

# The Balanced Regional Development Policies Represented in Comprehensive National Physical Development Plans in Korea

Hong-Yul Jeong\*

Associate Professor  
Division of International Trade and Economics  
Korea Maritime University

## Abstract

For the last four decades, Korea has achieved amazing economic growth and become an important middle-income country in the world. However, this rapid growth brought about a large inter-regional economic disparity as the government adopted the growth pole-oriented development strategy in the early industrialization stage. To correct this economic inequality, the central government policy-makers had introduced a series of strong spatial policies by decentralizing population and industrial activities from major growth centers for a long period. This paper is thus intended to review those regional policies which have been implemented since the early 1970s, and evaluating whether government efforts achieved anticipated results. In conclusion, some factors, which caused the inefficiency of those government efforts are also suggested.

**Key words** : Comprehensive National Physical Development Plan, Balanced regional policy, Population redistribution policy, Distribution policy of manufacturing activity.

## I . Introduction

Due to the Korean War, followed by the thirty-six years of Japanese colonial rule, the Korean economy had collapsed, the land was devastated and the people suffered from anguish and hunger. However, Korea and its people have overcome all these trials and achieved remarkable economic growth since the implementation of a governmental

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\* 한국해양대학교 국제무역경제학부 부교수

economic development plan in 1962. As the national economy shifted from agriculture to industry, people were able to escape poverty and enjoy a newfound prosperity.

Since central government pursued unbalanced growth strategies, however, population and industries became concentrated in a few selected regions, and regional disparity between the selected and the unselected regions has widened. In order to alleviate this disparity, the Korean government has introduced numerous spatial policies since the 1970s.

This paper will thus provide a brief overview of the types of regional policies the government planners have taken to achieve equal development during the last 40-years. Due to the complicated and broad-scope of these policies, it is difficult to review all of them. Hence, the main focus of this paper is on the regional balanced policies that have been employed in the Comprehensive National Physical Development Plans. Based on this consideration, an attempt is made to evaluate their performance. Some factors which have made regional policies inefficient are also discussed in the conclusion.

## II . From chaos period to the 1960s

Korea has always been an important gateway to Northeast Asia. Due to its geographical location, it had become battlefield for several larger countries, including China, Russia and Japan and finally suffered thirty-six year Japanese colonial period and the Korean War. Especially, the War reduced industrial facilities of South Korea by 43 percent, power plants by 41 percent, and coal-mining by 50 percent. Correspondently, per capita GNP reduced to \$67 in 1953 from \$90 in 1949.

After an Armistice was signed on 27 July, 1953, government began devoting its efforts to reconstructing the infrastructure and industrial capacity, but the rate of economic recovery was relatively low.

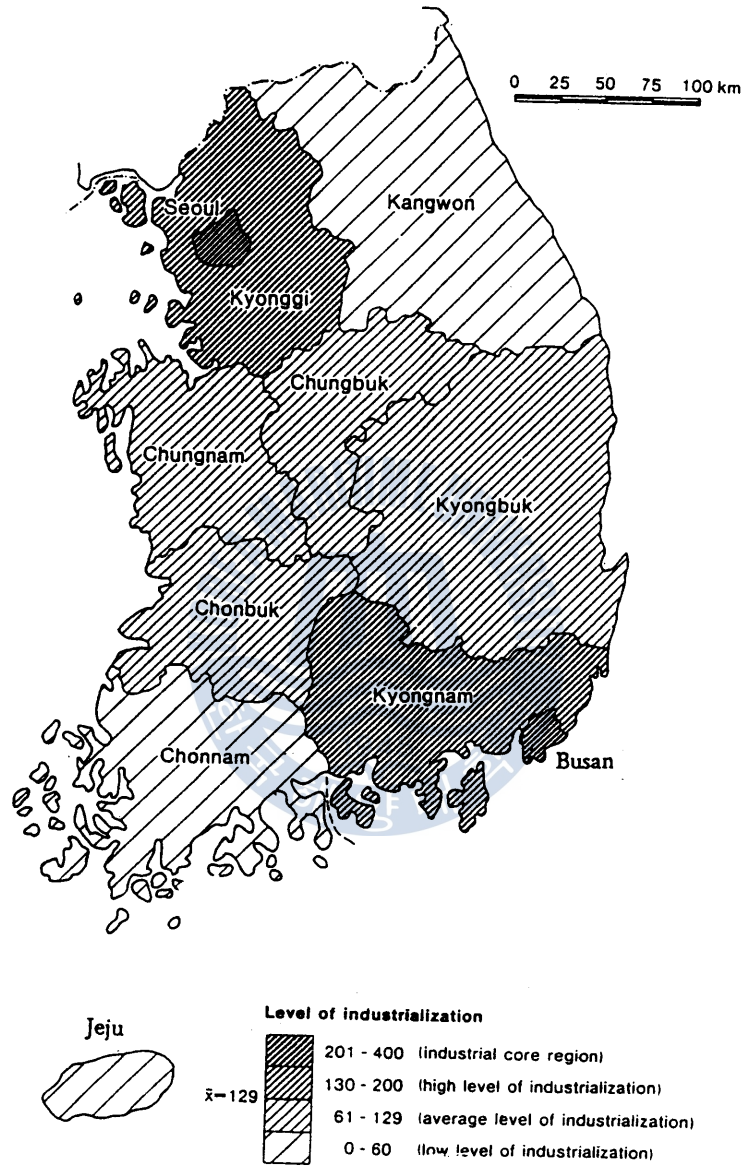
The real economic leap came from the Military Government. Soon after the successful military coup in May 1961, General Chung-Hye Park set up the First Five year Economic Development Plan (1962-1966) to gain popular support and achieve a self-supporting economy. General Park's main strategy was to establish the industrial basis both for the purpose of import substitution and export promotion. This strategy was continued in the Second Five-year Economic Development Plan (1967-1971). Government selected the

seven import substitution industries; machinery, shipbuilding, textiles, electronics, petrochemicals, iron and steel, and nonferrous metals. Among these industrials, more attention was paid to two projects: a petrochemical complex and an integrated steel mill. A large-scale industrial estate was established in Ulsan and a steel mill was started in Pohang in 1967. In addition, the expressway between Seoul and Busan was constructed and many industrial facilities were concentrated along this axis.

