's Alliance requested each political party to allot 10 percent of total candidates to women for the 1995 local elections. In 1996, during the 15th legislative election, the Women's Alliance called for at least 30 percent women candidates in local constituencies and 50 percent in national constituency seats. The Women's Alliance finally

achieved their goal in the 2000 revision of the Political Parties Act when the gender quota system became mandatory (Table 5) (Moon, et al. 2008; Kim 2010, p.115).

Leading up to the legislative election for the 17th National Assembly, the Women's Alliance created the Clean Politics Women's Network (Clean-net) to find women candidates. Clean-net recommended a total of 101 women candidates to each party. In turn, 46 women from Clean-net were nominated by each political party: 15 out of 66 in district lists and 31 out of 91 in party lists. The Women's Alliance also actively promoted the voter's movement in order to encourage citizens to vote, fund collection, and other participatory movements for women in politics. As a result of the Women's Alliance efforts, 39 women legislators were elected during the 2004 legislative election. Before the formation of the Women's Alliance, women's political efforts were entirely individual, but the Women's Alliance proved how a collective women's movement could play an important role in enhancing women's representation (Kim 2010, p.116).

Table 6.5 Revision of the Political Parties Act Related to the Women Nomination Quota (2000-2004)

Election Type		2000	2002	2004
National Assembly	Proportional Representation	30% and over mandatory	30% and over mandatory	50% and over mandatory
	Local Constituency	-	-	30% and over recommended (granted aid)
Local Council	Proportional Representation	30% and over mandatory	50% and over mandatory	50% and over mandatory
	Local Constituency	-	30% and over recommended (granted aid)	30% and over recommended (granted aid)

Source: Kim, 2010, p.112

South Korea revised the Political Parties Act in 2000, 2002, and 2004. In 2000, it became mandatory to nominate women to 30 percent or more of the proportional representation seats at the National Assembly and Local Council, but there was no mention of local constituencies. In 2002, the mandatory percentage of women representative seats at the local council increased to 50 percent and the government agreed to grant aid if 30 percent or more women were nominated to the local constituency seats. In 2004, it became mandatory to allot 50 percent or more proportional representation seats at the National Assembly and local council to women. Article 31 of the Political Parties Act revised the 2004 gender quota system to designate 50 percent

proportional representation seats at the National Assembly, 50 percent proportional representation seats at the Local Council Metropolitan Assembly, and 30 percent of Metropolitan Assembly local constituency to women (Table 6.5) (Kim 2010, pp.111-112).

## 2. Outcomes of the Gender Quota System

In the fifth local election in 2010, the ratio of females in metropolitan councils increased by 14.8 percent and by 21.6 percent for the basic local assembly. In line with the 18th general election in 2008, the basic local assembly transferred to the political party quotas, while 10 percent of the proportional representation was introduced (Kim 2014, p.65).

Table 6.6 Women in Parliament Before and After the Gender Quota  
(1988-2012) (people, percent)

Classification	National Assembly	Total Number	PR seats	Women		
				total	district	PR
Before introducing women gender quota system	13th(1988)	299	75(25.0)	6 (2.0)	0	6
	14th(1992)	299	62(20.7)	8 (2.7)	1	7
	15th(1996)	299	46(15.3)	10 (3.0)	3	7
After introducing women gender quota system	16th(2000)	273	46(16.8)	16 (5.9)	5	11
	17th(2004)	299	56(18.3)	39 (13.4)	10	29
	18th(2008)	299	54(18.1)	41 (13.7)	14	27
	19th(2012)	300		47 (15.7)	19	28

Source: Kim, 2010, p.113

Increased women candidates in the local and national government served to implement policy change and improve gender equality at the political level. While South Korea implemented various policies to improve women's political representation, however, the representation rate remained low (Table 6.6). Also, the proportional representation at the national assembly and local elections was low. In order to implement the gender quota system effectively, the quota system must be supplemented with a compulsory provision to nominate a certain number of women candidates at a district level, as well as a proportional representation.

Above all, the gender quota system will never reach its full potential if awareness about women's issues is not encouraged (Kim 2014, p.65).

### **3. Achievements of the Political Participation of Women**

One significant development the gender quota system stimulated by increasing women's political participation was the amendment of the Civil Act's family headship system on December 31, 2007. The former Civil Act organized family relations using the patrilineal *hoju* system. The head of a family was, in principle, a male lineal descendant from the former head of the family. Only in exceptional cases could a woman become the head of a family, such as the complete absence of men in a family. A married daughter could not succeed to head of a family because, after marriage, she belonged to her husband's family. If there was no female lineal descendant to succeed to head of a family, then the wife or the mother, respectively, of the deceased head of the family could become the head of the family. Even if a woman became the head of a family, however, she lost her headship when she married. Moreover, in the family headship system, if a woman married the eldest son, she entered into a family with her father-in-law as head of the family, but, if the man she married was not the eldest son, her husband established a branch family in which she became subject to him (Song 2015, pp.2-5).

Article 36-1 of the Constitution of the Republic of Korea stipulated that "marriage and family life shall be entered into and sustained on the basis of individual dignity and equality of the sexes, and the State shall do everything in its power to achieve that goal." The family headship system, however, discriminated against women by granting an automatic privilege to men in a family. The Constitutional Court asserted that the family headship system led to "very wide and deep social and psychological impacts." The family headship system led to a preference for sons and became a leading cause in the abortion of unborn daughters. Many women suffered personal confusion or loss of identity after marriage. The official confirmation of marriage internalized a married daughter as a *chul-ga-oi-in*, or an outsider, in the minds of her previous family. Furthermore, barring few exceptions,<sup>52</sup> the family headship system stipulated that a child naturally entered into its father's family register. The family headship system enforced, by law, that all people belonged to the male-centered family system (Song 2015, pp.4-6).

The abolition of the family headship system originated from the Movement to Amend the Family Act led by the Korean Legal Aid Center for Family Relations, which was established in 1956 by Dr. Tae-Yeong Lee, South Korea's first woman lawyer. The first revision of the Family Act occurred in December 1962 with an

---

52 Only an unmarried mother's child whose father was a foreigner or unrecognized may enter into the mother's family register (Song 2015, p.6).

amendment to the Civil Act. The amendment established a legal branch within the family headship system for a married second son. This resulted in the Civil Act's view of extended family to shift to nuclear family and an overall weakening of the patriarchal idea of family in the headship system (Song 2015, pp.8-9).<sup>53</sup>

In the 1970s, women's NGOs formed alliances for a concerted effort against the Family Act. In 1973, led by the Korean Legal Aid Center for Family Relations, 61 women's groups formed the Pan-Women's Meeting to Facilitate the Revision of the Family Act, which presented 10 major guidelines for the amendment of the Family Act. The women's groups established "abolition of the family headship system" as the first priority in their guidelines (Song 2015, p.9, 16).

In the 1980s, South Korea's leading women's groups – the Korean National Council of Women and the Korean Women's Association United – led the movement to revise the Family Act (Kim & Hwang 2010, p.130). In 1983, the establishment of the KWDI, the signing of the Convention on the Elimination of All Forms of Discrimination against Women, and the establishment of the Women's Policy Review Board laid the basis for women's affairs policies (Kim 1991, p.226). With this background of domestic and international achievement, women's groups formed the Women's Association for the Revision of the Family Act on July 14, 1984. In 1986, the Association and members of the National Assembly submitted a Family Act revision bill. As the 12th-term National Assembly closed its session in 1987, however, the bill was automatically discarded. Also in 1987, South Korean women's groups formed the Korean Women's Association United (Kim 1991, p.227). Under the leadership of the Korean Women's Association United and the existing Women's Association for the Revision of the Family Act, women politicians once again made an all-out effort to pass the revision bill at the National Assembly. On December 19, 1989, the Constitution established a new provision on individual dignity and gender equality in marriage and family life but still did not abolish the family headship system (Song 2015, pp.10-12).

In the 1990s, women's groups conducted more allied efforts to abolish the family headship system. Led by the Korean Women's Association United in 1997, they conducted the "Movement to Use Parents' Surnames Together," which was a campaign to use both parents' surnames as a child's surname instead of only using the father's. Subsequently, on September 22, 2000, 113 women's, civic, and social groups launched the Civic Solidarity for the Abolition of the Family Headship System (Song 2008, p.36). In January 2001, the central government established the Ministry of Women's Affairs, and the political situation of the presidential elections added momentum to the movement for the abolition of the family headship system. This was the first stage of the abolition process (Song 2015, pp.13-15).

---

53 Also see Gyeong-sook Bae and Geum-sook Choi 2006 lecture "Lecture on Family and Inheritance Law."

The Minister of Women's Affairs, Eun-hee Ji, proposed the abolition of the family headship system in a Cabinet meeting and, as a result, in May 16, 2003, the Special Planning Task Force for the Abolition of the Family Headship System held its first meeting. The women's community, social organizations, and the Special Planning Task Force for the Abolition of the Family Headship System exerted its final efforts to abolish the family headship system. The Constitutional Court finalized these efforts when it ruled against the provisions on the family headship system on February 3, 2005. South Korea abolished the family headship system on March 2 of the same year (Song 2015, p.15). The Constitutional Court, in amending the family headship system, explained that the family headship system no longer agreed with the 21st century's diversified family unit which now included families without children, single-parent families, or families of multiple generations (Song 2015, pp.7-8).

