

## **Regional Development Policy in Korea-Past, Present and Future\***

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**Abstract** : Recently the World Bank released its World Development Report 2009 (hereafter WDR 2009) with the title 'Reshaping Economic Geography.' In the report, the Korean experience in regional development policy was highly praised. Also, the current government has been trying to reshape the regional development policy in view of 5+2 Economic Regions. The main theme of this paper is how to establish the highly value-adding economic system and how to deal with scale economies for regional development. In this paper these tasks in Korea's regional policy were discussed with reference to the WDR 2009. Enhancing the density of the central city of each Economic Region, reducing the economic distance between cities and rural areas, and getting rid of the barriers to cooperation between provinces are the keys for the efficiency and the effectiveness of the regional policy. In addition, strengthening the national solidarity through collaborative development of 5+2 Economic Regions still remains as one of the major tasks of the Korean government.

**Keywords** : regional policy, scale economy, agglomeration economy, urbanization economy, localization economy, World Bank, Economic Region, cluster policy

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### **1. Introduction**

Since 1960s Korea has achieved very rapid economic growth and urbanization. In that process, the economic-geographical structure of Korea has also been greatly changed. This remarkable socio-economic development has

induced numerous studies on the determinants of such development among economists, economic geographers and policy makers worldwide.

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development policy was highly praised as an example of successful regional development. Also, the current government has been trying to reshape the regional development policy of the former government since July 2008. These two events provide a timely opportunity to discuss a desirable framework for Korean regional development policy in the future.

One of the perplexing aspects of the studies on Korean economic growth and regional development is that Korea is frequently cited as a success story of a market economic system as well as a national planning system. A better answer may be the appropriate combination of the two systems in Korea. The door to modernization was first opened in the early 1960s by a planning system focused on the efficient mobilization of resources. Along with it, entrepreneurship in private sector was combined with political leadership in public sector toward the national goal of economic growth. The role of former president Park Chung-Hee was important in the sense that he was the first president who mobilized and organized Korea's economic potential.

The opinions of Paul Krugman are interesting on two points with regard to Korean economic growth. First, in 1994, he said that the East Asian economic growth was possible almost entirely through the increasing use of cheap inputs (Krugman 1994). As such, he forecasted that with the exhaustion of cheap inputs, the East Asian economy would stagnate in the near future. Whether his forecast was accurate remains to be seen. But his remark is still significant in the sense that more efforts to establish a high value-added economic system are needed for long-term economic development of Korea. Second,

Krugman explained the process and mechanism of the formation of and the change in economic geography (Krugman 1991). He argued that scale economies are the driving forces behind regional economic growth and the formation of economic geography. His argument was adopted in WDR 2009 as one of the basic insights on economic geography from recent studies (WDR 2009, p. 136). According to him, once the scale economies operate in given location (e.g. village), that location becomes more and more agglomerated from a mere village to a metropolitan area. But how and which location can achieve scale economies first? His answer is quite ambiguous (or he gives no answer) on this point: historical coincidence. Was the advent of the former president Park Chung-Hee as the first organizer of modern Korean economy a historical coincidence? On such question economics may be unable to give an answer.

Regardless, the two points of discussion raised by Paul Krugman, among many others, are related to the main themes of this paper: how to establish the highly value-adding economic system and how to deal with scale economies for regional development? These tasks in Korea's regional policy will be discussed in this paper with reference to the messages of WDR 2009.

## 2. The Sources of Regional Economic Growth

It may be convenient to start this section with some comments on the WDR 2009. The report is the 31<sup>st</sup> WDR, and the issues it covers have been

visited by earlier WDRs. But the major focus of the 31<sup>st</sup> WDR is world economic geography, and the facts, analysis, and policies related to spatial transformations are comprehensively covered (WDR 2009, p. 34). For preparing the report the World Bank arranged a special team and two panels of advisors (academics and policymakers). The academic panel consisted of many leading scholars world-wide such as Paul Collier, Masahisa Fujita, Vernon Henderson, Philippe Martin, Nicholas Stern, and Anthony Venables among others. Such efforts of the World Bank made the report a useful reference and guideline for discussing regional development policies among various countries including Korea (see Choi S-C. et.al. 2009; Park 2009).

The report analyzes the world economic-geographical transformations using the insights from economic history since late 1700s and recent research, and concludes that the geographical transformations for economic development can be characterized in three dimensions- density, distance, and division. It then revisits policy debates on urbanization, regional development, and international integration.

WDR 2009 lists the 3Ds (Density, Distance, Division) as key factors shaping economic geography. Density implies the importance of urbanization (agglomeration) for regional and/or national economic growth, and WDR 2009 recommends 'spatially-blind' institution policies for it. Reducing the economic distance (facilitating migration) between urban centers and rural areas should be pursued for both continuous regional growth and integration. Transportation infrastructure is the key at this stage. Also, efforts to reduce divisions between more and less prosperous zones in cities are needed after urbanization reaches a certain level. According to WDR 2009, spatial intervention policy is required only in this case. Division is the most important dimension internationally. Appropriate specialization in the global economic context is necessary for development.

The Korean cases have been provided as benchmarks for all of the 3Ds. As can be seen in Table 1, the rapid increase in urbanization ratio of Korea since 1960 (from about 25% in 1960 to over 80% today) has been cited as the case for density. The narrowing of economic distance between

Table 1. the Korean Cases in World Development Report 2009

3Ds		Economic force	Geographic scales	Korean cases cited	
				indicators	places
Density		agglomeration	local	urbanization ratio	Seoul, Daegu
Distance		migration	national	urban size expansion, road paved	Daegu, Gumi, etc.
Division	Between countries	specialization	international	production and export size of selected industries	Pohang, Ulsan, Gumi, Changwon
	Intra-urban	social integration	local	number of slums	Gangnam, Mokdong (both in Seoul)

Source: Adapted by the author from the World Bank (2009), pp. 216-225

urban and rural areas (e.g. between Daegu and Gumi), the specialization of industries (e. g. in Pohang, Ulsan, Gumi, Changwon) and the overcoming of intra-urban division (e.g. in Seoul) in Korea have also been comprehensively mentioned as benchmark cases of successful socio-economic and geographical development (WDR 2009, pp. 216-225).

According to WDR 2009, there seems to be no problem in Korea's regional policy. Then what are the problems with Korean regional policy not covered in WDR 2009? The World Bank report may have exaggerated Korea's achievements or neglected certain important aspects. One of the most important aspects neglected in the report is thought to be as follows: the report emphasizes over and over the importance of continuous urbanization to reap the agglomeration economies for national and/or regional development. Then how many large cities are appropriate according to the size of the country?

