

6th Global Forum on Reinventing Government

**Alternative Regional Development
Based on Decentralization and Innovation**

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The views expressed in this paper are those of the author(s) and do not necessarily represent those of the United Nations or its Member States.

1. Introduction

The socio-economic gap between the Seoul/capital region and provinces in Korea is very large and has increased. Therefore, the conflicts due to unbalanced development between the two regions have been intensified. This inter-regional conflict is now one of the most important socio-political problems to be solved. After the 1997 financial crisis, the gap has become larger because almost all of the regional economies in the provinces have experienced long-term stagnation, while the capital economy has recovered from the crisis quickly.

In the midst of the stagnation of the regional economies, the national economy is showing poor performances. While the Seoul/capital region is inefficient because of overpopulation, the provinces are inefficient because of the shortage of resources. Moreover the local governments have no core decision-making rights needed for the design of their own development.

Local autonomy was introduced in 1992. Local autonomy in Korea, however, is very incomplete. It could be characterized as 'local autonomy deficient in decision-making rights, tax base, and highly qualified human resources'. Weak autonomy, poor resources and the absence of innovation would be the main causes of the stagnation of most regional economies in Korea.

Therefore, institution building is needed for reactivating regional economies. Three bills related to decentralization and balanced national development were passed by the National Assembly on December 29, 2003: The Special Act on Decentralization, The Special Act on Balanced National Development, The Special Act on Construction of the New Administrative Capital¹. These laws will open the age of decentralization in the near future.

The Special Act on Decentralization includes the principles of administrative and fiscal decentralization and people's participation such as the recall system. The Special Act on Balanced National Development contains the relocation of public institutions such as public enterprises and public research institutes located in the Seoul/capital region to the provinces, support of the universities in the provinces, implementation of a regional innovation system, and the introduction of a Special Account of Balanced National Development. The core contents of the Special Act on Balanced National Development would be the implementation of regional innovation system in order to realize endogenous regional development.

These acts will facilitate the transformation of the hyper-centralized one-pole development system into the decentralized multi-pole development system. This will provide new opportunities for the regional development through an alternative development model.

¹ The Special Act on Construction of New Administrative Capital was abolished by a decision of the Constitution Court recently.

2. The Vision of Decentralization Reform

In these laws, there is the vision of decentralization reform which the decentralization movement in Korea has proposed. Roh Moo Hyun Government adopted decentralization and balanced national development as part of their major national policy agenda. Then, what is the vision of decentralization in Korea?

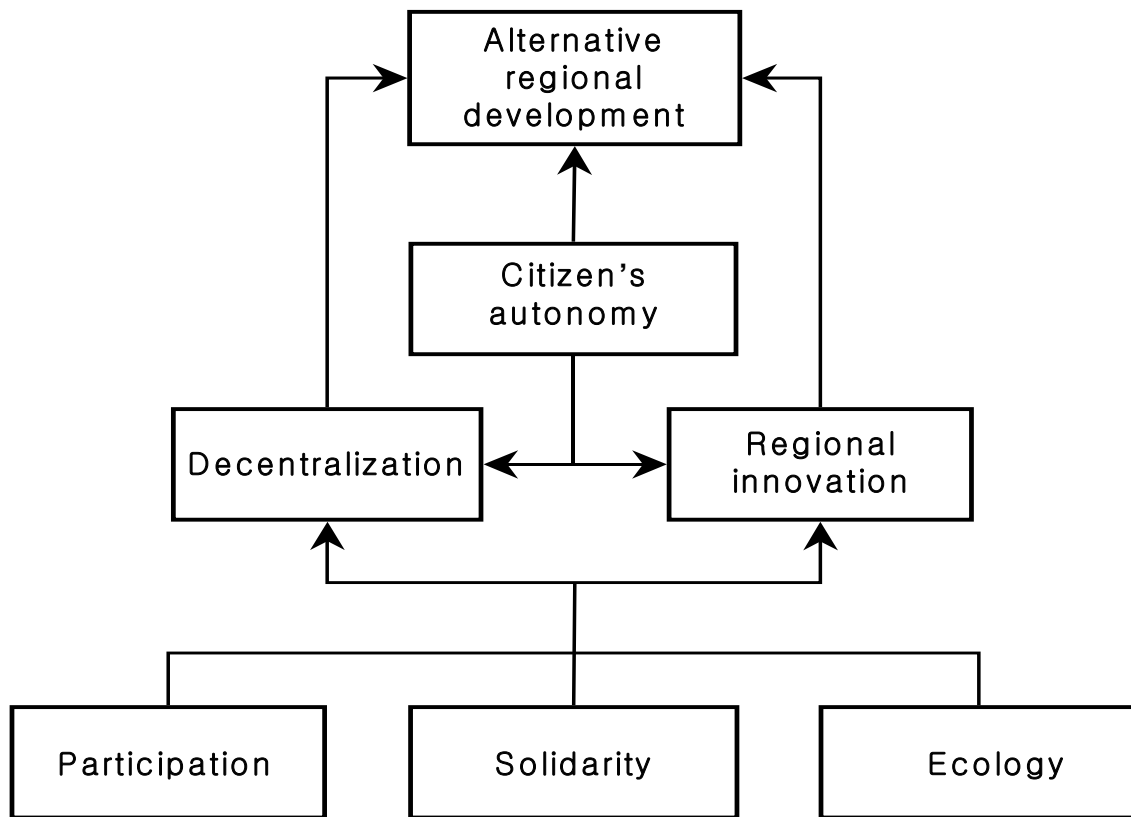
The concept of decentralization in this paper involves two aspects. One is the devolution from central government to local government, the other is the deconcentration from the Seoul/capital region to the provinces. Devolution, decentralization in a narrow sense, implies the dispersion of decision-making rights to local governments, in short, it represents administrative and fiscal decentralization. Deconcentration implies the dispersion of economic resources to the provinces.