The Special Planning Task Force for the Abolition of the Family Headship System disbanded in March 2005 as the Civil Act revision bill passed the National Assembly and achieved its main goal to abolish the family headship system (Song 2015, p.27). Many factors brought about the abolishment of the family headship system, including the alignment of women's and civic groups to the cause, the election pledge and policy agenda of the Participatory Government, South Korea's first female justice among nine Constitutional Court justices, and public awareness of the social injustices caused by the family headship system (Song 2015, p.18). It was a triumph for the political participation of women, and one that spurred the continued empowerment of women across South Korea.

## References

- Bae, G.-S. & Choi, G.-S. 2006, "Lecture on Family and Inheritance Law," Dai-Ichi Hoki Co., LTD.
- Boserup, E. 1970, *Women's Role in Economic Development*, Allen & Unwin, London.
- Choi, I. 2013, *Knowledge Sharing on Korea's Development in Women's Policies: The Role of Women's Organization under the Saemaeul Undong (New Village Movement) in Rural Communities*, Korean Women's Development Institute, Seoul.
- Chung, H. J. 2013, "The Establishment of the Foundation of Women's Policy R&D: The Case of Korean Women's Development Institute," Korean Women's Development Institute, Seoul.
- Kabeer, N. 2013, "Rights, Capabilities and Collective Action: The 'Missing Ingredient' in the MDGs," *Expert Group Meeting on Structural and Policy Constraints in Achieving the MDGs for Women and Girls*.
- Kim, E-L. 1991, "Study on the Amendment of the Family Act and the Movement for the Amendment of the Family Act," The Korean Women's Development Institute, Seoul.
- Kim, E. K. 2005, "A study on the Participation of the Progressive Women's Movement in the State: the Emergence of Korean Femocrats since late 1990s," Ph.D. Thesis, Yonsei University, Seoul.
- 2010, "The Effect of Gender Quota as a Mechanism for Women's Representation: Focusing on the Bills Initiated by Women Legislators in 16<sup>th</sup> and 17<sup>th</sup> National Assembly," *Journal of Legislative Studies*, vol.30, pp.101-136.
- Lee, S. Y, Kim, W. H., Kim, K., H., Shin, S. M., Jeon, K. T., Kim, E. J, Yoon, D. K. 2012, "A research on the selection of gender ODA programs for the establishment of Korean ODA Model," *Korea Institute for Industrial Economics & Trade (KIET) Research Reports*, vol.622, no.4, pp.161-203.
- Lee, M.J., Kim, Y.T., Chang, E, Kim, J. S., Kwak, S. H. 2014, *Analysis of Gender Agenda in the Post-2015 Development Mechanism*, Korean Women's Development Institute, Seoul.
- Kim, H.-K. & Jun, M.-S. 2011, "Equal Employment Policies in Korea: An Introductory Guide," Korea Labor Institute, Sejong.
- Kim, H. H. & Oh, Y. S. 2010, "Achievements and Limitations of the Gender Quota System in Politics," *Outlook and Trends*, vol.79, pp.140-182.
- & Song, I.-J. 2013, "Gender Training for Public Officials," Korean Women's Development Institute, Seoul.

- Kim, W. H. 2014, Introduction of the Gender Quota System in the Party List, Research paper 19-1-4-1, Korean Women's Development Institute, Seoul.
- Kim, Y.-M. & Hwang, I.-J. 2010, "Discourses on Gender Governance Surrounding the Abolition of the Family Headship System," *National Policy Research*, vol.24, no.4, pp. 123-147.
- Korean Women's Development Institute 1993, *A Decade of KWDI (1983-1993)*, viewed 3 December 2018, <http://eng.kwdi.re.kr/>.
- Lee, Y. 2013 "Political and Economical Dynamics of Unbalanced Growth Policy, Human Rights, and Democracy in Korea," 2013 KWDI SSAGE (Set and Share the Agenda for Gender Equality) Workshop, Korean Women's Development Institute, Seoul.
- Ministry of Home Affairs 1980, *History of The 10-Year Saemaeul Undong*, Ministry of Home Affairs, Seoul.
- Miskolczi, M. & Cséfalvaiová, K. 2013, "Process of Population Aging and its Dynamic," *International Days of Statistic and Economics*, vol.7, pp.1021-1027, viewed 31 October 2018, <https://msed.vse.cz/files/2013/121-Miskolczi-Martina-paper.pdf>.
- Moon, K. H., Chun, K. O., Kim, M. S., Kim, E. K. 2008, "A Comparative Study of Electoral Gender Quotas in Sweden, Germany, and South Korea," *Asian Women*, vol.24, no.1, pp.75-100.
- OECD 2015, "Employment Outlook 2015," viewed 30 October 2015, [http://www.oecd-ilibrary.org/deliver/fulltext?itemId=/content/book/empl\\_outlook-2015-en&mimeType=freepreview&redirecturl=http://www.keepeek.com/Digital-Asset-Management/oecd/employment/oecd-employment-outlook-2015\\_empl\\_outlook-2015-en&isPreview=true](http://www.oecd-ilibrary.org/deliver/fulltext?itemId=/content/book/empl_outlook-2015-en&mimeType=freepreview&redirecturl=http://www.keepeek.com/Digital-Asset-Management/oecd/employment/oecd-employment-outlook-2015_empl_outlook-2015-en&isPreview=true).
- Shin, H.-O. 2000, "Research on National Development Policy and Women's Organizations in Rural Areas," Ph.D. Thesis, Graduate School of Yonsei University, Seoul.
- Song, H.-J. 2008. "Abolition of the Family Headship System: Going beyond the Barrier of the Family Headship System toward an Equal World," Participatory Government Policy Report 2-27.
- 2015, *Gender Governance in Korea: A Case Study on the Abolition of Family Headship System*. 2015 Research Paper 7-3-4. Korean Women's Development Institute, Seoul.
- United Nations 2012, "The Future We Want," Rio+20 Outcome of the Conference, Rio de Janeiro, viewed 12 May 2014, [http://www.uncsd2012.org/contentdocuments/774futurewewant\\_english.pdf](http://www.uncsd2012.org/contentdocuments/774futurewewant_english.pdf).

United Nations Women 2012, “The Future Women Want: A Vision of Sustainable Development for All,” *UN Women*, viewed 17 April 2014, <http://www.unwomen.org/~media/headquarters/media/publications/en/thefuturewomenwant.pdf>.

— 2013, “A Transformative Stand-alone Goal on Achieving Gender Equality, Women’s Rights and Women’s Empowerment: Imperatives and Key Components,” UN Women, viewed on 19 April 2014, <http://www.unwomen.org/~media/Headquarters/Attachments/Sections/Library/Publications/2013/6/UNWomenNote-GenderEqualityGoalInPost2015Framework percent20pdf.pdf>.

United Nations World Commission on Environmental Development 1987, “Report of the World Commission on Environment and Development: Our Common Future, Annex to document A/42/42,” United Nations, New York. viewed 30 November 2018, <http://www.un-documents.net/wced-ocf.htm>.

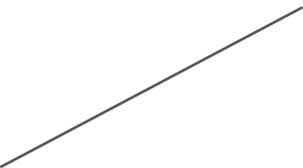


Chapter

**07**



**Shifting the South Korean Development  
Paradigm Toward Green Growth**



By

**Sung Jin Kang**

## I. Environmental Degradation

The Republic of Korea's rapid economic growth and industrial development in the second half of the 20th century brought about drastic economic and social improvements. This development, however, came at a high cost. South Korea's industrial strategy focused on energy-intensive, fossil fuel-centered heavy and chemical industries (HCI), which resulted in significant energy consumption and greenhouse gas (GHG) emissions. South Korea's economic strategy was not unique, and many advanced countries also followed fossil fuel-centered development strategies. HCI continues to drive economic growth in the new millennium, and energy intensive industries created a dependency on energy consumption and GHG emissions. The rapid increase of fossil fuel consumption resulted in negative externalities across the world, such as air and water pollution, depletion of fossil fuels, and climate change.

Faced by the threat of global climate change, many international communities, including South Korea, have elevated their concern for sustainable environmental development. South Korea's own environmental development efforts include government reforestation and afforestation policies, the restoration of the Cheonggye Stream, the remediation of Lake Sihwa, and reduction of carbon emissions in the industrial process. In 2008, South Korea adopted green growth policies as an alternative paradigm for economic growth, placing South Korea at the center of international debates regarding sustainable economic and environmental development. The green growth initiated by the South Korean government has several similar definitions, all of which are outlined in Table 7.1.

Table 7.1 Comparison of "Green Growth" Definitions

Institution/Organization	Definition
The Fifth Ministerial Conference on Environment and Development in Asia and Pacific (2005)	Environmentally sustainable growth
President Lee Myung-Bak's Commemorative Speech for the 60 <sup>th</sup> Anniversary of the Founding of the Republic of Korea (2008)	Green growth refers to sustainable growth that mitigates greenhouse gas emissions and prevents environmental degradation. It is also a new national development paradigm that creates new growth engines and jobs through green technology and clean energy
Presidential Council for Future and Vision (2009)	Green growth means growth in harmony between economy and environment by preventing climate change and reducing environmental damage with conservation of energy and resources and efficient use of them, securing new growth engine through research and development of clean energy and green technology and creating new jobs

Institution/Organization	Definition
Framework Act on Low Carbon, Green-growth (2011)	Growth achieved by saving and using energy and resources efficiently to reduce climate change and damage to the environment, securing new growth engines through research and development of green technology, creating new job opportunities, and achieving harmony between the economy and environment
OECD (2011)	Green growth means fostering economic growth and development while ensuring that natural assets continue to provide the resources and environmental services, on which South Korea's well-being relies
UNESCAP (2012)	Green growth is a policy for the Asia and Pacific region that emphasizes environmentally sustainable economic progress to foster low-carbon, socially inclusive development

Source: Kang 2014, p.31

## 1. Rapid Energy Consumption

South Korea is not a resource-rich country and requires energy imports, including coal and oil, for economic growth. Oil imports decreased temporarily in the early 1980s due to an oil shock, reducing the energy import share of total imports. However, energy imports have grown overall since a slight dip in 1985. Table 7.2 reveals the amount of energy imports South Korea received from 1981 to 2013.

