

Desirable Policies and Strategies of Spatial Development for the Future of Korea: A Proposal

An-Jae Kim, Ph.D.*

1. PROSPECTS ON THE FUTURE CONDITIONS OF KOREA

Prior to proposing some policies and strategies of economic and spatial development in Korea for the future, it is necessary to assume or anticipate the future main conditions which will affect the economic and spatial changes of Korea.

In the aspects of international political situations, three main circumstances could be anticipated for the future. First, political ideology will be diversified as to the direction of every country's interest. Second, unification in the Korean Peninsula might not be realized for a fairly long term. Third, Korea might have certain economic relations with Red China, U.S.S. R. and a few Eastern European countries.

In the world economic conditions in the future, natural resources, especially fuel resources, of the world will find themselves in short supply, forcing companies to increase their prices and to compete internationally for resource use. The world phenomenon of economic food shortage will become still more severe with many countries to import grains. Economic growth rates will slow down in both developed and developing countries because of the limitation of natural resources and an increase in peoples' expectations for a higher quality of life.

Domestic conditions affecting the future economic and spatial changes in Korea also can be anticipated. First, centralization tendencies will continue at least in political and administrative decision-making functions. Second, economic growth and national security will be continued as the central objectives of national policy. Third, the shortage of

* Chairman and Assistant Professor, Dept. of Urban and Regional Planning, Graduate School of Environmental Studies, Seoul National University

natural resources and the increase of population will remain as the constraints to economic growth and welfare improvement. Fourth, the urbanization trend will maintain itself by outmigration from rural areas, at least until the earlier period of the 1990's. Fifth and finally, technology and transportation/communication systems will continuously progress at a rapid pace.

2. DESIRABLE POLICIES FOR ECONOMIC AND SPATIAL DEVELOPMENT

(1) Continuation of Economic Development through Industrialization

To keep up economic growth, industrialization still should be strengthened in Korea. Any tendency toward a considerable dampening of growth will inevitably be coupled with increasing autarky and isolationism, which will hit those people and countries hardest that are already in a weak position.⁽¹⁾ The reasons that Korea should put its high priority on economic growth stem from the serious facts that, first, the Republic of Korea must surpass North Korea in both economic and military powers in order to prevent a war outbreak in the Korean Peninsula; second, Korea should have a strong position in international trade competition for providing a favorable balance of trade; and finally, it is required for Korea to raise its economic potential in order to improve the people's welfare status.

This policy of economic growth should be implemented through strong industrialization. Korea must put a main focus on export-oriented and import-substitutional industries for a long term.⁽²⁾ Therefore, it is desirable for Korea not only to bring up heavy industries for strengthening export, but also to develop light industries for substituting import.

(2) Reducement of the Over-Concentration of Seoul

Undoubtedly, urbanization is further motivated by the desire of developing countries to show that they are on the road to progress and development. In these countries, the large urban complexes serve as symbols of progress and efficiency. Here one can really speak of the attraction of city lights; in consequence, relatively large sums are invested in the

(1) See United Nations, *Distribution Policies in Long-term Development Planning* (New York: United Nations, 1973),

(2) See An-Jae Kim, *Industrialization and Growth Pole Development in Korea: A Case Study of Ulsan Industrial Complex in Areas*, Paper for the Seminar on Industrialization Strategy and Growth pole Approach (Nagoya: The United Nations Centre for Regional Development, Nov. 1975, mimeographed), p. 99.

largest cities in the country and frequently in one city only— the capital.⁽¹⁾ In a sense of economic efficiency, a certain degree of population concentration is not only necessary, but inevitable. Moderate population growth produces considerably better economic performance the long run than does a slower-growing population, though in the short run, the slower-growing population performs slightly better; and a declining population does very badly in the long run.⁽²⁾

Agglomeration economies and large markets are attractive for business, consumers and employees. However, there are external costs associated with large concentrations of people carrying out their activities in close proximity to one another. The possibility exists that at some point the benefits of agglomeration economies will be exceeded by the costs of negative externalities and that cities reaching this situation will be too large. Theoretically, the optimal size would be that at which the benefits from additional growth were just offset by the costs of additional growth.⁽³⁾

The primate city of Korea, Seoul, has proved to be too much over-concentrated with population, capital and powers in the aspect of economic efficiency, national security, infrastructures of Seoul itself, and rural depression. Therefore, the Government of Korea should endeavor to reduce the scale and functions of Seoul. One of the relevant and effective approaches to reduce the over-concentration of Seoul is to bring down the high inter-regional economic disparity through developing local cities and rural areas and weakening the attractive forces of Seoul.