If the appropriate number of large cities and the coverage of the functions of each city are determined in a given country, the number and size of the planning units will be easily determined. The World Bank report has no comments on this point. The long-lasting and most important issue in Korea's regional development policy is directly related to this question. At one extreme there is the argument that advocates spatially non-differentiated policy across the nation which implies that only one planning unit is necessary for regional policy. At the other extreme there is the view that each of 16 administrative provinces should be designated as planning unit. Actually the present Korean government designated 5+2 Economic Regions as the planning

and implementation units of regional policy. The rationale behind this designation of spatial units and the policy for them will be discussed in section 4. Before it, some comments on the regional policy of the previous government might be needed for comparison.

### 3. Korea's Regional Development Policy—Past

In Korea, there were (and are) the problems originating from the socio-economic tension between the capital (Seoul) metropolitan region and the other regions, between the Yeongnam region (South Eastern part of Korea) and the Honam region (South Western part of Korea), and among the provinces. These problems regulated and constrained Korea's regional development policy both implicitly and explicitly. In this paper these problems will not be discussed in the long term historical context.<sup>1)</sup> Instead Korea's regional development policy after 2003 will be discussed, the year the former government initiated its "Balanced National Development Plan (2004-2008)" (hereafter BNDP). The role of the former government was very important in the history of Korea's regional policy in that it set 'balanced regional development' as the top priority in national policy agenda and, to accomplish it, made the legal and financial structures and strong policy instruments for the first time in modern Korean history.

The prime goal of the BNDP was balanced regional development (especially between capital region and non-capital region). But in the earlier

stage of designing it the BNDP was based theoretically on the then popular Regional Innovation System (hereafter RIS) strategy for regional development. After that, M. Porter's regional cluster strategy (Porter 1998) was also adopted as a policy guideline. These strategies were (and still are) adequate in themselves for regional development, and their messages were reflected quite well in the design of provincial industrial and science promotion policy. But the ambitious plan for balanced regional development through developing 17 new cities (a multifunctional administrative city, 6 enterprise cities and 11 innovation cities) in 13 provinces (excluding 3 provinces in capital region) were contradictory to the messages of RIS or cluster theory. Because these approaches commonly emphasize networking between regions and sectors, and such kind of new city development policy is not included in or at the bottom of their policy menu.

In other words, there was a split between the prime goal (balanced regional development) and the strategies used (RIS and clusters) in regional policies of the former government, because the aim of RIS or cluster policy is not inter-regional balance but enhancing regional competitiveness. The "balance" was pursued by other measures: relocation of government institutions and businesses. For it, the government tried to build one or more of the three types of cities in each province. In view of the message of WDR 2009 that urban density is crucial in regional development, 4 of the 17 new city development plans are relatively rational in that they were designated in or around large cities (Busan, Daegu, Ulsan, Gwangju-Jeonnam). But the other 13 new cities designated were dispersed throughout the

country and the agglomeration economies might be hard to be realized. Furthermore there was a serious deficiency in the planning process. That is, the demographic trend in Korea was not considered enough. In the established trend of population decline and aging, every new city development plan should check this demographic constraint at first.

One of the weaknesses of RIS or cluster approach is that they are ambiguous on operational policies. Moreover the appropriate spatial size for regional development policy cannot be clearly defined through these approaches. These weaknesses were also visible in the actual implementation of BNDP. In terms of the policy mix, many stereotyped programs or instruments were applied uniformly throughout 13 provinces without enough consideration of the characteristics of each province.<sup>2)</sup> With regard to the appropriate spatial size for policy implementation, the government adopted 13 administrative provinces. Such choice of spatial targets didn't reflect well the Korean economic-geographical reality that some provinces (large cities) are included in the areas of other provinces (composed with medium and small sized cities and rural areas). This flaw in policy implementation - uniform policy mix without consideration of urban hierarchy - would lead to lower efficiency and effectiveness of regional policy (Jang, 2008a).

#### 4. Korea's Regional Development Policy—Present

The present government's regional policy starts

from the recognition of the flaws of the former government’s regional policy. The goals have also been changed. The imperative of the former government’s regional policy was balanced regional development, but the Presidential Committee on Regional Development (hereafter the PCRD) of the present government defined the ultimate goal as “creating competitive regions with better jobs and quality of life” (PCRD 2009b). Thus, the core word has been changed from “balance” to “competitiveness.”

The present government has set four goals of regional policy; enhancing the competitiveness of “Economic Regions,” regional specialization according to the characteristics of each region, decentralization & regional autonomy, and inter-regional cooperation for collaborative development (see Figure 1).

Along with the differences in goals, one of the most important differences between the regional

policy structures of the former and the present government is related to the demarcation of the target spaces.<sup>3)</sup> Contrary to the former government, the present government introduced the concept of “Economic Region”. The 16 provinces were grouped into 5+2 Economic Regions as major policy units according to the criteria of historical, cultural and geographical identity.<sup>4)</sup> This is thought to be a welcome change in that it reflects the economic-geographical realities of Korea quite accurately. (See Table 2)<sup>5)</sup> The Capital region covers only 12% of the area but its population (23.6 million) is about half of the entire country. The 4 regions (Chungcheong, Honam, Daegyeong, Dongnam) comprise a population between 4.9 million and 7.8 million. The population of each of these 4 Economic Regions is in the lower limit of Kenichi Ohmae’s criteria in his definition of a ‘region state’ (Ohmae 1995).<sup>6)</sup> One of the most important issues in Korea’s regional development

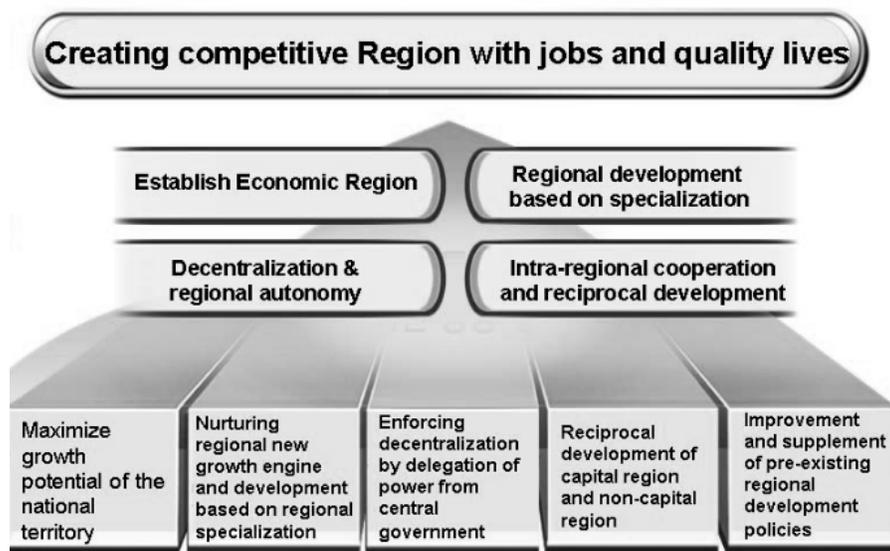


Figure 1. Structure of Present Regional Development Policy

Source: Presidential Committee on Regional Development (PCRD), (2009b)