Table 7.2 Amounts of Energy Imports to South Korea (1981-2013)

Category	1981	1985	1990	2000	2010	2013
National Total Imports(A) (Billion USD)	26.1	31.1	69.8	160.5	425.2	515.6
Energy Imports(B) (Billion USD)	7.8	7.3	10.9	37.9	121.7	178.7
Energy Share of Total Imports (B/A, percent)	29.7	23.5	15.6	23.6	28.6	34.7
Dependence on Overseas Energy (percent)	-	-	87.9	97.2	96.5	95.7

Source: Kang 2014

Energy security continues to be a concern as South Korea's growing economy increasingly relies on foreign energy sources. Although energy accounted for 29.7 percent of total imports in 1981 and that portion decreased to 14.1 percent in 1995, it surpassed the initial percentage to account for over a third of all imports

in 2013. Energy dependence as a share of energy import to domestic energy demand reached 87.9 percent in 1990, rose to 97.2 percent in 2000, but decreased to 95.7 percent in 2013. Coal, petroleum, electricity, and thermal consumption all grew steadily from 1981 to 2013. Although total consumption grew with rapid economic growth, per-capita consumption also significantly increased. For example, per-capita electricity consumption increased from 915 kilowatt hours (kWh) in 1981 to 9,285 kWh by 2013, and per-capita oil consumption nearly doubled from 3.39 barrels to 15.62 barrels during the same period. Table 7.3 outlines final energy consumption for a variety of energy sources.

**Table 7.3 Final Energy Consumption of South Korea (1981-2013)**

Category	1981	1990	2000	2010	2013
Coal (Million tons)	27.0	35.7	30.4	43.5	49.5
Petroleum (Million barrels)	131.2	324.0	698.7	767.4	799.1
Natural gas (Thousand tons)	-	-	-	430	358
City gas (Million m <sup>3</sup> )	21	963	11,963	19,982	23,890
Electricity (GWh)	35,424	94,384	239,535	434,160	474,849
Thermal Energy (Million TOE)	0	0.075	1.119	1.718	1.695
New and Renewable Energy (Million TOE)	2.5	0.8	2.1	5.3	7.9
Electricity Consumption per Capita (kWh/person)	915	2,202	5,018	8,595	9,285
Petroleum Consumption per Capita (Barrels/person)	3.39	8.31	14.64	15.19	15.62

Source: Korea Energy Economics Institute

South Korea put significant effort into diversifying and increasing domestic energy production through new and renewable energy. Renewable energy use increased from 2.1 million TOE (ton of oil equivalent) in 2000 to 7.9 million TOE by 2013.

## **2. Rapid Increase in CO<sub>2</sub> Emissions**

In 2012, South Korea's carbon dioxide (CO<sub>2</sub>) emissions ranked seventh largest in the world, emitting approximately 600 million tons of CO<sub>2</sub> with a 158.6 percent rate increase from 1990 to 2012 (Table 7.4). In terms of per capita CO<sub>2</sub> emissions, South Korea ranked 18th in the world in 2012 with a 121.7 percent increase from 1990 to 2012 (Table 7.5).

Table 7.4 CO2 Emissions of Top 20 Countries (1970-2012)

(million tons)

	Country	1970	1980	1990	2000	2010	2012	70~12 Rate of Increase (percent)	90~12 Rate of Increase (percent)
1	China (including HK)	824.7	1,440.0	2,277.7	3,350.3	7,294.9	8,250.8	900.4	262.2
2	United States	4,291.3	4,661.6	4,868.7	5,698.1	5,427.1	5,074.1	18.2	4.2
3	India	200.8	283.6	580.5	978.1	1,749.3	1,954.0	873.2	236.6
4	Russian Federation	-	-	2,178.8	1,496.7	1,580.2	1,659.0	-	-23.9
5	Japan	758.8	880.7	1,056.7	1,170.6	1,134.0	1,223.3	61.2	15.8
6	Germany	978.6	1,055.6	949.7	825.0	769.9	755.3	-22.8	-20.5
7	South Korea	52.1	124.4	229.3	437.7	564.5	592.9	1,038.8	158.6
8	Canada	339.6	426.9	428.2	528.6	531.4	533.7	57.2	24.6
9	Islamic Rep. of Iran	41.7	90.2	178.7	315.1	508.5	532.2	1,177.3	197.8
10	Saudi Arabia	12.7	99.1	151.1	236.3	414.9	458.8	3,502.4	203.7
11	United Kingdom	623.5	571.1	549.3	524.3	473.6	457.5	-26.6	-16.7
12	Brazil	90.2	177.6	192.4	303.6	388.5	440.2	387.8	128.8
13	Mexico	97.0	212.1	265.3	349.6	417.9	435.8	349.1	64.3
14	Indonesia	25.1	68.9	146.1	272.8	392.4	435.5	1,633.2	198.2
15	Australia	144.1	208.0	260.5	335.4	387.3	386.3	168.0	48.3
16	South Africa	156.7	208.8	253.7	297.1	376.3	376.1	140.0	48.3
17	Italy	292.9	359.8	397.4	426.0	399.2	374.8	27.9	-5.7
18	France	431.9	461.4	352.8	378.7	355.1	333.9	-22.7	-5.4
19	Turkey	41.4	70.9	126.9	200.6	265.9	302.4	630.2	138.3
20	Poland	286.7	413.1	342.1	290.9	306.4	293.8	2.5	-14.1
	World	6,646.9	10,707.2	14,001.1	16,346.3	23,752.3	32,407.9	387.6	98.3

Source: International Energy Agency 2012

Table 7.5 Global CO2 Emissions per capita (1970-2012)

(metric tons)

	Country	1970	1980	1990	2000	2010	2012	70~12 Rate of Increase (percent)	90~12 Rate of Increase (percent)
1	Qatar	18.72	34.29	29.94	40.35	34.61	36.95	97.4	23.4
2	Kuwait	17.38	19.38	13.94	25.77	26.84	28.08	61.6	101.4
3	Trinidad and Tobago	6.43	7.31	9.30	14.36	28.92	27.74	331.4	198.2
4	Bahrain	13.63	20.54	25.09	26.67	22.41	21.86	60.4	-12.9
5	Netherlands Antilles	89.64	50.55	14.55	21.20	18.06	20.85	-76.7	43.3
6	Oman	0.34	1.93	5.60	9.17	20.60	20.41	5,923.7	264.2
7	Brunei Darussalam	2.93	13.62	12.64	13.34	18.86	20.38	594.9	61.2
8	Luxembourg	45.11	32.75	27.12	18.31	20.78	19.21	-57.4	-29.1
9	United Arab Emirates	9.00	18.83	28.73	28.28	18.04	18.57	106.3	-35.4
10	Australia	10.92	14.05	15.17	17.40	17.27	16.70	52.9	10.1
11	Gibraltar	3.78	4.14	6.24	13.46	17.16	16.52	336.4	164.6
12	Saudi Arabia	2.10	10.06	9.32	11.73	15.22	16.22	671.7	74.0
13	United States	20.66	20.47	19.46	20.18	17.52	16.15	-21.9	-17.0
14	Canada	15.46	17.41	15.46	17.23	15.57	15.30	-1.0	-1.0
15	Kazakhstan			14.46	7.59	13.32	13.45		-7.0
16	Turkmenistan			12.12	8.12	11.22	12.34		1.8
17	Estonia			22.53	10.66	13.79	12.20		-45.9
18	South Korea	1.58	3.26	5.35	9.31	11.42	11.86	648.9	121.7
19	Russian Federation			14.69	10.23	11.10	11.56		-21.3
20	Chinese Taipei	2.07	4.04	5.62	9.82	11.67	10.95	427.8	95.0

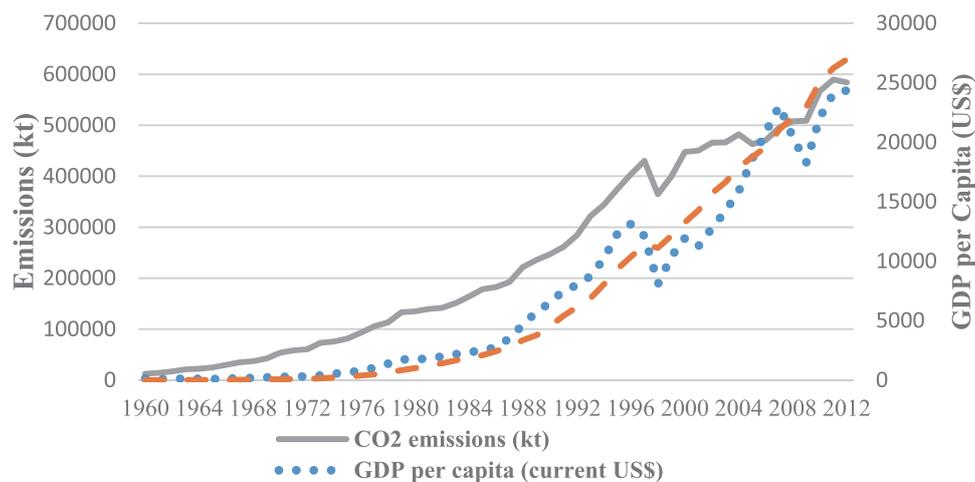
Source: International Energy Agency 2012

South Korea's HCI economic structure provided significant economic returns with value-added production, yet the energy intensive industries created many environmental issues in the country. Since the economy was based largely on high-energy consumption, South Korea faced serious challenges for reducing carbon emissions. The rapid increase in energy consumption negated any gains in energy efficiency. South Korea overwhelmingly relied on hydrocarbons, such as coal, petroleum, and natural gas, which accounted for more than three-quarters of the country's energy, and any efforts to reduce GHG emissions in South Korea must address these main energy sources.