(3) Stimulation of Balanced Spatial Development

It is required for Korea to stimulate balanced spatial development in order to reduce inter-regional economic disparity and to provide relevant population redistribution.

While there is common agreement that greater equality should be a paramount goal for planning, actual development usually results in increased inequality. In this situation, a prevalent rationalization is then to postpone the realization of the goal to a stage where there has been substantial economic growth. It is held that increased inequality is natural in a developing country.⁽⁴⁾ The view, associated with Pareto, that inequality is a universal

(1) Raanan Weitz, *From Peasant to Farmer: A Revolutionary Strategy for Development* (New York: Columbia University Press, 1971), p. 140.

(2) Julian L. Simon, "Population Growth May Be Good for LDCs in the Long Run: A Richer Simulation Model", *Economic Development and Cultural Change*, 24:2 (Jan. 1976), p. 312.

(3) See Robert L. Bish and Hugh O. Nourse, *Urban Economics and Policy Analysis* (New York: McGraw-Hill Book Co., 1975), p. 410.

(4) *Ibid.*, pp. 147-148.

constant which cannot be much affected by policy, however, is not consonant with historical experience.⁽¹⁾ In the advanced countries, Lorenz curves of inequality show less disparity of living standards than they do in the underdeveloped countries.

A declared objective of many developing countries is to spread the benefits of economic development as equitably as possible among the population. This objective should therefore be taken into account in the formulation of policies and policy measures which promote, guide and control industrialization.⁽²⁾

It might seem reasonable for a country to attempt to maximize economic growth and minimize inter-regional disparity. However, a problem exists in the fact that these two goals are not always consistent. The relation between goals of economic development should be harmonious, not in conflict or neutral. In Korea, therefore, a big issue becomes how to reduce inter-regional economic disparity without decreasing national economic growth. For a long time, regional policy makers have been aware of the necessity of a compromise between national efficiency and inter-regional equality. If, under free market forces, we can maximize national output, policies for great inter-regional equality will tend to reduce total output.⁽³⁾ For this reason, we must consider the reduction of inter-regional disparity as a constraint to national economic growth.

In general, inter-regional economic inequality is attributed to the differentials of capital accumulation, increase in labor supply and technical progress,⁽⁴⁾ or by the different growth potential in terms of natural resources and the economies of geographical concentration in economic factors.⁽⁵⁾ In addition to these, Korea has some particular reasons why inter-regional economic disparity has been widened. They are: (1) the centralization tendency in political and economical policy and administration, (2) the rapid urbanization, (3) the industrialization policy, (4) the weak intention and attempts toward reducing the inter-regional inequality, and (5) the frail will and efforts of local residents for developing their home towns, which stems from their behaviors that, when then have got large

(1) P. A. Samuelson, *op. cit.*, p. 778.

(2) See United Nations Industrial Development Organization, *General Issues of Industrial Policy* (New York: United Nations, 1969), pp. 20-21.

(3) Bertrand M. Renaud, "Conflicts between National Growth and Regional Income Equality in a Rapidly Growing Economy: The Case of Korea", *Economic Development and Cultural Change*, 21:3 (Apr. 1973), p. 437.

(4) See Harry W. Richardson, *Regional Economics: Location Theory, Urban Structure and Regional Change* (New York: Praeger Publishers, 1969), pp. 331-332.