Table 2 Profile of 5+2 Economic Regions (2006)

5+2 Economic Regions	Area(km <sup>2</sup> )	Population(in thousand)	GRDP(in trillion won)
Capital Region	11,730 (12%)	23,602 (49%)	370.0 (48%)
Chungcheong Region	16,572 (17%)	4,876 (10%)	87.6 (11%)
Honam Region	20,629 (21%)	5,054 (10%)	72.4 (10%)
Daegyeong Region	19,910 (20%)	5,170 (11%)	80.5 (10%)
Dongnam Region	12,342 (12%)	7,780 (16%)	130.8 (17%)
Gangwon Region	16,613 (17%)	1,474 (3%)	17.0 (3%)
Jeju Region	1,848 (2%)	542 (1%)	6.6 (1%)
Entire Country	99,644	48,498	767.4

Note: The provinces included in each Economic Region are as follows: Capital Region; Seoul, Incheon, Gyeonggi, Chungcheong Region; Daejeon, Chungnam, Chungbuk, Honam Region; Gwangju, Jeonnam, Jeonbuk, Daegyeong Region; Daegu, Gyeongbuk, Dongnam Region; Busan, Ulsan, Gyeongnam. Gangwon and Jeju Region are identical with each province.

process is whether and how much further these 4 regions will be able to develop toward a kind of region state and what sector each region will specialize in. The two smaller regions Gangwon and Jeju are identical with each province. The reason is that these two provinces have distinct geographical characteristics; Gangwon is composed mainly of mountainous areas and Jeju is an island.

Among the 4 goals of regional policy, the present government has set the goal of improving the competitiveness of the 5+2 Economic Regions as its first priority. Thus, the mainstay of the Regional Development Plan (2009-2013), made public in December 2009, is the Economic Region Development Plan (hereafter ERDP). The outline of the ERDP is described in Figure 2. Special

attention has been given to the cooperation between provinces in each Economic Region. This is in accordance with what the WDR 2009 suggests for regional development; reducing the economic distance between spaces.

The ERDP is composed of 5 planning sectors: industry, science/technology/human resources, culture/tourism, infrastructure (transport and industrial complexes), and institutions. For industrial development, 2 “propulsive” industries were selected by each Economic Region as a part of a regional specialization strategy. The focus is on accelerating the development and commercialization of new products with sizable market potential in each propulsive industry. For culture and tourism, an inter-provincial and inter-sectoral approach is emphasized. For example, an

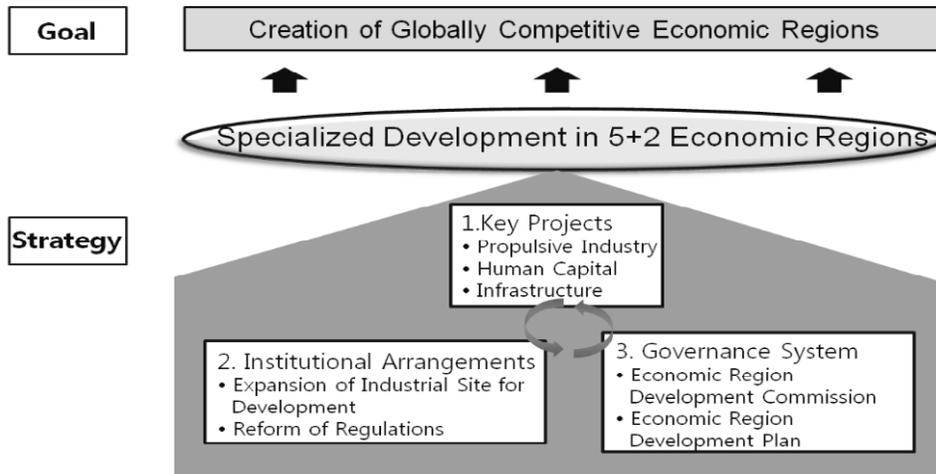


Figure 2. Economic Region Development Plan (ERDP)

Source: Adapted by the author from PCRD (2009b)

inter-provincial river development project and a spa-belt development project were proposed for the Daegyeong region and Chungcheong region, respectively. In the area of science and technology, developing key technologies for propulsive industries by regional hub-universities and strengthening the role of government-affiliated research institutes for regional development are of major interest. To reduce the distance between spaces and induce social integration, various network infrastructure construction projects such as the 7×9 inter-provincial highways, railroads, international airports and seaports were planned. Certain point infrastructure projects such as an international science & business belt, the Saemangeum development project, high-tech medical complexes and restructuring of old industrial complexes were also drawn up. For institutional arrangements, rationalization of regulations that have hindered regional development will be pursued. The Economic

Region Development Committee (hereafter ERDC) and the Executive Office for the ERDC, the two new organizations for the development of Economic Region, were established in June 2009 in all of the 5+2 Economic Regions. The ERDC consists of the metropolitan mayors, provincial governors and civilian representatives. The Executive Office for the ERDC consists of government officers and civilian specialists in each Economic Region.

In addition to the ERDP, the Daily Living Sphere Development Plan (hereafter DLSDP) and the Supra-Economic Region Development Scheme are also in preparation.<sup>7)</sup> The plans are expected to be made public in the 1<sup>st</sup> quarter of 2010. The outline of the DLSDP is shown in Figure 4. The design of territorial development described in Fig 4 is very similar to what was suggested by the WDR 2009 and Jang (2008a).