This government-led export-oriented policy brought about an unprecedented rate of economic growth in the 1960s. The GNP grew at an average annual rate of 8.6 percent, and per capita GNP increased from \$79 in 1960 to \$ 253 in 1970. The volume of exports also grew by an average annual rate of about 30 percent during the same period, hence export ratio to GNP increased from 3.4 percent in 1960 to 14.1 percent in 1970. Such rapid economic growth was accompanied by change in industrial structure. Agriculture's contribution to employment declined from 63.1 percent in 1963 to 50.4 percent in 1970 while the share of manufacturing employment to the total national employment increased from 8.7 percent in 1963 to 14.3 percent in 1970.

However, this remarkable economic expansion caused many economic and social problems. The concentration of national investment in a few favored regions or a few urban centers resulted in over concentration of population and economic activities in those regions and hampered development of other regions. Seoul was one of the major beneficiaries of this economic boom. The population of Seoul increased from 2.6 million in 1960 to 5.5 million in 1970, so Seoul's share of the national population was augmented from 9.8 percent in 1960 to 17.6 percent in 1970. The population of Busan also increased from 1.16 million in 1960 to 1.87 million and the national share of Busan rose from 4.7 percent in 1960 to 6.0 percent in 1970. Consequently, more than 50 percent of the national population resided in, and about 83 percent of manufacturing output and 87 percent of manufacturing labor force were concentrated in the Seoul-Busan axis.

On the other hand, some spatial plans aimed at balanced regional development had been planned and carried-out partially during the 1960s. However, these spatial policies received low priority, because government placed more emphasis on increasing the economic pie and escaping from the grinding poverty of that time.



<Figure 1> Level of industrialization, by province, 1970.

Source : Wessel, 1997, p.85

### III. Balanced Regional Policies in the 1970s.

Through the successful implementation of two five-year economic development plans during the 1960s, Korea has gradually emerged as one of the industrialized nations in the world. However, the government policy makers began to worry about increasing regional disparity and made various efforts to stimulate economic development in less prosperous areas. The Local Industrial Promotion Act, enacted in 1970, was one of those effects. The main purpose of this Act was construction of local industrial estates in lagging regions, so as to provide employment opportunities in those regions and reduce over-concentration in the metropolitan areas. Various financial incentives such as tax exemption, loan subsidies and provision of building and machinery subsidies, were provided (Lee, 1986, p.36)

However, a more wide-ranging development plan for the country was announced in 1971 under the name of the First Comprehensive National Physical Development plan (1972-1981). Basic goals of the First Comprehensive Plan were set for improving the efficiency of land use, expanding major economic infrastructures, cultivating natural resources, conservation of nature and improvement of living environments. It was the first systematic and far-reaching nationwide regional development plan, and adopted various strategies, which included establishment of a large-scale industrial base and improvement of transportation and communication networks as well as water resources, housing and energy supplies. Due to the wide-scope and intricate contents, it is difficult to review all these strategies, so the main focus here is on the policies which have primary impact on spatially balanced development.

One of those in the Plan was the classification of national territory by considering its geographical situation and characteristics. The total area of the country was divided into 4 major river basin regions which were further divided into 8 intermediate regions, and then into 17 small areas. The main purpose of this regional division was to achieve balanced land use by establishing self-supporting systems for each region. Among these areas, the 8 intermediate regions were adopted as development units, and they were expected to play a crucial role in decentralizing population and industry from Seoul and Busan. In order to improve the living environments in these areas, the plan for expanding and upgrading social infrastructure such as educational, cultural, and medical facilities was designated (Ministry of Construction, 1973, pp.148-149).

At the same time, the government has adopted various population redistribution policy

instruments in order to alleviate over-concentration of the Seoul Metropolitan Area\*. Educational research institute and head offices of large factories located in the Seoul Metropolitan Area were scheduled to decentralize, and removal of those factories in violation of pollution and zoning standards was planned. Green belts were also formulated around urban areas (Ministry of Construction, 1973, pp.23-25).

〈Table 1〉 Classification of Regions

4 major Regions	8 Intermediate Regions				17 Small Regions
	Name	Main function	Scope	Central City	
Han- River Basin Area	Seoul Metropolitan Area	Central Control	Seoul, Kyonggi Kangwon	Seoul	Seoul
	Taebeak Region	Resource and Industry	Kangwon, Chungbuk	Gangreung	Chuncheon Weonju Gangreung
Kum-River Basin Area	Chung-cheoung Region	Agriculture and Industry	Chungnam, Chungbuk	Daejon	Daejeon Chenan Cheongju
	Jeonju Region	Agriculture and Industry	Chonbuk, Chungnam	Jeonju	Jeonju
Nak-Dong River Basin Area	Daegu Region	Agriculture and Industry	Kyongbuk	Daegu	Daegu Pohang Andong
	Busan Region	Commerce and Industry	Busan, Kyongnam	Busan	Busan Jinju
Young-San River Basin Area	Gwangju Region	Agriculture and Industry	Chonnam, Chonbuk	Gwangju	Gwangju Mogpo Sunchen
	Jeju Region	Tourism and Commerce	Jeju	Jeju	Jeju

Source: Ministry of Construction, 1978, pp.10-11.

