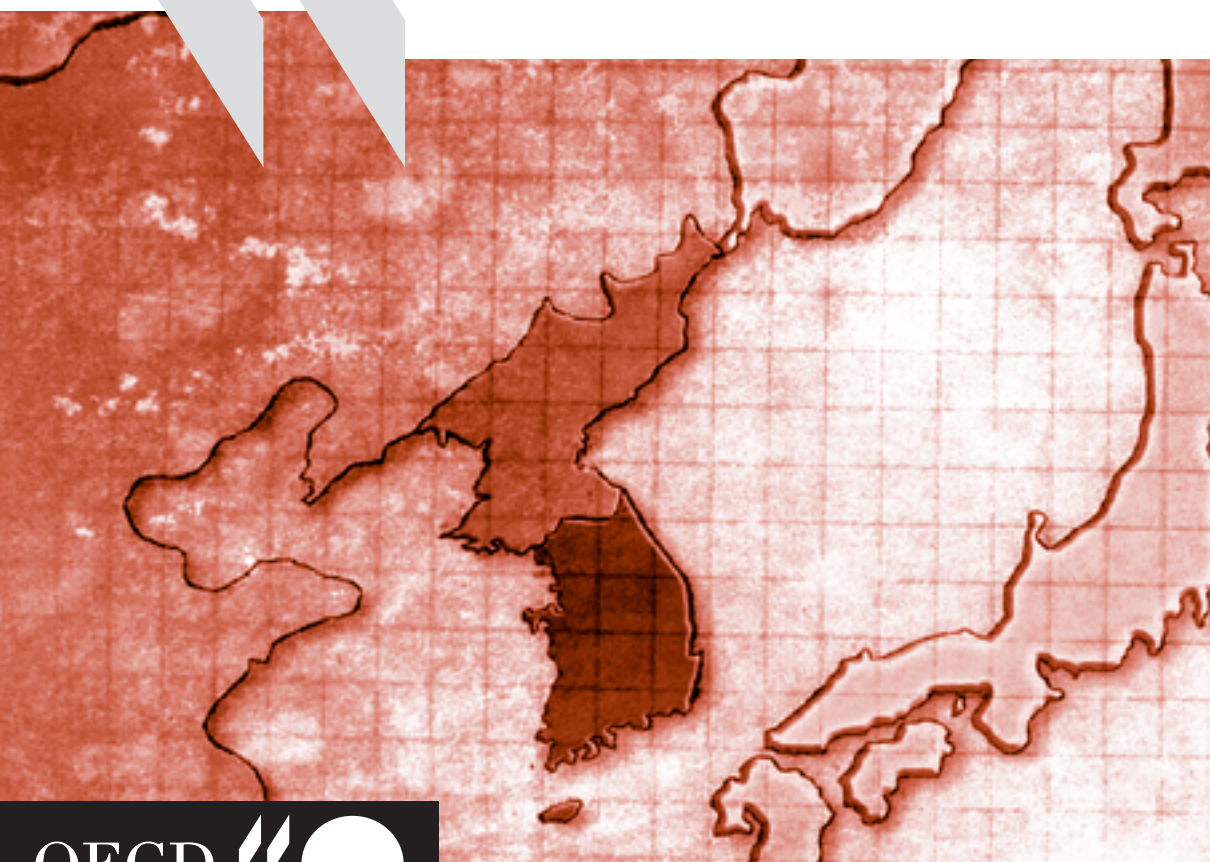




**OECD
Territorial Reviews**

Korea



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Korea



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Foreword

The globalisation of trade and economic activity is increasingly testing the ability of regional economies to adapt and exploit or maintain their competitive edge. There is a tendency for performance gaps to widen between regions, and the cost of maintaining cohesion is increasing. On the other hand, rapid technological change, extended markets and a greater demand for knowledge are offering new opportunities for local and regional development. Yet this calls for further investment from enterprises, reorganisation of labour and production, upgrading skills and improvements in the local environment.

Amid this change and turbulence, regions are following very different paths. Some regions are doing well in the current phase of the growth cycle and are driving growth. Others are less successful in capturing trade and additional economic activities. Many territories with poor links to the sources of prosperity, afflicted by environmental problems, migration (notably of young people), and lagging behind in infrastructure and private investment, are finding it difficult to keep up with the general trend. At the same time, central governments are no longer the sole providers of territorial policy. The vertical distribution of power between the different tiers of government, as well as the decentralisation of fiscal resources, need to be reassessed in order to better respond to the expectations of the public and improve policy efficiency. All these trends are leading public authorities to rethink their policies and strategies.

The Territorial Development Policy Committee (TDPC) was created at the beginning of 1999 to provide governments with a forum for discussing the above issues. Within this framework, the TDPC has adopted a programme of work that focuses essentially on reviewing Member countries' territorial policies and on evaluating their impact at the regional level. The objectives of the reviews are: *a)* identify the nature and scale of territorial challenges using a common analytical framework; *b)* assist governments in assessing and improving their territorial policies; *c)* assess the distribution of competencies and resources among the different levels of government; and *d)* identify and disseminate information on best practices regarding new practices in governance.

The TDPC Secretariat produces two types of reviews:

Territorial Reviews at the national level. Requested by national authorities, they analyse trends in regional performances and institutional settings, focus on policies to reduce territorial disparities and to assist regions in developing comparative advantages. They also concentrate on the governance framework, on the impact of national non-territorial policies on subnational entities and on specific aspects of fiscal federalism. The final report analyses the conflicting issues and proposes recommendations for a territorial policy.

Territorial Reviews at the regional level. Requested by subnational authorities (local or regional) with the agreement of national ones, they concentrate on strategies for developing the respective entity. In particular, they identify the role of key demographic, socio-economic, environmental, technological and institutional factors in explaining the performance of regions. They also provide a comparative analysis with regions of the same type using the typology elaborated by the Secretariat.

This Review is based on the Secretariat's study on the Territorial Development Policy of Korea by the Territorial Development Policy Committee on 14 December 2000. Further to this examination, the Committee gave approval of the Review for publication.



Bernard Hugonnier,
Director,
Territorial Development Service

Table of Contents

Acknowledgements	9
Assessment and Recommendations	11
<i>Chapter 1. Economic Development and Territorial Disparities</i>	25
Geography, settlement and population	26
Economic development phases and territorial implications	28
Indicators of territorial disparities	34
The challenge to reduce territorial disparities	47
Conclusion	51
<i>Chapter 2. Institutional and Fiscal Decentralisation</i>	57
Governance framework at central level	58
Governance framework at the local level	60
Fiscal decentralisation	67
Intergovernmental relationships	77
Recommendations: reforming the territorial governance culture	81
<i>Chapter 3. Spatial Development Policy</i>	87
The Comprehensive National Development Plan and the goal of territorial development	88
Decentralisation policy	94
Development in special areas and assistance measures for lagging regions	101
Land and housing issues	112
Infrastructure development	127
Conclusions and recommendations	139
<i>Chapter 4. Economic Development Policy</i>	147
Corporate policies	148
Policies to develop a knowledge-based economy and new growth engines	156
Policy assessment	165

<i>Chapter 5. Social Policy</i>	175
Living conditions and social disparities	175
Social welfare policies	178
Education and labour market policies	186
Gender equality issue	193
Conclusion and recommendations	198
Bibliography	205

List of Tables

1. Long-term demographic trend in Korean Peninsula	27
2. Evolution of households' size	28
3. Regional gross domestic product	34
4. Income tax per capita by region	35
5. Regional unemployment disparities	36
6. Regional employment, 1998	38
7. Number of establishments by industry and by region, 1998	41
8. Regional breakdown of R&D expenditures and researchers	43
9. Regional gross domestic product by main economic sectors, 1997	44
10. Regional employment by main economic sectors, 1998	44
11. Distribution of medical facilities by region	46
12. Distribution of water and sewage by region, 1998	47
13. Elderly population	48
14. Net population influx into urban areas	49
15. Ministries and agencies related to territorial development	59
16. Lowest territorial units in OECD Member countries	66
17. Sources of local income, 1999	69
18. Financial independence ratio of local governments, 2000	74
19. Changes in national goals and policies in the CNDPs	89
20. Visions for 10 regions in the fourth CNDP	93
21. Concentration in the Capital Region	95
22. Intra-regional distribution of roles in the Capital Region in the 4th CNDP	100
23. Development Promotion Districts (DPD)	103
24. Measures for lagging areas by MOGAHA	105
25. Status of Restricted Development zones, 1998	115
26. Office rent and housing price in major cities	119
27. Housing supply and housing investment ratio	120
28. Breakdown of public expenditure	128
29. Budget for capital investment, 1997-2001	128
30. Road pavement ratio	129

31. Estimated demand for capital investment concerning transport facilities	130
32. Investment in inland transport infrastructure	130
33. Private investment in infrastructure, 1995	135
34. Value added by region in manufacturing SMEs	150
35. Foreign investment record	153
36. Evolution of foreign investment by region	156
37. Selected indicators of the information age, 1996	163
38. Disparities in living conditions in urban and rural areas	177
39. Regional distribution of health resources.....	184
40. Financial responsibility in elementary and middle schools	190

List of Figures

1. Population distribution in Korea, 2000	29
2. Population by region	30
3. Unemployment change in Korea	37
4. Small and medium manufacturing enterprises, 1998	40
5. Foreign direct investment by region	42
6. Korean local government system	64
7. Local revenue and expenditure ratios, 1991 to 1998.....	68
8. Distribution of taxes across levels of government in Korea.....	70
9. Property-related tax revenue per capita, 1999.....	71
10. The structure of state and local government tax receipts, 1997	72
11. Share of the urban population	99
12. Change in land prices, 1980-97.....	118
13. Housing construction by region	123
14. Perception of living conditions in urban and rural areas, 1998.....	177
15. Educational attainment by region, 1998	187

List of Boxes

1. Best practices of functional regions in some OECD countries	53
2. Education in Korea	67
3. The Spanish <i>Mancomunitats</i> : flexible horizontal co-operation and functional integration	82
4. Public transport associations in functional areas: an example from Switzerland	83
5. Two important reforms in the history of agricultural development.....	108
6. Major agricultural policies related to spatial development.....	109
7. Environmental policy measures related to land use	117
8. Large projects for key transportation infrastructure development	131

9. The public infrastructure to assist SME: An example of dispersed institutions	151
10. The new Foreign Direct Investment regime and the 1998 law	154
11. FDI inflow in the Gyeonggi Province.....	157
12. Best practices.....	169
13. Case study of Daegu Metropolitan City, Health and Welfare Women's Policy Bureau	195
14. International experiences to improve women's status.....	197

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Assessment and Recommendations

Korea achieved a quick recovery from the financial crisis 1997-98, despite suffering its worst recession in the post-war period. At its depth, the recession reduced output by 6.8 per cent and tripled the unemployment rate. By the latter half of 1998, a wide range of indicators signalled improvement. The economy turned upward, in 1999 and the first half of 2000 due in part to structural reforms and foreign capital inflows. Recently, however, the expansion has slowed down, reflecting the impact of higher oil prices, fiscal consolidation and concerns about problems in restructuring weak firms. These concerns have contributed to a 45 per cent fall in the stock market price index since the beginning of 2000. The government has launched a second financial-sector restructuring programme using 40 trillion won of public money. Sustaining the recovery from the 1997 economic crisis requires further reforms to advance market-based restructuring of the financial and corporate sectors.

Korean economic recovery continues, though at a more moderate pace...

Although Korea has less inequality relative to other countries, the crisis, rising unemployment and decreasing nominal wages have impacted households severely. Over-spreading in high-income brackets has been a problem again, along with an increasing income gap between the rich and the poor and a shrinking middle class. The ratio between those in the upper 20 per cent of the wage scale and those in the bottom 20 per cent increased from 4.5 in 1997 to 5.3 times in the third quarter of 1999. In addition to the traditional gap between urban and rural areas, new patterns of urban poverty have emerged in the cities. The crisis has raised awareness that economic development cannot be socially sustainable without social policy measures.

... while the social gap has increased and regional disparities remain wide.

The dominance of the Capital Region in the key economic activities persists.

Regional disparity and balanced territorial development should remain prime policy concerns in the near future. The economic trajectories of Korea have reinforced a strong concentration of economic activities in a limited number of areas, defined by the Seoul–Busan corridor and the southeastern coastal areas. Over-concentration has resulted in significant costs of agglomeration along with serious urban problems. Despite a continual commitment to balanced development, the extremely polarised territorial structure and continuous depopulation in rural provinces have not changed significantly. The dominance of the Capital Region in the economy increased after the crisis. Greater deregulation and concentration of IT industries in Seoul may encourage re-concentration of key economic functions into the Capital Region. The Capital Region alone contains 101 439 firms, (56.1% of the total), followed by Busan and Incheon. Korea's economic success was built around the growth of indigenous enterprises, protected by a wall of regulations. However, foreign direct investment (FDI) has become more important in the last decade, especially since the crisis. Seventy per cent of the foreign capital is concentrated in the Capital Region.

Territorial gaps in living conditions are distinct, but a higher quality of life needs to be attained in both urban and rural areas.

Due to government policies focusing exclusively on industrial development in limited areas, investment to improve the quality of life was neglected in the early stage of development, although basic living conditions in Korea have improved remarkably. The gap in quality of life between urban and rural areas is still distinct. But, both in urban and rural areas, higher quality of life needs to be achieved: in urban areas, due to a continuous population influx, additional investment is necessary and environmental degradation is serious, whereas in rural provinces, further modernisation such as water services, sewage, quality of housing and so on is a priority.

Drastic societal changes have occurred throughout the country.

Throughout the country, traditional social and family ties have been lost as a result of the increase in nuclear families; women working outside the home in urban areas and the elderly population living alone, particularly in rural villages. In the coming decades the population growth rate is expected to be modest, but the percentage of the elderly population will

increase, particularly in rural areas, although at lower levels than in other OECD Member countries. The drastic societal transformation affecting the entire country requires holistic territorial approaches, particularly at local community levels.

To meet these challenges, well-shaped strategies need to be implemented, taking stock of the new trends in territorial development. The classical *centre vs. periphery* paradigm of the past, which productively characterised many OECD countries in the 1970s and 1980s, does not fully explain the territorial challenges facing Korea today. The periphery now includes lagging rural regions, larger cities and older industrial areas – that are found in the second-tier cities. Rising social problems in large cities as well as more rapid urbanisation direct more attention to the question of metropolitan governance. In short, a new approach in territorial development is necessary.