(5) See W. Arthur Lewis, *Development Planning: The Essentials of Economic Policy* (New York: Harper and Row, Publishers, 1966), pp. 68-71.

amount of capital, they remove to or invest capital in other large cities.⁽¹⁾

The inter-regional disparity observed in a country at a certain point of time can be broken down into four different parts.⁽²⁾ The first part is a normal disparity which stays even in a state of long-term equilibrium. The second part of disparity is a coordinative disparity which persists on the process toward a state of long-term equilibrium. The third part is a disparity by policy-building due to irrelevant operations of the variables for policy-making. The fourth part of disparity is called a structural disparity produced by a lack of private mobility. A state in which the value of inter-regional disparity or dispersion becomes zero, that is, in which the economic levels of all regions are uniform, is actually impossible as well as theoretically irrational. Policies aimed at reducing inter-regional disparity should attempt to obtain a normal disparity which exists even in a state of long-term equilibrium. The normal disparity is the disparity in a state that low income regions bring on a maximized marginal productivity by utilizing their most resources.

In order to sever severe inter-regional disparity as well as to raise economic efficiency over the country, it is desirable for Korea to stimulate stepwise balanced spatial development from this moment.

3. ADVISABLE STRATEGIES AND APPROACHES FOR CONTINUED ECONOMIC GROWTH AND BALANCED SPATIAL DEVELOPMENT

Some important strategies and approaches could be suggested to provide economic efficiency and balanced spatial development under consideration of the findings of this study and other required factors in Korea.

1. There should be a developmental strategy for a harmonious relation between the national economic growth goal and the inter-regional equality goal. There is a fundamental conflict between high economic growth and high regional economic equality. If a high rate of economic growth is to be achieved, further concentration of economic activities into a few large metropolitan areas cannot be avoided by principles of the economies of scale and the benefits of aggregation. However, the continuation of a high rate of economic growth would sooner or later lead to equalization of income and wage levels

(1) See An-Jae Kim, "Actual State and Prospects of Inter-regional Disparity in Korea", *op. cit.*, pp. 60-61.

(2) See K. Miyazawa, et. al., pp. 61-64.

within the country through dispersion of concentrated income and benefits. Then, the reduction in income disparity among regions would, in turn, prevent further concentration of population and resources. Therefore, it is one way to wait for a long time without any intervention in the belief that inter-regional economic disparity would be a temporary problem for developing countries. Another option open to developing countries is to aim at a lower rate of economic growth. Rapid population concentration can be avoided by this strategy but income inequality would persist for a longer span of time.⁽¹⁾

Another approach suggested by the writer for harmonizing national economic growth and inter-regional equality might be established using mathematical programming. If we define national economic growth as an objective function, and inter-regional equality as a constraint, then we can build such a simple programming model as follows:

$$\begin{aligned} &\text{Maximize: } Z=f(x_1, x_2, \dots, x_n) \\ &\text{subject to: } f_i(x_1, x_2, \dots, x_n) \leq D_i \\ &\quad x_j \geq 0 \\ &\quad \quad i=1, 2, \dots, t \\ &\quad \quad j=1, 2, \dots, n \\ &\quad \text{where } Z: \text{ national economic growth} \\ &\quad \quad x_j: \text{ investment in region } j \\ &\quad \quad D_i: \text{ degree of inter-regional disparity in year } i \end{aligned}$$

In this model, it might be required for Korea to be decided as $D_i < D_{i-1}$, which means that inter-regional disparity should be reduced year by year from the present time.

2. Regional development potentials must be investigated and developed. In a multi-regional system, the regional planner will compare the development potential of different regions. If the overall objective is to maximize output of the multi-regional system, the region with the greatest contribution to that target, i.e., with the highest growth potential, will be developed first. However, three different concepts of the development potential have to be distinguished: free-market development potential, status quo development potential and policy-influenced development potential.⁽²⁾ The free-market development potential is defined for situations without any government interference, the status quo development potential is defined for a given level of government activity, and the policy-influenced

(1) See K. Mera, *op. cit.* (Changing Pattern of Population Distribution in Japan and Its Implications), p. 28.

(2) See H. Siebert, *op. cit.*, pp. 188-189.

development potential explicitly takes into account the impact of policy measures on growth potential. Among the three different concepts, it might be necessary for Korea to still apply the third one, the policy-influenced development potential, because free market mechanism is not yet effective to raise the status quo development potential of depressed regions in Korea.