What is the goal of decentralization reform at present in Korea? The decentralization reform aims to transform the centralized democratic state into a decentralized participatory democratic state through devolution and deconcentration. When it has a vision of endogenous regional development through decentralization, citizen's autonomy, regional innovation directed toward basic values such as participation, solidarity, and ecology, it will contribute to the realization of an alternative development model.

By participation, I mean participatory democracy or grassroots democracy. It has three dimensions: people's participation, specialist's participation, and NGO's participation. By solidarity, I mean realizing a welfare community. It implies that central and local governments, in partnership with a regional civil society, guarantee a national minimum by supplying benefits in kind such as child care, and care for the aged to disadvantaged groups or poor people. By ecology, I mean the pursuit of sustainable development. Sustainable development could be realized by the introduction of an environmentally-friendly production system, regional planning and an ecological way of life.

Decentralization, citizen's autonomy, and regional innovation, which are directed toward 'participation-solidarity-ecology', would be the alternative regional development model. This alternative development model, shown in Figure 1, is endogenous, people-centered, community-oriented, and sustainable. This is the way to realize the vision of sustainable human development (UNDP 1998) in that it could achieve participatory democracy, human resources development and a welfare community.

<Figure 1> Alternative Regional Development Model



Today in Korea, the central government has too much power and the Seoul/capital region is overpopulated² and hyper-centralized. Local governments, however, have no core personnel or organization rights and most provinces are underpopulated and undernourished. Due to this imbalance, the efficiency of the national economy is decreasing and the quality of life for the citizens of the Seoul/capital region and those of the provinces is deteriorating. This would be the situation of a 'negative-sum game'.

Thus, decentralization reform, as mentioned above, might become a win-win game between central government and local governments, between the Seoul/capital region and provinces, through dieting the former and nourishing the latter. It will facilitate the transformation of the existing centralized one-pole development system into the new decentralized multi-pole development system. In this sense, the decentralization reform might contribute to the realization of a new paradigm of statecraft.

Now, let us discuss the concrete aspects of devolution and deconcentration which

² The proportion of the population of Seoul/capital region to the whole population of Republic of Korea is 47.6% in 2003

are the core processes of decentralization reform. The contents of devolution have various dimensions such as legislative power, administrative power, and fiscal power. For evolution, enlarging the enactment of ordinance in the short-term, possession of autonomous legislative power in the long-term, and fiscal autonomy are necessary.

It should be emphasized that local autonomy without fiscal autonomy is meaningless. Fiscal autonomy, however, should be introduced incrementally in proportion to the extent of dispersion of economic power to the provinces, since economic power is extremely centralized to the Seoul/capital region³.

Resource dispersion has a hardware and software dimension. The hardware dimension includes the dispersion of physical resources such as factory equipment and government buildings. The software dimension includes the dispersion of knowledge, information, and population. The decisive indicator of resource dispersion is population dispersion. It should be mentioned that resource dispersion without dispersion of the software dimension, is void in a knowledge-based economy.