Beyond that, a new government office town and industrial park would be built within the Seoul Metropolitan Area to accommodate population and small and medium sized factories relocating from Seoul\*\*. In Busan, similar regulations were adopted to prevent

\* The Seoul Metropolitan Area comprises Seoul and its adjacent Kyonggi Province and the city of Incheon. This area is also referred to as the Capital regions

\*\* The government initiated the development program of Ansan (Banweol) industrial city in order to relocate pollution-generated industries out of the Capital and residential areas from the mid 1970s. Kwacheon was also built as a government office town within the Seoul Metropolitan area (Ko, 1999, p.128).



further expansion. Hence, the government has expected that the importance of the Seoul Metropolitan Area and Busan could be lowered relatively while the importance of the intermediate regions such as Chungnam, Gwangju, Chonju, and Taebaek regions would be increased.

On the other hand, the government had made plans for creating large-scale industrial parks in order to maintain current rapid national growth trends. It was decided to develop industrial parks for iron and steel manufacturing, oil refining, shipbuilding, petrochemical industries and pulp along the whole area of the southeast coast. In the Kyonggi Bay coastal industrial area, extending from Incheon to Asan Bay, heavy and light industry areas were also mapped out by inducing machine manufacturing, oil refining, petrochemicals, rubber, food stuffs and textiles as a measure of dispersion in Seoul and Incheon\* (Ministry of Construction, 1970, pp.39-40).

According to those Plans, new industrial cities were formed along the southeastern coastal areas including automobile and shipbuilding in Ulsan, steel manufacturing in Pohang and Kwangyang, electronics in Kumi, machinery products in Changwon and the petrochemical industry in Ulsan and Yeochun (Kim and Gallent, 1997, p.425). To absorb the industrial activities which were dispersed from Seoul, 24 local industrial parks were also constructed throughout the whole country in areas such as Ansong, Chunan, Cheongju, Gwangju, Gangreung and other medium-sized cities. As a result, the industrial area expanded to 332km<sup>2</sup> in 1980, an increase by 3.3 times the level of 102 km<sup>2</sup> in 1971 (Government of the Republic of Korea, 1982, p.6, Lee, 1988, p.83)

The Korean economy had grown rapidly again at an average annual rate of 7.3 percent during the 1970s, even though two oil shocks hit the world economy badly, and per capita GNP reached \$1,597 in 1980. Manufactured exports had increased to nearly 90 percent of the total export by the late 1970s. In particular, the volume of Heavy and Chemical industry exports increased from only about 10 percent of total manufactured exports in 1970 to about 44 per cent in 1980.

However, the government did not implement balanced regional development policies enthusiastically because it still had more interest in spurring economic growth. Among the 8 intermediate regions, development programs for only the three areas of Gwangju, Taebaek, and Chonju were partially formulated until 1981, and development plans for

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\* To support these plan, the Industrial Site Development Law and the Industrial Distribution Law were passed in 1973 and 1977 respectively.

other regions were badly neglected.

Public investment and manufacturing industries continued to channel into the Seoul Metropolitan Area and southeast coastal areas. The population of Seoul and Busan had already grown to 8.36 million and 3.16 million respectively in 1980, which were far above the planned population of 6.3 million and 2.5 million for 1981. As a result, the population of the two cities, which was only 23.6 percent of the total population in 1960, rose to 30.8 percent in 1980, accounting for one-third of the total population. The two provinces adjacent to Seoul and Busan (Kyonggi and Kyongnam) also experienced expansion from the provision of industrial estates. Especially, the increasing Manufacturing sector in Kyonggi Province was exceptional. The share of manufacturing employment in Kyonggi in terms of the national total employment, almost doubled from 12.1 percent in 1970 to 23.8 percent in 1980. The same figures of Kyongnam province also increased to 11.5 percent in 1980. On the opposite of the coin, local industrial estates were not successful in attracting relevant industries and people as opposed to government's intention. Relatively unindustrialized provinces such as Chungbuk, Chungnam, Chonbuk and Chonnam and Kangwon (Taebeak) not only experienced lower than average population and manufacturing growth, but their relative shares continued to decline during the First Comprehensive Plan period (See the Table 3 and 5). Therefore, it can be said that the First Comprehensive National Physical Development Plan achieved its functional aims of economic growth but the balanced regional policies proved to be of little influence in alleviating regional disparity.

#### IV. Balanced Regional Policies in the 1980s

In the early 1980s, the basic view of the national development strategy had been fundamentally altered. Government planners thought that 'growth first' strategy under the growth pole theory had not generated much trickle-down effect to the neighboring regions in the 1970s, so that economic fruits were not evenly distributed. Hence, emphasis of the national plan transferred to the improvement of distribution systems and enhancing the quality of people's lives. When the Second Comprehensive National Physical Development Plan (1982-1991) was finalized in 1981, these ideas were reflected and new goals were expressed as the equal distribution, balanced regional development, and improvement of



living standard.

To meet these goals, the Second Comprehensive Plan adopted several policies and one of the important policies from a spatial point of view was formatting multi-central structures and introducing Integrated Regional Settlement Areas (IRSAs)\*. The basic concept of this policy was to encourage people to stay in their local areas by enhancing employment opportunities and improving living conditions, thereby acting to restrain the expansion of major growth areas. By considering each area's functional integrity, spatial homogeneity, development status and number of inhabitants, the country was divided into 28 IRSAs, and those were classified into three categories; 5 large city IRSAs, 17 local city IRSAs, and 6 rural town IRSAs.

〈Table 2〉 Demarcation of IRSAs

IRSA	Large City IRSAs	Local City IRSAs	Rural City IRSAs
City Name	Seoul Busan Daegu Gwangju Daejeon	Chuncheon, Weonju, Gangreung, Cheongju, Chungju, Jecheon, Cheonan, Jeongju, Jeonju Namweon, Suncheon, Mogpo, Andong, Pohang, Yeongju, Jinju, Jeju.	YeongWeol Seosan Hongseong Gangjin Jeomchon Geochang

Source: Compiled from Government of the Republic of Korea, 1982, pp.19-20.

