

The Third Ten-Year Comprehensive National Physical Development Plan in Korea, 1992—2001

Sung-Woong Hong
(Vice-President, KRIHS*)

<Contents>

I. Introduction	III. Decentralizing National Land
II. Major Goals and Strategies	Use Structure
	IV. Conclusion

I. Introduction

This year marks the beginning of the 3rd Ten-year(1992-2001) Comprehensive National Physical Development Plan. The Physical Development Plan along with the Five-year Socio-economic Development Plan lay the groundwork for the national development. Broadly speaking, the Physical Plan provides the hardware and the Socio-economic Plan provides the

software in the grand scheme of national development. It is safe to say that the Physical Plan has contributed greatly to the rapid growth of Korean economy in the last three decades.

The rationale for having this kind of guiding master plan is that in making locational decisions or regional investment decisions there are various externalities involved and what may be individually efficient may not be efficient from the national point of view. Past plans were enacted with this planning philosophy in mind.

* Korea Research Institute for Human settlements

** Prepared for ESCAP Pre-Conference Seminar on Migration and Urbanization : Interrelationships with Socio-economic Development and Evolving Policy Issues, 21—25 January 1992, Seoul, Korea. The seminar was co-organized by ESCAP, KIHASA, and PAK.

The 1st-Ten-year(1972-1981) Physical Plan emphasized regional growth poles to support economic growth and industrialization. At the beginning stage of economic development when the capital is scarce, agglomeration of production capacity was needed for the efficient use of the land.

During the 2nd Plan period(1982-1991) the emphasis started to shift toward equity and stability. Regional growth was promoted and the growth of Metropolitan Seoul area was suppressed. The general opinion then was that the agglomeration in the Metropolitan Seoul area has reached a point where further agglomeration can only hurt the efficiency of our economy. To achieve the goal of balanced growth, many restrictive regulations on economic activities in the Seoul area were brought in and the costly endeavor of promoting regional growth was kept at the minimum. These policy measures were not adequate to curb the inflow of population to the Seoul area and the 2nd Plan terminated with only limited success.

The 3rd National Physical Development Plan just drafted goes further with the goal of 2nd Plan. The plan aims for not only balanced and intergrated growth but also for environment and social welfare conscious growth. In the last decade of 20th century we are preparing for the expected and also inevitable trends of the time, political local autonomy, globalization, and reunification of Korea.

I want to use this opportunity to give a brief overview of what the 3rd Physical Development Plan's goals and basic strategies are and for certain sectors more detailed description will be given.

II. Major Goals and Strategies for the Third Physical Development Plan

1. Assumptions on Population and Economic Growth

The rate at which population increase, will steadily drop from current level of 0.95% (1990) to 0.89% in 1996 and to 0.70% in 2001. The total population in the year 2001 will be 47 million, 4 million increase from 1990 level. The share of 65 or older population will increase because their increase rate will go up from 5% level in 1990 to 7% in 2001. This means that supporting this group of population and efficiently managing available economically active population will be new issues to be tackled during the 3rd National Physical Development Plan (the Plan from here on) period.

If we let the trend to take its course the population in Seoul Metropolitan area will be 22.5 million taking 47.9% of the total. The centralization measure, 47.9% is an increase from 42.6% in 1990. The Plan hopes to mitigate the centralization trend and check the share of population in Seoul area to 45% level. Overall the share of population living in urban area will increase from 80% in 1990 to 86% in 2001.

The economy will grow at an annual rate of 7% during the Plan period and GNP will increase from 238 billion dollar in 1989 to 836 billion dollar in 2001 in nominal terms. The industry structure will become more mature and the manufacturing and services industry will become more important. The role of foreign trade in Korean economy will be as prominent as today and the ratio of foreign trade to GNP will

be maintained along 50% level.

2. Goals and Strategies of the Plan

The Third Ten-year Comprehensive National Physical Development Plan has 3 basic goals and 6 implementational strategies. The three basic goals are (i) decentralization of national land use structure, (ii) establishing productive and resources conserving land use system, and (iii) forming physical basis for reunification. Social welfare and safe environment will be the underlying guiding principle in the quest of the goals.