Further development and monitoring of statistics at subnational level are a first prerequisite to efficiently address regional disparities. Currently, government statistics do not depict clearly the various dimensions of regional disparity. Considering the intra-regional disparity as well as inter-regional gaps, the municipal level database needs to be developed. Data on the smallest administrative units will facilitate more sophisticated simulation and analysis to design appropriate wider area co-operation frameworks. The leverage provided by a statistical framework is the ability to redefine administrative units so that they accurately represent how the society organises itself. The local integration of residential, productive and recreational activities can be assessed with respect to economic and social relations. It will encourage an experimental approach on functional regions that may be more responsive to spatial problems at various territorial levels.

Elaborating the institutional framework is a second prerequisite for building a comprehensive territorial strategy for Korea. So far, the national goal of territorial development has been synthesised into the Comprehensive National Development Plan (CNDP), which has a broad coverage of sectoral policies and has been formulated through a long process of inter-ministerial co-ordination. The CNDP can be regarded as a holistic approach toward territorial development. However, further elaboration is necessary so

In short, a new approach is required using a new paradigm beyond the classical centre vs. periphery dichotomy.

As the first step towards addressing regional disparity, further development of subnational statistics would be most useful.

An institutional framework for better cross-sectoral co-ordination needs to be elaborated to intensify horizontal and vertical co-ordination...

as to bridge more closely spatial development with social and economic development issues. In particular, integration of urban and rural policies, co-ordination of physical and non-physical measures, and linkage of spatial policies and financial measures have not yet been achieved. One solution for intensifying horizontal and vertical co-ordination may be allocating the co-ordinating functions to a single organisation under the Prime Minister's Office. In Korea, a temporary task force for cross-sectoral co-ordination on balanced regional development has been established under the Blue House. Nevertheless, a permanent body would be necessary to carry out long-term territorial development over a decade. It will motivate relevant ministries and local authorities, and provide opportunities to improve cross-sectoral communications. The visions of territorial development and target fields of cross-sectoral co-ordination need to be clearly identified to ensure positive results.

... and partnership at the local level needs to be institutionalised as well.

In order to empower local level territorial development and to encourage regional partnership, a regional development entity at each provincial level may be useful, which will work together with the above mentioned central co-ordinating body as well as with each provincial government. Its major functions would be promoting local venture industries by providing various types of assistance and facilitating, information and training opportunities. It will serve as a one-stop shop and work in close co-operation with local governments and the local private sector. Staffing could be comprised of those from non-governmental sectors as well as from local or central governments.

In addition to the organisational rearrangement, human resource exchanges and training should be reinvigorated.

In addition to these organisational rearrangements, vertical and horizontal human resource exchange should be actively promoted. In Korea, there exists a framework for secondment between central ministries, which is rarely applied. Between central and local governments and between governmental and non-governmental sectors, regular human resource exchange will help in establishing a quasi-institutionalised human network. Training is another cornerstone in particular for local officials in order to upgrade their capacity for comprehensive policy-making. Central level cross-sectoral co-ordination will require time, but they should

take their cue from local efforts to integrate related measures. If local authorities are sufficiently watchful over the assistance measures provided by the central government, they can integrate sectoral measures to solve particular area development problems in a more purposeful way. In addition, effective territorial development now requires more specialised knowledge in such fields as Environmental Impact Assessment, Environmental Management and Auditing, Private Financing, and new types of property and financial assets. For the purpose of a smooth co-ordination with non-governmental actors, the development of peer relationships that promote communication as equal partners should be fostered. The skills and knowledge necessary for territorial development need to be systematised.

Like in other countries, a plethora of sectoral policies have constituted Korean spatial development, ranging from various assistance measures for lagging areas, land use planning, housing policy and infrastructure development. Under the new institutional framework, the goal of individual sectoral policies should be reassessed and better linked to the CNDP and other spatial visions.

In this regard, institutional linkages should be established between spatial visions, including the CNDPs, and various assistance measures for backward regions. In Korea, mainly the following three ministries have provided support for regions, dealing separately with many of the same recipients; The Special Development Area (SDA) and the Development Promotion District (DPD) by the Ministry of Construction and Transport (MOCT), assistance measures for backward areas by the Ministry of Government Administration and Home Affairs (MOGAHA), and agricultural policy by the Ministry of Agriculture and Forestry (MOAF). These measures may be accepted as general financial support for local governments irrespective of a spatial vision, unless locational and geographical factors are incorporated into the area designation criteria. These financial assistance measures should be clearly linked to the CNDP and with other spatial visions. Alternatively, the possibility of cross-sectoral co-ordination between these three ministries needs to be explored on an individual basis.

The goal of sectoral policies needs to be re-identified and well linked to the spatial development vision.

In this regard sectoral measures for backward regions need to be better co-ordinated.

Re-orientation is necessary concerning the goal of land policy in the context of territorial development...

Land policy was directed in the past by fluctuating land and property prices. More recently, this single purpose has been replaced by a more diffuse collection of goals. Re-orientation of the land policy is required. It is necessary to establish a land and property market policy that is attuned to the implications of globalisation. For the purpose of intensifying land use planning, a fundamental institutional reform is being designed and a new act is expected to come into force from January 2002. A planning system encompassing both urban and agricultural areas, particularly urban fringe areas, needs nevertheless to be established. The link between land policy and local spatial vision needs to be emphasised.

... and a holistic approach at the local level is needed for upgrading the quality of life, particularly in rural areas.

Housing policy is another crucial area for spatial development relating to quality of life. In the past, Korean housing policy mainly targeted the development of housing units, whilst it now involves the provision of other facilities related to the life cycle needs of citizens. Prime responsibility for these functions is expected to rest with local authorities. Living conditions in rural areas should be upgraded by improving social infrastructure and housing so as to satisfy not only present inhabitants, but also the potential demands of the non-rural population who wishes to stay and live in rural areas. Insufficient quality of life gives further incentive to local population to move to urban areas, which in turn contributes to the deterioration of living conditions. The vicious cycle should be ended. Furthermore, rural provinces could achieve a better quality of life than urban areas: as urban dwellers experience increasing congestion and other disamenities, rural areas could become guest areas for the urban population, and provide a living environment rich in natural amenities as well as local specialities and traditional culture. But upgrading living conditions in rural areas can not be effectively accomplished through existing agricultural subsidies.

And the framework of infrastructure development needs to be adjusted so as to facilitate overall spatial development.

Infrastructure development needs to evolve from the current centrally oriented model to a new framework placing more emphasis on local initiative and private participation. The Korean government has placed importance on Social Overhead Capital development, which includes major infrastructure such as transport facilities, dam construction and so on. In Korea, the share of the infrastructure

investment in the GDP is relatively large. And demand for investment relating to living conditions and social welfare, and for investment to prepare for a knowledge-based society is becoming increasingly diversified. Funding shortfalls may be more serious. The framework of infrastructure development as well as the sectoral distribution of financial resources need to be adjusted so as to facilitate overall spatial development. The central government should encourage flexible implementation of local governments' projects by drastically simplifying administrative rules and processes.

Re-orientation is necessary in economic development policy as well. Until recently, the main foci of regional economic policy were poles of growth and large firm led expansion. However, changes in the focus are now being contemplated. The importance of SMEs as a major player in job creation and wealth generation is increasingly recognised and a wide range of support programmes for small businesses in the fields of management, technological development, training, marketing and exports is now available under the umbrella of the SMBA, SMIPC or other SME related agencies. Various initiatives have also been taken, including the creation of a more business friendly climate so that young people can start their own firms. So far, however, not much attention has been given to the regional dimension of firm creation and to the local conditions of entrepreneurship. Although programmes on incubators, science parks and services centres are gaining momentum, the education institutions are still lacking curricula integrating entrepreneurship courses especially at pre-tertiary levels. Regional government could play a more active role in this respect and launch media campaigns to better link regional identity, risk taking and business formation.

Interfirm co-operation is another policy area that deserves attention from the central government. In Korea the relatively poor horizontal co-operation links between small independent enterprises may be related to the deficiency of social capital. As underlined by many sociologists, emphasis on exchange value rather than use value and development of rent-seeking behaviour and individualism have increased distrust and transaction costs. In combina-

Regional economic policy is mainly focussed on SMEs and entrepreneurship but the role of education is de-emphasised.

Linkages between small firms unrelated to chaebol have not been a target for policies...

tion with command and control attitudes, these trends have raised obstacles to collaboration and networking between small firms. Industrial districts have nevertheless emerged. Several of them developed in the 1970s around branch plant based complexes. These so-called satellite industrial districts were often designed by the government and implemented with incentive packages and active relocation policies. As a consequence, these districts remain very different from traditional industrial districts in Europe or the United States. They are operating with captive sub-contractors and are not locally embedded. Most of them are integrated in the network of their parent firm usually headquartered in Seoul. While this development pattern has been an important source of wealth for a number of provinces, it has also rendered regional economies more vulnerable to shocks, given their strong orientation towards mass production, their weak flexibility and high specialisation. Current restructuring and reorganisation of the *chaebols* and the wave of FDI is giving more opportunities to modify existing vertical ties and to build more regional links. It is crucial here to encourage small and medium-sized firms to improve their networking capacities, their ability to specialise and diversify and to facilitate the emergence of intermediate integrators and service providers. Broker programmes such as the one developed in Denmark some years ago might facilitate the emergence of latent clusters of small firms.

Clustering indigenous local innovation potential and training local officials will help to decentralise public S&T policies and increase its efficiency.

Strengthening networks is generally part of a more general policy effort to favour the exchange of knowledge and the development of skill based activities. Such policies are aiming to facilitate the transition underway in the Korean economy towards a more innovation oriented and dis-integrated production system. For this purpose the central government is making significant efforts to expand its research budget at a rate exceeding national growth. The share of public investment in research in total R&D is nevertheless relatively limited (27%) and it is particularly important to increase the incentive value of government financing. Establishment of Regional Research Centres and favouring university/industry/public lab consortia have been a first step to activating technological platforms in regions and to correcting systemic market failures. Reconfiguration of

university research in line with government technological priority is also needed.

When policy-making frameworks are available, local and regional governments could more easily play their role of supporters of regional innovation systems. While R&D policy dates back to the 1980s, such frameworks have always been lacking in Korea. In 1999, the Ministry of Science and Technology bridged the gap and set up a five-year Comprehensive plan as well as a Committee for the promotion of regional science and technology. While this was a very positive step, it is now necessary to establish subgroups to come up with strategic plans to assess the strengths and weaknesses of each region and propose policy recommendations. By doing so, more balanced supports may be given to universities and firms, basic research and applied science, large and small innovative programmes. The balance should be modulated according to regional situations and development.

Strategic plan at regional level needs to be further implemented...

Increasing the sustainability of policies towards knowledge-based activities will also require a special effort in the field of vocational training so as to enhance competencies of the labour supply and to respond to enterprise demand and notably small firm demand. A new system was put in place in 1995 within the framework of the Employment Insurance System with encouraging results. Moreover the implementation of the *Vocational Training Promotion Act* in 1999 transformed the centralised system previously initiated by the government into one steered by the private sector. By opening training markets to the private sector, a foundation, which meets various training needs in the knowledge-based society, has been laid. The low participation of SME workers remains nevertheless a matter of concern notably in less developed regions. Emphasis on regional needs through appropriate support to local and regional organisations should be strengthened with more attention paid to regional disparities.

... and attention to local needs is critical notably for vocational training.

Whilst training is a good insurance against long-term unemployment risk, the impact of unexpected shocks needs also to be considered. In that regard, the 1997 crisis has brought a realisation that economic development cannot be socially sustainable without social policy measures. In Korea,

The current social goals should remain a medium to long term policy.

major social policies were launched at the end of the 1980s and the social safety net is still at its initial stage. It has, however, begun to move in a positive direction, having found new momentum with the extension of the coverage of the pension system, employment insurance and social safety. Unemployment measures mainly focused on public works and vocational training have also been introduced. Extensive social programmes designed after the crisis have inevitably increased the financial burden and it is often argued that further social expenditure will increase the public debt burden and further slow the economy. Though spending for the elderly is lower than in developed countries because the share of elderly people in the Korean population is also significantly lower, the proportion of social spending in GDP remains, however, well below OECD standards. Considering the territorial disparities, the current social goals set by the government should remain a medium to long-term policy goal. Urban poverty also deserves more attention and initiatives. Revitalisation of regional universities should be encouraged and more emphasis given to their specialisation in line with the economic needs and strengths of the regions where they are located.

As regional problems are seemingly varied, social policy measures need to be tailored at a sub-national level.

Current social welfare policy is formulated mainly by the central government and is principally supported by the national budget, while local governments are responsible for its implementation. Social disparities between the metropolitan areas and the provinces, as well as within urban areas, show that patterns of poverty and unemployment differ at territorial levels. So, as regional problems seem to be varying, policy measures should be tailored to sub-national level needs. Local governments are often better placed to identify social problems and to deliver appropriate welfare care in response to the demands of local communities. They could establish links among the different administrative agencies, health clinics, social welfare centres, and centres for the elderly and disabled. Local communities could also pay more attention to human capital via education and training. They should also work closely with NGOs and the private sector, which are important providers of welfare services. More opportunities need to be given to the local authorities for discussing and helping to formulate the national social policy to better address their needs.

Participation of subnational governments in policy-making has largely increased in this decade. With the thorough amendment of the *Local Autonomy Act* of 1988, the reconstitution of the Local Assemblies in 1990, and the transfer of responsibilities to the local level, Korea has undergone a remarkable decentralisation process. Today, the local level assumes around 25 per cent of total public functions. Given that a substantial amount of political fine-tuning is still done at the national level, more responsibilities, mainly in the area of physical infrastructure and economic development (technology diffusion, business promotion, etc.) should be undertaken by local governments. The central government in the future may find it suitable to give the pivotal role to the provinces in regional development. Further decentralisation is necessarily accompanied by the transfer of manpower and financial resources.

Korea has undergone a remarkable decentralisation process...

However, the attitude of the central government has not yet fully kept the pace with the strong decentralisation endeavour of the *Local Autonomy Act*. The relationship between the central administration and local governments is still largely “vertical”. Some effort should therefore be devoted to change the administrative culture accompanying the institutional reform. A better balance between local independence and the need for centrally defined policy implementation is advantageous for both sides. Co-operative procedures based on partnership where central government assumes a more strategic role should replace the current tight control. Inter-governmental groups or committees should be established to elaborate substantive policy recommendations on decentralisation, development policies, public-private partnerships and related areas. Both government levels may find it advantageous to base monitoring on the outcome and quality of public services rather than on procedural and legal prescriptions. They may set up common technical bodies well equipped for monitoring and evaluating local authorities’ performance, with a methodology decided in consensus.