Among the 5 large city IRSAs, Seoul and Busan continued to restrict their expansion, while the cities of Daegu, Daejeon, and Gwangju would be developed as the primary regional growth centers in order to absorb the population that would otherwise migrate toward Seoul and Busan. Because of the planned population absorption, these three centers planned to improve their social and cultural infrastructure to the present level of Seoul. Furthermore, a substantial proportion of central government power would be transferred to those cities for reducing business trips to Seoul.

Among the 19 local IRSAs, 12 cities, including provincial capitals and other cities with

\* The Integrated Regional Settlement Area is a regional unit, where induced growth is envisaged first within the urban centers, serving as the core and distinguished by graded central place functions. They are typically composed of one or two secondary cities, where the lower-order cities are rural service centers, while the higher-order cities are regional urban centers, performing administrative, commercial, cultural and education functions on the regional basis (Park, 1985, p.175)

great growth potential, were selected as the secondary growth centers\*. The choice of growth cities was based upon four criteria: economic development potential, centrality and hinterland relations, contributions to interregional equity, and political acceptability (Kwon, 1985, p.193). They were expected to play a substantial role as the centers of local development and service centers. They were also expected to intercept rural migration in the current flow to large metropolitan areas and to reduce the press on metropolitan explosion. The production base and living service equipment in these areas would be upgraded and their transportation and communication network among growth centers and between each growth center and its hinterland would be strengthened.

In case of the rural town IRSAs, 3 major tasks were identified which included improvement of accessibility to the central cities, expansion of employment opportunities and educational facilities. Hence, regular bus service would be introduced and employment opportunities would be enlarged by locating suitable industry to the region. In addition, kindergarten, daycare, playground and recreation centers would be expanded to improve the welfare of the dwellers (Government of the Republic of Korea, 1982, pp.21-25).

On the contrary, Seoul would be developed with selected international and central management functions and other population-induced facilities would be relocated or restrained. Various suppression measures such as high tax rates and various charges and fees were introduced to the existing firms and new enterprises, located in Seoul. New construction or expansion of the existing industrial plants within the Busan area would also be strongly restricted and incompatible industrial plants would be relocated to the Changrim district. In addition, local industrial estates were arranged in Gimhae and Yangsan (Government of the Republic of Korea, 1982, pp.29).

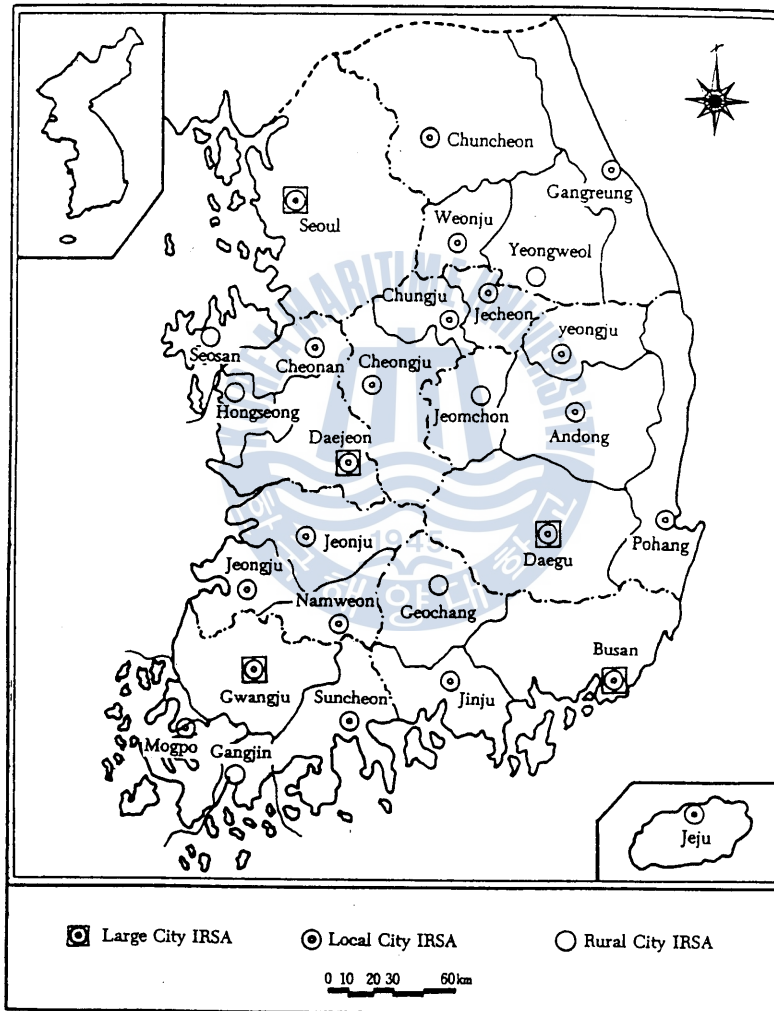
To optimize allocation of manufacturing activity, the industrial parks' development strategy was fundamentally changed in the Second Comprehensive Plan. Establishment of large-scale industrial estates was discouraged, whereas small and medium sized industrial estates were encouraged to set up in local areas to help population to settle where they live, and curb the persistent concentration of manufacturing activity in major areas.