From the findings of this dissertation, we could induce the following main suggestions on regional development potential:

First, Seoul City and Gyeonggi province should be treated in an unified unit, because they are closely correlated and interacted in terms of economic and social activities.

Second, Gangweon Province must be investigated and stimulated in its development potential of natural resources and tourism.

Third, Jeonnam and Jeonbuk regions have to be emphasized by the development potential of agro-fishery industries.

3. All industries should be located and developed at suitable places. As with the per capita income equalization goal, conflicts among regions emerge with regard to a balanced industry goal for each region. Those regions where the low income activities are concentrated and where labor productivity is low will strongly support balanced-industry goals and the imposition of appropriate constraints on development programming. Those regions with a very large share of industries and service activities with high-paying jobs and a small share of those with low-paying jobs will, of course, strongly resist the imposition of such constraints.⁽¹⁾ The conflict must be resolved either through the explicit use of cooperative procedures or through the political process.

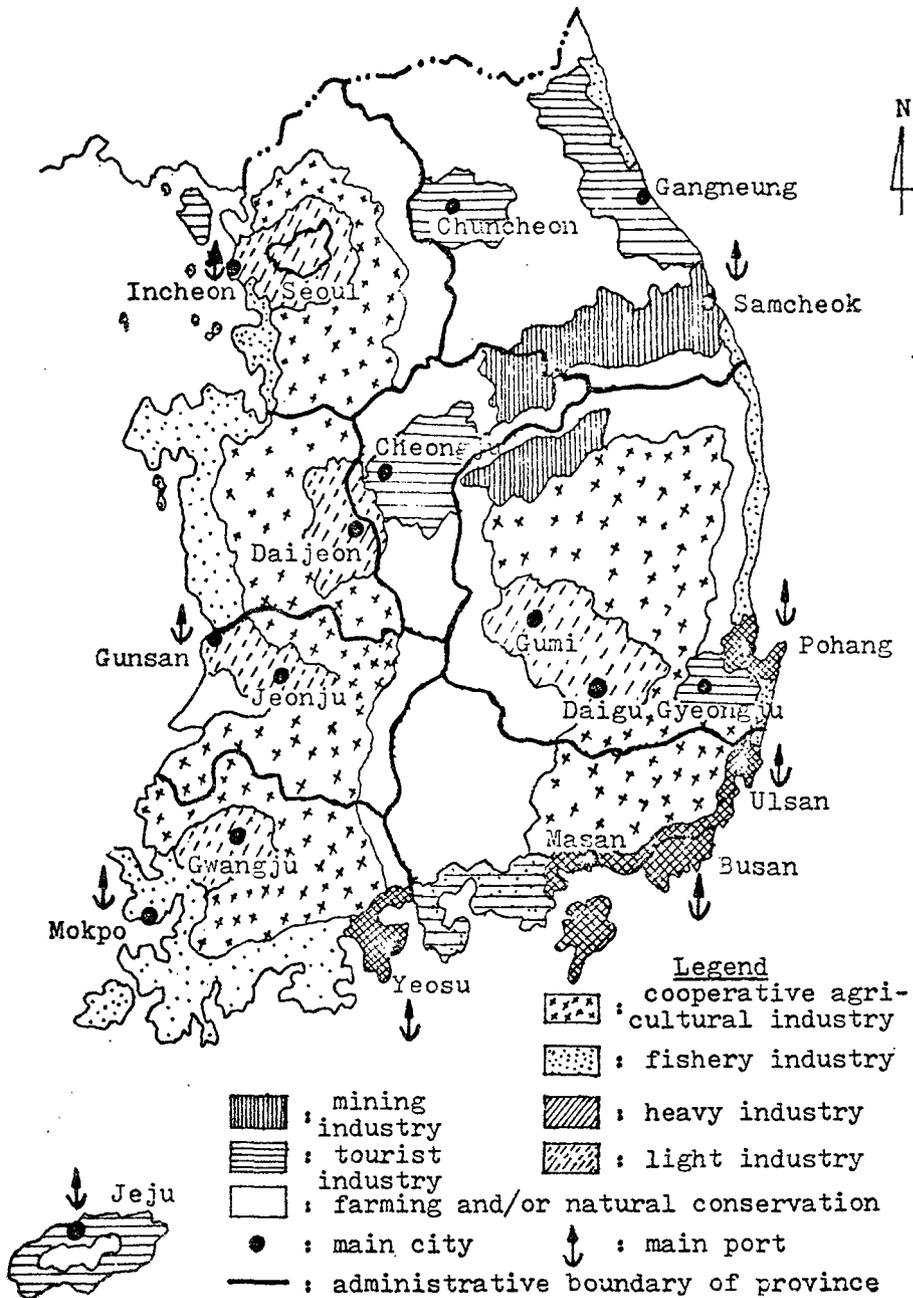
In Korea, future industrial expansion will take place in the immediate vicinity of the already existing industrial centers. The highest returns on government's efforts would come from the inter-regional investment strategy of social overhead capital investment in the lagging areas to raise the local capacity to absorb industries rather than attempting to industrialize these areas immediately.⁽²⁾ The relationships between an industrial complex and a near urban center should be close in physical, economical and social functions. To raise regional and local economic status, the industrial complex must be stimulated to diffuse its trickling effects into its hinterlands in terms of trade, employment, information