... but a change towards a more partnership-based perspective is needed.

With increasing responsibilities, local governments, municipalities as well as provinces may find it advantageous to co-operate across administrative borders and establish functional regions. Voluntary associations based on functional grounds are an alternative to the amalgamation of

Horizontal collaboration and functional regions need to be encouraged.

urban and rural communities that took place in 1995 and proved to be delicate. In this respect, the framework that influences horizontal co-operation, particularly urban-rural partnerships in large metropolitan areas, should be aligned. This includes a critical review of intergovernmental transfers that should not create any disincentives for voluntary horizontal co-operation. The central government may introduce financial incentives to form functional regions comparable to practices in other OECD countries.

Some adaptations to the institutional framework of local finance should be reconsidered...

In order to increase financial flexibility of local governments, some adaptation should be considered both as regards the structure of vertical financial transfer and local taxation. Although local finance is increasing, many local governments in Korea rely heavily on inter-governmental transfers. Since almost two thirds of all intergovernmental transfers are earmarked and since the use of most earmarked grants is narrowly specified, local governments find it hard to adapt solutions to their needs. Korean local governments have access to institutionally well protected financial funds through the Local Share Tax, which is a fixed percentage of total national tax revenue. In the year 2000 the share rose from 13.5 to 15 per cent, in order to catch up with the increased responsibilities local governments have had to assume recently. Given the considerable regional disparities, fiscal equalisation through the Local Share Tax is important. However, the conditional part of tax sharing should be minimised and transparency should be enhanced by disclosing clearly the detailed criteria for allocation.

... and intergovernmental grants require reforms.

Intergovernmental grants help local governments to assume assigned responsibilities or tasks that are defined as national interest. This system, although providing local governments with sufficient financial resources, hampers local flexibility, perpetuates a culture of dependency and imposes high administrative burdens on central government. The government is now attempting to assemble the large amount of minor specific grants into more general, multi-purpose grants. This would not only allow local governments to opt for more efficient, tailor made and user friendly solutions mainly in the field of infrastructure, it

would also, given the reduced number of grants, reduce the administrative burden at the central level.

Taxes are clearly separated between different government levels, which avoids intergovernmental conflicts on tax sharing. Local taxation may however put some strain on local development. Since tax bases and rates are almost completely determined by central government, local authorities have difficulties in finding the appropriate funding level for development purposes. The local property tax, compared to that in other OECD countries, is very important relative to other local taxes and may create some distortions; it may even aggravate regional disparities. A more balanced and flexible tax structure would increase local autonomy.

In the 20th century, the population of the Korean peninsula increased by approximately 3.5 times and South Korea tripled its population in the Post-war period, inducing significant spatial and territorial transformations accompanied by profound societal changes against the backdrop of the miraculous economic growth. Massive immigration from rural to urban areas, namely into the Capital Region has continued. The post-war history of territorial development in Korea can be defined as the efforts to respond to these demographic changes physically, by developing infrastructure and industrial sites. Thus the Korean territory has been drastically transformed, urbanised and polarised. Due to the magnitude and the extremely short period of economic growth and urbanisation, territorial polarisation and regional gaps persist and non-physical aspects of the territorial policy have been relatively less developed. These non-physical aspects will be key issues in the near future as well as the new relationship between central and subnational levels. The territorial governance framework was fundamentally restructured in the last decade, the administration was democratised and local autonomy has been recovered. Upon these institutional settings, it is necessary to move onto the next phase of a new territorial challenge. Reorganisation of economic development strategies started to take into account the needs of the knowledge-based society. IT is a new factor significantly influencing territorial development. It may encourage revitalisation of

More freedom for local governments to set local tax rates or to introduce flexible mark ups (piggy backing) on national taxes, needs to be examined in the long term.

In sum, a holistic territorial challenge requires further elaboration of institutional arrangements.

rural areas but it could also accelerate re-concentration into Seoul. In the coming 20 years, population growth will be modest, though rapid ageing is expected, predominantly in rural areas. Declining trends in agriculture and fisheries will continue, all of which have considerable spatial implications for sustainable territorial management. Institutional arrangements need to be further elaborated to conceive a long-term territorial vision in the changing international political and economic situation, including cross-border development, social integration, industry re-conversion and the cost incurred to achieve territorial challenges. Partnerships between different levels of government need to be established, which are more transparent, effective, inter-active, and collaborative.

Chapter 1

Economic Development and Territorial Disparities

Korea is one of the countries that has achieved the most astonishing economic expansion over the last four decades. A very fast pace of growth has multiplied the GDP per capita by more than 100 since the early 1960s. At the beginning of the period, a huge investment effort and a development strategy based on import substitution were instrumental in nurturing the modernisation of the infrastructure and the wealth of firms. However, the economic takeoff really occurred when an outward-oriented policy aimed at increasing exports was adopted. While the Korean economy was severely hit by the oil crisis, emphasis on industrial policy and exports was maintained. The Heavy and Chemical Industry drive was supported by the government growth pole strategy and by the *chaebols* – the family-based conglomerates – and large enterprises, which account for a large share of the economy. Increase in the cost of labour and the subsequent erosion of Korea's export competitiveness triggered a change in policy at the beginning of the 1980s in favour of more value-added industries and R&D activities. Capital formation averaged 35 per cent of GDP during the 1988-1997 period, while growth was never below five per cent and double-digit expansion was quite common for industrial production. However, Korea was hit in 1997 by one of the most severe financial crises ever experienced by a Member country due to a number of structural weaknesses, including an excessively indebted corporate sector that stemmed from a close relationship between banks, corporations and the government. This led to almost seven per cent output fall and a tripling of the unemployment rate the following year. Thanks to supportive monetary and fiscal policies and the implementation of structural reforms, a wide range of indicators signalled improvement by the latter half of 1998 and the economy turned upward in 1999 with a surge of 10.7 per cent of the GDP.

The 1997 financial crisis has nevertheless resulted in widening disparities between regions, and the decrease of nominal wages has damaged households severely. Despite an increase of nominal wages to 11.4 per cent in 1999 (10.5% in real terms) and to an estimated eight per cent in 2000 (5.5% in real terms), urban poverty has become a visible social issue and income disparities remain wide in comparison with the situation that prevailed before the crisis. Moreover, despite

the continuous attempts to extend decentralisation and to strengthen regional development, the territorial structure of Korea remains characterised by overpopulation in the Seoul metropolitan area and its surrounding province, and by constant depopulation in the rural provinces. Regional disparities and the balanced development of the territory are a prime issue in the 21st century.

Geography, settlement and population

The peninsula of Korea, located in Far East Asia, is bounded on its northern border by China and partly by Russia. The total land mass of the peninsula is 221 000 km², almost the same size as the United Kingdom, while South Korea (hereafter Korea) takes up 45 per cent of the territory, or 99 000 km². Korea's rivers are of a high gradient and their seasonal water volumes vary so much as to render a stable supply of water difficult and as to create dangerous, periodic floods. Extensive plains have developed along the major rivers in the western and southern parts of the country and these provide excellent farmland. Some 65.7 per cent of the Korean territory is forest, 21.9 per cent is farmland, and 5.2 per cent is used for urban purposes (of which 2.2% is covered by buildings, 0.5% by factories, and 2.5% is used for various other purposes). Urban sprawl is considerable. In the period between 1983 and 1993, land for urban use increased at the rate of 100 km² a year. During the last ten years, more than 70 per cent of urban land derived from agricultural land. Space allocated to urbanised areas is expected to double or triple by 2020, with the consequent pressure on land value (Y.W. Kim, 1996).

Korea has an ethnically and culturally homogeneous population. Up to 99 per cent of the population is estimated to be "Korean", and to share a common language. At the end of 1998, the population in Korea was 46.99 million, about 0.8 per cent of the world population, with a density of 473 people per km², making it the third most densely populated country in the world and the most densely populated in the OECD. Korea has a relatively young population, as 20 to 26 per cent of the people are under 15 years old (depending upon the region). From the 17th to the late 19th century, the level of the population of the entire peninsula was relatively stationary, varying from seven to 10 million. In the last century, the population increased dramatically, passing from 17 million at the beginning of the century to almost 70 million in 1997 (Table 1). Population growth was so fast in the 1960s and 1970s that it became a real social problem. In order to stop demographic growth, the government set up national family planning programmes, encouraging contraception. As a result of such aggressive policies, the annual population growth was reduced from 2.4 per cent in 1970 to 0.9 per cent in the mid-1990s. The average fertility rate dropped to the current rate of 1.4 children per female and the birth rate dropped to 15.2 per thousand (National Statistical

Table 1. **Long-term demographic trend in Korean Peninsula**
Thousands

	Korean Peninsula	South	North
1900	17 082		
1920	18 972		
1940	23 547		
1944	25 120		
1945	25 918	17 892	8 026
1949		20 167	
1955		21 502	
1960		24 989	
1970		31 435	
1975	51 926	35 280	16 646
1985	59 903	40 806	19 097
1995	66 636	45 093	21 543
1997	68 554	45 717	22 837
2000		47 275	
2010		50 618	
2020		52 358	
2030		52 744	

Source: United Nations, National Statistical Office.

Office, 1997a and 2000a). The size of households diminished from an average of five people in 1975 to three in the mid-1990s (Table 2).

Administratively, Korea is divided into nine provinces (Gyeonggi-Do [called Gyeonggi], Gangwon-Do [called Gangwon], Chungcheongbuk-Do [called Chungbuk], Chungcheongnam-Do [called Chungnam], Jeollabuk-Do [called Jeonbuk], Jeollanam-Do [called Jeonnam], Gyeongsangbuk-Do [called Gyeongbuk], Gyeongsangnam-Do [called Gyeongnam] and Jeju-Do [called Jeju]) and seven metropolitan areas (Incheon, Gwangju, Busan, Seoul, Daegu, Daejeon, Ulsan) (Figure 1). Metropolitan areas are often geographically located within the provinces but do not belong to the administrative division. As the socio-economic impact of the metropolitan areas is much larger than that of their administrative unit, the current administrative division does not coincide with functional regions. For instance, Seoul is expanding over the green belt into the administrative province of Gyeonggi. In discussing the problem of overconcentration in Seoul, several definitions of the physical boundary of its area have been used. The smallest area, Seoul Metropolitan Area (SMA) refers to the administrative area of the Seoul Metropolitan Government, the area of 606 km² lying on the North and South banks of the Han River. A slightly larger area, the Seoul Metropolitan Region (SMR), consists of the jurisdictions of the Seoul metropolitan city, some parts of the Gyeonggi province and the city of Incheon, encompassing 16 local government units and covering around 2 035 km². The most extensive area, the Capital Region, covers the entire Gyeonggi province as well as Seoul and Incheon, a total area of 11 754 km².

Table 2. Evolution of households' size

	Total number (Thousands)	Households						Average number of people
		By number of persons in the household, %						
		1	2	3	4	5	6 and more	
Korea								
1975	6 648	4.2	8.3	12.3	16.1	18.3	40.7	5
1980	7 969	4.8	10.5	14.5	20.3	20.0	29.8	5
1985	9 571	6.9	12.3	16.5	25.3	19.4	19.6	4
1990	11 355	9.0	13.8	19.1	29.5	18.8	9.8	4
1995	12 958	12.7	16.9	20.3	31.7	12.9	5.5	3
1995								
Seoul	2 966	12.9	14.4	20.7	33.6	13.6	4.8	3
Busan	1 079	10.7	14.2	21.3	34.8	13.8	5.3	3
Daegu	703	11.8	15.0	21.1	33.7	13.0	5.3	3
Incheon	659	10.3	13.9	21.8	36.4	12.7	4.9	3
Gwangju	355	12.1	15.4	18.9	31.9	15.2	6.5	3
Daejeon	358	11.5	15.0	19.9	33.8	13.6	6.2	3
Ulsan	–	–	–	–	–	–	–	–
Gyeonggi	2 168	10.6	14.8	21.4	35.3	12.5	5.5	3
Gangwon	441	15.0	20.6	20.4	26.4	11.4	6.2	3
Chungbuk	408	13.2	20.3	19.6	27.6	12.4	6.9	3
Chungnam	514	12.9	22.8	19.2	24.8	12.7	7.6	3
Jeonbuk	557	14.1	20.9	18.1	25.8	13.8	7.2	3
Jeonnam	637	16.3	24.1	18.0	22.9	12.3	6.4	3
Gyeongbuk	825	15.9	23.0	19.3	25.7	10.9	5.2	3
Gyeongnam	1 142	13.8	17.9	19.9	31.8	11.7	4.9	3
Jeju	146	15.8	16.1	18.3	27.5	14.7	7.7	3

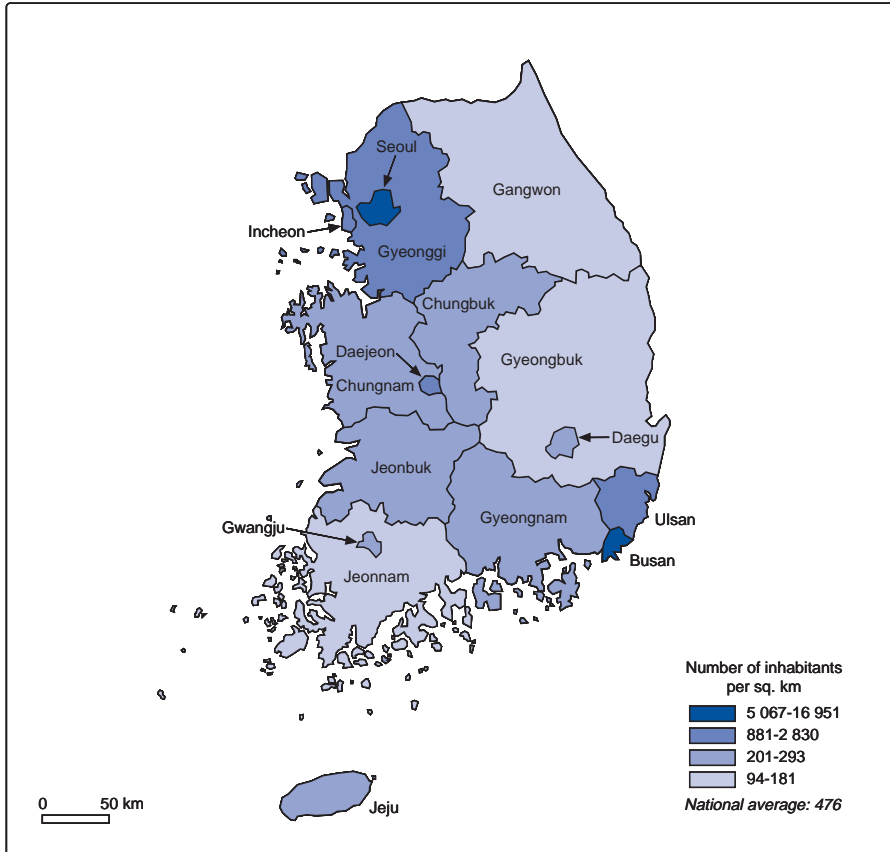
Source: National Statistical Office (1999b).