On the western coast of Kyonggi province, new industrial estates would be developed in Banweol, Hwaseong, and Pyeongtae in order to accommodate industrial plants which were dispersed from Seoul. For alleviating industrial concentration of the southeastern coastal

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\* The secondary growth centers were Chuncheon, Weonju, Gangreung, Cheongju, Cheonan, Jeonju, Namwon, Suncheon, Mogpo, Andong, Jinju and Jeju.

industrial belt, the related industrial estates would also be developed on Kwangyang for steel production, Jinju, Sacheon, and Samcheonpo for machine and earthenware industries. The positive incentives measures such as tax concessions, substantial write-offs and state-subsidized land prices were granted to support these policies (Government of the Republic of Korea, 1982, pp.87-90).



<Figure 2> Map of Integrated Regional Settlement Area

However, the implementation results of the first half of the plan period were not satisfactory because the population increase of 15 growth centers was only 1 percent by

1986, whereas population and industry continued to be concentrated in the Seoul Metropolitan Area (Seo, 1998, p.131). According to the empirical studies, among the 1,412 enterprises, which had relocated outside Seoul by 1986, more than 95 percent moved only a short distance away from Seoul and settled in Kyonggi province (Wessel, 1997, p.204).

One of the reasons for policy failure was poorly specified growth centers. The plan included the cities, which already had sufficient self-generated growth power and had no need to be specified as growth centers. Meanwhile it included some cities which had no growth potential. The criteria of city size were also inconsistent and spatial linkage was not well considered. Limited financial resource also helped to achieve unsatisfactory results.

In the second half of the plan period, economic circumstance took a favorable turn to the country by the low international interest rate, the devaluation of the US dollar, and the low oil price. In order to utilize this good economic environment and to pursue spatially balanced regional development program continuously, the Second Plan was revised in 1987. The basic goals of the revised plan were the same as the original, but the initial 28 IRSAs and 15 growth center plans were replaced by 4 area-wide regional development strategies\*. Hence, the original regional balanced development programs were relinquished just 5 years later after the Second Comprehensive Plan was put in force and simply went back to the 4-basin development program which was already announced in the First Comprehensive National Physical Development Plan.

Even with the reorientation of the Second Plan, however, the remaining 4 years of the implementation period were not enough to achieve these goals. Furthermore, hosting the Asian games (1986) and Seoul Olympic games (1988) required excessive investments in game related facilities and transportation infrastructure in and around Seoul. Application of many regulations, which had prevented investments in Seoul became loose and lost their efficacy, and many greenbelts in the Seoul Metropolitan Area were dissolved. Besides, large industrial estates such as Namdong and Shiwha were built in the Seoul Metropolitan Area and new cities were completed in Ansan and Kwacheon during the plan period. This caused the population of Seoul to climb to 10.6 million people in 1990, even though its annual growth rate had dropped to 2.4 percent in the 1980s.

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\* 4 area-wide region were the Seoul Metropolitan area, central regions, southeast region and southwest region.

〈Table 3〉 Regional Distribution of Population, 1970–2001.

(1,000's)

	1970	1980	1990	2001
Capital	8,894 (28.3)	13,298 (35.5)	18,586 (42.8)	22,369 (46.6)
(Seoul)	5,536 (17.6)	8,364 (22.3)	10,613 (24.4)	10,263 (21.4)
(Kyonggi)	3,358 (10.7)	4,934 (13.2)	7,974 (18.4)	12,109 (25.2)
Busan	1,880 (6.0)	3,160 (8.4)	3,798 (8.7)	3,771 (7.9)
Kangwon	1,866 (5.9)	1,791 (4.8)	1,580 (3.6)	1,552 (3.2)
Chungbuk	1,481 (4.7)	1,424 (3.8)	1,390 (3.2)	1,497 (3.1)
Chungnam	2,860 (9.1)	2,956 (7.9)	3,064 (7.1)	3,321 (6.9)
Chonbuk	2,434 (7.7)	2,288 (6.1)	2,070 (4.8)	2,006 (4.2)
Chonnam	4,006 (12.7)	3,780 (10.1)	3,646 (8.4)	3,483 (7.3)
Kyongbuk	4,559 (14.5)	4,955 (13.2)	5,090 (11.7)	5,310 (11.0)
Kyongnam	3,120 (9.9)	3,322 (8.9)	3,672 (8.5)	3,107 (6.5)
Jeju	365 (1.2)	463 (1.2)	515 (1.2)	547 (1.1)
Total	31,466 (100)	37,436 (100)	43,411 (100)	48,022 (100)

Sources: Economic Planning Board and National Statistical Office, *Population and Housing Census*, each year

Note 1: parentheses indicate the percentage share

Note 2: the population of special cities is included into each province to which they belonged.

That is, the population of Daegu city is included in Kyongbuk province, that of Incheon in the Capital region, Gwangju in Chonnam province, Daejeon in Chungnam province, Ulsan in Kyongnam province.

The share of Seoul against the nation's total population was expanded again to 24.4 percent in 1990. The increasing rate of population in Kyonggi province was more rapid than that of Seoul and became 7.97 million in 1990. The share of manufacturing employment in Kyonggi province to the nation's employment also increased from 23.8 percent in 1980 to 32.2 percent in 1990. As a result, 42.8 percent of the total population and 47.8 percent of total manufacturing employment were located in the Seoul Metropolitan Area. In Busan, the population growth rate was stagnated and reached 3.8 million, and the share of manufacturing employment decreased in 1990. But the shares of population and manufacturing employment in the neighboring province-Kyongnam-continued to increase and reached 18.4 percent and 32.3 percent of the national total respectively in 1990. Hence, the government efforts for decentralization policies, implemented in the 1990s, were once again not completely successful.