Devolution and deconcentration are interdependent and interacting. First, deconcentration can not be achieved easily without devolution. Since the central government, which has decision-making rights and a conception function, is situated in Seoul, the concentration in Seoul occurs. Thus, the thesis of Gregory Henderson, "Centralization bring about the concentration of Seoul" (Henderson 1968), is true in Korea⁴.

Second, devolution can not be realized substantially without deconcentration. Since Korea has Seoul-centered development system, devolution without deconcentration has a high possibility of widening the gap between Seoul and the provinces. Third, the devolution process makes possible the deconcentration process and vice versa.

It should be stressed that in very highly centralized and concentrated countries such as Korea, devolution and deconcentration might have strong institutional complementarity. Therefore devolution and deconcentration must be promoted simultaneously. Only when the two processes of decentralization go together, decentralization reform will have meaningful effects.

The relationship between central government and local government in the process of devolution should be established according to the principles of subsidiarity and coordination. In the process of deconcentration, the principles of efficiency and equity should be adopted. Resource reallocation between the Seoul/capital region and the provinces should be made in order to increase efficiency and equity. To enhance efficiency, resources transfer must contribute to the regional innovation of the provinces. To realize equity, resources dispersion must be achieved in order to provide national minimum level of infrastructure for development to the underdeveloped regions.

³ In 2000, 70.9% of internal tax is collected from Seoul/capital region.

⁴ Gregory Henderson has written in his book on Korea that there was a 'single magnet' and a 'vortex of centralism' in Korea (Henderson 1968). It goes without saying that this 'single magnet' is Seoul. He has also described that the concentration of Seoul is due to a vortex of centralism.

3. Endogenous Regional Development by Regional Innovation System

Decentralization, as described above, can contribute in the construction of a new regional development model different from the previous one, which was dependent on the Seoul/capital region and chaebol firms under the centralized developmental dictatorship regime and chaebol-led economic system. Decentralization is a precondition for a new paradigm of regional development. Decentralization, however, is not a panacea. Decentralization is a necessary condition for an alternative regional development model, but it is not a sufficient condition.

Decentralization should be approached through the philosophy of self-determination, self-management, self-help, self-responsibility, and self-innovation of the provinces themselves. If decentralization could contribute to the alternative regional development on the basis of this philosophy, it must be combined with regional innovation and citizen's autonomy.

First of all, decentralization should be combined with regional innovation. If decentralization means structural reform of the centralized and Seoul-concentrated regime, regional innovation means self-reform of the provinces themselves, that is the 'creative destruction' of the old paradigm of the region. Structural reform and self-reform should be combined. Substantial regional innovation is possible when there is decentralization. Decentralization can have positive results when there is regional innovation.

Decentralization can not be obtained or sustained without enhancing the competency of the regional actors through regional innovation. Regional innovation is really the economic basis for self-generating ability and the value creating ability of the region.

Regional innovation can be achieved when the innovators of the region construct a cooperating system among themselves. Regional innovation systems can be implemented successfully when universities, technoparks, firms, local governments form a close network among the regional innovators and social relations of interactive learning. A regional innovation system provides an endogenous and independent regional development in that it creates autogenetic development potential.

Moreover, decentralization should be combined with citizen's autonomy or people's participation. Citizen's autonomy is a way to realize participatory democracy. Decentralization without combined with citizen's autonomy can bring a new bureaucratic authoritarianism by strengthening the power of the bureaucrats of local government and the local elite.

For citizen's autonomy, it is necessary to enhance the autonomy capacity. Self-development efforts and the participatory consciousness of citizens are necessary conditions of citizen's autonomy. Since autonomy is the process of learning by doing, it is very important for the people to participate actively in regional policy formation and evaluation.

Regional innovation should be promoted by decentralization based on citizen's autonomy through which they can provide their creativity, energy and imagination. As the theories of regional innovation system maintain, regional innovation can be realized by making region as a learning region (Cooke, P. et al. 1998, Lee Cheol Woo 2000). Therefore, people-centered innovation rather than elite-entered innovation should be promoted. Regional innovation can be realized successfully when the autonomy and innovation capacity of citizens is enhanced.