Considering the settlement structure, it is possible to discern one highly populated metropolitan area, Seoul (which contains 22% of the total population); six densely populated metropolitan areas; one densely populated province (19% of the total population live in Gyeonggi which surrounds the capital city); five moderately populated provinces; and three sparsely populated provinces (Figure 2). Recent trends show a decrease in the population growth of Seoul and other highly populated areas to the benefit of other suburban areas (in surrounding provinces). The migration rate for the period from 1995 to 2000 was in fact negative for Seoul (–20%) and Busan (–12%) but positive for seven provinces, particularly for Gyeonggi on the outskirts of Seoul.

Economic development phases and territorial implications

Since the Korean War at the beginning of the 1950s, Korea has made major economic achievements. However, its development pattern, accomplished in

Figure 1. Population distribution in Korea, 2000



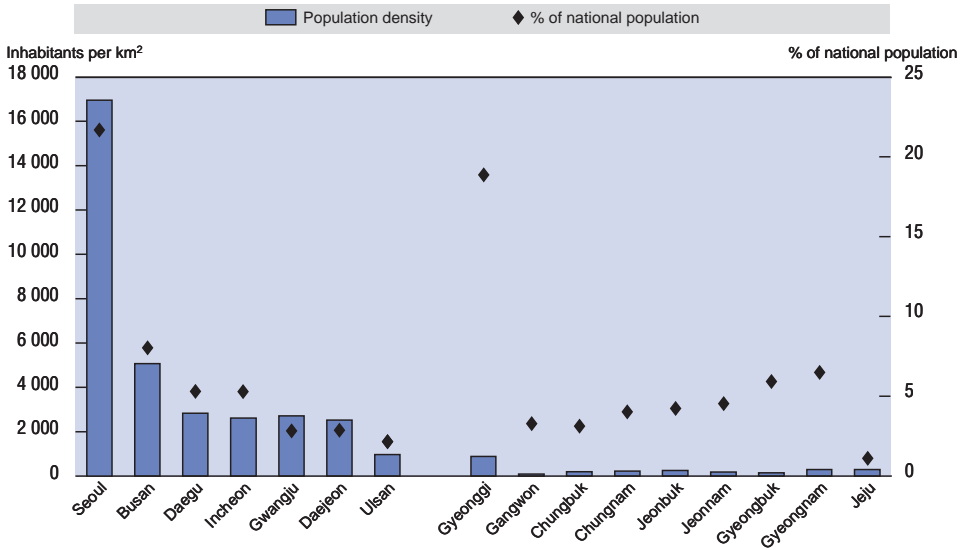
Source: OECD/TDS-TSI.

several phases, has produced marked territorial disparities and favoured income polarisation in some metropolitan areas.

From import substitution to export promotion (1953-1976)

The foundations of Korea's economic development were laid down in the years immediately following Korea's liberation after World War II.¹ At the end of the Korean War (1950-1953), per capita income was only one per cent of that in the OECD area. Infrastructures were almost completely destroyed and approximately four million North Koreans moved to urban areas in the South. Korean cities, lacking housing, services and proper infrastructures, were not prepared to cope with

Figure 2. Population by region



Source: OECD/TDS-TSI.

the rapid population growth, and slums proliferated. In the 1960s, one third of the households in Seoul were still living in precarious conditions. However, bigger cities such as Seoul, Busan, and Daegu took advantage of this situation and developed rapidly, benefiting from a consumer oriented economy and growing national and regional markets. At this stage, urban planning became necessary. It was introduced in 25 cities and its main focus was to develop housing and service facilities. At the same time, the government launched a radical agrarian reform in order to alleviate income inequalities, and it enhanced an industrial development strategy based on import substitution. In order to push economic growth, the government also invested heavily in infrastructure, *i.e.*, modernising ports and building new power plants.

In the early 1960s, the government redirected the Korean economic policy from priorities of economic stability and increasing industrialisation (to be achieved mainly through import substitution) to a broader development strategy that looked outward. The aim was to transform the aid-based economy that was inherited from the 1950s into an export-led manufacturing economy. The new objective of industrial policy was still import substitution of basic raw materials, including petroleum, fertilisers and cement, but also to develop textile, apparel, shoes, and plywood industries as export industries. Oil refining and cement industries

were located in port cities and in areas abundant in limestone, where procurement of raw materials was easy. Light, labour intensive industries were located mostly in larger cities, including Seoul, Busan, and Daegu, which were also important markets for their products. The growth in the manufacturing sector in many urban areas was sustained with an abundant supply of labour, migrating from rural regions. Thus, urbanisation and industrialisation fed one another. The strategy was successful and the industrial structure changed dramatically. The portion of the gross domestic product accounted for by agriculture and fish fell from 39.1 per cent in 1961 to 24.0 per cent in 1971, while the mining and manufacturing sectors grew from 15.5 per cent to 23.5 per cent.

Development of large-scale industrial policies (1973-79)

In the early 1970s, the Korean economy was shaken by the first energy crisis. The economic growth led by the expansion of an export-oriented light industry slowed down. However, the government prepared the first Comprehensive National Development Plan (1972-1981), focusing on intensification of transportation and the communication network, provision of water resources and energy, and development of large industrial bases.² The government targeted six sectors; steel, non-ferrous metal, machinery (including automobiles), shipbuilding, electronics and chemicals, as future core industries. Tax incentives and financial assistance were given to firms locating in designated zones. Large industrial complexes were constructed in the southeastern part of the country. Heavy and chemical industries (HCI) developed in the cities of Pohang, Changwon, Gyeongju, Yeosu and Gumi. Busan, the second largest city and gateway port to Japan and the Pacific in the southeast, specialised in light manufacturing. Daegu began a centre for textiles. This period was also marked by the development of the *chaebols*, or family enterprises, benefiting from state financial support, and which control Korea's major industrial, manufacturing and service sectors.

Towards a technology policy (1980-1992)

The HCI promotion policies of the 1970s gave rise to serious sectoral imbalances. In favouring HCI, the government indirectly caused a concentration of economic power in the *chaebols*. By 1997, production volumes and added value of 30 *chaebols* accounted for 40 per cent of total manufacturing. In the late 1970s, an increase in labour costs eroded part of the international competitiveness of Korean exports. For these reasons, Korea reoriented its industrial policies in the early 1980s, favouring technologically intensive industries and relying more on market mechanisms than on government intervention. In the mid-1980s, the development of the heavy and chemical industry was at its peak. The average rate of capital formation in the HCI sector was nearly twice as high during the HCI drive,

and the export of heavy industry surpassed that of light industry. However, in the late 1980s, the appreciation of the Korean currency (won) and the rise of wages drastically weakened the competitiveness of exports. The appreciation of the won affected mainly the low value-added and low priced, export-oriented industry. Other changes such as the rise in land prices, the increase in financial costs, and new trade barriers in international markets also adversely affected the competitiveness of Korean industries. Labour intensive industries, like footwear, toys, textiles and clothing, flocked to Southeast Asian countries. These factors forced Korean manufacturers to target more high value-added production. Industries became more capital intensive. The government, which favoured initiatives targeted at technology development and R&D activities, supported this transformation in the industrial structure. The shift in government policy led to a sharp increase of R&D expenditure levels in general and in the private sector in particular – from 32 per cent in 1971 to 80 per cent in 1987.

Globalisation and democratic reforms (1992-1996)

From 1990 the manufacturing sector began to decline in terms of employment but it continued to increase its share of the GDP. The service sector, which grew both in its share of GDP and of employment, became the leading sector for employment growth (M. Douglass, 2000). Over the same period, the electronics, automobile and semiconductor industries marked a similarly dramatic growth. In general, this period was one of important steps taken by Korea towards a freer economy and a more democratic society. The process of democratisation, which had already started by the mid-1980s, contributed to the discontent of the people, who were asking for better welfare policies and higher wages. They forced the government to alter the course of the path to “rapid growth at any cost”, to consider distributive issues over economic efficiency, and to tolerate labour unions.³ In its five-year economic plan for the period 1992-1996, the government reduced its tight control over the national economy, recognising that the growing complexity of factors and the process of political democratisation were rendering its guidance costly and less effective. Over the same period, Korea became an active member in multilateral trade negotiations and in the Uruguay Round, increasingly integrating with the world's economy. Further, Korea's industrial and trade policies were modified to be consistent with WTO directives. In December 1996, Korea joined the OECD, making a commitment to free market policies (M. Douglass, 2000). Open competition became the new byword in Korea's internal and external policies. This approach favoured the industrial restructuring process. Labour intensive industries tended to relocate abroad while the government encouraged foreign direct investment (FDI) by making bureaucratic procedures more transparent. However, despite the efforts made in promoting FDI, especially in high technology sectors, the level remained extremely low for a long time when compared to other industrialising countries in Asia.

The 1997 financial crisis and recovery

In the period from 1997 to 1999, Korea faced the worst economic crisis since the end of the Korean War. In November 1997, the rise of foreign debt (from 31.7 billion dollars in 1990 to 104.5 billion dollars in 1996) forced the Korean government to request a bailout from the International Monetary Fund (IMF). A few months later, the Korean currency was devalued by nearly half. The GDP decreased for the first time in 18 years, down 3.8 per cent in the first quarter of 1998. The GDP per capita, which had reached 11 380 dollars in 1996, dropped to 6 742 dollars. Manufacturing production dropped more than 13 per cent, and between October 1997 and April 1998, unemployment rose from 1.8 per cent to 6.7 per cent. The combination of high interest rates with the reluctance of banks to lend to entrepreneurs, especially to SMEs, caused a massive credit crunch and a severe recession. To cope with the problem, the government tried to increase its reserves of foreign currency, favouring direct foreign investment, through measures aimed at strengthening the rights of foreign shareholders, removing existing restrictions and permitting the sale of real estate to foreign investors. As startling as the economic recession was the rapidity of the recovery in 1999. The real GDP grew by almost 11 per cent in 1999, the fastest rate of growth since 1987. In absolute terms, growth in 1999 more than reversed the losses sustained, pushing the real GDP 3.3 per cent higher than its 1997 level.

Recent macroeconomic trends

Supportive fiscal and monetary policies implemented together with structural reforms in the private and public sectors and in the labour market as well as a favourable external environment contributed to a fast economic recovery from the 1997 crisis (OECD, 2000c). Growth reached a double digit pace due to a high domestic demand led by private consumption, and to increased exports as a consequence of the depreciation of the won. Currently, inflation remains remarkably low, down 0.8 per cent in 1999. Reserves of foreign currencies have increased, due to large current account surpluses, which totalled 65 billion dollars in 1998 and 1999, but also to a lesser extent, to large inflows of capital, mainly derived from foreign direct investments, which almost doubled between 1998 and 1999. Unemployment has been dramatically reduced from a peak of 8.5 per cent in early 1999 to around four per cent. According to the last OECD *Economic Survey of Korea*, this trend of growth should continue at least through 2000 at around nine per cent and is then projected to slow to around six per cent in 2001 (OECD, 2000a).

Despite this good economic performance, many challenges remain. From a territorial point of view, the crisis and the consequent economic recovery have deepened the spatial polarisation of income and wealth in the metropolitan areas, mainly in Seoul. Income inequalities have widened and poverty has risen,

particularly in urban cities. Urbanisation and urban sprawl trends continue, while rural areas face the problems that come with an ageing population. The undetermined costs of the economic co-operation with North Korea, of the increased social welfare, and of the financial sector restructuring are expected to raise the demand for government expenditure in the near future. This will inhibit the government's efforts to accelerate achieving a balanced budget and to limit the public debt (OECD, 2000a).

Indicators of territorial disparities

Output and income

Data on the regional GDP reflect a certain stability for the period of 1992 to 1997. The increase in the GDP of the Gyeonggi province compensates for the slight decrease in Seoul. The Gyeonggi province's growth illustrates spillover effects and suburban development as well as a reduction of the number of industries within the capital city (Table 3). This trend towards a decentralisation of production also characterises other major cities, including Busan, Daegu, Daejeon,

Table 3. **Regional gross domestic product**

	Regional shares in GDP Korea = 100		GDP per capita Korea = 100	
	1992	1997	1992	1997
Seoul	25	23	101	104
Busan	7	6	80	78
Daegu	4	4	74	68
Incheon	5	5	120	92
Gwangju	2	2	87	81
Daejeon	2	2	97	76
Ulsan	–	–	–	–
Gyeonggi	16		116	97
Gangwon	3	3	78	89
Chungbuk	3	4	96	113
Chungnam	4	4	83	114
Jeonbuk	4	4	75	86
Jeonnam	5	5	92	121
Gyeongbuk	7	7	103	113
Gyeongnam	12	12	142	187
Jeju	1	1	85	91
Minimum	1	1	74	68
Maximum	25	23	142	187
Maximum/Minimum	24	22	2	3

Source: OECD, National Statistical Office.

Incheon and Gwangju and their surrounding provinces. The Gangwon region has also benefited from the decentralisation process, while Chungnam's gain in the GDP share is based more on endogenous development.