## V. Balanced Regional Policies in the 1990s

In the early 1990s, the international political circumstance had undergone a sudden change after the Berlin Wall collapsed. The confrontation between the two camps of the East and West disappeared. South Korea's relationship with Russia and China had greatly improved and the unification of South and North Korea seemed to be possible. In the domestic arena, the issue of economic growth was dropped from the top agenda as the level of national income multiplied. Hence, when the Third Comprehensive National Physical Development Plan (1992-2001) was announced in 1991, major goals were set as creating a regionally decentralized pattern of development, establishing productive and resource-saving national land utilization systems, improving the living environment of the people, conserving the natural environment, and providing developmental bases for the unification of the country.

For a balanced national development, the Third Comprehensive Plan also emphasized foresting of local cities and rural areas. The country has been divided into 9 planning regions, based on the economic region, metropolitan, and provincial administrative boundary.

Among the 6 special cities\*, the 4 local largest cities Busan, Daegu, Gwangju, and Daejeon were assigned the task of attracting industrial growth and population from the Seoul Metropolitan Area. To support this plan, new business parks would be constructed in these cities and financial support and tax incentives were proposed. Also, these cities were planned to develop a few specialized central management functions with consideration of the geographical location and historical development. That is, Busan would be developed as an international trade and finance center, Daegu as a business, advanced technology and high quality apparel and fashion center, Gwangju as a high-tech industries, art and culture center, Daejeon as an administration, science and research center. Besides these 4 large cities, the other major provincial capitals such as Chonju, Cheongju, Chuncheon and Jeju were also planned to strengthen their particular functions in order to play a greater role in the economic growth of their provinces\*\* (Government of

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\* It include Seoul, Busan, Daegu, Incheon, Gwangju, and Daejeon at that time.

\*\* Jeonju was planned to be developed as a manufacturing, culture and art center, Cheongju as manufacturing, education and culture center, Chuncheon as manufacturing, tourism and culture center and Jeju as tourism and culture.



the Republic of Korea, 1992, pp.29-30).

In case of the Seoul Metropolitan Area, various methods were employed to shift the population and industrial activity toward the local areas. A congestion tax was proposed to be levied on newly established large-scale office buildings and manufacturing firms in the Seoul Metropolitan Area, and collected revenues would be used to subsidize local industries (Lee, 1994, p.16). Also, the number of permits issued for newly established and enlarged industrial plants within the Seoul Metropolitan Area would be limited according to the annual total square meters of industrial space allocated to the Seoul Metropolitan Area.

〈Table 4〉 9 Planning region

Name	Special city and Province	Basic Development Guideline
Seoul Metropolitan Area	Seoul, Incheon, Kyonggi	Control the excessive concentration of population and economic activities
Kangwon	Kangwon	Develop large scale resort areas establishing spaces for tourism and recreation facilities
Chungbuk	Chungbuk	Establish a basis for regional development to facilitate the movement of decentralized function from the Seoul Metropolitan Area
Daejeon-Chungnam	Daejeon, Chungnam	Enhance the areas ability to attract government, industrial, and commercial function from the Seoul Metropolitan area
Chonbuk	Chonbuk	Establish an advanced base for trade with China and Pacific Rim Region
Gwangju-Chonnam	Gwangju, Chonnam	Establish an advanced base for trade with China and Pacific Rim Region
Daegu-Kyongbuk	Daegu	Reinforce the central management functions of Daegu and rationally manage area-wide development.
Busan-Kyongnam	Busan, Kyongnam	Reinforce the functions of this area as an international trade center and a gateway area to the Pacific Rim Region
Jeju	Jeju	Establish a basis for a domestic and international tourist area

Source: Compiled from Government of the Republic of Korea, 1992, pp.120-135.

In order to spur the development of the less developed regions, the Third

Comprehensive Plan mapped out the construction of industrial complexes in Kangwon province, and northern and western Kyongbuk province. Also, new industrial zones were concentrated in the central and southwest regions and the development of these zones was supposed to progress along the western coastal region development projects for preparing the expected trade expansion with China. Asan, Daejeon, Cheongju, Kunsan, Janghang, Iri, Jeongju and Mogpo, Gwangju, Gwangyang regions were appointed as development districts, and approximately 60 percent of the newly established industrial estate land during the plan period was preferentially allocated to these regions. At the same time, major industries in large cities of the southeast coastal industrial belt such as Ulsan, Busan, Pohang, Changwon, Masan and Yeochun would be relocated to small and medium size cities in the region. Instead, the existing industrial structure in large cities would be transformed into a technologically intensive industrial structure (Government of the Republic of Korea, 1992, pp.44-46).

According to this plan, a total of \$17.7 billion had been invested by 1996 and Asan, Shinwha, KunJang, and Gwangju industrial parks were under construction. Land development for local industrial parks was advanced to 34.5 percent of 2001's goals. (Seo and Yang, 1997). In order to disperse population from Seoul, new cities were developed in Bundang, Ilsan, Pyoucheon, and Sanbon. However, the original program for developing 9 planning regions was altered to the 7 area-wide development program by the Regional Balanced Development and Local Small and Medium sized Enterprises Cultivation Law in 1994\*, and development plans for Asan Bay region and Busan-Kyongnam region were completed by 1996 (Park, 1999, p.30). However, South Korea has been faced with a critical economic situation from the 1997. The exchange crisis badly hit the Korean economy. The government widened its Won trading band from 2.25% to 10% on November 1997 and finally allowed the Won to float on December 1997. Private consumptions and gross fixed capital formation dramatically declined by 11.7% and 21.2% respectively in 1998. Also, its economic growth rate dropped to 6.7 percent and more than 1.5 million workers lost jobs. As an aftermath of this crisis, most large projects for regional development were put off or halted, and like the previous Plans, the Third Comprehensive Plan could not reap a good harvest in terms of the balanced regional development.

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\* 7 area-wide regions include Asan Bay region, Busan-Kyongnam region, Kunsan-Janghang region, Daegu-Kyongbuk, Gwangju-Mogpo region, Gwangyang Bay region, Daejeon-Cheongju region.