## II. Environmental Improvement during Industrialization

Since the 1960s, South Korea's GHG emissions and economic growth have increased proportionally. Figure 1 shows the relationship between CO<sub>2</sub> emissions and South Korea's per capita GDP (both nominal and constant) from 1960 to 2012 (Figure 7.1).

Figure 7.1 Per capita Income and CO<sub>2</sub> Emissions Trends for South Korea (1960-2012)



Source: World Development Indicators

While South Korea experienced rapid economic growth and industrial development, areas that neighbored industrial centers experienced several environmental issues, which the government acknowledged was a side effect of industrial development. HCI complexes, such as the Gumi Electronic Industrial Complex, the Changwon Machinery Industrial Complex, and the Yeochun Petroleum Chemical Complex created industrial waste issues that contaminated the soil and water of local metropolitan regions with heavy metals, including cadmium, lead, and steel (Cho et al. 2013, p.21).

## 1. Environmental Protection Strategies

In response to the growing environmental issues, South Korea formed a pollution department under the Sanitation Bureau of the Ministry of Health and Society in 1973. In 1977, South Korea legislated the Environmental Preservation Act in order to prevent environmental degradation, particularly degradation linked to industrial complexes. Under this legislation, the government required that all national projects receive approval from the Ministry of Health and Society through Environmental Impact Assessments (Cho et al. 2013, p.21). In the 1980s, South Korea expanded the scope of their environmental preservation by incorporating environmental challenges of industrial growth into their later 5-Year Economic Plans. South Korea tailored the fifth economic 5-Year Plan from 1982 to 1986 to “promote measures for environmental management for environmentally influenced areas, improve the effectiveness of pollution regulations, reinforce the comprehensive control capability of environmental preservation work, and organize local environmental management organizations” (Cho et al. 2013, p.24). In 1980, the government formed the Environmental Office and introduced Environmental Impact Assessments for national and large-scale private sector projects. Due to the lack of detailed regulations, however, the Ministry did not immediately implement Environmental Impact Assessments, and pollution continued to increase. By the 1980s, industrial pollution, such as acid rain and polluted waterways, spread nationwide and drew public attention through media coverage. South Korea revised the Environmental Preservation Act in 1981 and 1986 to better address industrialization pollution.

By the 1990s, South Korea had overcome multiple development and economic challenges, and the public’s attention turned to the environmental damage created by industrial pollution. Investments in fundamental environmental facilities, such as landfills and sewage disposal plants were insufficient. Water pollution concerns regarding Paldang Lake Reservoir and the phenol contamination of the Nakdong River in the late 1980s and early 1990s galvanized public support and mobilized civic groups toward advocating for clean drinking water and improved public safety (Cho et al. 2013, p.24).

Rising environmental awareness and increased pressure from the public forced the government to proactively tackle environmental concerns. South Korea elevated the Environmental Office to a department in 1990 and granted it ministerial status in 1996, which increased the government’s ability to develop and enforce environmental policies (Cho et al. 2013, p.25). The government expanded environmental policies and facilities, such as implementing volume-based waste fees in 1995. At the turn of the 21st century, the government enhanced policies that supported “environmental health,” such as sustainable management and the preservation of natural resources, including water, air, and ecology. In 2008, the government implemented a green growth policy that aimed to increase both sustainable economic growth and environmental health.

## 2. Policies Regarding Water and Air Pollution

Until the start of the 21st century, South Korean industries emitted significant amounts of air pollutants. National environmental policies in 2000 improved air quality by substantially decreasing sulfur dioxide, carbon monoxide, and particles in the air. In 1990, the South Korean government passed both the Framework Act on Environmental Policy and the Clean Air Conservation Act and, in 2003, passed the Special Act on Seoul Metropolitan Air Quality Improvement to specifically address urban air quality. The policies regulated air pollutants, fuel sources, and levels of emissions from facilities and vehicles. Table 7.6 reveals how South Korea's efforts decreased air pollutants from 1988 to 2012.

Table 7.6 South Korea's Air Pollutant Emissions by Year (1988-2012)

(thousand tons)

Year	Sulfur Dioxide (SO <sub>2</sub> )	Nitrogen Dioxide (NO <sub>2</sub> )	Particles (TSP)	Carbon Monoxide (CO)	Total
1988	1,417.2	978.7	388.7	1,534.3	4,321.0
1990	1,611.0	926.0	420.3	1,991.1	4,950.4
1995	1,532.3	1,152.8	405.5	1,109.1	4,201.7
2000	531.1	1,004.0	89.4	825.2	2,451.6
2005	408.5	1,306.7	88.9	788.9	2,595.0
2010	401.7	1,061.2	177.6	766.3	2,408.8
2011	434.1	1,049.4	236.1	980.6	2,702.2
2012	417.8	1,084.4	216.5	964.5	2,683.2

Source: Kang 2014, p.27

South Korean policies also focused on water pollution. South Korea measured water quality at various locations along two major South Korean waterways, the Han and Nakdong Rivers, using Biological Oxygen Demand (BOD) and the Suspended Solids (SS) as water quality indicators. BOD levels for both river basins declined significantly from 1981 to 2012. However, SS levels only declined in the Han River. In 2004, South Korea adopted the Total Maximum Daily Load System, which regulated maximum levels for key pollutant indicators and discharge amounts (National Institute of Environmental Research 2004. p.16). By computing target levels with maximum pollutant levels, the policy aimed to balance preservation and development. Table 7.7 lists the pollutant levels of the Han river basin and the Nakdong river basin from 1981 to 2013.

Table 7.7 Status of South Korea's Water Pollution by Year (1981-2013)

(mg/L)

Year	Han river basin system: Noryangjin		Nakdong river basin system: Gupo	
	BOD	SS	BOD	SS
1981	5.2	25.0	4.3	18.8
1985	4.7	22.6	4.2	9.2
1990	3.4	11.3	3.3	10.9
1995	5.5	12.6	8.9	12.6
2000	2.7	9.0	2.9	14.2
2005	3.1	8.8	3.0	17.8
2010	3.2	10.5	2.4	23.3
2013	2.1	8.5	2.2	10.8

Source: Kang 2014, p.28

### III. Environmental Restoration and Industrialization

#### 1. Afforestation

Forest degradation was rampant in Korea during the first half of the 20th century. The Japanese government's procurement of war materials during their occupation of Korea, and Korea's growing population after 1945 negatively affected the Korean forest. In 1948, under the Department of Agriculture and Forestry, the Korean government established the Bureau of Forest and developed the 10-Year Plan for Erosion Control, which took place from 1948 to 1957. The Korean War suspended projects in 1950 until the government implemented the "Temporary Measures for Forest Protection" policy in Busan during the war in 1951 (Kang 2014, p.58). Even in the midst of a civil war, the government deployed approximately 1000 individuals to protect private forests and enacted many forest protection laws and policies, including a fully funded forest police.

In the post-war period, South Korea no longer had access to North Korea's electricity production, and the limited development of oil and coal prompted South Korea to turn to fuelwood, which further exacerbated forest conditions. The International Cooperation Agency and the United Nations Korean Reconstruction Agency assisted in implementing the forest police and other projects that focused on erosion control, afforestation, forest disease, and fire prevention. Projects also attempted to develop a sustainable supply of fuelwood while also controlling erosion and included efforts such as developing separate forests for fuel or relying more on coal for fuel (Kang 2014, p.58).

The total forested area in South Korea reached 6.7 million hectares (ha) in 1960. Prior to the 1960s the primary target of forest resource management was the growth of private forests. 71 percent of forested land was private, 21 percent was national, and the remaining 8 percent was public. By 1965, the national forest declined significantly by 143 thousand ha and total private forests grew by 117 thousand ha (Yoo et al. 2014, p.83). Increased housing, industrial, and agricultural development resulted from continual forest declines.

Slash-and-burn agriculture in South Korea also resulted in massive forest deterioration.<sup>54</sup> Although 70.5 thousand households participated in slash-and-burn farming, accounting for only 40 thousand ha, the impact on South Korea's forests was much more significant. Slash-and-burn fields reduced fertile topsoil, increased erosion and flooding, and hindered forest management. In the 1960s, the government inhibited slash-and-burn agricultural with the Forest Protection Act and Forest Law. From 1965 to 1966, the government resettled nearly 5,000 slash-and-burn households. The Readjustment of the Slash-and-Burn Fields Act in 1966 further deterred the practice. In 1973, President Park's government implemented the Readjustment of Slash-and-Burn Fields 5-Year Plan. The plan required that all agricultural lands have a less than 20-degree incline. Any land with more than a 20-degree incline would be reforested. Employment promotion projects assisted households in maintaining living standards prior to relocation. The government also offered financial support of KRW 200 thousand for relocating households, provided KRW 400 thousand for moving expenses, and encouraged alternative livelihoods through local public projects, such as cattle breeding, sericulture, and growing seedlings (Yoo et al. 2014, pp.88-91).