The low GDP per capita of Seoul and the Capital Region, as compared to the nation as a whole, presents an unusual anomaly in relation to OECD countries, and it should be investigated further. Regional differences are relatively high. Statistics on income produced (GRDP) should not be read as "income received", for often profits and income streams produced by plants in provincial areas are largely transferred to corporate headquarters in Seoul. Evidence from tax collections, which show Seoul to be paying almost three times the per capita average for the nation, indicates that the GDP figures underestimate the level of income produced in and captured by Seoul. In fact, from the pre-crisis year of 1995 to the middle of the crisis year 1998, Seoul's tax ratio increased from 2.2 to 2.7 times the national average, suggesting again that Seoul weathered the crisis better than other regions in the country (M. Douglass, 2000; W.B. Kim, 2000). As shown in Table 4, the divergence in per capita income tax between cities and provinces widened over the period of 1995 to 1998. It would seem that the financial crisis has contributed to the widening income disparity between the cities and provinces of

Table 4. **Income tax per capita by region**
National = 100

	1995	1996	1997	1998
Seoul	218.6	220.8	234.9	267.0
Busan	95.3	94.8	89.4	80.5
Daegu	89.1	83.2	83.4	77.2
Incheon	66.1	85.4	58.3	47.0
Gwangju	78.9	70.5	76.3	73.0
Daejeon	72.0	71.6	68.5	61.7
Ulsan	–	–	–	–
Gyeonggi	62.6	56.6	60.4	50.3
Gangwon	47.6	48.0	50.0	44.6
Chungbuk	55.0	54.3	50.3	44.4
Chungnam	43.6	45.3	44.4	38.7
Jeonbuk	47.7	46.5	45.1	40.6
Jeonnam	30.6	38.1	32.1	27.5
Gyeongbuk	59.9	60.6	53.2	42.6
Gyeongnam	65.2	68.8	62.5	52.1
Jeju	63.0	63.9	63.1	63.7
Minimum	30.6	38.1	32.1	27.5
Maximum	218.6	220.8	34.9	267.0
Maximum/Minimum	7.1	5.8	7.3	9.7

Source: National Tax Service.

Korea. In 1998, Seoul's tax income per capita was 239.5 points higher than that of Jeonnam, which had the lowest rate, (compared on a nation base of 100).

Employment and unemployment

Until the 1997 crisis, the Korean labour market showed a rapid employment growth, an increasing participation rate and low unemployment. Over the previous three decades, the labour force had doubled, reflecting the increase in the working age population. The financial crisis led to massive lay-offs, mainly in the metropolitan areas of Busan, Seoul, Daegu, Incheon, Gwangju and Daejeon, where manufacturing industries were concentrated. With the exception of Gyeonggi, those provincial areas with a larger agricultural sector were less affected. Also, in 1996-1997 regional disparities in unemployment decreased and then stabilised, as shown by the evolution of the coefficient of variation in Table 5. This was due to the fact that all regions were hit by the crisis, and unemployment more than doubled everywhere in the country.

Table 5. **Regional unemployment disparities**

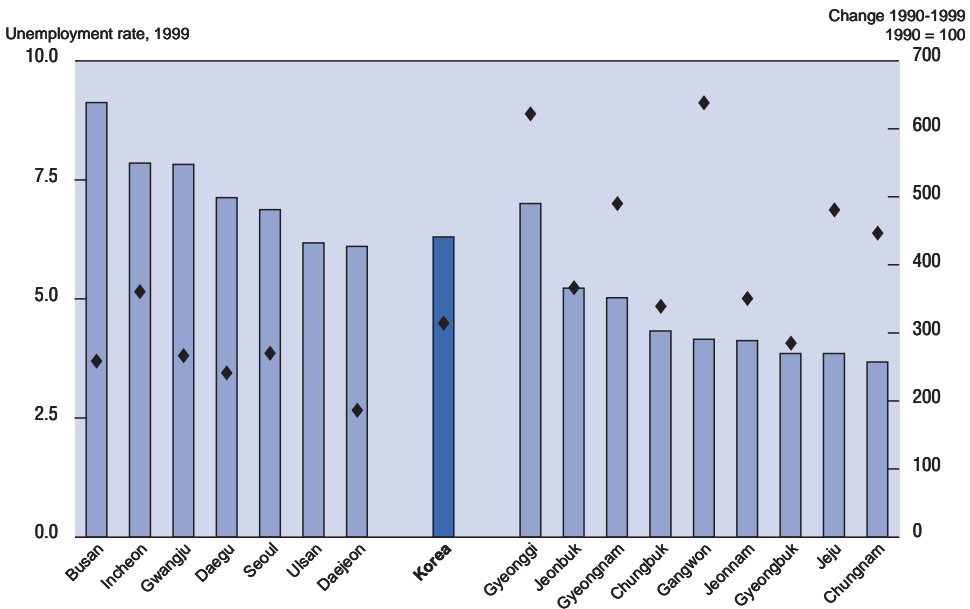
	Regional disparities indexes of unemployment					
	1995	1996	1997	1998	1999	2000
Average	1.8	1.7	2.3	5.9	5.7	4.1
Maximum	3.5	3.4	4.0	8.9	9.1	6.7
Minimum	0.8	0.6	0.7	3.2	3.7	2.5
Maximum/Minimum	4.4	6.2	5.5	2.7	2.5	2.7
Coefficient of variation	0.54	0.56	0.44	0.33	0.29	0.30
	Unemployment change, 1995-2000					
	1995-96	1996-97	1997-98	1998-99	1999-2000	
Seoul	-4.9	10.3	182.2	-8.9	-24.4	
Busan	-2.8	16.1	122.6	3.1	-27.1	
Daegu	11.9	18.2	103.8	-10.4	-33.3	
Incheon	11.5	42.3	141.3	-5.7	-28.7	
Gwangju	-6.0	12.7	150.0	1.0	-25.2	
Daejeon	-16.8	0.9	149.1	-10.9	-26.2	
Ulsan	-	-	-	-13.9	-39.3	
Gyeonggi	8.9	140.8	179.7	-15.2	-39.3	
Gangwon	-31.3	31.8	379.3	19.4	-32.5	
Chungbuk	-25.5	86.8	177.5	-12.2	-26.0	
Chungnam	-15.2	78.6	236.0	-12.5	-32.0	
Jeonbuk	14.0	61.5	104.8	-2.8	-35.9	
Jeonnam	-21.3	48.6	134.5	2 7.9	-22.4	
Gyeongbuk	-20.4	62.8	157.1	-14.4	-9.1	
Gyeongnam	26.8	28.8	189.6	3.6	-30.3	
Jeju	3.1	30.3	216.3	13.2	-27.3	

Source: OECD, National Statistical Office.

Soon after the financial crisis, the unemployment rate rose from 2.5 per cent in 1997 to 8.4 per cent in the first quarter of 1999, the highest level reached since the 1970s, while the participation rate dropped for the first time since 1985. Figure 3 shows that, except for Gyeonggi, metropolitan areas suffered higher unemployment rates than the rest of the country, with Busan having the highest.⁴ According to OECD estimates, national unemployment stands at 4.1 per cent in 2000.

In 1998, the Capital Region represented 45.3 per cent of total employment. The region of Jeju was in the last place (Table 6). With 66.3 per cent in 1998, Jeonnam had the highest activity rate but totalled only 1 019 thousand employed. Gwangju had the lowest rate with 54.2 per cent. Looking at types of jobs, it is possible to see that the number of high wage jobs (professionals, technical and administrative) has been increasing, despite the crisis. In 1999, the most labour intensive sector was the social overhead capital and services sector, which employed 13 906 thousand people. Then came the manufacturing sector with slightly more than four million. The agriculture, forestry and fishing sector was third with 2 349 thousand workers. Conversely, the number of unskilled and clerical jobs with low wages has been shrinking even after 1998. These figures may

Figure 3. Unemployment change in Korea



Source: OECD/TDS-TSI.

Table 6. **Regional employment, 1998**

	Activity rate	Number of employed	Percentage of total
Seoul	60.9	4 452	22.3
Busan	59.1	1 603	8.0
Daegu	57.5	1 018	5.1
Incheon	59.5	993	5.0
Gwangju	54.2	493	2.5
Daejeon	55.9	534	2.7
Ulsan	60.9	425	2.1
Gyeonggi	61.5	3 594	18.0
Gangwon	58.0	647	3.2
Chungbuk	60.3	638	3.2
Chungnam	63.5	868	4.3
Jeonbuk	58.7	825	4.1
Jeonnam	66.3	1 019	5.1
Gyeongbuk	65.2	1 330	6.7
Gyeongnam	60.4	1 305	6.5
Jeju	64.8	249	1.2
Korea	60.7	19 994	100.0

Source: OECD, National Statistical Office.

indicate the same kind of segmentation of the labour market observed in the European and American post-industrial economies. During the period from 1997 to 1998, the growth of employment mainly occurred in sectors related to general business and social services.

Poverty and social inequalities

Economic development has significantly improved the social situation, bringing to the people higher incomes, better health and educational skills. Yet performances differ among regions. The regional distribution of the poverty ratio shows a clear gap between rural and urban regions. For instance, agricultural areas such as Chungnam and Chungbuk had a quite high poverty rate (8 and 10% respectively) while metropolitan areas such as Seoul, Busan, Daegu and Incheon had a poverty rate lower than two per cent.⁵ This traditional urban vs. rural gap existed before the 1997 crisis, but the rural income had been catching up in the period 1970-1997 – the ratio of average rural/urban household income increased from 75.6 to 85.6 (National Statistical Office, 1999b).

Today, new concerns have emerged about urban poverty. The economic recession led to massive lay-offs and an upsurge of unemployment, which hit the most vulnerable in cities, those casual workers with low incomes who could not rely on unemployment or early retirement benefits. Though the poverty ratio remains high in rural areas, the percentage of urban households below the poverty line rose from 3.5

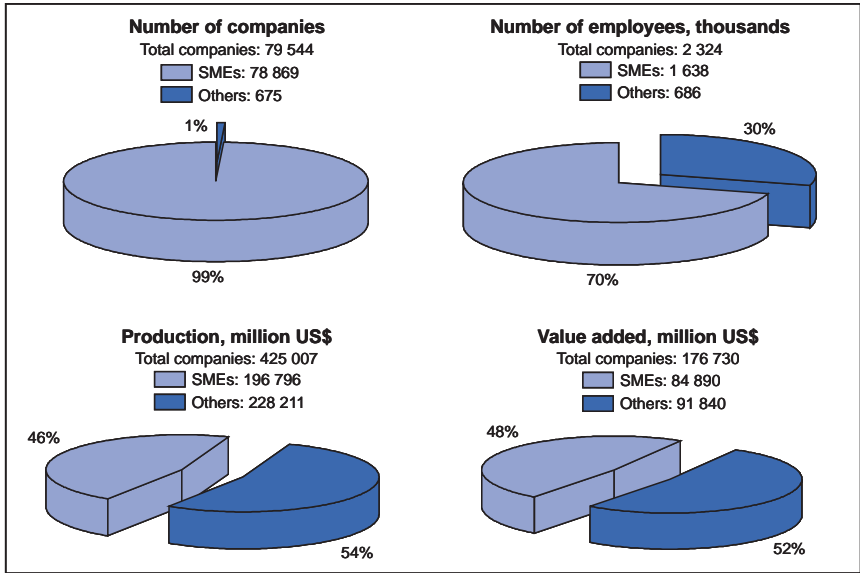
in the first quarter of 1997 to between eight and 12 per cent in 1999, depending on the source. Besides this rise of urban poverty, income disparities have also widened over the past three years, partly due to the increasing share of financial income in household income. While the average income of the poorest 20 per cent of households has declined, that of the richest has increased in the same proportion – about eight per cent. In urban areas, the average income of workers in the top quintile (20%) is nine times greater than that of the lower quintiles. But the recovery from the crisis did not occur for all the income levels. In 1999, the average income for the wealthiest 20 per cent exceeded the 1997 level, while the lowest income quintile only recovered 84 per cent of their previous income. Inequality is also increasing between the middle and the upper quintiles. In 1999, the Gini coefficient, an indicator of absolute income inequality, stood at 0.32, the highest level since 1979. Compared to the United States (0.408), Japan (0.34), or France (0.327), Korea stands in a good position, but the growing social disparity contrasts with the former image of the country as a relatively egalitarian society.

Entrepreneurship, foreign direct investment and R&D

Large enterprises have a primary role in Korean industrialisation. Nevertheless, SMEs have been gradually encouraged, especially through the development of the technology-based industry (in the 1980s), and of the knowledge-based industry (in the 1990s). In Korea, a small or medium enterprise (SME) is a company that employs fewer than 300 people and the assets of which amount to less than USD 60 million.⁶ The number of SMEs represents 99.1 per cent of the Korean manufacturing sector, 69 per cent of total employment, but less than half of the total production and value added (Figure 4). Data on the size of enterprises are available only for the mining and manufacturing industries, where most of the enterprises employ between five and 49 workers.

In 1998, there were 180 816 business establishments in Korea (2 823 fewer than in 1997, before the crisis). The manufacturing sector comprised 62 641 establishments (7 000 fewer, compared to 1997), the wholesale and retail trade sector, 34 313, and the business sector had 25 769. The regional breakdown of the figures on enterprises shows that Seoul had, by far, the most establishments (61 964) in 1998, followed by Gyeonggi (28 971), Busan (14 107) and Incheon (10 504) (Table 7). The Capital Region alone contained 101 439 firms (56.1% of the total). After the 1997 crisis, the number of establishments declined in the most industrialised regions including Seoul, Gyeonggi, Busan and Chungnam. Paradoxically, the financial and insurance services sectors were spared a parallel loss in the period from 1997 to 1998. Their numbers even increased in 1998 (with the exception of Chungnam). The number of firms in the construction sector also increased, while the number of agricultural industries decreased in the 1996 to 1998 period; in the Seoul area it dropped from 137 to 53.

Figure 4. Small and medium manufacturing enterprises, 1998



Source: Small and Medium Business Administration.

Korea's economic success was built on the growth of indigenous enterprises, which were protected by a wall of regulations inhibiting and prohibiting direct foreign ownership of enterprises. However, foreign direct investment (FDI) became more important in the last decade, especially after the crisis. In fact, the 1997 crisis marked the real turning point in FDI as it increased by 27 per cent in 1998 (to 8.9 billion dollars) and by 74 per cent in 1999 (to 15.5 billion dollars) and reached 15.7 billion dollars in 2000. In the mid-1980s, FDI was mostly concentrated in the region of Seoul, which received 65.2 per cent. In the 1990s, the repartition of FDI was more balanced even though disparities remained. Seoul remains, by far, the most attractive region for investment. In 1999, the capital city alone received 40.3 per cent of FDI, and, in combination with Gyeongbuk and Gyeonggi, accounted for more than 70 per cent (Figure 5). The remaining 13 regions received less than one third of Korea's FDI. Of these, some regions had almost none. Busan, for example, received only 2.1 per cent of FDI in 1999. Daegu had an even lower rate, 0.1 per cent of FDI in 1999, with an average of one per cent since 1980. Other regions have experienced extreme fluctuations concerning their share of FDI. Jeju, for example, had no FDI in 1990 and 1996, but attracted 28.8 per cent in 1997.