In the implementation of the DLSDP, major changes are being planned to be introduced

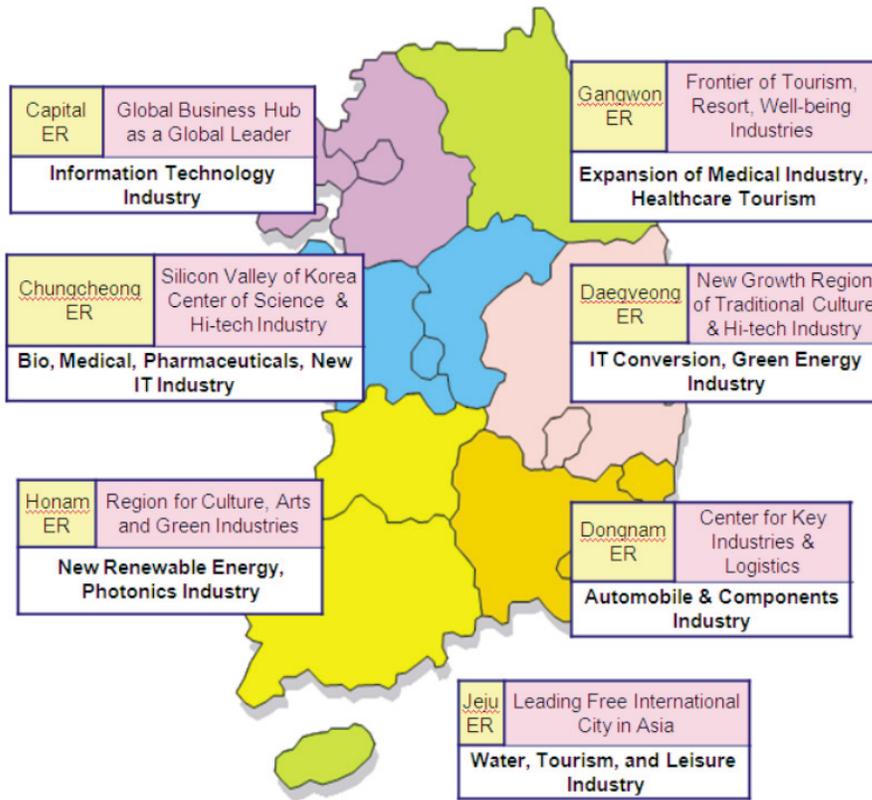


Figure 3. Development Visions of 5+2 Economic Regions

Source: PCRD (2009b)

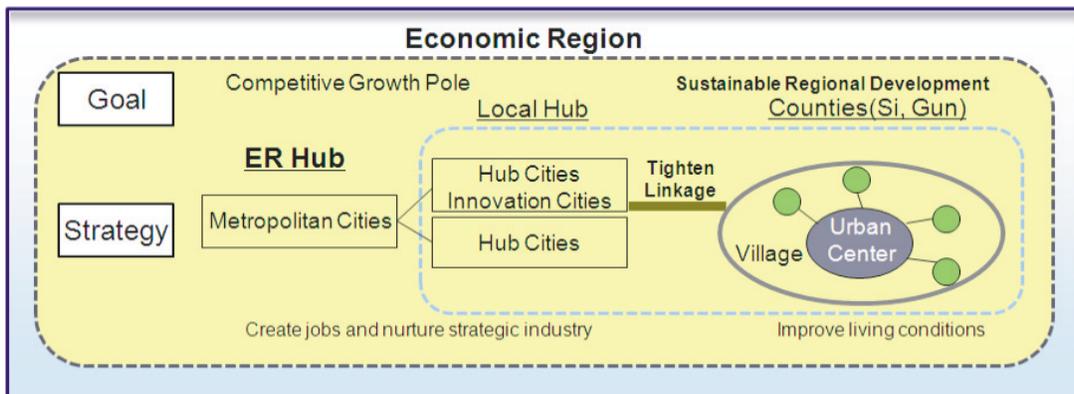


Figure 4. Daily Living Sphere Development Plan (DLSDP)

Source: PCRD (2009b)

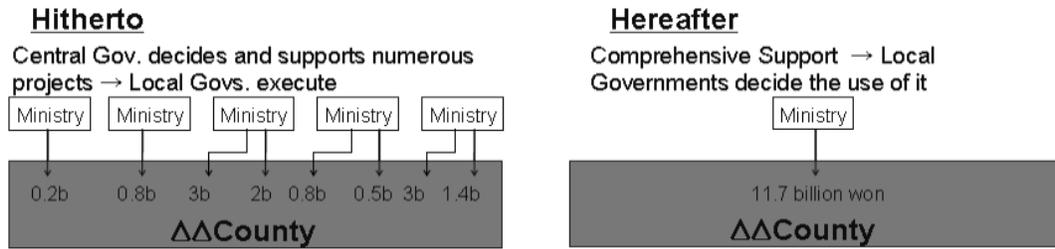


Figure 5. the Block Grant System of DLSDP

Source: PCRD (2009b)

regarding the way central government grants are given to local governments. The numerous local projects were grouped into 24 categories and a kind of block grant system for each category is expected to be applied (see Figure 5).

There are 5 Supra-Economic Regions (hereafter SER) designated; 4 for outer border areas of the national territory and 1 for inner land. PCRD set 4 basic strategies for the development of SERs; nurture growth engines across Economic Regions and improve linkages, construct interregional and international infrastructure, facilitate interregional cooperation in Northeast Asia, pursue reciprocal development through cooperative resource management (PCRD 2009b). The outline of the development plan for 4 SERs was made public in December 2009. Southern coastal area was named as 'Sun belt' with the goal of promoting it as global economic/transportation/resort hub. Eastern coastal area ('Blue belt') is planned to be promoted as national energy/tourism belt along with creative industry. The goal for western coastal area ('Gold belt') is making it as international business and high-tech industry hub. The northern frontier area is planned to be developed as Eco-Peace belt representing the situation of South-North divide in Korean peninsula.

## 5. What and How to Do in the Future?

### 1) Coordination of Planning Units with Administrative Units

As mentioned in the previous section, the overall structure of the present Korean regional development plan is in accordance with what the WDR 2009 suggested and is quite eligible. The remaining problem is to make the plan operationally feasible and make sure of the efficiency and effectiveness of the policies implemented in the plan.