Afforestation took place in conjunction with industrialization. Forest resources were a vital fuel source, especially for smaller villages and rural communities. Although South Korea used coal and oil in cities since the early 1950s, a large portion of the population lived in smaller urban and rural areas where coal was unavailable (Yoo et al. 2014, p.35). It was not until the 1960s, under President Park's economic development plans, that alternative fuel sources were more widely distributed. The reduction in demand for wood fuel and afforestation efforts greatly increased the size and health of South Korean forests. Table 7.8 records how the growing stock, which indicates the total quantity of trees in forests, increased steadily from 1972 to 2010 as a result of the afforestation during the First and Second Economic Development Plan Periods (1962-1972) and the First and Second Afforestation Projects (1973-1987) (Korea Forest Service 2011, p.13).

---

54 Slash-and-burn agriculture involves cutting down and burning forested land in order to farm the nutrient-rich layer of land left behind.

Table 7.8 South Korea Forest Land Area and Growing Stock (1952-2010)

Year	Area (Thousand ha)	Growing Stock (Thousand m <sup>3</sup> )	percent of Land Area	Growing Stock Per ha
1952	6,415	36,315	64.64	5.66
1962	6,695	81,277	68.01	12.14
1972	6,597	72,696	66.98	11.02
1982	6,554	157,756	66.18	24.07
1992	6,464	272,387	65.08	42.14
2002	6,412	448,456	64.39	69.94
2010	6,369	800,025	63.67	125.62

Source: Korea Forest Service 2010; 2011

## 2. Restoration of Cheonggye Stream

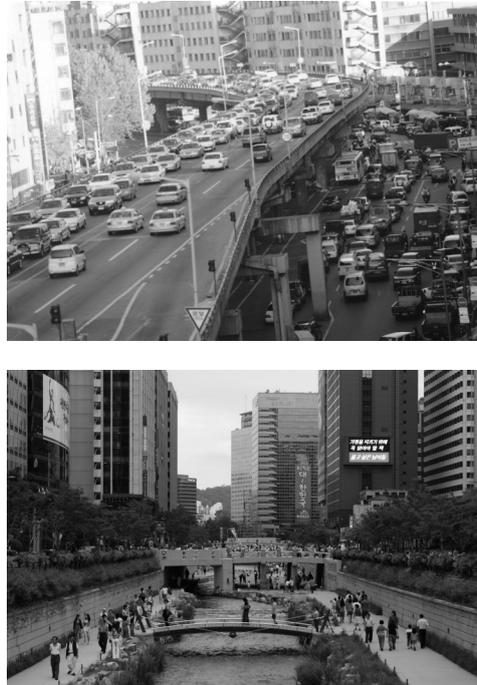
The 13.7 km Cheonggye Stream ran through the heart of Seoul, flowing from Mt. Nam, Mt. Inwang, and Mt. Bukak into the Han River. The Cheonggye was a traditional public space during the Chosun period, but from 1934 to 1940, under the “Kyungseong Plan,” Japan constructed the Gwangtonggyo to Gwanghwamun intersection across the area. In the 1950s, debris from war refugee settlements polluted the water and, after the Korean War, the condition of the stream greatly deteriorated (Kim 2010, p.8). From 1958 to 1978, South Korea covered the remaining stream to improve the city’s roads (Cho 2010, p.150). Located in the central business district, Cheonggye Street was a thriving commercial and industrial area through the 1980s. Toward the end of the 20th century, however, Seoul’s industrial structure shifted to a technological sector and the commercial area rapidly declined. Due to structural defects, including corroding concrete of the Cheonggye overpass, the public raised serious safety concerns about the street (Sung & Kim 2005, pp.265-66). The maintenance cost alone reached KRW 2 billion annually.

The Cheonggye Stream restoration project became a central point of the 2002 Seoul mayoral election, won by future South Korean President Lee Myung-Bak. The restoration project had four facets: reducing noise pollution, restoring historical monuments, urban revitalization, and resolving safety concerns (Ministry of Land, Infrastructure and Transport 2013, pp.58-59).

In the face of criticism about the project management and public participation, demolition work for the 6 km of paved road and the 5.8 km of elevated highway began in July 2003 (Hwang 2004, p.1). The restored 5.8 km of the Cheonggye Stream opened in October 2005 (Figure 7.2). Over the 27-month construction period, South

Korea spent KRW 380 billion on developing the public space and restoring historic ruins, such as Suppygyo and Gwangneunggyo (Ministry of Land, Infrastructure and Transport 2013, pp.59, 62).

Figure 7.2 Before (2002) and After (2005) the Cheonggye Stream Restoration



Source: Seoul Museum of History 2014

The restoration of the stream marked a turning point toward a greater government concern for environmental and social issues within urban development. Mayor Lee Myung-Bak carried the legacy of Cheonggye into his future presidency and his 2008 Green Growth policies. The Cheonggye Stream provided downtown Seoul with an oasis and lowered temperatures by 2.3°C (Cho 2010, p.159).

### 3. Restoration of Lake Sihwa and the Tidal Power Plant

In 1987, The Banwol Special Regional Development Plan, established in 1970, began construction on a 12.7 km long embankment along the western coast of South Korea in Kyeonggi Bay. South Korea completed construction in 1994, creating Lake Sihwa, which was surrounded by the cities of Ansan, Siheung, and Hwaseong. The artificial lake had a storage capacity of 332 million tons of water and the reclaimed land on which the lake was built was approximately 133.7 km<sup>2</sup> (Korea Institute of Ocean Science and Technology 2012, p.5).

South Korea originally planned to use the man-made lake as a freshwater reservoir to supply the region with agricultural and industrial water (Ibragimova 2009, p.1). Urban and industrial growth surrounding the lake, however, resulted in a “hypoxic/anoxic lake, posing a serious environmental threat to neighboring coastal ecosystems” (Han & Park 1999, p.1194). Lake Sihwa became known as the “Lake of Death,” and the Department of Environment abandoned their original plans in 1997, allowing a seawater exchange instead. The lake’s tidal access allowed the seawater to flush contaminants from the basin and greatly improved the quality of the water. Table 7.9 tracks the water quality of Lake Sihwa from the late 1990s until 2012. Chemical oxygen demand (COD) declined from 17.4 mg/L in 1997 to 3.0 mg/L in 2012. Total phosphorus (TP), the main source of eutrophication, decreased from 0.064 mgP/ml in 2001 to 0.059 mP/ml in 2012.

Table 7.9 Water Quality of Lake Sihwa (1997-2012)

Category	1997	1998	1999	2000	2001	2005	2010	2011	2012
COD	17.4	7.9	4.3	4.5	4.5	4.2	3.3	4.2	3.0
T-P	-	-	-	-	0.064	0.075	0.037	0.053	0.059

Source: Kang 2014, p.71

In 2001, South Korea approved a new plan to harness the lake for clean energy. The Sihwa Lake Tidal Power Plant broke ground in 2004 and was completed in 2011 (Figure 7.3). It was South Korea’s first tidal power plant and the largest of its kind in the world. The plant consisted of 10 generators and was “designed for single effect flood generation that can be operated in one direction, from the sea to the lake, allowing up to 60 billion tons of seawater to be circulated annually” with a capacity of 245 megawatts (MW) (Bae et al. 2010, p.455). Following the natural tides of the Yellow Sea, the plant generated 100 million kWh by February 2012, and, in December 2014, it reached 1 billion kWh. The project cost approximately USD 325 million and registered as a Clean Development Mechanism (CDM) project with the United Nations Framework Convention on Climate Change (UNFCCC) with an annual GHG reduction of over 315 thousand tCO<sub>2</sub>eq (United Nations Framework Convention on Climate Change 2014).

Figure 7.3 Before (1998) and After (2011) Sihwa Lake Tidal Power Station



Source: The Hankyoreh



Source: ICLEI East Asia

#### 4. Greening Industry

Although it was a large source of GHG emissions, industrial development was also at the core of South Korea's economic growth and could not be wholly abandoned for the sake of the environment. In order to retain industrial and economic growth while reducing GHG emissions, South Korea needed to implement short-term industrial energy reduction and long-term green innovations to industries. Between 1971 and 2010, South Korea was the fastest growing emitter of GHGs among members of the Organisation for Economic Development and Cooperation (OECD) due to an abundance of HCIs, including automobile, shipbuilding, steel, semiconductor, and cement production. In 2010, the industrial sector accounted for more than half of the country's total energy consumption (International Energy Agency 2012, p18). South Korea pledged a 37 percent reduction relative to the country's projected levels by 2030. Steel, power, secondary battery, and smart grid industries successfully capitalized on greening efforts and technological innovation.