Table 7. Number of establishments by industry and by region, 1998

	Total all sectors	Agriculture		Industry				Services				
		Agriculture, hunting and forestry	Fishing	Mining	Manufacturing	Electricity, gas and water supply	Construction	Wholesale, retail trade	Hotels, restaurants	Transport, communication	Financial resources	Real estate, renting, business activities
Seoul	61 964	53	15	40	14 838	89	6 940	17 438	2 668	3 322	4 442	12 119
Busan	14 107	9	156	5	5 482	22	1 304	2 757	404	1 175	1 108	1 685
Daegu	7 474	10	1	14	3 332	21	591	1 272	58	375	807	993
Incheon	10 504	11	6	27	5 534	16	947	1 364	253	595	693	1 058
Gwangju	3 435	9	0	4	686	15	716	660	87	214	442	602
Daejeon	3 065	1	0	4	610	11	447	703	55	210	403	621
Ulsan	3 111	3	0	9	1 024	10	415	454	33	256	346	561
Gyeonggi	28 971	111	1	75	15 676	83	2 525	3 429	529	1 069	2 056	3 417
Gangwon	4 615	22	31	105	766	37	901	872	224	419	679	559
Chungbuk	4 727	24	0	60	1 786	20	733	542	91	342	560	569
Chungnam	5 411	78	2	58	2 056	42	761	604	118	420	709	563
Jeonbuk	6 517	77	280	45	1 676	32	1 136	1 050	170	488	871	692
Jeonnam	4 971	46	203	54	1 096	42	988	613	44	612	798	475
Gyeongbuk	9 849	76	5	90	3 392	51	2 619	1 003	208	595	1 027	783
Gyeongnam	10 401	60	57	53	4 532	46	1 420	1 319	141	683	1 203	887
Jeju	1 694	11	173	5	155	9	377	233	104	184	258	185
Korea	180 816	601	930	648	62 641	546	22 820	34 313	5 187	10 959	16 402	25 769

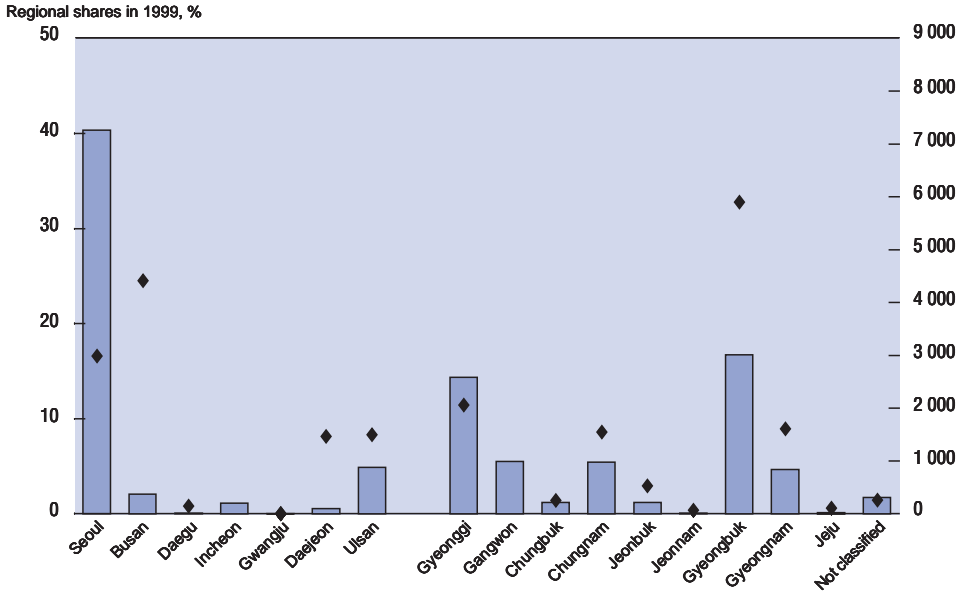
Note: Excluding the establishments that employ fewer than five people. Total all sectors excludes establishments such as education, health, social work, etc.

Source: National Statistical Office (1999a).

Enhancing R&D (research and development) has been a continuous priority in Korea for the last decade. In 1975, R&D expenditure amounted to only 0.54 per cent of the GNP and totalled 55 393 million won. In 1997, it reached 2.9 per cent of the GNP (12 185 807 million won). The number of researchers also increased significantly. In 1997 they were 138 438, ten times more than in 1975. If R&D play a prominent role in Korea in line with the technology-based orientation of the country, the private sector is now the main actor in the field. While in 1975, public expenditure for R&D was about 2.85 times more important than the private one, the situation has reversed and private expenditure for research is now more than three times superior to public R&D expenditure.

The territorial distribution of R&D investment is very unbalanced. In 1997, approximately 60 per cent were directed to the Capital Region (Table 8). However,

Figure 5. Foreign direct investment by region



Source: National Statistical Office, Ministry of Commerce, Industry and Energy.

it is curious to note that Seoul, with 19.6 per cent of total expenditure, (2 394 074 million won) ranked only second. Gyeonggi came first, with 34.1 per cent (12 185 807 million won). Daejeon also attracted an important amount of R&D expenditure (15.5 per cent of the total). Gyeonggi, Seoul and Daejeon together accounted for about 70 per cent of total R&D expenditure. The rest is divided between the other 13 regions. Of these, Jeonnam and Gangwon accounted each for less than one per cent of the total amount, and Jeju had the smallest share with only 0.1 per cent.

As far as the number of researchers by region is concerned, results are quite similar to those for R&D expenditure. In 1997, Gyeonggi had the most important concentration of researchers, 25 per cent of the total (or 53 054). Seoul, the capital city contained 24.9 per cent (only 299 less). Daejeon was third, with 11.7 per cent. The remaining 39 per cent of researchers were more evenly divided between the other regions than were the R&D expenditures. Jeju ranked last with 0.3 per cent (739 researchers). Finally, it is interesting to point out that most of the researchers in Gyeonggi were in the private sector while the majority of those in Seoul were associated with universities and colleges or research institutes. This might explain the R&D expenditure gap between the two cities.

Table 8. **Regional breakdown of R&D expenditures and researchers**

	R&D expenditures % of total national	Researchers % of total national
Seoul	19.6	24.9
Busan	1.6	4.7
Daegu	1.2	2.5
Incheon	5.3	4.7
Gwangju	1.1	2.1
Daejeon	15.5	11.7
Ulsan	3.4	2.0
Gyeonggi	34.1	25.0
Gangwon	0.8	2.1
Chungbuk	2.4	2.7
Chungnam	2.2	2.6
Jeonbuk	1.5	2.8
Jeonnam	0.9	1.3
Gyeongbuk	5.5	5.5
Gyeongnam	4.7	5.0
Jeju	0.1	0.3
Korea	100.0	100.0

Source: Ministry of Science and Technology.

Structural mix and regional performances

The manufacturing sector (which represented 31.8% of GDP in 1999) ranked first in 12 regions out of 15 in terms of GDP in 1995 and in 11 regions in 1997. The only exceptions were Seoul, with a very strong finance and business sector, and Jeonnam and Jeju, both with a prevailing primary sector (National Statistical Office, 1999a). Table 9 shows the regional percentages in value added by sector as well as the breakdown of regional GDP concerning agriculture, industry and services in 1997. Seoul had 32.2 per cent of national value added for services, followed by Gyeonggi (14.3) and Busan (7.9%). As for industry, Gyeonggi and Gyeongnam had respectively 27.4 and 21.2 per cent of the national value added. Except for Incheon and Ulsan, all metropolitan regions had a large share of services in their regional GDP, well above the national average. Generally, lagging regions have a high share of agriculture in their regional GDP. This is the case in central and southwestern regions such as Jeju (where agriculture accounts for 24.1% of the gross regional domestic product), Jeonnam (17.5%), Chungnam (14.4%) and Jeonbuk (14.1%). Some of these regions also provide the biggest part of the national agricultural value added, since Jeonnam accounts for 17.5 per cent and Chungnam for 12.1 per cent. Employment in agriculture and related activities is dominant in Jeonnam (42%) and Chungnam (40%) (Table 10) (National Statistical Office, 1999a). However, the more developed regions of Gyeongbuk and Gyeongnam

Table 9. **Regional gross domestic product by main economic sectors, 1997**

	Sectoral breakdown of regional GDP Regional GDP = 100			Regional shares in national GDP Value added by main economic sector National GDP = 100		
	Agriculture	Industry	Services	Agriculture	Industry	Services
Seoul	0.6	9.3	90.1	2.5	6.8	32.2
Busan	3.4	18.5	78.2	4.1	3.8	7.9
Daegu	0.9	23.6	75.5	0.6	2.8	4.4
Incheon	1.3	46.3	52.4	1.2	7.3	4.0
Gwangju	2.2	23.3	74.5	0.9	1.7	2.7
Daejeon	0.8	21.2	77.9	0.3	1.5	2.8
Ulsan
Gyeonggi	2.9	47.0	50.1	9.8	27.4	14.3
Gangwon	9.1	17.3	73.5	4.9	1.6	3.3
Chungbuk	8.1	41.7	50.2	5.4	4.7	2.8
Chungnam	14.4	28.9	56.8	12.1	4.2	4.0
Jeonbuk	14.1	27.8	58.1	9.4	3.2	3.3
Jeonnam	17.5	30.4	52.1	17.5	5.2	4.4
Gyeongbuk	11.6	39.5	48.9	14.5	8.5	5.1
Gyeongnam	5.4	54.8	39.7	12.1	21.2	7.5
Jeju	24.1	3.7	72.2	4.6	0.1	1.2
Korea	5.4	31.2	63.5	100.0	100.0	100.0

Source: OECD, National Statistical Office.

 Table 10. **Regional employment by main economic sectors, 1998**

	Regional employment	Agriculture %	Industry %	Services %
Seoul	4 452	0	19	81
Busan	1 603	2	23	74
Daegu	1 018	3	25	72
Incheon	993	1	32	67
Gwangju	493	6	13	80
Daejeon	534	3	14	83
Ulsan	425	4	40	57
Gyeonggi	3 594	7	24	70
Gangwon	647	22	9	69
Chungbuk	638	27	18	55
Chungnam	868	40	13	47
Jeonbuk	825	28	11	60
Jeonnam	1 019	42	9	49
Gyeongbuk	1 330	34	16	50
Gyeongnam	1 305	18	22	61
Jeju	249	31	4	66
Korea	19 994	12	20	68

Source: National Statistical Office.

also have an important share of the national value added for agriculture (respectively 14.5 and 12.1%) as well as of people employed in agriculture (respectively 34 and 18%).

Although the regional structural mix is not the only factor explaining the differing impacts of the crisis on regional industrial production, it should be considered as an important variable. Cities and provinces that specialise in traditional manufacturing such as food, processing textiles and apparel, and heavy industries have been severely hit by the crisis. For example, the industrial production of Incheon declined by 26 per cent in 1998, and that of Daegu by 18.4 per cent. Higher rates of unemployment are found in those cities and provinces that had the larger share of their employment in the construction, traditional services and manufacturing sectors, such as Busan and Daegu. These cities are, in a sense, paying for having failed at industrial restructuring, the need for which was already apparent in the latter half of the 1980s, when rising wages started to erode Korea's comparative advantage in labour intensive manufacturing. After 1998, the non-traditional manufacturing sectors have recovered well. Korean electronics, computer, telecommunication and transport firms more than doubled their production between 1998 and 1999. The high share of non-traditional manufacturing seems to have contributed to the fast recovery of the provincial economies of Gyeonggi, Chungbuk, Gyeongbuk and Chungnam (W.B. Kim, 2000). After an initial trauma, Seoul, including its surrounding areas in Gyeonggi, was able to rebound more rapidly and successfully than other regions. One reason for this success was that, as the crisis hit the *chaebols*, retrenchment took the form of cutting orders from subcontractors, many of which were in outlying areas in Gyeonggi and other provinces. Bailouts, mergers and acquisitions occurring on a major scale in the wake of the crisis also tended to favour corporate operations and sectors in Seoul.

Infrastructure distribution

Infrastructure constitutes one of the key elements necessary to support economic growth and development. The distribution of infrastructure in Korea shows noticeable disparities between well equipped regions such as Seoul or Gyeonggi and the more deprived rural regions although some factors including targeted population, surface areas and other related indicators should be taken into account when discussing disparity of infrastructures. In Korea, 90 per cent of the total transport volume and 72 per cent of commercial freight is done by road. The regions belonging to the Seoul-Busan corridor, alongside the Gyeongbu-motorway [which is the longest (428 km) and largest, eight-lane motorway of Korea], have the better road system compared to provincial regions such as Gangwon, Chungbuk, Jeonbuk, Gyeongbuk and Gyeongnam. The huge investment made in the past decades has significantly reduced the regional gap. Nevertheless, the road pave-

Table 11. Distribution of medical facilities by region

Seoul	4 633
Busan	1 559
Daegu	1 043
Incheon	921
Gwangju	580
Daejeon	659
Ulsan	373
Gyeonggi	3 066
Gangwon	488
Chungbuk	536
Chungnam	635
Jeonbuk	784
Jeonnam	652
Gyeongbuk	751
Gyeongnam	948
Jeju	185
Korea	17 813

Source: Ministry of Health and Welfare (1999).

ment rates in rural provinces remain relatively low.⁷ There are 16 airports in operation, but most of the international passengers and cargo are dealt with at the Gimpo International Airport in Seoul and Busan International Airport in the same strategic area. However, five new airports currently under construction are located in rural provinces, with the exception of Incheon.

Social and cultural infrastructures are also mostly located in the Seoul-Busan corridor area which captures 58.6 per cent of kindergartens, 53 per cent of elementary schools, 63.4 per cent of sports facilities, 60.0 per cent of cultural facilities, 51.9 per cent of social welfare facilities and 64.5 per cent of medical facilities. Here again, Gwangju, Ulsan, Gangwon, Jeonbuk and Jeonnam together have only 16.1 per cent of the total medical facilities and 19.8 per cent of the social welfare facilities (Ministry of Health and Welfare, 1999) (Table 11).