When this triple combination among 'decentralization-citizen's autonomy-regional innovation' is realized, we can anticipate endogenous development which is the core of alternative regional development. Endogenous development seeks to realize autogenetic regional development by forming regional economic structures which have meaningful inter-industry linkage effects within the region on the basis of technology, industry, and culture within the region and by the learning, planning, and managing through people's participation, unlike the dependent development which pursues the projects designed by a central government and introduces large firms from without (Miyamoto Kenichi et al. eds. 1990, Whang Han Sik 1995).

Endogenous development is development which places a high importance on interdependent relations and harmony between individuals. This is in contrast to the previous development which is based on center-periphery and dominant-dependent relations. The organizational forms of endogenous development are association, autogestion, and participation.

The core of endogenous development is to develop region on the basis of growth potential formed within the region. It should be mentioned, however, that endogenous development never seeks the closed division of labor within the region and never excludes the international division of labor.

Today, in the age of globalization, endogenous development could be achieved only by forming a regional economic structure which has autocentricity based on a regional innovation system and which has substantial inter-industry linkage effects within the region with multifaced global economic networks. To build an endogenous and open development mechanism with a global network within the region, is exactly the goal of the regional innovation system.

The factors of success for endogenous development are industrial autonomy based on decentralization, democratic cooperation among local governments, cooperatives, private firms, and citizens, and a high citizen's capacity of autonomy, entrepreneurs, and public officers. A typical example of a successful endogenous development might be Emilia Romagna of the Third Italy (Piore & Sabel, 1984, Sigemori Akira 1992). The success story of Emilia Romagna, which is defined as a flexible specialization model, shows the possibility of an endogenous development model based on 'decentralization-citizen's autonomy-regional innovation' in the age of globalization and Post-Fordism.

4. 'Dynamic Balanced Development' through Decentralization and Regional Innovation in the New Economy

Decentralization which includes devolution and deconcentration can become a zero-sum game situation whereby the central government/capital region loses and the local government/provinces wins. Decentralization might decrease overall efficiency of state even though it realizes equity. This is the case of the old paradigm of decentralization which gives rise to only value transfer or value distribution.

In the age of globalization and knowledge-based economy, however, decentralization is one of the core factors of a new growth strategy which can create a new growth potential. Unlike the old paradigm of decentralization, a new paradigm of decentralization could be the process of value creation. Therefore, it can be win-win game situation. It attaches more importance to efficiency than equity. Through decentralization, value creation as well as value transfer are achieved. Table 1 shows the differences between the old and new paradigm of decentralization.

<Table 1> Differences between the Old and New Paradigm of Decentralization

Old Paradigm of Decentralization	New Paradigm of Decentralization
<ul style="list-style-type: none">▪ Zero-Sum Game▪ Value Distribution▪ Equity	<ul style="list-style-type: none">▪ Win-Win Game▪ Value Creation▪ Efficiency

In order that decentralization gives rise to value creation, it should be combined with regional innovation. As described above, regional innovation is the process of enhancing value-creating ability and growth potential through strengthening innovative competency by 'creative destruction'. In this sense, regional innovation make endogenous regional development possible. Endogenous development is the core element of 'dynamic balanced development' which is a new concept of balanced development.

Unlike 'integrative balanced development' which brings about only value transfer between regions, dynamic balanced development is the process of value creation through competition and cooperation among regional innovation systems. If integrative balanced development seeks equality of results between regions, dynamic balanced development seeks equal opportunity between regions and takes the inequality of results between regions for granted. Moreover, dynamic balanced development attempts to use differential results by region as the incentive for dynamism of regional economy(Seong Kyung Rhyung 2003).

In order for decentralization to give rise to dynamic balanced development, people's participation, which can mobilize the creativity and imagination of the people, is essential. People's participation is also the precondition for endogenous development. In short, dynamic balanced development is possible when the mechanism of endogenous development based on 'decentralization-citizen's autonomy-regional innovation' is built in the region.

In order to realize dynamic balanced development, the differentials by region in the initial condition of regional innovation should be reduced substantially. In other words, the national minimum of innovation infrastructures such as knowledge, information, and social overhead capital must be guaranteed. Under the equal national minimum level of innovation infrastructure, the dynamism of the national economy can emerge when regional gradation due to the differentials of competitiveness of the regional innovation system is taken for granted.

In decentralization circumstances, income differentials by region might widen according to the competitiveness of each regional innovation system. Thus, the two-tier social welfare system, the national minimum and civil minimum, can be formed according to the differences in the economic performances by each region. This can also create dynamism of the national economy.