In 2010, The Pohang Iron and Steel Company (POSCO), South Korea's second largest steel company and CO<sub>2</sub> emitter, announced they would reduce CO<sub>2</sub> emission intensity by 9 percent from the average emission levels reported for 2007-2009, which would reduce emissions from 2.18 tons of CO<sub>2</sub> per ton of crude steel produced to 1.98 tons by 2020. POSCO committed to developing more carbon efficient steel and lower CO<sub>2</sub> emissions during the steelmaking process, and they developed a portfolio of technologies from solar, wind, and refuse-derived fuel energy projects (Pohang Iron and Steel Company 2011, p.12). The Korea Electric Power Corporation (KEPCO), a state-owned corporation and the leading provider of energy generation and transmission across South Korea, was the largest single GHG emitter in South Korea (Bloomberg New Energy Finance 2013, p.15). KEPCO invested in greater energy security and reduced carbon emissions as South Korea moved toward an emissions trading scheme (ETS) in 2015, including certification for ISO 14001 in environmental management.<sup>55</sup> KEPCO aimed to increase efficiency in renewable generation technologies, high voltage direct current, smart grid, carbon capture and storage (CCS), and energy storage systems. The energy company developed a number of renewable energy projects, including biogas turbine generators, solar energy testing facilities, and offshore wind farms in the Yellow Sea (Korea Electric Power Corporation 2013, pp.29, 37).

A critical component to decreasing GHG emissions and maximizing energy production is the ability to store energy. South Korea's technological innovations in secondary battery technologies made the country one of the top producers of secondary batteries in the world. Initially focusing on technical development, South Korea began domestic development of secondary batteries through the Next Generation Technical Development Strategy Program in 2003 (Kang 2014, p.102). In 2010, the government announced the Secondary Battery Competitiveness Strengthening Plan to boost global market shares to 50 percent by 2020 and to enhance the domestic industrial ecosystem through a KRW 15 trillion investment (Cho 2011, p.1; Ministry of Science, ICT and Future Planning 2013, p.260). Government support allowed global market shares to jump from 21.3 percent in 2007 to 43.5 percent in 2012.

The South Korean government invested heavily in next generation infrastructure to optimize energy use and drastically reduce GHG emissions. The government announced the Smart Grid Roadmap in 2010 to complete the nationwide intelligent power grid by 2030, which modernized the electrical grid to include access to a variety of energy sources, including renewable forms. The Roadmap included goals to develop model smart grid cities by 2012, regional smart grids by 2020, and connect with a national network by 2030 (Ministry of Knowledge Economy 2010, p.15). The Jeju Smart Grid Test-bed, constructed from 2009 to 2013 through a consortium of 168 companies, created five demonstration projects for smart renewable, smart place, smart

---

55 ISO 14001 is the international standard that requests an effective environmental management system.

power grid, smart electric services, and smart transport. The Jeju Smart Grid developed their smart grid in the Gujwa-eup region of Jeju Island and supplied approximately 6,000 households with new and renewable energy along with the ability to operate electric vehicles and an energy management system that allowed users to monitor their energy use. South Korea also tested renewable technologies, including wind, solar, geothermal, bioenergy, hydro, ocean energy, waste energy, and fuel cell power in order to diversify low carbon energy options (Park et al. 2011, p.2446).

## **IV. Green Growth Initiative as a Shift in Development Paradigms**

### **1. Low Carbon, Green Growth**

In 2008, South Korea declared green growth as a national vision, led by the message that environmental protection and economic growth were no longer opposing forces (Presidential Council for Future and Vision 2009, p.109). The government's green growth strategy focused on solving environmental problems and improving the South Korean people's quality of life through social development policies (Kang 2010, p.4). To integrate environmental protection and economic growth, South Korea initiated the Low Carbon, Green Growth policy in 2008 and the Framework Act on Low Carbon, Green Growth in 2010. In 2009, South Korea pledged to reduce CO<sub>2</sub> emissions to 30 percent below business-as-usual (BAU) levels by 2020, and the Framework Act on Low Carbon, Green Growth provided structure for mid- and long-term carbon reduction targets.

The government focused on technological innovation to create green technologies for new economic engines. South Korea's 2009 Green Technology R&D Plan focused on 27 technologies in five areas: forecasting technologies in climate change, higher efficiency technology, low-carbon energy sources, post-treatment technologies, and pollution free industries such as virtual reality. South Korea promoted R&D through government-funded research and the commercialization of green technologies. Additionally, South Korea introduced renewable portfolio standards (RPS) in 2012 with an initial quota of 2 percent that rose to 10 percent by 2022 with USD 8.2 billion invested in offshore wind energy that would grow from 0.4 GWh in 2012 to 2.5 GWh by 2019 (Energy Information Administration 2014). In 2012, South Korea became Asia's first country to pass the ETS, and, in 2015, legislated the Act on the Allocation and Trading of Greenhouse Gas Emission Permits. Table 7.10 outlines South Korea's first and second 5-Year Plans for Green Growth.

**Table 7.10 South Korea’s First and Second 5-Year Plan for Green Growth Goals and Strategies**

	Visions/Policy Goals	Strategies
The First Plan (2009-2013)	<ul style="list-style-type: none"> <li>- Become one of the seven greatest green countries by 2020</li> <li>- Become one of the five greatest green countries in the world by 2050</li> </ul>	<ol style="list-style-type: none"> <li>1. Mitigation of Climate Change and Energy Independence</li> <li>2. Creating New Engines for Economic Growth</li> <li>3. Improvement of the quality of life and strengthening of the national stature</li> </ol>
The Second Plan (2014-2018)	<ul style="list-style-type: none"> <li>- Establishment of low carbon economic and social structure</li> <li>- Realization of a creative economy with green technology and ICT convergence</li> <li>- Establishment of a safe and sound lifestyle in response to climate change</li> </ul>	<ol style="list-style-type: none"> <li>1. Effective curbing of greenhouse gas emissions</li> <li>2. Establishment of a sustainable energy system</li> <li>3. Construction of ecology for the green creative industry</li> <li>4. Realization of sustainable green society</li> <li>5. Reinforcement of global green cooperation</li> </ol>

Source: Presidential Committee on Green Growth 2009, p.31; Joint Work of Relevant Agencies 2014, p.28

At the beginning of 2014, the Ministry of Environment announced the National Greenhouse Gas Emissions Reduction Roadmap 2020, which outlined the reduction targets and action plans for seven sectors to reduce 233 million tons of GHGs at the national level. Industries targeted a reduction of 81.3 million tons, or 18.5 percent, by switching to lower carbon fuel sources, such as liquefied natural gas (LNG). The transportation sector hoped to reduce by 34.2 million tons, or 34.3 percent, through developing the Intelligent Transportation System, and planned to build 200 thousand electric and 500 hydrogen fuel cell vehicles by 2020. The building sector targeted a 27-percent reduction, or 45 million tons, through highly efficient heating and cooling systems. The public sector expected to reduce by 4.46 million tons, or 25 percent, by introducing quotas and improving energy efficiency, including a 70 percent market penetration of light emitting diode (LED) by 2020. Agriculture hoped to reduce by 1.48 million tons, or 5.2 percent, through expanding energy facilities from eight in 2013 to 30 by 2020. The waste sector targeted a reduction of 1.71 million tons, or 12.3 percent, by converting waste to energy. The power generation sector targeted a reduction of 64.9 million tons, or 26.7 percent, by adopting carbon capture and storage (CCS) and increasing the share of renewable energy in the energy mix by 7.2 percent.

In September 2014, the government increased the ETS emissions cap by 3 percent. The government planned to distribute 1.687 million tCO<sub>2</sub>eq permits from 2015 to 2017, as compared to the expected 1.64 million tons. The government set aside 1.598 million tons for the 526 firms and allocate the remaining 89 million

tons as reserves (Cho 2014). Because of rising economic concerns, the expanded permits will likely lessen the emissions targets for the building, communications, and power sectors. One tCO<sub>2</sub>eq of emissions will be traded for KRW 10 thousand and the Ministry of Environment will fine companies up to KRW 100 thousand per ton for failure to purchase enough permits. Businesses will reduce emissions gradually: 573.4 million tons in 2015; 562.1 million tons in 2016; and 559 million tons in 2017. In the Intended Nationally Determined Contribution (INDC) submitted to the UNFCCC in 2015, South Korea set a mitigation target of a 37 percent reduction from the BAU baseline estimate of 850.6 million tCO<sub>2</sub>eq in 2030. This reduction included domestic emissions and international carbon credits. Industries criticized the emissions target for being too costly for businesses.

The second 5-Year Green Growth Plan refocused on the social dynamics of green growth. The three policy goals of the plan consisted of establishing a low-carbon socioeconomic infrastructure, achieving a creative economy through the convergence of green technology and ICT, and building a pleasant living environment safe from climate change damage. The plan also created 20 core tasks for harmonious development between the economy and environment. The last three strategies highlighted the inclusion of social aspects at the local and international levels.

Where the first plan created a comprehensive vision for green growth, the second plan focused the green growth framework on enhancing existing policies to lower GHG emissions. Also, the first plan focused efforts on building the economic and environmental base while the second plan extended greater effort on incorporating societal improvements. The second plan marked a change in leadership and priority. While the first plan fell under the Presidential Committee on Green Growth, the second plan was under the Prime Minister's Office and was not given the same level of priority that the previous administration gave to the first plan (Presidential Committee on Green Growth 2014).