(1) Walter Isard, *Introduction to Regional Science*(Englewood Cliffs: Prentice-Hall, Inc., 1975), p. 407.

(2) B. Renaud, "Regional Policy and Industrial Location in South Korea", *op. cit.*, p. 477.

Fig. 1.

Desirable Direction of Regionally Industrial Specification in Korea: A Proposal



and techniques.⁽¹⁾

Industrialization in Korea should be spatially specified in accordance with national needs and regional characteristics. Such regionally industrial specification will result in reducing inter-regional high disparity and providing appropriate population redistribution. Figure 1 show an idea of spatially industrial specification in Korea for the future development.

4. The strategies of decentralization and growth pole development must be achieved in a step-wise fashion. For reducing the over-concentration of Seoul, the capital city of Korea, there should be decentralization in terms of administrative and economic functions, and cultural and educational facilities to some extent. In order for the decentralization to be successfully achieved, Korea might need a growth pole development under consideration of limited resources and capital.

The approach by growth pole should be realized by stepwise processes. That is, the economic growth in the space economics would be processed through "decentralized concentration". The first step must be taken with existing medium and small-sized cities. There are two sets of characteristics that account for the existence of cities: one is scale economies in production of goods and services; and the other is regional differences in natural conditions that affect production, people's utilities and the cost of inter-regional trade.⁽²⁾

Over the country of Korea, there should be many growth poles with a hierarchy in their scales of functions and in geographical boundaries of their influences. In relation to the findings of the study, a suggestion for hierarchical growth poles to be developed is illustrated on Figure 2.