In this respect, one of the most important tasks is to resolve the problem caused by the division between the spatial planning unit and the administrative/political unit. By now the heads of provincial and local governments are directly elected by their constituents in Korea, so their administrative authority in their community is quite powerful and virtually every decision regarding regional policy should be authorized by them, except for policies directly executed by the central government. This could seriously hinder the efficient implementation of the ERDP, the most

important plan of the present government for regional development. As mentioned earlier, whether the ERDP will be successful or not depends on the cooperativeness between the provinces in the Economic Regions. But under the present elective system, the heads of the provinces are very susceptible to voter-friendly but not economically rational decision making. If so, their behavior would be affected by NIMBY and/or PIMFY syndrome. To overcome this problem, the administrative and financial authority of the ERDC and its Executive Office must be clearly defined. For it some kind of contract should be made between the heads of the provinces and the central government authority on the delegation of authority from the heads of the provinces to the ERDCs and their Executive Offices.

The second problem is the integrity of the planning process itself. According to the Special Act on Balanced National Development, revised in April 2009, the ERDP should consist mainly of inter-provincial programs or projects and be prepared by the delegates from every province in the Economic Region. But the delegates are used to the plan of their home province and have very little experience in inter-provincial planning. Moreover, they are continually being checked by the administrative authority of their home province on the contents of the plan or projects related to their interests.<sup>8)</sup> A planning process such as of the ERDP is unprecedented in the history of Korean regional policy, so it is desirable to allow for enough time for mutual learning and cooperation both between provinces and between provincial governments and the central government.

For the two tasks mentioned, the role and authority of the PCRDC for coordination and

evaluation is very important. Contrary to the policy of the former government, the policy framework of the present government is based on the inter-ministerial and inter-spatial cooperation. But under the traditional bureaucratic system of Korea, such cooperation could not be easily achieved. In that sense, it is desirable that the authority of the PCRDC for coordination and evaluation be guaranteed and strengthened. Specifically, it is hopeful that the PCRDC recover its legal authority to review and coordinate the ERDP programs submitted by ERDCs before they are submitted to ministerial departments concerned. Appropriate inter-ministerial coordination by the PCRDC for regional development is also needed.

## 2) Narrowing the Knowledge Gap between Economic Regions

Korea has shown relatively high percentage of R&D expenditure in recent years. The GERD (gross domestic expenditure on R&D) intensity as a percentage of GDP has risen from 2.39 in 2000 to 3.21 in 2007. But about three quarters of the R&D expenditure is financed and used by the private sector and the proportion of government expenditure is relatively small. In private sector, most of the R&D facilities of large firms in high-performance industries such as ICT and automobiles are located in Capital Economic Region (Seoul, Incheon, Gyeonggi), and most of the government-sponsored basic research institutes in science and technology are located in Daejeon, the central city of Chungcheong Economic Region. This location pattern in R&D sectors affects the spatial profile of the Korean regional innovation greatly.

According to Jang (2008b), there are great disparities in innovation potential between regions. Jang calculated the innovation indices of 16 provinces and 5+2 Economic Regions between 2000 and 2006, based on the methodology of European Innovation Scoreboard which has been prepared by European Union since 2001. As can be seen in Table 3, Figures 6 and 7, the regional disparity is great both in innovation inputs index and in innovation outputs index.

As mentioned in the introduction, regional competitiveness depends on how to make a high value-adding economic system and how to maximize scale economies in a region. In this knowledge-based era, the value-added is decided chiefly by the share of knowledge in the production and distribution process. As P. Romer (1990) noted, knowledge has increasing returns to scale. This implies that the region with abundant knowledge resources will grow at an ever faster rate than regions with poor knowledge resources. Circular causation will work in the regional development process of the future. In Korea, there is a big gap in the knowledge bases between

regions. The Capital region and the adjacent Chungcheong region are very strong in knowledge bases but the other regions are very weak (see Figure 8). In such situation, the current development gap between them could become wider in the future. According to the WDR 2009 this is a natural process decided by market forces. If so, the Korean regional economy would take on a mono-centric profile with the Capital region and the adjacent Chungcheong region becoming the only economic center of the entire country. Is this desirable? To answer this question there are many factors to consider including congestion costs, the marginal productivity of land, environmental sustainability, social integration, and the political system. There is no definite answer yet, and, as mentioned in section 2, the WDR 2009 is also silent on it.

But it can be justified to narrow the gap in knowledge bases and innovation potential between regions in view of cluster approach in regional development. The cluster approach emphasizes the harmonization of knowledge creation, diffusion and exploitation sectors (See

Table 3. Innovation Indices of 5+2 Economic Regions (2006)

	Summary Innovation Index	Innovation Inputs Index			Innovation Outputs Index		
		Composite Index	Human Resources Index	Knowledge Creation Index	Composite Index	Innovation Application Index	Knowledge Property
Capital ER	0.7775	0.6889	0.8104	0.5675	0.8661	0.7321	1.0000
Chungcheong ER	0.6447	0.8032	0.6981	0.9083	0.4863	0.5815	0.3911
Honam ER	0.2172	0.2108	0.1731	0.2486	0.2236	0.3028	0.1444
Daegyeong ER	0.4416	0.3423	0.4385	0.2461	0.5408	0.7880	0.2936
Dongnam ER	0.2358	0.1993	0.2303	0.1683	0.2723	0.3318	0.2128
Gangwon ER	0.2570	0.3403	0.4738	0.2067	0.1737	0.2955	0.0519
Jeju ER	0.0470	0.0724	0.0000	0.1448	0.0216	0.0223	0.0208

Source: Jang (2008b)

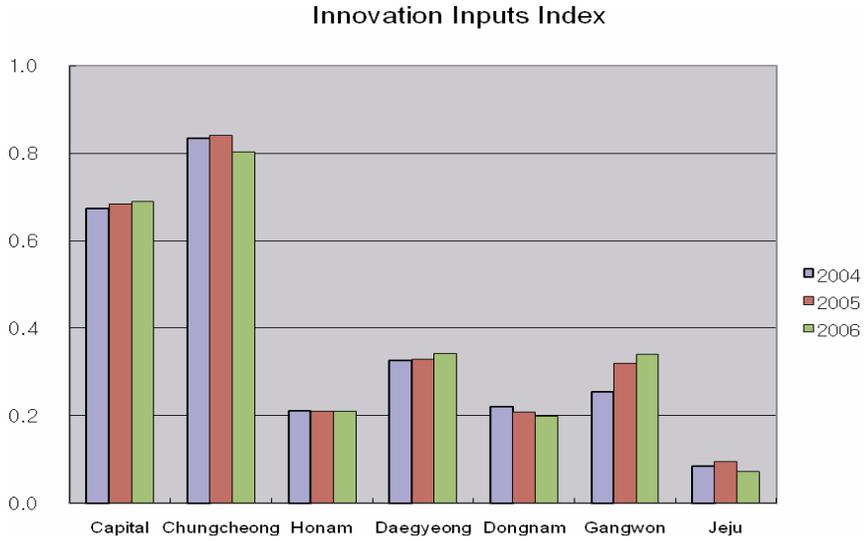


Figure 6. Innovation Inputs Index of 5+2 Economic Regions

Source: Jang (2008b)