## **2. Development Paradigm Shift**

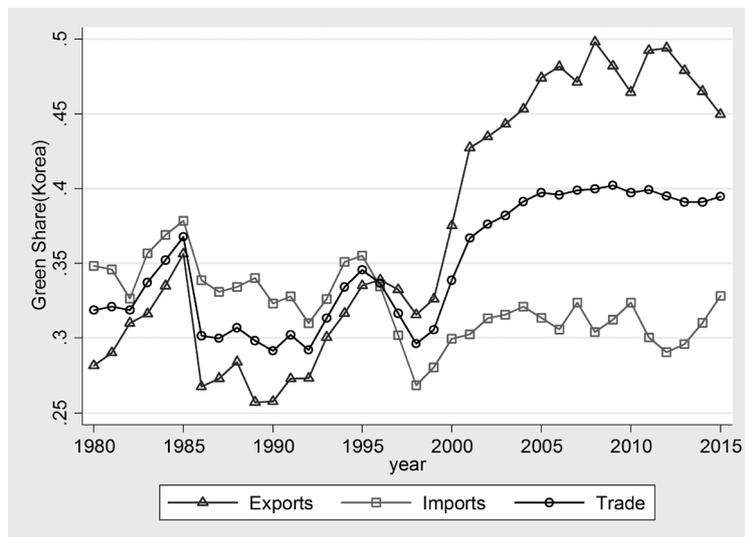
The United Nations held its first Human Environment conference in Stockholm in 1972. The conference acknowledged the environmental challenges created by conventional development. Efforts to address the environment stemmed mainly from developed countries as they experienced pollution from the traditional industrial paradigm. By the 1970s, many developed economies began to shift their industrial structure from manufacturing to less environmentally damaging industries. As South Korea developed their economy, the government shifted their focus towards environmental concerns and hoped to play a pivotal role in the global agenda for environmental development. South Korea's past "growth-first" industrial policies and lack of enforcement for environmental laws had an adverse effect on the environment. By the early 1990s, however, a

series of public pollution accidents, including the contamination of the Nakdong River in 1991 and an oil spill off the southern coast in 1995, led South Korea to more environmentally sensitive economic policies (Joh et al. 2010, pp.195-196).

### 3. Financing Green Growth

Restructuring the economy for green growth required the development of new green industries and technologies and greening existing industries. The start of the 21st century was marked by the rise of green trade as a share of trade in the green industries to total trade. Figure 7.4 shows South Korea's trend in green trade from 1976 to 2015.

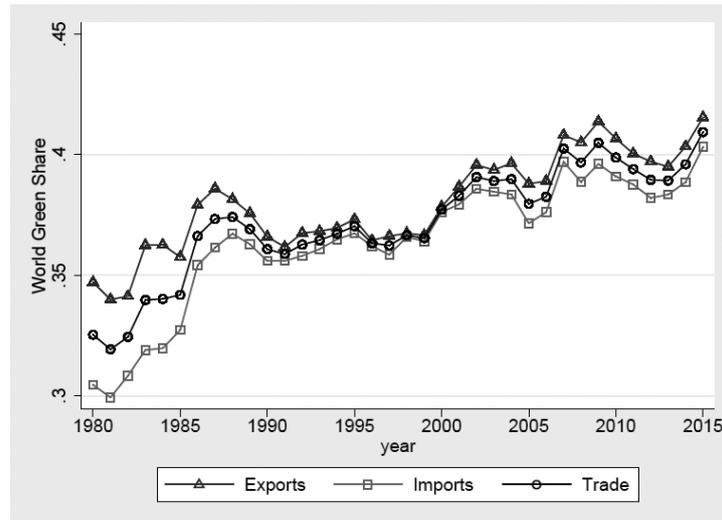
Figure 7.4 Korea-to-World Green Trade (1976-2015)



Source: Kang 2018

Although there is some variability, Global trends moved towards the increase of green trade, and green trade has generally been over 50 percent in the 21st century. Figure 7.5 shows the share of global green trade over the period of 1976 to 2015.

Figure 7.5 World Green Trade Share



Source: Kang 2018

As developing countries look to export production to fuel economic growth, green products and services must be made competitive for international trade. In fact, many developing countries, like Cambodia and Vietnam, have already begun developing national green growth strategies and plans (Kang 2014, p.136). Many developing countries, however, face serious economic constraints and must consider funding for green growth policies. It is essential that advanced nations, those primarily responsible for the most GHG emissions, provide financial support through foreign aid and green industry-related funds to developing countries.

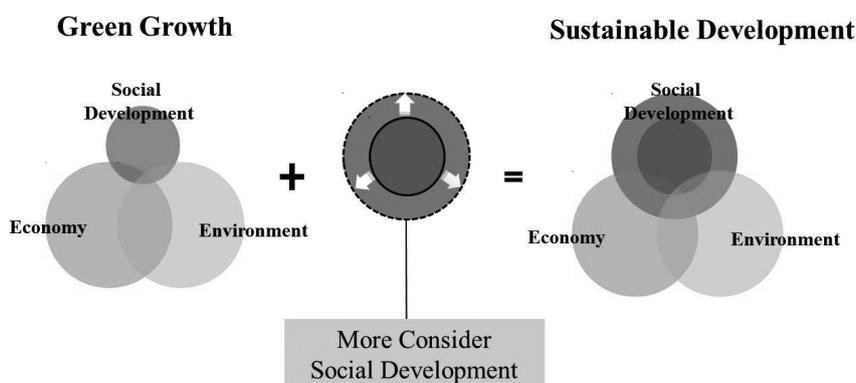
Since joining the Development Assistance Committee (DAC) in 2009, South Korea advocated that official development assistance (ODA) not only protect the environment, but also incorporate economic growth and green society development (Jung & Kang 2012, p.59). The South Korean government plans to enlarge the portion of Green ODA from 11 percent in 2007 to 20 percent in 2013 and 30 percent in 2020 and scale up the total ODA to 0.25 percent of gross national income (GNI) by 2015 toward developing countries, focusing on Africa, South America, and the Middle East (Jung & Kang, 2012 p.59). Additionally, the United Nations backed Green Climate Fund (GCF) is a financial mechanism to transfer money from the developed world to the developing world in order to assist developing countries counter climate change (Jung et al. 2013, p.19).

#### 4. Green Growth and Sustainable Development

The Brundtland Commission published “Our Common Future” in 1987, setting the stage for greater environmental consideration towards sustainable development by meeting “the needs of the present without compromising the ability of future generations to meet their own needs” (p.41). The 1992 United Nation’s Rio Earth Summit reaffirmed this intergenerational concept in a more practical sense in Agenda 21 of the Rio Declaration on the Environment and Development and the UNFCCC, which emphasized the importance of economic, environmental, and social components in sustainable development. All three components are more explicitly defined in the United Nation’s SDGs. In 2012, the Rio +20 UN Conference on Sustainable Development declared that future sustainable development should include inclusive and equitable economic growth, create greater opportunities for all, reduce inequalities, raise basic standards of living, foster equitable social development and inclusion, and promote integrated and sustainable management of natural resources and ecosystems (Jung and Kang, 2012).

South Korea’s Green Growth Plan overlaps with many of the SDGs. Figure 7.6 highlights the close relationship between green growth and sustainable development.

Figure 7.6 Green Growth and Sustainable Development



Source: Jung & Kang 2012, p.42

South Korea’s green growth policies primarily emphasize the relationship between economic growth and environmental development. Green growth policies, however, have not provided sufficient measures for the societal aspects of sustainable development. Green growth policies must consider social developments, including relative and absolute poverty, income inequality, capacity building, and social integration. Only once green growth embraces social development will green growth policies sufficiently contribute to sustainable development. The second 5-Year Green Growth Plan released by the Committee on Green Growth highlights the need to enhance social development domestically and abroad. The plan called for the development of

green industries through international cooperation. Sustainable development objectives and Green Growth strategies are mutually reinforcing, and pursuing green growth policies will support the objective of all 17 Sustainable Development Goals.

The global population is on track to reach 10 billion by the end of the century. Rising incomes will place even greater pressures on global food production to compensate for growing consumption needs. Globalization and the onset of the digital age create new social conflicts as earnings for a highly skilled and educated workforce continue to grow while less educated workers experience wage and employment declines, creating social and political tensions in both developing and developed economies (Sachs 2012, pp.2207-2208). Global climate change's imminent threats bring a new urgency to sustainable development. The Sustainable Development Goals offer an opportunity to balance the three pillars of sustainable development: the economy, environment, and society. Building a consensus, however, around the tradeoffs and synergies between the three pillars has eluded many nations over the past several decades. As the evidence and impacts of human development on the climate grows, countries around the world must plan for an uncertain future. The United Nation's 17 Sustainable Development Goals call on all nations to take action toward truly attaining sustainable growth and development in order to collectively build a more sustainable world (United Nations General Assembly 2015, p.6).

## References

- Bae, Y.H., Kim, K.O., & Choi, B.H. 2010, "Lake Sihwa Tidal Power Plant Project," *Ocean Engineering*, vol.37, no.5, pp.454-463.
- Bloomberg New Energy Finance 2013, "South Korea's Emissions Trading Scheme," viewed 4 December 2018, <https://about.bnef.com/blog/south-koreas-emissions-trading-scheme/>.
- Brundtland, G. 1987, *Our Common Future: Report of the 1987, World Commission on Environment and Development*, United Nations, Oslo.
- Cho, K.J., Choi, J.K., Shin, K.H., & Yang, I.J. 2013, *Environmental Impact Assessment*, KDI School of Public Policy and Management, Sejong City.
- Cho, M.R. 2010, "The Politics of Urban Nature Restoration: The Case of Cheonggyecheon Restoration in Seoul, Korea," *International Development Planning Review*, vol.32, no.2, pp.145-165.
- Cho, M.Y. 2014, "S. Korea Increases Emissions Cap in Proposed Carbon Trading Scheme," *Reuters*, viewed 5 October 2015, <http://www.reuters.com>.
- Cho, S.H. 2011, "Domestic and Overseas Technology for the Secondary Battery and Policy Trend," *Trend Brief for Science Technology and Research and Development Projects*.
- Energy Information Administration 2014, "Country Analysis Brief: South Korea," viewed 4 December 2018, <https://www.eia.gov/>.
- Han, M.W. & Park, Y.C. 1999, "The Development of Anoxia in the Artificial Lake Sihwa, Korea, as a Consequence of Intertidal Reclamation," *Marine Pollution Bulletin*, vol.38, no.12, pp.1194-1199.
- Hwang, K.Y. 2004, *Restoring Cheonggyecheon Stream in the Downtown Seoul*, Seoul Development Institute, Seoul.
- Ibragimova, E., Pena, M., & Thompson, M.K. 2009, "The Evolution of Sihwa Dam: A Formal Design Theory Perspective," The 8th International Conference on Civil and Environmental Engineering, Busan.
- ICLEI East Asia 2014, "Greening Korea's Western Coast and Beyond," *ICLEI Local Governments for Sustainability*, viewed 5 October 2015, <http://eastasia.iclei.org/archivedetails/article/greening-koreas-western-coast-and-beyond.html>.