Since the government prioritises industrial infrastructure exclusively at the initial stage of economic development, other infrastructure facilities, such as water services, sewerage, etc., have been neglected and the gap between rural and urban areas is distinct. For instance, the public water service ratio, which totalled 85.2 per cent in 1998, reached 100 per cent in Seoul and above 90 per cent in other metropolitan regions (except for Ulsan), while it is less than 80 per cent in all rural regions except for Gyeonggi. The regional gap is larger for sewerage, ranging from 98.6 per cent in Seoul to 10.9 per cent in Jeonnam (Table 12).

Table 12. **Distribution of water and sewage by region, 1998**

	Water supply ratio %	Sewage supply ratio %
Seoul	100.0	98.6
Busan	97.9	69.3
Daegu	98.9	90.6
Incheon	96.1	85.5
Gwangju	94.8	94.1
Daejeon	93.8	90.1
Ulsan	84.3	19.4
Gyeonggi	85.9	70.4
Gangwon	77.9	36.6
Chungbuk	68.1	59.2
Chungnam	49.0	22.8
Jeonbuk	70.4	34.8
Jeonnam	54.1	10.9
Gyeongbuk	66.2	38.8
Gyeongnam	71.1	25.0
Jeju	100.0	61.7
Korea	85.2	65.9

Source: Ministry of Environment (1998).

Disparities in the level of information technologies are also wide. The general information technology index, a private institute index which takes into account the level of computer use, Internet use, the proportion of information technology related budget, etc., is the lowest in Gwangju and Jeonnam (only 55.82, compared to a national average of 100 and 169.47 in Seoul), followed by Daejeon, Chungnam, Daegu and Gyeongbuk (Hyundai Research Institute, 1999).

The challenge to reduce territorial disparities

Rural regions

After the Korean War, the Korean government undertook several reforms concerning both rural and urban sectors of the economy.⁸ On the rural side, a radical land-to-the-tiller agrarian reform was promulgated immediately after the end of the War. In the 1970s, the government also launched a massive green revolution programme and a village modernisation programme by installing tile roofs on houses, village roads and other infrastructure such as water wells and electricity. However, this twofold rural development strategy had no urban links. Farmers became both more efficient and more narrowly specialised through subsidies for grain production and as a result remunerative non-farm activities failed to materialise in rural regions. Despite all the government's efforts to support agricultural

Table 13. **Elderly population**

	% of population aged 65 and more on total population						
	1960	1970	1980	1990	1995	2000	2020
Whole country	2.9	3.1	3.8	5.1	6.8	7.1	13.2
Urban areas	2.5	2.1	2.6	3.6	4.4		
Rural areas	4.2	4.2	5.6	9.0	11.9		
Farm population	4.7	4.9	6.7	11.5	16.1		

Source: D.S. Park (1999).

income through various policies, including a price-supporting policy and privileged financial conditions, income disparity between the agricultural and manufacturing sectors still persists. Further, the decline in the national population growth over the past three decades and the high rates of out-migration of the young population from rural to urban areas (which offer more job opportunities) have caused a dramatic drop in the rural population figures to the current level of nine per cent (National Statistical Office, 2000b). The proportion of elderly people in rural and farming areas (respectively 11.9% and 16.1%) is very high, compared to urban areas and to the country as a whole (respectively 4.4% and 6.8%) (Table 13).

The urban population is enjoying an outstandingly higher standard of living than is the rural population with respect to various indicators, such as the level of income and the distribution of health facilities. However, regional disparities are not significant regarding the fertility rate, which tends to show that population growth in urban areas is mainly due to inter-regional migrations rather than to a greater number of births.

Urbanisation and economic development

In the 1960s, the majority of the Korean population resided in rural areas and was devoted to agricultural activities. In the process of industrialisation, the farming and fishing villages that formed the backbone of agriculture, fishery and forestry industries in the 1960s and 1970s declined rapidly, whereas selective key industries were concentrated in major cities and their surroundings, where companies could benefit from the existing infrastructures. This trend entailed massive internal migrations from rural areas to new urban areas (that offered more attractive jobs in big industrial plants). As a consequence, the urban population increased from 35 per cent in 1960 to 75 per cent in 1987. These migrations were directed mainly toward Seoul and the other industrial cities, like Busan and Ulsan, located on the southeastern coast, forming what is called the “Gyeongbu corridor” which links the capital city to the highly industrialised coastal area (Table 14). Basic indicators, such as level of income and distribution of health facilities, outline better standards of living in

Table 14. Net population influx into urban areas

	Seoul	Busan	Daegu	Incheon	Gwangju	Daejeon	Ulsan
1982	131 579	13 522	31 188	10 008	0	0	0
1983	128 228	5 826	24 418	27 934	0	0	0
1984	131 506	20 431	27 260	45 811	0	0	0
1985	29 976	11 161	20 302	42 062	0	0	0
1986	-6 058	30 506	19 669	30 826	15 721	0	0
1987	84 399	31 129	20 683	45 184	7 381	0	0
1988	188 556	23 225	21 072	46 964	22 890	0	0
1989	109 644	6 658	22 640	66 414	29 175	26 179	0
1990	-90 992	-35 860	1 477	116 685	28 477	33 483	0
1991	-36 879	35 548	2 484	80 398	36 037	36 815	0
1992	-104 884	-51 995	676	59 381	21 537	24 130	0
1993	-182 632	-58 925	177	39 663	8 381	38 030	0
1994	-238 497	-57 475	6 935	88 881	10 164	30 484	0
1995	-321 898	-54 909	-3 279	18 556	-4 021	17 750	0
1996	211 898	-47 245	-21 740	12 338	90	14 918	0
1997	-178 319	44 437	-14 527	27 040	7 525	9 594	3 838
1998	134 013	-40 921	-11 838	20 811	2 513	12 093	-5 588
1999	-81 122	33 357	6 867	1 810	2 853	9 609	-1 900

Source: National Statistical Office.

urban areas compared to rural areas. Again, the fertility rate shows that population growth in urban areas is due to inter-regional migrations.

The strategy undertaken in the early stage of the Korean economic development focused first on promoting import-substituting manufacturing industries, and then moved on to the export of labour intensive, standardised products. The majority of plants and other facilities were located mainly in the bigger cities or their surroundings so that industries could exploit agglomeration effects. This unbalanced growth strategy dominated the industrial and spatial policies of Korea throughout the 1960s and 1970s. For instance, duty free, export, industrial estates settled in the vicinity of Seoul, at Gurodong and Bupyeong, opening the door to import-substituting light industries. Another major industrial estate was established in Ulsan, which became the location of the Hyundai industrial complex. Industrial estates located in the vicinity of Busan attracted a large number of light manufacturing industries, including those of shoes and textiles. This then increased the demand for housing, office space and public facilities, further enhancing the growth of urban areas.

Gyeongbu (Seoul-Busan) corridor

The Seoul Metropolitan Area and the Southeast Region have been the major recipients of the large influx of the labour force and population. Between 1966

and 1990, the population growth in Seoul and Busan accounted for nine million, 64.3 per cent, of the total population growth in Korea. The population share of the two cities compared to the national total grew from 17.9 per cent in 1966 to 33 per cent in 1990. Some factors may explain this concentration. Firstly, Seoul is the capital city of Korea where key functions of the government and private sectors are concentrated. Secondly, Korea's natural gateway to the world economy was the southeastern coastal area; namely Busan, which is the main port of traded goods with the United States and Japan, and Korea's largest partners in export and import.

Heavy industrialisation in the northwestern and southeastern regions generated monostructural industrial complexes, such as in the cities of Ansan (south of Seoul, specialised in steel) or Daegu (north of Busan, specialised in textile and electronics). For this reason, when traditional manufacturing sectors were hit by the 1997 crisis, regional economic performances were directly affected. For instance, the economic growth rate of Incheon, where mining and manufacturing account for 47.8 per cent of the regional production, dropped to a mere 2.3 per cent in 1997 (having been 12% in 1995) (National Statistical Office, 1999c). Today, these areas are lagging behind, but there has been some change. After the crisis, the process of moving economic activities to the suburbs of cities, causing population flows towards urban and semi-urban fringes surrounding big cities, shifted dynamic growth patterns from the above mentioned regions to the provinces located on the Seoul-Busan diagonal corridor. They include Gyeonggi, where industrial production increased by 147.6 per cent in the period from 1995 to 2000, Chungbuk (134.8%), Chungnam (83.1%) and Gyeongbuk (63.9%). These four regions together employed 32.1 per cent of the total working population in 1998, and attracted 37.7 per cent of foreign investment in 1999, nearly as much as Seoul, which received 40.3 per cent.

As a consequence of the 1997 crisis, which entailed a considerable change in the industrial structure of Korea, the weight of the services sector has increased by an average three per cent since 1997 to account for about 60 per cent in nominal GDP in 1999. This growth at the national level was driven by similar changes in the regional structural mix. Services (including finance, insurance, real estate and business services, as well as government and community non-profit services) accounted for a growing part of the regional domestic product of many areas, along with information technology industries, which have expanded rapidly over the past three years. It seems that the regions oriented towards the traditional manufacturing sectors have converted more easily to these new technology industries and have taken the leading place in the re-organisation of the Korean structural mix. There are indications that the economic recovery is reasserting patterns of uneven spatial development favouring Seoul and its surrounding province.

Since 1980, the population of eight provincial capitals has been increasing more rapidly than the population of the two largest cities, Seoul and Busan.

Between 1990 and 1995, the populations of Seoul and Busan decreased in favour of their peripheries. Manufacturing industries followed the same trend. The share of Seoul's manufacturing employment within its region decreased from 31 per cent in 1975 to 20 per cent in 1984, while its surroundings had a rapid growth (for example, Gyeonggi went from 18 to 29%). Similarly, within the Southeast Region, Busan's share of the national manufacturing employment decreased from 18 per cent in 1975 to 15 per cent in 1984, while the share of Gyeongbuk and Gyeongnam increased from 20 per cent to 25 per cent. This trend is different in the other regions, where manufacturing employment continually decreased throughout the 1970s and 1980s. For example, in the central regions (Chungbuk and Chungnam) manufacturing employment decreased from eight to six per cent and in the Southwest Region (Jeonbuk and Jeonnam), from 11 to five per cent.

Korea is experiencing a transition from a manufacture-based economy to a service-based economy. Except for Seoul, which seems to be successful in this transformation, all major cities seem to have suffered from the failure to upgrade their industrial structures, including Busan, Daegu and, to a lesser extent, Daejeon (W.B. Kim, 2000). For instance, Busan, which had served as one of the major sub-contractor regions for foreign corporations such as Nike shoes and which had been heavily reliant on the garment industry, fell into a structural crisis (M. Douglass, 2000). De-industrialisation has also had an impact on medium-sized cities, mostly in the southeast.

Furthermore, preliminary evidence shows that economic liberalisation and global competition benefit more concertedly the Capital Region while other regions struggle to find new economic bases for their future growth (W.B. Kim, 2000). As an example, very large shares of the new wave of foreign direct investment have been directed to Gyeonggi in the Capital Region, which captured USD two billion in FDI in 1999. At the same time, as the Korean economy is undergoing structural changes, labour intensive manufacturing in traditional economic sectors is rapidly giving way to new leading sectors such as transport, telecommunication, and computer industries. This shift from older sectors of manufacturing to a knowledge-based economy translates into an even greater spatial affinity to the Capital Region where the infrastructure and talent are concentrated.

Conclusion

Since the 1950s, the territorial development pattern in Korea has had four main turning points. The first involved the re-constitution of the Korean nation-state which, following radical land reform, implicitly focused on the expansion of the Capital Region. The second was the launching of strategies for export oriented, urban, industrial growth in the early 1960s, which led to the development of an urban, industrial corridor moving from the rapidly expanding metropolis of Seoul

to the southeast coast, centred on Busan and heavy industry complexes in the 1970s. The third was brought about by rising wages and labour costs, by the ascending value of the Korean currency and the overseas relocation of labour intensive industries. This period saw a re-polarisation of growth in Seoul and a de-industrialisation of other metropolitan economies. While some regions outside of Seoul began to register high rates of economic growth around the automotive and electronics industries in the early 1990s, this trend was interrupted by the fourth turning point, the 1997 finance crisis in East and Southeast Asia. The crisis was a proof of the unsustainability of the heavily interventionist strategies pursued until then and of the governance system of the economy characterised by strong protectionist regulation, collusion between banks and *chaebols* and tight linkage between large firms and the government. Many large and small enterprises became insolvent and bankruptcies soared while new layers of poverty appeared, notably in cities, as households with middle income and lower income experienced great difficulty. However, Korea has achieved a remarkably quick and strong recovery due to supportive fiscal and monetary policies and progress in structural reforms whether concerning the corporate sector, the labour market or government regulation. Still, efforts should be made to strengthen the corporate system and competition through further opening of the market and regulatory reform.

From a strictly territorial point of view, Korea's economic pattern is characterised by a strong concentration of economic activities, mainly in the northwestern part of the country, around Seoul, and in the southeastern coastal regions. As a consequence, regional inequalities between the Seoul-Busan corridor and the rest of the country have become more and more significant. Current regional disparities result partly from this export-led development strategy that created a clear separation between industrialised urban areas and agricultural rural areas. The 1997 Asian crisis proved to be a decisive factor that deeply affected inequalities across economic sectors and regions. The classical centre vs. periphery paradigm of the past, which had been noted in many OECD countries in the 1970s and 1980s, does not fully explain the territorial challenges that Korea has to face. These include lagging rural regions, larger cities and older industrial areas, which can also be found in second-tier cities. Increasing social problems in large cities as well as the speeding up of the urbanisation trend will require more attention to the question of metropolitan governance.

If regional imbalances and territorial challenges are to be successfully addressed, two main considerations should be taken into account. First, it is necessary to produce a comprehensive set of regional statistics that will be regularly updated and monitored. Second, the analysis of territorial disparities faces some interpretation problems due to the fact that the current administrative units of the territorial grid do not comply with functional regions. For instance, there is a high chance that economic performance of the province of Gyeonggi is actually due to

Box 1. Best practices of functional regions in some OECD countries

Several OECD Member countries have established official or semi-official boundaries delimiting labour market areas. Thresholds selected for these “commuting zones” differ across countries and, in many cases, the criterion of travel to work is combined with other criteria such as inter-city co-operation, etc. The reason is to permit international comparisons at the sub-national level. Following are some examples of work undertaken.