During the 1990s, different trends were taking place in the distribution of population and manufacturing activities. The absolute population numbers in the cities of Seoul and Busan were decreased. Manufacturing employment of both cities was also reduced. Especially, manufacturing employment of Busan was cut by half because of the collapse of the region's key industries such as shoe and clothing manufacturing. However, the population and manufacturing employment in its neighboring provinces - Kyonggi and Kyongnam- continued to increase. Accordingly, the Seoul Metropolitan Area can maintain 46.6 percent of population and 46.0 percent of manufacturing employment against the national total in 2001. Also, 48.6 percent of the total cars, 65.5 percent of total loans by financial institutions, 40.7 percent of the universities, 78.5 percent of government offices, and 82.6 percent among 500 large enterprises were concentrated in the Seoul Metropolitan Area in 2000.

〈Table 5〉 Regional Distribution of Manufacturing employment, 1970–2001  
(1,000's)

	1970	1980	1990	2001
Capital	396 (46.0)	924 (45.9)	1,443 (47.8)	1,219 (46.0)
(Seoul)	292 (33.9)	445 (22.1)	471 (15.6)	276 (10.4)
(Kyonggi)	104 (12.1)	479 (23.8)	973 (32.2)	943 (35.6)
Busan	137 (15.9)	319 (15.8)	368 (12.2)	183(6.9)
Kangwon	19 (2.2)	23 (1.1)	35 (1.2)	32 (1.2)
Chungbuk	20 (2.3)	40 (2.0)	83 (2.7)	102 (3.9)
Chungnam	45 (5.3)	88 (4.3)	122 (4.0)	168 (6.4)
Chonbuk	36 (4.2)	55 (2.7)	74 (2.5)	70 (2.6)
Chonnam	42 (4.9)	67 (3.3)	115 (3.8)	121 (4.6)
Kyongbuk	99 (11.5)	263 (13.1)	374 (12.4)	335 (12.6)
Kyongnam	60 (7.0)	231 (11.5)	400 (13.2)	412 (15.6)
Jeju	5.2 (0.6)	4.1 (0.3)	4.9 (0.2)	4.3 (0.3)
Total	861 (100)	2,015 (100)	3,020 (100)	2,648 (100)

Source: Economic Planning Board and National Statistical Office, *Report on Mining and Manufacturing Survey*, each year.

Note 1: parentheses indicate the percentage share

Note 2: manufacturing employment of special cities is included into each province to which they belonged. That is, the employment of Daegu city is included in Kyongbuk province, Incheon in the Capital region, Gwangju in Chonnam province, Daejeon in Chungnam province, Ulsan in Kyongnam province

Meanwhile, regions located in depressed areas had experienced population losses due to lagging economies and stagnant investment. For example, the share of population in the Chonla region (Chonnam and Chonbuk Province) became half from 20.4 percent in 1970 to 11.5 percent in 2001; the share of population in the Kangwon region decreased from 5.9 percent in 1970 to 3.2 percent in 2001; and the share of population in the Chungcheong region (Chungbuk and Chungnam province) declined from 13.8 percent in 1960 to 10.0 percent in 2001. However, the share of manufacturing employment in those regions has shown a slight reversal of this trend in recent years thanks to the government industry redistribution policies and decreasing importance of the manufacturing sector in the major metropolitan areas.

## VI. Conclusion

By the 1950s, Korea was recognized as one of the poorest countries in the world with a predominantly agricultural economy. However, the Korean economy grew rapidly from the 1960s by an export-led industrialization strategy under the command of military leader, General Chung-Hye Park. The main idea he adopted at that time came from Perroux's growth pole theory. Investments were concentrated in a few resource-rich metropolitan cities and southeastern industrial areas in order to maximize economic growth. But, unlike the theory, in actual practice, the trickle-down effect did not work. Rather, massive migration flow had taken place from lagging regions to the prosperous regions, and economic activities were concentrated in a few regions. As a result, a widening economic inequality between regions was taking place.

The central government policy makers had devised plenty of policies to tackle such disequilibria and this article mainly investigated distribution policies of population and manufacturing activities which were contained in the Comprehensive National Physical Development plans.

In the First Comprehensive National Physical Development Plan, the whole country was divided into 4 major river basins, 8 intermediate regions and 17 small areas and 8 intermediate regions were expected to play critical roles to achieve regionally balanced development. In the Second Comprehensive National Physical Development Plan, national territory was divided again into 5 large city IRSAs, 17 local city IRSAs, and 6

rural town IRSAs. The most salient feature of the Second Plan was to promote national balanced policies by designating 15 growth centers (3 primary and 12 secondary centers) as hubs of regional economic activities. In connection with this plan, small and medium size industrial parks were recommended to be constructed in the rural areas. In the Third Comprehensive National Physical Development Plan, 9 planning regions were designed and each planned region was scheduled to develop by their peculiar function with a view to creating a poly centric metropolitan region. Also nurturing industrial parks along the lagging western coast region and in underdeveloped provinces were designed.

Looking back upon the past, these three Comprehensive National Physical Development plans contributed much to the establishment of national industrial bases and economic growth. The GNI of South Korea, as of 2003, was estimated at \$ 606 billion and per capita GNI was about \$12,646, which is an increase of 160 times that of the 1960's when the per capita GNP was \$79. Also, growth rate of Seoul and Busan's population has started to mitigate since the third Comprehensive National Physical Development Plan were enforced. However, dominant spatial patterns of concentration of population and industries in Seoul and the Seoul Metropolitan Area, emerging in the early national development stage, has persisted up to the present. 46.6 percent of the South Korean population and 46.0 percent of all manufacturing employment were concentrated in this area, even though it occupies only 11.8 percent of the nation's territory. Hence, we can generally conclude that government's implemented spatial policies were proved to be not successful enough to alter the overall pattern of imbalanced and distorted regional development.