Endogenous development, based on the 'decentralization-citizen's autonomy-regional innovation' combination, could be the core element of new growth strategy, which can create new growth potential in a New Economy, that is digital-network economy or knowledge-based economy, and globalization circumstances. The cardinal point of the new growth strategy in the globalization age is to create a virtuous circle mechanism of knowledge-based economy under decentralization.

For the virtuous circle mechanism, it is important to implement a good regional human resources development system. In this respect, the role of a university, as a basis of knowledge creation and a major institute of human resources development, is decisive (Goddard 1997). Universities in the region should be the core innovator who can play a central role in networking the regional innovators. In this way, university should be a frontier who leads regional innovation⁵. Industry-university-local government cooperation has a special importance in this respect.

If dynamic balanced development is achieved, the national economy would have a new paradigm. The national economy now will become the total of the new regional economies (national economy = \sum regional economies) instead of the state economy (national economy = state economy). Thus, the concept of a national economy should be redefined as the total of the new regional economies which is dynamic and endogenous.

This new paradigm of a national economy can be realized with the emergence of a New Economy. Unlike the mass production economy which has the organizational principles of centralization, hierarchy, and heteronomy, the New economy has the organizational principles of decentralization, network, and autonomy (Kim Hyung

⁵ In Korea, such an university is referred to as a 'New University for Regional Innovation' (NURI).

Kee 2001a). It can operate more efficiently in the decentralized regime than in the centralized regime.

So, the development mechanism of a New Economy is economic development based on regional economic development through a regional innovation system with a decentralized regime. Therefore, the linkages of 'new economy-decentralization-regional innovation' can exist.

Regarding this aspect, for the sustainable growth of the Korean economy in the age of the New Economy, it is necessary to pursue new growth strategy based on decentralization. The Korean economy has been caught in the so-called trap of 'ten thousand dollars income' for several years. Now, the government tries to usher in 'the age of twenty thousand dollars income'. Decentralization and innovation should be realized in order to realize 'the age of twenty thousand dollars income' so as to escape from the trap of the 'ten thousand dollars income'.

5. Preconditions for the Success of a Regional Innovation System

Regional development, through a regional innovation system in the context of decentralization, pursues a new regional economic development paradigm quite different from the previous ones. In the period of the Kim Dae Jung government, in the context without decentralization policy, there was an attempt to implement a regional innovation system which would be led by the central government and supported by the local government. These efforts failed.

The regional innovation system, which Roh Moo Hyun government endeavors to implement as a core strategy of a balanced national development in the context of decentralization, is a type whereby it is local government-led and central government-supported. In order to implement successfully this new model of a regional innovation system which can contribute to enhancing the competitiveness of the region and citizen's quality of life, the following preconditions should be fulfilled.

1) Epoch-making Decentralization Reform

First, epoch-making decentralization reform should precede. Without substantial devolution and deconcentration which can dissolve the centralized and Seoul-one pole concentrated regime, which in turn devastates the provinces, it is impossible to secure human and physical resources and an institutional base for regional innovation.

We can not discuss a regional innovation within the circumstances of a lack of real local autonomy and hyper-concentration in the Seoul/capital region. In particular, the hyper-concentration on the Seoul/capital region might be unprecedented within the world. In 2000, 47.6% of the whole population, all ministry-level central government building, 91% of headquarters of top 100 firms, 72.1% of venture

business, 70.9% of internal tax, and 70.4% of financial trade, could be found in the Seoul/capital region, where the area is only 11.8% of the national total⁶.

According to a study on income differentials among the regions, with a Gini coefficient of a total income 0.464 in the year 1996, the proportion of income differentials between regions was 67.96% and income differential within region was 32.04%. Of the income differentials between the regions, the proportion of the differentials between the Seoul/capital region and provinces is 74.5% (Kim Euijuine and Jeong Younhee 2003).

Under the hyper-concentration of the Seoul/capital region, since Seoul has been actually a kind of black hole which absorbs nearly all of the provincial core resources, almost all of the provinces were devastated. Therefore, words such as 'crumbling provinces', 'quitting provinces', 'aged provinces', 'devastated provinces' are not excessively exaggerated.

If this large employment opportunity differential and income differential between the Seoul/capital region and provinces, which give rise to resource concentration in the Seoul/capital region, could not be reduced decisively, regional innovation in the provinces would be impossible because of a deficiency in resources. There has to be a U-turn with regard to the flow of resources in order to achieve regional innovation.