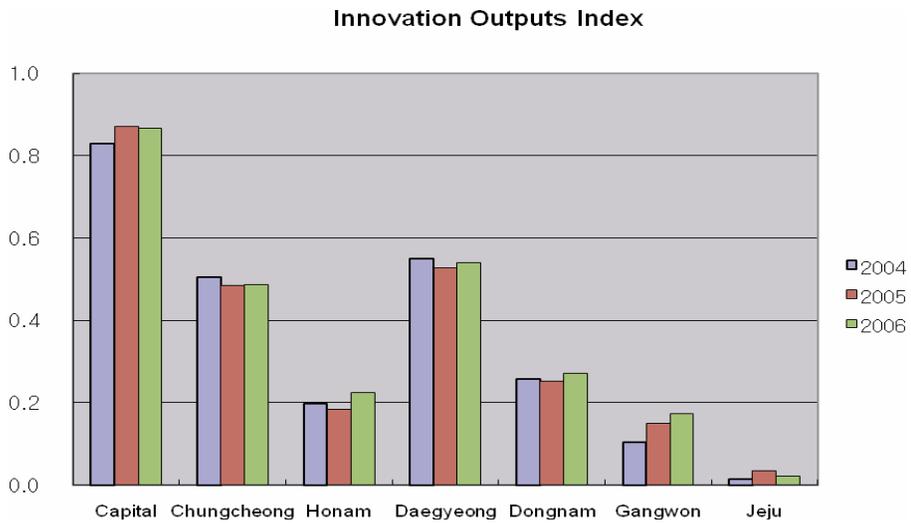


Figure 7. Innovation Outputs Index of 5+2 Economic Regions

Source: Jang (2008b)

section 4.4 below). The polarization of knowledge bases and innovation potential in Capital and Chungcheong regions could seriously hinder the development of the other Economic Regions. So it

is desirable that the government support for R&D and innovation should be differentiated between regions, i.e. in favor of lagged ones.

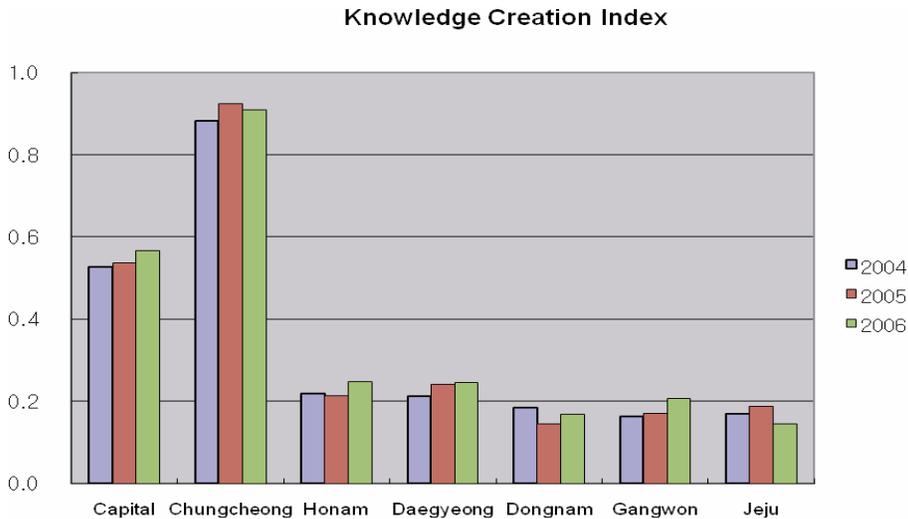


Figure 8. Knowledge Creation Index of 5+2 Economic Regions

Source: Jang (2008b)

### 3) Exploiting the Complementarities between Regions

The present Korean regional policy based on the demarcation of the 5+2 Economic Regions aims at the co-prosperity of the provinces in each Economic Region. The most important issue is how to strengthen the competitiveness and sustainability of the lagging regions without hindering the development of the leading regions. In view of the WDR 2009, it is desirable that each Economic Region design the development policy along the 3Ds (density, distance, division). Regarding density, the role of the central (largest) city in each Economic Region as the hub of knowledge creation and finance should be strengthened to realize urbanization economies. But the high land price in central cities is a constraint in developing land intensive industries in those cities. Medium sized cities have a comparative advantage for industrialization in that

they have adequate infrastructure and relatively cheap land for industrial location.<sup>9)</sup> Small cities and rural areas can provide amenities for urban residents, and the value of these amenity assets will increase gradually in the future. In other words, there are strong complementarities between the largest city, medium sized cities and rural areas. The maximum use of these complementarities is the essence of the ERDP. It is desirable that the programs or projects should be spatially allocated according to the urban hierarchy. Those for R&D, business services, and top notch human resources are appropriate to be located in large cities. Industrial estate developments for land-intensive industries are generally appropriate in or around medium sized cities. Main concern for rural area development may well be on enhancing the value of amenity resources. In addition to it, infrastructure construction for reducing the distance between cities and rural areas is still necessary. About division, the most important

aspect is related to the globalization of the southern part of Korea; Yeongnam (Daegyeong and Dongnam Economic Region) and Honam regions. The residents in these regions are experiencing great inconveniences in international travel. To overcome this problem construction or expansion of international transportation facilities such as new international airport in Yeongnam region seems to be appropriate.

#### 4) Economic Region-wide Cluster Policy

One of the most perplexing issues in designing the cluster policy is the conceptual confusion in the relation and the difference between 'Regional Innovation System (RIS)' and 'cluster'. Much of the confusion can be resolved when we make a clear distinction between the terms 'cluster', 'clustering', 'networking', and compare RIS with cluster in the context of social network theory (Jang, 2005; Gordon & McCann, 2005).

Cluster can be defined as the spatial and sectoral consequence of clustering and networking. In the context of social network theory, clustering can be understood as increasing the number and/or size of nodes in a certain space or sector, whereas networking means linking the nodes.<sup>10)</sup> Every spatial or sectoral area has its network system composed of nodes and links. Cluster can be defined theoretically as the group or space in which relatively dense network is established. There can be several clusters in a regional innovation system, and each cluster has its own internal network and innovation system. In conclusion, the two concepts (RIS and cluster) are mutually interdependent in the sense that RIS comprises the network of several clusters spatially

and/or sectorally, and each cluster has its own innovation system (see Figure 9).