To implement the three basic goals the Plan offers 6 strategies; (i) foster regional development and suppress concentration in the Seoul Metropolitan area, (ii) establish new industrial area and pursue for sophistication of industrial structure, (iii) institute integrated rapid transportation system, (iv) increase investment in the social welfare of the nation and in the environmental sector, (v) strengthen the implementation process of the plan and improve the regulation system on land use, (vi) development and management of the South and the North border area.

In the following section more detailed explanation of the 6 strategies will be given following the organization of the Plan.

III. Decentralizing National Land Use Structure

1. Decentralization of Human Settlements

Even though the decentralization of national land use structure has been the goal of the 2nd

Table 1. The Share of Seoul Metropolitan Area in the Increase in Population and Employment (Unit : %)

Period	'60-'69	'70-'79	'80-'89
Population	57.0	73.8	85.3
Employment	—	45.8	53.2

Plan, it has achieved little and the same goal is carried over to the 3rd plan.

Rather than relying on the conventional method of regulation the land use in Seoul area to suppress its growth, the 3rd plan will also emphasize fostering of provincial cities and rural areas so that spontaneous resettlements of population and industry occur.

With respect to the regional large cities (Pusan, Taegu, Kwangju, Daejon), strengthening their administrative, economic, informational, and international function is envisaged so that they can substitute for the role of Seoul in the region. With respect to the small and medium sized cities evenly distributed in the country, they will be induced to specialize in certain industry considering their resources, industrial structure, quality of labor and geographic location. If they can act as the nucleus of growth for surrounding area then regionally balanced growth will follow.

For the rural area two approaches are taken. Its traditional industry, agriculture, has to be revamped. Introduction of large scale full time farming and automatization of production will increase productivity and save man power. For small scale farming to survive they will have to be assisted in finding new produce that are suitable for the area and warrant high price. For the rest of farming population, they should be

given the choice of staying in the area and still be able to find job opportunities. Integrated development with nearby cities or creation of tourist attraction in the area could be a feasible option. Once the rural economy takes off the living condition such as education and medical service will improve also.

Creation of new towns and intra-regional use of urban facilities are other means of decentralization offered by the plan.

In addition to promoting regional development, existing measures to restrict growth in Seoul Metropolitan area have to be improved and also new measures have to be brought in. Restriction on locating population inducing facilities in Seoul area will be continued but rather than exercising outright prohibition, tax and subsidy incentive will become more popular. As the globalization trend is expected to continue in the future, such function as international airport, international convention service provided by Seoul will be enforced to maintain global competitiveness of Seoul as a city. Joint Ministerial Committee will provide consistency to the policy direction and the committee will decide which is the essential function on Seoul and should be located in Seoul.

2. Balanced Distribution of Industry and Upgrading of Industrial Structure

Due to the industrialization policy adopted since early 1960's our manufacturing industry grew very rapidly. During the 1970's and 1980's manufacturing sector grew at an average growth rate of 14.5% and 10.3%, outpacing the GNP growth rate of 7.8% and 8.3% in respective period. To support the fast growth of

industrial sector, starting with Ulsan industrial estate, many industrial estate have been set up. Of all the factory space created in the 1978-89 period, 76% came from planned industrial estate. This planned supply, mainly directed to the Seoul/Inchon area and southeast area enhanced the productivity of industrial investment and contributed to the efficient use of limited land but it also resulted in regional imbalance and environmental problem.

Table 2. Changes in the Size of Regional Manufacturing Employment (Unit : %)

Period	1960	1970	198	1989
Capital	33.5	46.0	45.9	47.8
Central	10.5	7.6	6.4	6.4
Southwest	12.4	9.1	6.0	6.2
Southeast	39.6	34.4	40.4	37.4
Other	4.0	2.9	1.3	2.2

As we expect our economy to enter into mature stage in 21st century the focus of industrial location policy will be balanced allocation of the industry and development in harmony with environment preservation, as well as efficiency. Newly formed industrial estate will be guided toward Central and Southwest region. In fact, 50% of all the needed factory space during the plan period will be supplied to the two region. If we reduce the scope to just planned supply of factory sites then the share jumps up to 60%.