Some internal factors affected the effectiveness of these past government policies except the unanticipated external economic events such as Asian games in 1986, Seoul Olympic games in 1988 and the exchange crisis in 1997.

The first and most important factor is that the Korean government had paid little attention to equity and welfare issues in the early stage of national economic development. Instead, it had given higher priority to rapid economic growth and adopted growth pole strategy. It might have been a critical mistake from the viewpoint of balanced spatial development. It formulated a few fast growth centers including Seoul, Busan, and the industrial cities in the southeast coast. Once those centers were built, it was difficult to change their growth trends as much as policy makers wanted. Rather, a pronounced dualism between prosperous and backward regions was reinforced by the circular and



cumulative process. The actual population of major developed cities has always exceeded planned population in the end year of plan period. Strong and powerful location advantages in the metropolises resisted efficient application of the spatial programs.

Second, when the government implemented its balanced regional development strategy, coordination and consistency among executive authorities involved were severely lacking. Until the early 1980s, there was significant overlap among the Ministry without Portfolio, the Ministry of Home Affairs, the Ministry of Construction, the Ministry of Trade and Industry, and the Economic Planning Board when the regional policies were designed and carried out. It caused not only the considerable delay of drawing up plans, but also the difficulty of coordinating among central government agencies. This problem was almost solved in 1981 when all responsibility with regard to the regional policies was transferred to the Ministry of Construction. However, the Ministry of Construction also experienced trouble in obtaining assistance from the other government authorities due to their conflict of interest. In addition, the agencies that were responsible for coordinating these policies were changed frequently so that it was impossible to maintain consistency over the planning period. As a result, implementation of policies was often delayed and policy evaluation and monitoring of performance were infrequent and superficial (Kwon, 1988, p.133).

Third, the central government had always played a key role in designing and implementing most national development programs by the mid-1980s. This top-down planning approach was an obstacle in carrying out regional development plans because it failed to take account of detailed regional needs. Local government and residents had no chance to reflect their opinions in the decision-making process. This problem was first mentioned in the revised version of the Second Comprehensive Plan and local governments and regional pressure groups were recommended to participate more actively. When the Fourth Comprehensive National Development Plan, announced in January 2000, was set up, the top down system was completely changed to the bottom-up system and about 160 citizens, researchers, central and local government agencies participated from the early designing stages (KRISH, 1999). However, this bottom-up approach does not solve all problems. Compared with central government agencies, the ability and skill of planning and implementing of the local agencies still fell far behind. Besides, local governments had trouble in making their own development programs due to the limited financial resources. The financial independence rate of the lagging regions was quite low,



even though more autonomy was provided to the local governments from 1988. According to the 2004 statistics, financial independence rate of Chonnam is 21.1 percent, Chonbuk 25.9 percent, Chungnam 30.5 percent, Kangwon 28.9 percent, and Kyongbuk 29.4 percent, while the same figure for Seoul is 95.5 percent (The Ministry of Government Administration and Home Affairs, 2005).

Fourth, the government financial or tax incentives, which were used since the early 1970s, and one of the important measures for the industry redistribution policy, have relatively minor impacts on the relocation of manufacturing firms away from the major cities. Much empirical evidence shows that firms do not move long distances and small firms tend to stay within the central area (Kwon 1985, Lee and Cheo 1985, Park, 1988, Wessel 1997). One reason for failure was that advantage of location near major cities including easy access to large markets and services were bigger than government-provided incentives. Most of relocated firms said that welfare loss from the relocation outweighed the government compensation. Another reason was that government industrial relocation plans had mainly focused on supply of physical infrastructure such as road, electric power, water supply etc, and had not paid much attention to providing household-oriented infrastructure such as housing, school, transportation, banking and medical facilities. However, the latter has sometimes more important than the former when the firms' owners drew consent from their workers for relocation. The importance of house-related facility will be increase in the future as people's income levels rise. Hence, the provision of such infrastructures will be a precondition to lead firms to relocate to local areas, and higher priority should be placed on the supply of this infrastructure when the government pursues industry redistribution policies.

The dominant role of Seoul over the rest of the country has been long-lasting and deep-rooted in Korea. It was the capital city from the early years of the Yi Dynasty, begun in 1392. Therefore, a Seoul-oriented value system and attachment to Seoul, have formulated and persisted more than six hundred years. One of the old Korean proverbs say this clearly; when a horse is born, sent it to Jeju, but when a person is born, send him to Seoul. This idea seems not to be changed in the near future.

In the year 2000, the government announced the Fourth Comprehensive National Development Plan which enforces the balanced regional development policies again with the 10 metropolitan area-wide development plan. However, if the current large economic and social gap between Seoul (and Seoul Metropolitan Area) and other regions is

maintained, achieving balanced regional development will become a more and more difficult goal to achieve.

One of the positive signs regarding the prospects for balanced development of the country came from the last presidential election. The newly elected president, Moo-Hyun Rho, made public promises that he will relocate the central government office to Chungcheong Province and come up with measures to revive local economies. However, his proposed plan has caused much controversy among different regions, social strata, and generations, and last October, Korea's highest court ruled that the Roh administration's plan to relocate the capital is unconstitutional because the plan had not been put to a national referendum. As a result, all related plans has been halted and president Rho has suffered a serious political blow. However, the government and the ruling party continue to push ahead with an alternative plan and keep intact the administration's goal for balanced regional development that does not go against the court ruling. Thus, it is worth keeping our eye upon the Rho Administration to see whether the president can successfully put his words into practice. If the president Rho can fulfill his campaign promise, Korea will be able to obtain a measure more powerful than ever before, and see a historical turning point for healing this long-lasting problem of imbalance



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