In the Special Act on Balanced National Development, there are articles on resource dispersion to the provinces, such as the relocation of public institutions (public enterprises, public research institutes) to the provinces and upbringing universities in the provinces. Actually, Presidential Committee on Balanced National Development has a plan of the relocation of about 180-200 public institutions. This resource dispersion will contribute in the construction of infrastructure for a regional innovation system and in creating jobs in the provinces. Even though resource dispersion is not easy due to the efforts of defending the vested interests by the elite of the Seoul/capital region, the relocation of public institutions to the provinces should be executed as planned.

In the Special Act on Decentralization, there are articles on devolution such as administrative decentralization, financial decentralization, and citizen's participation in local government. The articles in the Act, however, is rather abstract. Therefore, related laws should be enacted. The Proposal of the Package Devolution Act for administration decentralization is being prepared by the Presidential Committee on Devolution Promotion for Local Authorities. The bill will be introduced to the National Assembly. The bill should include core decision-making rights of the local governments with regard to administration and public finance. Articles on personnel and organization rights and fiscal autonomy should be included.

The acts on citizen's participation should be introduced as soon as possible. The Citizen's Voting Act was enacted in December, 2003. The Citizen's Suit Act is being prepared. Even though an article on the citizen's recall system is included in the

⁶ In 1968, Gregory Henderson wrote as follows: "As Paris was for France, Seoul was not simply Korea's largest town: it was Korea"(Henderson 1968, p. 30). Now in Korea, a cynical phrase such as "Republic of Korea is Republic of Seoul" prevails.

Special Act on Decentralization, government has no concrete plan for introducing this legislation as yet. The citizen's recall system is really the core institution for participatory democracy. Devolution without a citizen's recall system might bring about a new authoritarian regime in the local level. So the citizen's recall system should be enacted as soon as possible.

2) Total Regional Innovation

Total regional innovation, which includes the three dimensions of technological innovation, institutional innovation, and cultural innovation, should be implemented. A regional innovation system can give rise to new regional development only when total regional innovation occurs.

The current technological innovation occurs through the introduction of new technology such as information technology, biotechnology, nanotechnology and cultural technology. Corresponding to this new technology, new skills are required. Intellectual skills such as cognitive ability and problem-solving, as well as social skills such as mediating and communicating are needed (Kim Ae-kyung 1999).

For new technology and new skills, the pattern of capital investment should be changed. Human capital investment, which increases knowledge and cultivates worker's creativity, and social capital investment, which contributes to trust building and cooperation among economic actors are needed more than physical capital investment.

There are two types of technological innovation: incremental innovation and radical innovation. Incremental innovation entails continuous but small-scale improvements to existing product lines and production processes. Radical innovation brings about substantial shifts in product lines, the development of entirely new goods or major changes to the production process.

Radical innovation is more important in the fast-moving technology sector such as biotechnology, software development and in the provision of complex system-based products such as telecommunications. Incremental innovation tends to be more important in the production of capital goods such as machine tools, and consumer durables (Hall and Soskice 2001).

If certain regions choose their strategic industries that embody new technology such as information technology, it would be rational for the regions to pursue mainly radical innovation. If some regions choose strategic industries such as capital goods and consumer durables, it would be rational for the regions to pursue mainly incremental innovation.

Thus, the innovation strategy in the specific regions depends upon the strategic choice of industries in that region. While radical innovation needs much more of a 'creative destruction process', incremental innovation requires more of a learning process. The creative destruction process and the learning process require different

institutional and cultural infrastructures⁷. Therefore, the institutional and cultural infrastructures for facilitating technological innovation should be built according to the innovation strategy of the specific region.

According to the viewpoints of recent institutional economics and evolutionary economics which stress the co-evolution process between technology and organization, regional innovation can not be reduced to technological innovation and should be approached by the dimensions of institution and culture (Coriat and Dosi 1998, Park Kyung et al., 2000). Technological innovation can emerge when it is embedded in institutions and culture (Gertler, Wolfe, Garkut 2000). In other words, technological innovation can occur when it is combined with appropriate institutions and culture. The institutional and cultural embeddedness of technological innovation should be fully regarded when local government implements a regional innovation system.