Then what is the difference between the traditional agglomeration policy and clustering policy? The most important difference lies in the way how to increase the nodes; the former policy doesn't have much concern on the composition of the nodes, but the latter strongly emphasizes the "harmonized" increase in the nodes (entities such as research institutions, intermediaries or supporting organizations, banking systems, etc. as well as business firms). Thus we can say that clustering is the 'harmonized agglomeration'.

As OECD (2007) has emphasized, the cluster approach in regional development continues to be prominent and is being adapted to an increasingly wide variety of contexts. The basic purpose of cluster policy is to enhance regional competitiveness by increasing the stock (creation and accumulation) and accelerating the flow (diffusion and exploitation) of knowledge in a region. The former is mainly about clustering (harmonized agglomeration) of knowledge nodes and hubs (knowledge intensive firms, research institutions, and universities), and the latter is about networking them for interactive and/or collective learning.<sup>11)</sup> In addition to clustering and networking, enlarging the knowledge absorption capacity of each node is essential. These 3 tasks compose the mainstay of the cluster policy. When the 3 tasks are done effectively, the knowledge spillover effect can be cumulatively increased and the innovative performance and competitiveness of the region will be enhanced.

The 3 major tasks (or strategies) of cluster policy could not be efficiently accomplished without the appropriate supporting infrastructures; physical

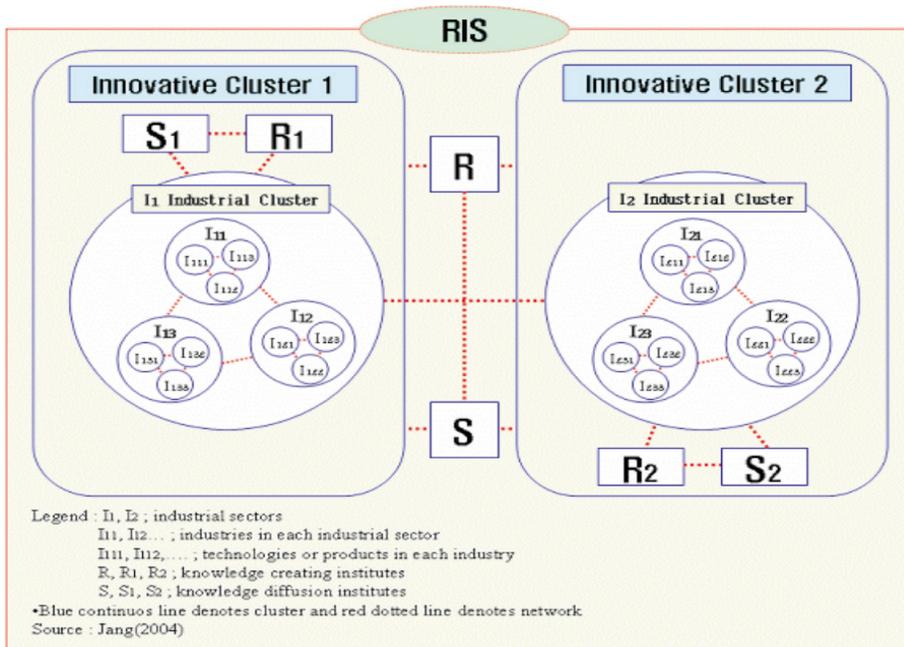


Figure 9. the Conceptual Framework of RIS and Cluster

Source: Jang (2004)

infrastructure, public governance system and institutional infrastructure (social capital and finance).

In sum, it can be said that the cluster policy is composed of 3 major strategies and 3 infrastructure-related areas. Most of the applicable policy measures could be positioned in one or more of these 6 categories (see Figure 10).

One of the most critical aspects in the spatial arrangement of the Korean economy is the location mismatch between economic activities and innovative activities. For example the 3 provinces Ulsan, Gyeongbuk, Gyeongnam have very strong industrial bases in automobile manufacturing, shipbuilding, petro-chemistry (Ulsan), ICT products and steel (Gyeongbuk) and machinery (Gyeongnam). But they are all very weak in

innovative activities. Busan and Daegu, the second and third largest city in Korea, are locked into old industrial structures and low innovativeness. These provinces and cities have recently been struggling to restructure and upgrade their industrial bases and are seeking measures to strengthen their innovative capabilities and to attract high-tech firms. Government support for enhancing the innovativeness of these regions and cities is one of the top priorities in Korean regional policy.

The focus of cluster policy should be differentiated between peripheral regions, old industrial regions and fragmented metropolitan regions. In peripheral regions the investment for the sake of expanding physical infrastructure and clustering businesses and supporting organizations is most important. For old industrial regions, it is

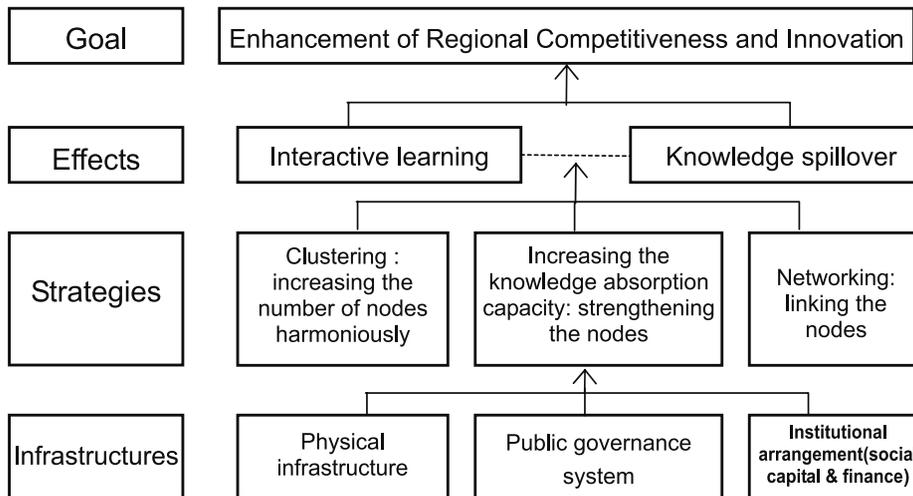


Figure 10. Framework of Cluster Policy

Source: Adapted from Jang (2007)

very important to ‘unlearn’ the existing knowledge and customs to break with the old path and create a new one. The policy priority for the fragmented metropolitan regions should be placed on networking the various actors and organizations for innovation and strengthening global competitiveness (Tödling and Trippel 2005).