- International Energy Agency 2012, *Energy Policies of IEA Countries - The Republic of Korea 2012 Review*, viewed 5 October 2015, [https://www.iea.org/publications/freepublications/publication/Korea2012\\_free.pdf](https://www.iea.org/publications/freepublications/publication/Korea2012_free.pdf).
- Joh, J.J., Kim, Y.P., & Koh, Y.S. 2010, "Territorial Development Policies," in SaKong, I. and Koh, Y.S. (eds.), *The Korean Economy: Six Decades of Growth and Development*, Korea Development Institute, Seoul, pp.177-226.
- Joint Work of Relevant Agencies 2014, 제2차 녹색성장 5개년 계획, (*The Second Five Year Plan for Green Growth*), viewed 5 October 2015, [www.aurum.re.kr/Legal/PlanFileDownload.aspx?num=136](http://www.aurum.re.kr/Legal/PlanFileDownload.aspx?num=136).
- Jung, J.O. & Kang, S.J. 2012, *녹색경제와 지속가능발전: 논의 동향과 ODA 정책 시사점*, (*Green Economy and Sustainable Development: Issues and Implications for Korea's ODA Policy*), Korea Institute for International Economic Policy, Sejong City.
- Jung, T.Y., Hong, I.P, Lee, D.K., & Song, P.B. 2013 *Policy Instruments to Support Green Growth, Knowledge Sharing Program*, KDI School of Public Policy and Management, Sejong City.
- Kang, S.J. 2010, "한국의 녹색성장 정책의 성공을 위한 정책 제언" (Policy Proposals for the Success of Green Growth Policies in Korea), *The Studies International Affairs*, vol.10, no.37, pp.1-39.
- 2014, "2014 Modularization of Korea's Development Experience: Experience and Lessons of Green Growth," Ministry of Strategy and Finance, Seoul.
- 2018, "Green Trade Patterns and Transboundary Transmission of GHGs, viewed 30 November 2018, [https://aric.adb.org/pdf/events/integration-resilience/Papers/Session%201/1-3\\_SJ%20Kang%20paper\\_Green%20Trade%20and%20New%20Climate%20Regime%2020170603.pdf](https://aric.adb.org/pdf/events/integration-resilience/Papers/Session%201/1-3_SJ%20Kang%20paper_Green%20Trade%20and%20New%20Climate%20Regime%2020170603.pdf)"
- Kim, H. 2010, "The Effect of Place Image on the Uses of Public Apac: The Cheonggye Stream Case," Master in City Planning, Massachusetts Institute of Technology, Cambridge.
- Korea Electric Power Corporation 2013, *KEPCO Sustainability Report*, Korea Electric Power Corporation, Seoul.
- Korea Energy Economics Institute, "Energy Supply and Demand Statistics for 1981-2013," viewed 5 October 2015, [http://kosis.kr/statHtml/statHtml.do?orgId=339&tblId=DT\\_F\\_Y160&conn\\_path=I3](http://kosis.kr/statHtml/statHtml.do?orgId=339&tblId=DT_F_Y160&conn_path=I3).
- 2013, "2013 자주찾는 에너지 통계," (2013 Frequently Used Energy Statistics), viewed 5 October 2015, <http://www.keei.re.kr/keei/download/FFS2013.pdf>.

- 2015, “에너지통계 월보,” (Monthly Energy Statistics), viewed 5 October 2015, <http://www.keei.re.kr/keei/download/MES1505.pdf>.
- Korea Forest Service 2010, *Forest Land Area and Growing Stock by Year (1934-2009)*, Korea Forest Services, Daejeon.
- 2011, *Basic Forest Statistics*, Korea Forest Services, Daejeon.
- Korea Institute of Ocean Science and Technology 2012, “시화호 이야기,” (Shihwa Lake Story), Ministry of Land, Transport and Maritime Affairs, Seoul.
- Ministry of Knowledge Economy 2010, “스마트그리드 국가로드맵,” (National Roadmap for Smart Grid), Ministry of Knowledge Economy, Seoul.
- Ministry of Land, Infrastructure and Transport 2013, 하천정비 및 관리정책, (*Korea's River Basin Management Policy*), KDI School of Public Policy and Management, Sejong City.
- Ministry of Science, ICT and Future Planning 2013, 산업백서 및 연차보고서 (The Annual Report on Promotion of Information and Communications Industry). Ministry of Science, ICT and Future Planning, Seoul.
- National Institute of Environmental Research 2004, “Total Maximum Daily Load System (TMDLS),” Ministry of Environment, Seoul.
- Park, Y.C., Kim, D.S., Huh, J.C., & Kim, Y.G. 2011, “New and Renewable Energy Policies of Jeju Island in Korea,” *Proceedings of World Renewable Energy Congress 2011*, pp.2446-2453.
- Pohang Iron and Steel Company 2011, Carbon Report 2011, Pohang Iron and Steel Company, Seoul.
- Presidential Committee on Green Growth 2009, “녹색성장 5개년 계획,” (Five-Year Plan for Green Growth).
- Presidential Council for Future and Vision 2009, 녹색성장의 길 (*The Way to Green Growth*), Joong Ang Books, Seoul.
- Sachs, J. D. 2012, “From Millennium Development Goals to Sustainable Development Goals,” *The Lancet*, vol.379, no.9832, pp.2206-2211.
- Seoul Museum of History 2014, “The Second Five-Year Plan for Green Growth,” viewed 24 August 2014, <http://blog.naver.com/seoulmuse/30097311621>.

- Statistics Korea Population Estimates by Age (City and Province), viewed 5 October 2015, [http://kosis.kr/statisticsList/statisticsList\\_01List.jsp?vwcd=MT\\_ZTITLE&parentId=A#SubCont](http://kosis.kr/statisticsList/statisticsList_01List.jsp?vwcd=MT_ZTITLE&parentId=A#SubCont).
- Sung, J.E. & Kim, J.H. 2005, “청계천 복원사업에 나타난 상징정책 분석,” (The Analysis of the Symbolic Performance in the Cheonggye Stream Restoration Project), *Korean Public Administration Review*, vol.39, no.1, pp.261-285.
- The Hankyoreh 2015, “담수화 포기 14년, 기적 일어난 시화호” (14 years after failure of desalination, miracle at Lake Sihwa), viewed 5 October 2015, <http://ecotopia.hani.co.kr/192396>
- United Nations Framework Convention on Climate Change 2014, Project: 0349 Sihwa Tidal Power Plant CDM Project – Monitoring Report 01OCT13-31MAR14. Version 03.2.
- United Nations General Assembly 2015, *Transforming our world: the 2030 Agenda for Sustainable Development*, (United Nations General Assembly Resolution A/RES/70/1.), viewed 5 October 2015, <https://sustainabledevelopment.un.org/post2015/transformingourworld/publication>.
- World Development Indicators, viewed 5 October 2015, <http://databank.worldbank.org>.
- Yoo, B.Y., Kim, C.S., Jeon, J.H., Lee, H.S., Chong, S.K., & Yoon, B.E. 2014, *2013 Modularization of Korea's Development Experience: Forest Resource Development in Korea*, Ministry of Strategy and Finance, Seoul.

## Invitation to Submit Feedback

In anticipation of future improvements and augmentation of the “Korean Story: Secrets of an Economic Miracle” MOOC and this volume, the KDI School of Public Policy and Management and the authors welcome readers’ and learners’ constructive criticisms, comments, suggestions and/or questions as per the contact details noted below.

Name	Responsibility	Contact
Dr. Taejong Kim	Project Manager	tjkim@kdischool.ac.kr
Dr. Soogil Young	Project Manager & Chapter 1	sgy@sunykorea.ac.kr
Dr. Soonman Kwon	Chapter 2	kwons@snu.ac.kr
Dr. Byoung-Joo Kim	Chapter 3	bjkim@kdis.ac.kr
Dr. Ju-Ho Lee	Chapter 4	jhl@kdischool.ac.kr
Dr. Hyeok Jeong	Chapter 4	hyeokj@gmail.com
Dr. Songchang Hong	Chapter 4	hongsc2@kdi.re.kr
Dr. Do-Hyun Han	Chapter 5	ecclehan@aks.ac.kr
Dr. Eun Kyung Kim	Chapter 6	ekkim928@gmail.com
Dr. Sungjin Kang	Chapter 7	sjkang100@gmail.com



Secrets of an Economic Miracle:  
**Lessons for Sustainable Development  
from South Korea**



**KDI SCHOOL**  
KDI School of Public Policy and Management