Here, institutional innovation means to abolish outdated rules of game which impede technological innovation and to make new rules of game which can facilitate introducing new technology, that is the making and revision of laws and ordinances, and the renewal of social contracts. Cultural innovation means to reject outdated ways of life and the underlying world view and adopt a new way of life and a new world view which can contribute to technological innovation. Regional innovation can not be achieved by a purely technological innovation process alone. It can be achieved by total regional innovation including institutional innovation and cultural innovation.

What would be the institutional and cultural innovation which is required in the digital-network and knowledge-based economies of the twenty-first century? As mentioned above, unlike mass production economy which has the principles of centralization, hierarchy and heteronomy, the New Economy demands the principles of decentralization, network and autonomy. Therefore, in addition to decentralization reform which transforms the centralized regime into a decentralized regime, it is necessary to perform institutional innovation which introduces the principles of decentralization, network and autonomy in the areas of firms, universities and local governments.

In the digital-network and knowledge-based economies, institutional innovation, which facilitates knowledge creation and knowledge sharing, should occur. The incentive system that induces the production of creative knowledge should be introduced in universities, firms, and local governments. In particular, innovators who perform 'creative destruction' in each sector of society must be emerge.

For the diffusion of knowledge created by innovators of a certain sector throughout society, networking among innovators should be formed. For networking of innovators, culture that economic actors trust and cooperate each other must prevail.

In the New Economy, the strategic factor of regional economic development is

⁷ Regarding this aspect, it will be described below.

the formation of human capital and social capital. The goal of human capital formation should be upgrading the innovation capacity of the regional actors. The core factors of human capital are creative knowledge which can perform 'creative destruction' and social skills which can enhance communicating and mediating ability.

The goal of social capital formation is to foster cooperative social relations that facilitate the networking of innovators. Social capital, such as trust and cooperation among economic agents, will create a learning and synergy effect, which would contribute to value creation.

For social capital formation, cultural innovation is necessary. As mentioned above, cultural innovation means to reject an outdated way of life and the underlying world view and to adopt a new way of life. In short, cultural innovation is innovation in way of life, that is a new way of thinking and mode of behavior.

First, 'the will to innovate' should prevail throughout the community. In the 1950's, the initial stage of mass production economy, Nobel Laureate economist W. Arthur Lewis maintained that the core factor in economic development is 'the will to economize' (Lewis 1955). Now in the knowledge-based economy, 'the will to innovate' might be the core factor of economic development.

Moreover, the culture which facilitate the creation of innovators and the networking of the innovators should emerge. That can be defined as innovation culture. Innovation culture includes spirits of critics, a sense of adventure, challenging minds, and openness, diversity and tolerance of a regional civil society. The core success factor of Silicon Valley was the culture of 'OK to Venture' and 'OK to Failure' within the community⁸. This innovation culture has contributed to the rapid growth of information technology industries in the Silicon Valley.

A culture which facilitate the networking of innovators include trust, a sense of cooperation and solidarity, and partnership between economic and social actors. In the network economy, trust, cooperation, and partnership are the social capital for economic development because they contribute to value creation. The core innovation culture of The Third Italy, Emilia Romagna, was a high level of trust, cooperation, solidarity, and partnership (Putnam et al. 1993)

Partnership between labor and management, and between the public and private sectors have a special importance in regional economic growth. Cooperative industrial relations based on partnership and cooperative public-private relations based on partnership will facilitate regional economic growth.

In short, for the successful implementation of a regional innovation system, total regional innovation is essential. Institutional and cultural innovation should be diffused throughout the community including local government departments, firms, universities, and even NGOs in the provinces. It should be mentioned that innovation

⁸ This definition of innovation culture in Silicon Valley was given by the general secretary of World Internet Center with whom I interviewed when I visited Silicon Valley in February, 2003.

is ultimately self-innovation. Therefore, the self-innovation of the individual citizen is important for the successful implementation of a regional innovation system

3) Democratic Governance

In order that regional innovation system can achieve sustainable regional development thereby enhancing the citizen's quality of life, democratic governance by the people sharing basic values such as participation, solidarity, and ecology should be realized. Simple governance by the public and private sectors is not enough. Authoritarian governance by powerful local families or the local elite with a vested interest is not only undemocratic but also harmful to regional innovation.

Assembling the energies of people through democratic participation is the key to the success of regional innovation. In the age of decentralization, people in the provinces are not only the subject of democratic control over local government but they are also the key in building the region by offering their creativity and positive energy to the region.