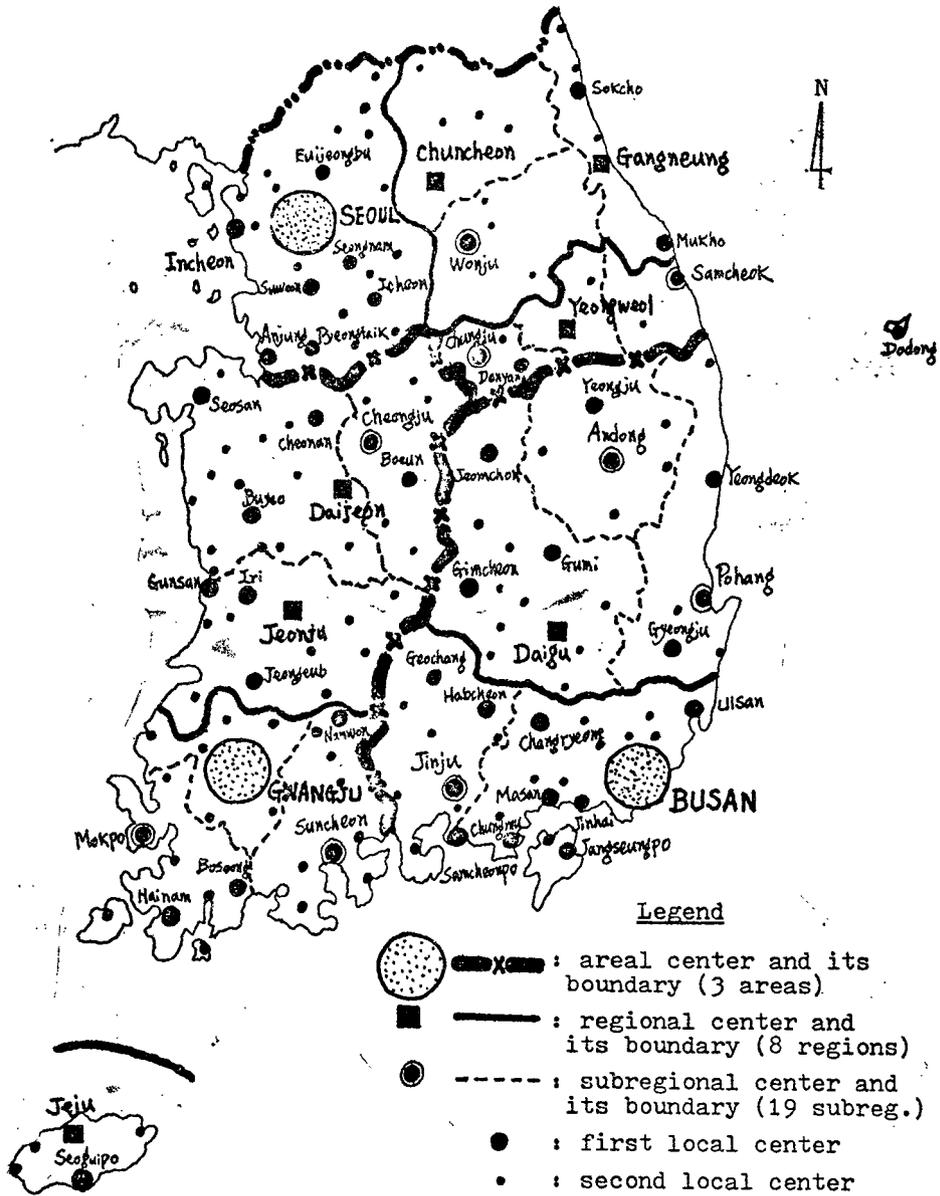
5. It is required that the rural areas of Korea will be comprehensively developed. In Korea, agricultural industry should be developed to increase the productivity of farmland through agro-industrialization for providing an increase of rural income, an expansion of domestic markets and a prevention of outflow of local residents from rural areas. A rural development can be said to be a bottom-up approach, while a growth pole development with cities is a top-down approach.

Friedmann suggests a new spatial policy called "agropolitan development" to stabilize both rural and urban incomes, and to reduce differences between them by diversifying

(1) See An-Jae Kim, *op. cit.*, (Industrialization and Growth Pole Development in Korea), p. 103.

(2) Edwin S. Mills, *Studies, in the Structure of the Urban Economy* (Baltimore, Maryland: The Johns Hopkins Press, 1972, p. 9.

Fig. 2.
Growth Poles and Their Influential Areas in Hierarchy: A Proposal



opportunities for productive work and, more specifically, by joining agricultural to non-agricultural activities within the same territorial community which can be called an agropolitan district.⁽¹⁾ Like the traditional city, the concept of an agropolitan district corresponds to a certain size or density function, to the presence of services and conveniences that are appropriate at this scale and adjusted to prevailing levels of cultural and economic development, to the existence of substantial off-farm employment, and to self-governance. In this sense, then, agropolitan districts may truly be called cities-in-the-fields whose population would place them in the middle range of a national size distribution of cities.⁽²⁾

Some approaches for rural development in Korea could be introduced in connection with the results of the study. First, the rural areas of Korea should be strengthened in their economic bases for increasing economic activities and local incomes. Second, the physical and cultural conditions of rural areas must be improved in order to satisfy local residents' needs for highly cultural life. Third, the New Community Development Movement (Saemaoul Undong) which was initiated in 1971 should be continuously and effectively forwarded even in the future. Fourth and last, local governments should improve their administrative and financial structures and processes in keeping with agro-industrialization and agro-urbanization.