The new industrial belt, Asan Bay-Daejun-Chungju, in the central region will mostly house outcoming industry from Seoul region thus alleviating the concentration pressure in the Seoul area. Two new industrial belts are planned in the southwest region; Kunjang-Iri-Chunju and

Table 3. Supply of Factory Space Planned by Regions (Unit : km², %)

Region	1978-1989	1992-2001
Total	112.7(100.0)	114.4(100.0)
Capital	19.7 (17.5)	6.1 (5.3)
Central	13.5 (12.0)	29.0 (25.4)
Southwest	28.9 (25.6)	39.3 (34.4)
Soutyeast	47.1 (41.8)	36.9 (32.3)
Other	3.5 (3.1)	3.1 (2.7)

Kwangyang Bay-Kwangju-Mokpo. The coastal region Kunjang, Kwangyang Bay and Mokpo will accommodate basic materials and parts producing industry whereas the inland cities Iri, Chunju and Kwangji will accommodate manufacturing industry. Larger cities like Chunju and Kwangju will be able to contain high-tech industries and related research facilities.

The new industrial belts to be developed during the plan period will not be just cluster of industrial sites. They will be developed in a comprehensive way including the physical facilities such as international airport, other land and sea transport system, water supply and also including social facilities such as cultural centers, educational institutions, and research centers. Their main industry will be environmentally safe high-tech industry compared to the existing industrial region where usually heavy industry is located. This reflects our projection of changes in comparative advantage in international trade and also reflects change in our nation's perspective on development and environment.

By the end of planning period we hope to attain the status of industrialized country and we are gearing up our industry for the future.

3. Creation of National Recreational Space

With the increase in income level and leisure time and changes in our life style, recreational activities became a necessity in our life. The index(person/number of times) for recreational activities reached 290 million in 1988 and is up 2.8 times compared to 1980. Participation ratio is also at 90% level. The quality of recreational activities also increased. Overseas tourists increased 2.5 time from 1981 through 1989 and golf and skiing are becoming popular sports.

The increase in demand for recreational space has not been matched by the supply. Pre-occupation with economic growth has placed least priority to satisfying the demand and per person recreational space deteriorated for some cases. Now the situation cannot be neglected and for the first time in the 3rd Plan, significant importance has been placed to it. To satisfy projected increase in the recreational activities various kinds of recreational spaces have to be developed in the future.

From broad point of view Northeast area (Kangwon province and part of Choongbuk and Kyungbuk province) will be developed for recreational purpose. The area is well endowed with large forests, beautiful mountains, and clear coastline. In smaller scales many various recreational spot such as parks, sight-seeing places, hot springs, sky resorts, golf courses, physical training courses etc. will be developed near the populated area.

In addition our territory will be divided into five different cultural heritage area and their historical sites will be cultivated to be tourist attractions and place of historical education.

Table 4. Predicted Recreational Activities

	unit	1988	2001
	hour/week	38.8	42.8
○ Activities	million person	290(100.0)	529(100.0)
• Mountain	times/year	115 (39.6)	192 (26.2)
• Sea	"	45 (15.6)	86 (16.2)
• Outdoor Recreation	"	92 (31.6)	160 (30.2)
• Leisure · Sports	"	38 (13.5)	92 (17.4)
○ Number of Participation per Person	times/year	9.5	14.4

4. Institution of Integrated Rapid Transport System

Transport system has always played an important role in supporting the economic growth but in future it will be even more important as we have more decentralized land use system. During the first Plan period(1970's), large investments were made in highways, harbors and subways, but during the Second Plan period investment in transport system relatively decreased due to increased investment in the welfare sector. In 1982-86, 2.5% of GNP were invested in transportation and in 1987-89, even smaller share, 2.1% were invested. This proved to be far inadequate to meet the increased demand for roads and cargo freights and the bottlenecks in our transportation sector threatened our competitiveness in the international trade.

Demand for better transportation is expected to increase continuously and the 3rd Plan is preparing for such change.