## 6. Concluding Remarks

One of the key messages of the WDR 2009 is that economic growth is seldom balanced and efforts to spread it prematurely will jeopardize progress (see pp. 5-6 of the report). Two questions can be posed regarding this message; one about the identity and contents of regional policy and the other about the direction of Korean regional policy. The WDR 2009 by and large advocates a spatially-blind approach for territorial development.

Does this suggest spatially differentiated policy measures are not necessary? If so, it implies that regional policy as a whole is not needed because regional policy has, by definition, its *raison d'être* only when there exist two or more regions and different policy supports between those regions. If there are no differences in policy supports between regions, it will mean that all regions are treated equal in respect of national policies such as industrial policy, science and technology policy and human resource policy. In such situation, regional policy may lose its *raison d'être* as an independent area of government policies.

I think the message in the WDR 2009 is especially aimed at lagging countries trying to industrialize and this means that for these countries implementing policies for inter-regional balance prematurely are generally inefficient. Then what about for developed or mature countries? In this respect, the WDR 2009 says that its message is not anti-equity (see p.39 of the report) and that it is

important to distinguish between three types of disparities; spatial disparities in economic production, spatial disparities in living standards, and social inequality. The report is ambiguous on what kind of disparities should be the subject of regional policy in developed countries. Social inequality is not in the realm of regional policy but of a spatially-blind national policy for social welfare and equity. Then the remaining questions are about spatial disparities in economic production and spatial disparities in living standards. With regard to the former disparities, the WDR 2009 recommends spatially-blind policies. About the latter the report compares 15 EU countries with the United States; although production is more concentrated geographically in the United States, the EU countries have greater spatial inequality in per capita income and unemployment rate (two common indicators of individual living standards in high-income countries). This is because people are more likely to live where production is concentrated, so GDP per capita varies less. This explanation alludes to the uselessness of the policy to reduce spatial disparities in living standards.<sup>12)</sup>

In sum, the overall principle in the WDR 2009 is that there is little need for policy to reduce spatial disparities in developed countries as well as in developing countries. But this principle ignores a few important topics in regional policy; the solidarity problem and the problem of the appropriate number of spaces as the targets of planning and policy implementation. The views in the WDR 2009 are appropriate for a one-space country with a large city, medium and small cities, and rural areas. But in a big country, there might be more than one spatial unit appropriate for

planning in respect of maximizing the agglomeration economies of the entire country. In that case, the economic disparities between spatial units can be an important issue for the solidarity of the country.

Recent debates on Korean regional policy seem to be centered on these issues. The present government demarked 5+2 Economic Regions as planning and implementation units and set the enhancement of competitiveness of each Economic Region as a top policy priority. The ERDP has been prepared for it.

Whether or not the ERDP will be efficient in implementation and effective in performance is the critical issue in Korean regional development policy, and in the context of the WDR 2009, might be of worldwide interest. Enhancing the density of the central city of each Economic Region, reducing the economic distance between cities and rural areas, and getting rid of the barriers to cooperation between provinces are the keys for the efficiency and the effectiveness of the ERDP. In addition, strengthening the national solidarity through collaborative development of 5+2 Economic Regions still remains as one of the key tasks of the Korean government.

## Notes

- 1) For more information on the history of Korea's regional development policy since 1960s, please see Lee (2007) and Choi et.al. (2007)
- 2) Among 16 Korean provinces, 3 provinces in capital metropolitan region (Seoul, Incheon, Gyeonggi) were excluded in BNDP because one of the key objectives of BNDP was reducing the socio-economic disparity

- between capital metropolitan region and the other regions.
- 3) H. Richardson (1978, p.17) described clearly the difficulties in defining 'region' theoretically.
  - 4) Upon choosing this 5+2 approach, PCRD provided several foreign examples and theoretical backgrounds for its plausibility. Among the exemplar countries were England, Germany, France and Japan.
  - 5) There are other opinions on the demarcation of Economic Regions such as 4+2, 4+3, and 3+1 etc. Each has both merits and demerits with regard to political system vs. economic system. I think 5+2 approach is comparatively rational in the present situation of Korea.
  - 6) Ohmae's region state covers the population between 5 to 20 million.
  - 7) The terms "Economic Region(ER)", "Daily Living Sphere (DLS)", "Supra-Economic Region(SER)", "Propulsive industry" were coined by PCRD. A few DLSs are included in an ER and a few ERs are included in an SER. See PCRD (2009a).
  - 8) As the project manager of the work for supporting the preparation of ERDP, I have seen such cases frequently.
  - 9) The land price would generally soar more rapidly than the transportation cost when we approach from the rural area or medium sized city to the city center of a central city.
  - 10) While the traditional industrial location policy centered on making nodes, RIS theorists emphasize networking for the enhancement of the innovation performance of a region.
  - 11) Most RIS academics emphasize the latter and make little account of the former, arguing that the former is outdated location policy. But the former might be more important in the development of lagging regions where the nodes are seriously deficient.
  - 12) But, in opposition to the message of WDR 2009, the EU has the territorial policy as governed by the principle of solidarity because it aims to benefit

citizens and regions that are economically and socially deprived relative to EU averages ([http://europa.eu/pol/reg/overview\\_en.htm](http://europa.eu/pol/reg/overview_en.htm)).

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## 한국의 지역발전정책-과거, 현재, 미래

장재홍\*

**요약:** 지역발전을 위해서는 부가가치 창출률이 높고 규모의 경제 및 집적의 경제를 극대화할 수 있는 지역경제시스템을 구축할 필요가 있다. 이러한 우리나라의 지역정책 과제를 세계은행이 지역발전의 관건으로 제시한 3D(density, distance, division)의 관점에서 논하였다. 참여정부의 국가균형발전정책을 논평하고, 광역경제권별 글로벌 경쟁력 강화를 핵심으로 하는 새 정부의 지역발전정책의 실효 있는 추진을 위한 전략과 정책과제를 제시하였다. 광역경제권 중추도시의 기능 강화, 중추도시-중소도시-농산어촌의 상호보완성 활용의 극대화, 시·도간 협력 장애요인의 제거가 필요하며, 광역경제권 간의 동반발전을 통한 국가적 결속의 강화도 중요한 과제이다.

**주요어:** 지역정책, 규모의 경제, 집적의 경제, 도시화 경제, 국지화 경제, 세계은행, 광역경제권, 클러스터정책

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