6. Relevant national and regional comprehensive spatial plans should be rationally established and effectively implemented. The core of modern planning is the rational-comprehensive model: the establishment of an objectively defined set of goals: the statement of all possible alternate courses of action to attain these goals: the evaluation of those courses of action in terms of their efficiency: the selection of that alternative which nearly optimizes the set of goals: and finally, the assessment of that action, once implemented, in terms of its actual effects upon the overall structure.⁽³⁾ The policy areas comprehended within the urbanregional frame include regional economics, migration and settlement, urban development, urban land, development of administration and political

(1) See John Friedmann and Mike Douglas, *Agropolitan Development: Towards a New Strategy for Regional Planning in Asia*, Paper for the Seminar on Industrialization Strategy and Growth Pole Approach (Nagoya: The United Nations Centre for Regional Development, Nov. 1975, mimeographed), pp. 38-51.

(2) *Ibid.*, p. 41.

(3) See Stephen Grabow and Allan Heskin, "Foundations for a Radical Concept of planning", in Warren G. Bennis, Kenneth D. Benne, Robert Chin and Kenneth E. Corey, eds., *The Planning of Change*, third ed. (New York: Holt, Rinehart and Winston, 1976), p. 413.

institutions at subnational levels, and social development.⁽¹⁾ All of these policy areas are cross-sectoral and mutually interdependent to a high degree. The term "regional planning" implies at twofold function. First, such planning serves as a link between the macroplanning and microplanning levels, constituting a vertical function. Second, it is planning for the utilization of human and material resources within a specific area, constituting a horizontal function.⁽²⁾

There exist the needs for establishing regional development plans in Korea. At the present time, there are the National Land Development Plan on a national level and the City Plan of each city on a local level. Therefore, there is an urgent need for establishing the Regional Plans on regional level. For the regional planning, it is required for the country of Korea to be divided into such subnational units as: Seoul Region, Chuncheon-Gangneung Region, Taibajik Region, Daijeon-Jeonju Region, Gwangju Region, Daigu Region, Busan Region and Jeju Region. The criteria of this regional delineation are homogeneous traits and nodal activities of regions. Figure 3 shows this regional division as units for regional development and planning.

The following proposals could be suggested as instruments for the successful accomplishment of national and regional development policies and strategies.

First, in order to make national and regional development more effective, a new public institute might be desired in Korea at this moment or in the near future. The institute which can be called the Ministry of Environmental Development should have such main functions as national land development policy, urban and regional development policy, resource management, industrial location, and pollution control with an emphasis on both researching and planning on a national level.