In relation to this, the composition of the Regional Innovation Council (RIC), which is established by the local government by legal authority of the Special Act on Balanced National Development, is important. The RIC has legal rights of making a Regional Innovation Development Plan which is a base of National Balanced Development Plan and had rights of deliberation on the related matters of national balanced development.

Legally, the RIC is not a local branch of the Presidential Committee on Balanced Development and does not belong to local government. It is an independent institution from the central and local governments, though its legal status is somewhat obscure.

Regardless, the RIC should provide major democratic governance which designs mid and long-term regional development. The members of RIC must be democratic and innovative and should have a common vision of participation, solidarity and ecology. Only when the RIC provides democratic governance, it will contribute to regional innovation.

In short, the RIC should be a democratic governance whereby regional innovators will initiate the 'creative destruction' of outdated paradigms in the region. It should not be one of the consultative bodies of local government and it should not be a mere transmission belt of the Presidential Committee on Balanced Development. It should be a coordinator among innovators and a facilitator of innovation.

Since innovation processes, whereby 'creative destruction' occurs, generally give rise to radical restructuring, are discontinuous and unstable, and bring about a winner and loser, solidarity for social cohesion should be realized in the form of a welfare community.

As described above, in contrast to the welfare state in the centralized system which supplies benefits in cash such as unemployment insurance by the central

government, the welfare community in the decentralized system tries to guarantee a national minimum by supplying benefits in kind such as child care, care for the aged, to the disadvantaged groups and the poor by encouraging cooperation among local governments, the central government and regional civil societies.

These benefits in kind could be effectively supplied by a third sector formed by a partnership between local governments and communities (Lipietz 1992). A welfare community, operated by a third sector, will provide a new social safety net in the age of decentralization. The welfare community will not only enhance citizen's quality of life but will also contribute to jobs creation within the provinces. This regional partnership is also one of the main elements of democratic governance.

Through democratic governance, regional innovation ought to be regulated by the ecologist's viewpoint, lest it should encourage a production system and regional development which give rise to environmental disruption. Regional innovation should not be combined with growth fundamentalism or productivism.

When devolution is achieved, local governments might disrupt the ecosystem in the name of regional economic growth. Growth fundamentalism or productivism, which have prevailed previously in the age of developmental dictatorship⁹ at the central government level, might be replicated on the local government level in this age of decentralization. To prevent this danger, democratic governance is needed. This is essential for sustainable regional growth.

To summarize, democratic governance should have three major goals: democratic governance for regional innovation, welfare community, and sustainable growth. The RIC, as a democratic governance, has the obligation to achieve these goals.

6. Conclusion

In order to realize alternative regional development in Korea, decentralization and innovation are necessary. Epoch-making decentralization, that is, extensive devolution and large-scale deconcentration, is needed. Total innovation, technological, institutional and cultural innovation, is required. While decentralization is the necessary condition of regional development, innovation is a sufficient condition for regional development.

A regional innovation system will bring about endogenous regional development and dynamic balanced development. Endogenous development, by the combination of decentralization, citizen's autonomy, and regional innovation which is directed toward basic values such as 'participation-solidarity-ecology', will realize an alternative regional development model.

In the circumstances of the large gap between the Seoul/capital region and the provinces and thus a danger of serious conflict between the two regions,

⁹ Generally, the development model of the period from the 1960's to 1980's in Korea is defined as a developmental dictatorship.

decentralization and innovation are core preconditions for sustainable development in Korea. Therefore 'decentralization and innovation for sustainable Korea' are needed.

When a regional innovation system, constructed by each region, creates a multi-pole growth regime and a system of competition and cooperation among the local governments exist, we can expect economic growth and social cohesion based on dynamic balanced development. This would be a new growth strategy in Korea. The government calls this new development model as a 'innovation-driven development' model (Presidential Committee on Balanced National Development 2004). Innovation-driven development is another expression of endogenous development.

Innovation-driven development model, based on a regional innovation system, would revitalize regional economies and could bring about a new take-off of Korean economy. For the innovation-driven development model, total innovation, that is, technological innovation, institution innovation and cultural innovation on a local and national level are essential. The will to innovate by businessmen, public officers, professors, researchers, and ordinary citizens is the decisive element in the innovation-driven development model.

Finally, an innovation-driven development model should have basic values such as participation, solidarity, and ecology. And then only, an innovation-driven development model can contribute to the realization of an alternative development model.

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