Basic scheme in the 3rd Plan is as follows. First, create 7(north-south) by 9(east-west) integrated highway system so that any place

within the territory can be reached in half-day time. The plan also calls for constructing rapid railway system connecting Seoul and south east and south west region. This will mean that travel time between Seoul and Pusan is reduced to 2 hours. Some of the existing railways will be electrified and expanded. In response to globalization trend, a new major international airport will be built near the Incheon area. Other regional airport will be upgraded to handle international travel to and from Southeast Asia as well as increased domestic demand. To accommodate increasing trade quantity with China and Russia, new harbors will be constructed at Asan and Kunjang, and existing harbor facilities at Incheon and Donghae will be expanded to handle more international cargos. For other harbors, automatization and specialization(container, coal, cement, crop etc.) will expand their handling capacity. For the inter city and inter regional transport system, high speed beltways will be built but for the trip to centers more emphasis will be laid on public mass transport system such as subways and shuttle bus.

Table 5. Forecasted Demand for Transportation by Type

	Unit	1988	2001	Annual Average Increase(%)
○ Travel				
– Domestic	100 million person	125	196	3.5
• Road	"	119	187	3.5
• Rail	"	6	9	3.6
• Sea	million person	9	9	0
• Air	"	6	32	13.7
– International	million person	8.5	26.1	9.0
• Sea	"	0.20	0.27	2.3
• Air	"	8.3	25.8	9.1
○ Cargo Freight				
– Domestic	million ton	293	612	5.8
• Road	"	185	360	5.3
• Rail	"	61	71	2.5

As a substitute for transport system, communication system will be strengthened and expanded. Integrated system of information network will be developed so that tele-conference, data transmission and collection will be done more efficiently.

5. Improving the National Housing Welfare

During the 1980's, GNP ratio of investment in housing was maintained at 4-5% level. But the investment proved to be inadequate and national living standard deteriorated over the years. To improve the situation, plan to construct 2 million housing unit was enacted in 1988. In 1990 the ratio of housing investment to GNP reached 8% level and almost 750,000 housing unit were built. The plan was partly successful because increased in the supply of

housing unit caused the price increase to slow down or in some cases to drop. The ambitious plan also brought about some negative side effects also. The plan neglected the supplying capacity of housing industry and caused shortages in the supply of labor and construction materials. This led to general price increase and opened to the criticism from other sectors blaming housing sector for their difficulties.

The 3rd Plan aims to construct a total of 5.28 million housing unit during the period and maintain housing investment to GNP ratio at 6% level. The numbers are derived considering both the supplying capacity and future change in the demand, and if the direction in the Plan is followed the housing situation will improve as can be seen in the table 6. About 50% of the housing unit to be supplied will be medium sized housing for rent and medium to large sized

Table 6. Predicted Housing Supply Ratio

(Unit : thousand household, thousand housing unit, %)

	Number of Household		New Housing Unit Built ('92-2001)	Housing Stock		Housing Supply Ratio (Housing Stock/Household)	
	1992	2001		1992	2001	1992	2001
Total	10,556	13,026	5,382(100.0)	8,280	12,088	77.8	92.8
Capital Region	4,450	5,871	2,194 (40.8)	3,448	4,908	75.8	83.6
Regional Cities	2,002	2,481	1,193 (22.2)	1,361	2,230	68.0	89.9
Other	4,017	4,674	1,995 (37.0)	3,418	4,950	85.1	105.9

housing for sale and private sector will be responsible for supplying these housings. Public sector will be responsible for supplying smaller housing for rent and housing for sale to low income family.

IV. Conclusion

A brief overview of the 3rd Comprehensive National Development Plan was presented in the previous chapters. But the important fact is that the implementation process is as important as the drawing up of plan itself. One of the most important criticism of the previous Physical Development Plan is that it lacked proper implementation and evaluation process. With this deficiency in mind, the the 3re Plan devoted some attention to the implementation process also.

What becomes clear is that administrative

capability and finance are the key issues here. Administrative and financing capability at the central level may be adequate to handle the implementation of the Plan but as the process of local autonomy progresses the ability of local administration and financing will become more important. Harmonization of the Plan with the low level regional development plan will gain in importance as well. Necessary measures are prescribed in the Plan to bolster regional implementation capabilities which will not be described in details here. Other measures taken in the Plan is to increase the bondage between the 5-year Socio-economic Development Plan and The Physical Development Plan. The 10-year Physical Development Plan will be reviewed at the end of first 5 years to reflect the results of 5-year Socio-economic Development Plan and to input its revised contents to the new 5-year Socio-economic Development Plan.