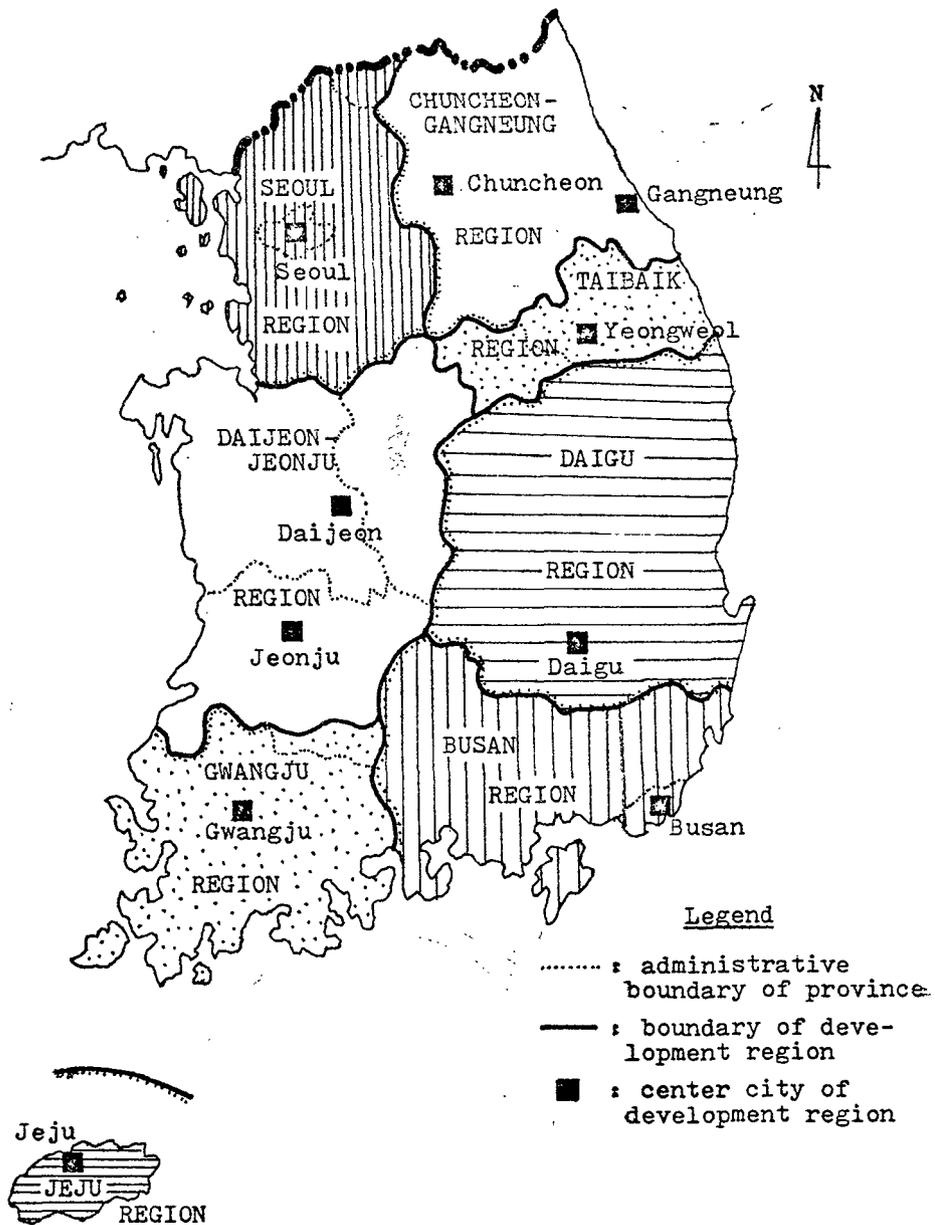
Second, local governments should have strong functions in planning, financing and implementing aspects. For this requirement, necessary functions would have to be delegated from the central government to the local governments.

Third, public participation and experts should share in the decision-making processes for national and regional/local planning. Since the client citizen participant can perform the role of community change agent to a greater or lesser degree, it is useful for the change agent to be able to identify his position among a range of role options: thereby the citizen change agent can make more effective decisions designed to maximize his

(1) John Friedmann, "Regional Planning and Nation-building: An Agenda for International Research", *Economic Development and Cultural Change*, 16:1 (Oct. 1967), p. 122.

(2) R. Weitz, *op cit.*, pp. 181-182.

Fig. 3.
Regional Division for Regional Development by the Criteria of Homogeneous Traits and Nodal Activities: A Proposal



objectives.⁽¹⁾ It is also required that formal channels between public planning institutions and citizens or their representatives should be widened and strengthened to provide effective feedback mechanism. In Korea, citizen participation must be leveled up to "the degree of citizen power" from "the degree of tokenism", where the degree of citizen power contains citizen control, delegated power and partnership, and the degree of tokenism implies the participation through placation, consultation and informing.⁽²⁾

Fourth and last, planning experts in related fields should be cultivated and retrained. For this, it is required to improve the programs for planning education in colleges and training institutes, and it is also urgent to provide the importance of planners' status.

(1) See Kenneth E. Corey, "Structures in the Planning of Community Change: A Personal Construct", in W. G. Bennis, et. al., eds., *op. cit.*, p. 265.

(2) See *Ibid.*, pp. 265-266.