Canada: Census Metropolitan Areas (CMA) and Census Agglomerations (CA) – respectively 25 and 112 for 1996 – are delineated around urban areas. A CMA requires an urban area with a population of at least 100 000, while a CA requires an urban area in the range 10 000 to 99 000. The delineation of the CMA/CA uses the relationship between place of work and place of residence to determine the extent of the CMA/CA. If, for a given residential area, 50 per cent or more of its resident labour force has a place of work in the urban area, then that residential area becomes part of the CMA/CA. These areas are updated for each census. Therefore, they are fixed for a five-year period between censuses.* The CMA/CA are compatible with the municipalities but not with other administrative units at higher levels.

Germany: There is a territorial category, called Labour Market Regions (LMR), which is used to identify those regions that profit from the German Regional Policy Programme. The number of LMRs is 271. As they are updated every four years, they can be used as an analytical base for cross-regional analysis but not for the analysis of development patterns, as they are not time constant territorial units. The following method of delineation is used. The first step is the identification of labour market centres (LMC). These are defined as any municipality where the sum of inward commuters surpasses that of outward commuters by 1 000 or more. Some LMCs, especially in rural areas, do not meet this criterion, but are defined as such, if they are accessible within 45 minutes or if they were a former LMC, which actually does not exactly fulfil the criteria. In a second step, all municipalities are related to the LMC, according to their commuting relation and transport accessibility. The surrounding municipalities from which the LMC can be reached within 45 minutes (assumed maximum commuting time, one way) are part of the Labour Market, if they are closely linked to the LMC in terms of commuting. In a third step, these labour markets are aggregated to LMR. A labour market becomes a LMR, if the LMC is a county/district town or has central functions within Regional Planning and at least 75 per cent of the jobs are filled locally. Labour markets that fail these criteria are related to other labour markets on the base of their functional interdependence. This third step leads to LMR in the delineation of municipalities. The fourth and last step aggregates LMR in the delineation of municipalities to LMR with district or county boundaries, which should have a minimum population of 100 000. This step, the aggregation to district/county boundaries, is appropriate because of the availability of data and indicators. The delineation is updated every four years, according to the new objectives of Regional Support Policy. LMR are compatible with administrative units at smaller levels such as the districts/counties “*Kreise*”, not the smaller administrative municipalities. LMR and SPR are compatible with administrative units at higher levels.

Box 1. **Best practices of functional regions in some OECD countries**
(*cont.*)

Sweden: The division of Sweden into 81 *local labour market regions* is built on actual commuting conditions. The first step is to analyse commuting patterns and determine under which conditions a municipality will be considered highly self-sufficient, *i.e.* people living in the municipality will, to a high degree, find working opportunities within the municipality. Two commuting conditions have to be fulfilled if a municipality is to be considered highly self-sufficient. The first, general condition is 80 per cent self-sufficiency, *i.e.*, the total out-commuting rate among employed people living in the municipality has to be less than 20 per cent. The second condition is of a more specific kind and aims at excluding municipalities of high dependency on any other municipality: the commuting flow to any other individual municipality has to be less than 7.5 per cent. Both of these conditions have to be fulfilled if a municipality is to be considered highly self-sufficient. The second step is to unite each of the remaining dependent municipalities into one, initially classified as highly self-sufficient. In each case, the one chosen is that which receives most of the out-commuters from the dependent municipality. In that way, complete labour market regions are constructed. In some cases of the second step, however, the municipality that receives most commuters is not itself classified as highly self-sufficient, but rather as being dependent in its turn. Chains of dependency will thus occur. Municipalities involved in such a commuting chain will all be united to the self-sufficient municipality at the end of the chain, if there are less than three links in the chain. If there are more links, the chain will be cut at its weakest link (smallest proportion of out-commuters) and two different labour market regions will arise. A problem with a strictly statistical division into labour market regions is that they will change every year depending on the statistics over commuters between municipalities. For that reason NUTEK (Swedish National Board for Industrial and Technical Development) in 1998, made a more normative division into labour market regions, which will remain unchanged during at least ten years. The division is based upon the latest statistics (1996) and the same method as described above, but also on information about distances, the strength of labour markets and chains of municipalities that will be connected to a single labour market. In practice, this means that small municipalities, which in statistical terms are considered highly self-sufficient, are in some cases connected to an adjacent labour market region. In total, this division comprises 81 labour market regions. It is used for regional analyses at NUTEK and other central and regional authorities. The labour market regions are compatible with the municipalities. The local labour market regions are sometimes crossing the county borders.

Italy: A functional regionalisation of the country has been defined based on a geographical pattern of local labour market areas (LLMAs). These LLMAs are units of analysis statistically and geographically meaningful and comparable, because they are based on the same set of criteria all over the country. They are relatively self-contained, extended areas formed by a cluster of municipalities (cutting across provincial and regional boundaries) defined by processing daily journey-to-work

Box 1. Best practices of functional regions in some OECD countries*(cont.)*

data made available from the 1991 population census. Self-containment refers to the fact that job supply and demand tend to meet with respect to the area over which they extend, because the majority of the resident population works within it and employers recruit workers from the constituent municipalities. Therefore, they represent the daily life environment of the area's residents. One of the main characteristics of LLMAs is their high level of internal integration in terms of social, cultural and economic variables. Thanks to this feature, the LLMAs result in being particularly well suited to the analysis of processes that are locally rooted, such as territorial disparities.

* For a more detailed description of the methodology, see the Statistics Canada web site and click on Census, then click on the 1996 Census Dictionary and go to Census Metropolitan Area (CMA): <http://www.statcan.ca>

the largest green belt of Seoul. This may suggest that the territorial grid of some metropolitan areas should be redefined to take into account the new suburbanisation trend. More generally, it is important to define statistical territorial units that can represent the society's organisation, outlining residential, productive and recreational units in relation to the economic activities and social relations that develop. Many OECD countries have already undertaken experimental work on functional regions and have defined boundaries on the basis of commuting time corresponding to local labour market areas (Box 1). This level of analysis permits the definition of more relevant and more appropriate territorial strategies and policy interventions. It will also allow a better comparison of Korean regions with similar OECD regions so as to facilitate studies and transfer of best practices. The improvement of the statistical framework, the redefinition of territorial administrative units, and the creation of experimental, functional regions will help to produce more sophisticated analyses in order to give more appropriate territorial policy responses.

Notes

1. Territorial development under the Japanese occupation was characterised by its emphasis on agricultural development in the South and manufacturing and mining enterprises in the North, so that Japan could build a supply base for invasion of the continent. For the same reason, transportation infrastructures had high priority (*i.e.*, the developing of the network of Busan-Seoul-Pyongyang-Sineuiju), and major cities were connected to Seoul by railway transportation. A modern administrative system was also introduced. However, it is clear that all these efforts were intended to benefit Japan. After the liberation from Japan in 1945, under the American regime, territorial development was only targeted at the reparation of major damages. A real economic development policy was only implemented by the Korean government, but the Korean War in 1950 soon interrupted it.
2. Korea's first motorway connecting Seoul and Busan via Daejeon and Daegu was built in the early 1970s, alongside the rail line built under Japanese occupation.
3. In this process, the wage rates in the manufacturing sector increased without relieving the bottleneck in labour supply.
4. The speed of improvement in Busan has remained slower than in the rest of the country for the following reasons. First, Busan's economy is based on small and medium businesses, whereas Korea as a whole is *chaebol*-driven, which means that the rest of the country had bigger production facilities to overcome the crisis. Second, the economic crisis in 1997-1998 was much worse in the region of Busan than in the rest of the country, so that recovery is taking more time. Third, the central government's policy steps such as the Korea-Japan Fishing Agreement had detrimental consequences for the region of Busan. Fourth, the industrial structure of Busan is only weakly involved in the key sectors that are leading the economic recovery, such as semi-conductors, automobiles, information technology and other high technology industries (PDI "Year 2000 Economic prospects for the region of Busan", Pusan Development Institute, www.pdi.re.kr).
5. The regional distribution of the poverty ratio was measured indirectly by examining the proportion of recipients of livelihood protection programmes. See UNDP (1998).
6. This definition applies to the manufacturing sector. The threshold is smaller in other sectors.
7. The national average of road pavement rate increased from 26.5 per cent in 1977 to 74.7 per cent in 1999. During these two decades, the rate was considerably improved both in large cities and in rural provinces: Seoul (from 58.6 % to 88.0%), Busan (from 43.7% to 97.7%), Gangwon (from 17.4% to 68.2%), Chungbuk (from 20.9% to 65.6%), Jeonbuk (from 17.3% to 69.7%), Gyeongbuk (from 21.2% to 69.5%) and Gyeongnam (from 21.8% to 63.9%).
8. See Chapter 3 on spatial policy.

Chapter 2

Institutional and Fiscal Decentralisation

Korea experienced a remarkable decentralisation process during the 1990s. Whereas the legal foundations of local self-government had already been set shortly after independence in 1948, decentralisation and local autonomy gained momentum in 1988 when the *Local Autonomy Act* and the *Local Finance Act* were thoroughly reformed. In 1991, local assemblies were re-established from their roots of the early days of the Korean Republic. The shift of responsibilities from the central to the sub-central government level accelerated. In 1995, the first direct elections of local parliaments and executives strengthened the self-confidence and the respectability of the various sub-central government levels. The slow but steady increase of fiscal resources that are at the full discretion of local governments increased local flexibility and promoted policy outcomes better related to local needs and demands. Local governments have received more own tax resources and they are increasingly able to shape development policies through a quite well designed, tax sharing and fiscal equalisation mechanism.

However, the process of decentralisation and liberalisation is not finished yet. The formal content of laws such as the *Local Autonomy Act* does not correspond to the reality experienced by local authorities. Verticalism prevails and local governments still depend largely on the central government, which treats them as administrative units rather than as independent legal entities. Correspondingly, local governments tend to wait for and follow the central government's instructions. Fiscal design still hinges strongly on earmarked and discretionary funds that give the central government discretionary power in almost any area of local policy-making. Horizontal partnerships across governments or between the private and the public sector are rather scattered and exceptional. The vertical fiscal design not only leaves local authorities relatively little room for manoeuvring, but it also constitutes an expensive administrative burden to the central government. The key issue for the Korean government is to help build local institutions that are able to provide their citizens with adequate services and to raise necessary revenues. Mechanisms based on partnership and monitoring must replace the current tight administrative control. Local autonomy is a relatively new concept to the Korean society. Therefore, much effort is needed not only to implement institutional reforms, but also to change the

administrative culture. This takes time and dedicated leadership at the central level as well as at the local and provincial level.

Governance framework at central level

Overview

Soon after the inauguration of President Kim in February 1998, the government started preparing structural reforms in four key sectors: the finance, corporate, labour and public sectors. The specificity of these reforms was a clear shift in philosophy, from government led economic development to democratisation, market economy and productive welfare. The revised *Government Organisation Act*, which came into force in February 1998, aims at “establishing a small but efficient and powerful government”. During the process of the reform, the government invited experts from the private sector to participate.

As a result of the reform, the number of cabinet ministers was reduced from 21 to 17, and ministerial level officials from 33 to 24. The Ministry of Finance and Economy, which had been criticised for over-concentration of power and mismanagement of the economy, was split in two: the Ministry of Finance and Economy (MOFE), and the Office of National Budget (ONB). Moreover, the Planning and Budget Commission (PBC) was established to set state budget guidelines under direct control of the President.¹ The Ministry of Foreign Affairs and Trade (MOFAT) was created by integrating the functions of foreign affairs and foreign trade negotiation that used to be the responsibilities of several other ministries. The Ministry of Government Administration and the Ministry of Home Affairs merged into the Ministry of Government Administration and Home Affairs (MOGAHA), which takes charge of human resource management in the central government, local autonomy and finance, and national disasters prevention.

Horizontal distribution of responsibilities in the central government

In Korea, the scope of territorial development had been limited to physical and structural policies such as the development of physical infrastructure and urban land use planning. Other policies such as economic development and social development clearly have territorial implications but had not been explicitly regarded as part of territorial policy in the central government. In reality, most of the ministries and agencies have been involved in territorial development in the broader sense, as shown in Table 15.

Inter-agency co-ordination

At the central level, several systems of inter-ministerial co-ordination have been institutionalised. For the general purpose of horizontal co-ordination among

Table 15. **Ministries and agencies related to territorial development**

Ministry/Agency	Major policies related to territorial development
Ministry of Construction and Transportation	<ul style="list-style-type: none"> – National comprehensive territorial plan – Spatial regional development of wide areas and development promotion districts – Infrastructure development such as roads, railways, airports, and industrial complexes – Urban policy – Land and property market policy – Housing policy – Transportation policy – Water resource management
Ministry of Agriculture and Forestry	<ul style="list-style-type: none"> – Development of farming and fishing villages – Forest area management
Ministry of Environment	<ul style="list-style-type: none"> – Nature conservation – Environmental impact assessment
Ministry of Government Administration and Home Affairs	<ul style="list-style-type: none"> – Central government re-organisation – Human resource development in the governments – Government Information Disclosure Act – Promotion of local autonomy – Promotion of decentralisation – Local finance – Development of lagging regions, islands – Disaster prevention
Ministry of Finance and Economy	<ul style="list-style-type: none"> – Macroeconomic policy – National and local taxes – Regionally balanced development
Ministry of Planning and Budget	<ul style="list-style-type: none"> – Central government budget for infrastructure investment – Categorical grants by the central government – Project management – PPI
Ministry of Commerce, Industry and Energy	<ul style="list-style-type: none"> – Innovation of local industry
Ministry of Science and Technology	<ul style="list-style-type: none"> – Promotion of regional science and technologies
Ministry of Communication and Information	<ul style="list-style-type: none"> – Information superhighway – Regional communication network – Reduction in digital divide
Ministry of Culture and Tourism	<ul style="list-style-type: none"> – Promotion of regional tourism industries – Enhancement of regional culture and specificity
Ministry of Education	<ul style="list-style-type: none"> – Regional schools and education – Universities and colleges
Ministry of Health and Welfare	<ul style="list-style-type: none"> – Social welfare policy – Elderly care – Medical care in remote areas
Ministry of Labour	<ul style="list-style-type: none"> – Local labour market policy
Ministry of Unification	<ul style="list-style-type: none"> – North-South social integration – Territorial reorganisation

Source: OECD/TDS.

the ministries related to economic policy, the Economic Ministerial Co-ordinating Council is regularly organised as a preparatory step for the Cabinet meeting, so that the related ministries can share the information in the process of policy development. Concerning territorial development, the related ministries organise liaison meetings and regularly exchange information for limited purposes such as the Comprehensive National Development Plan. Regarding other policies related to territorial development, specific inter-agency meetings may be held.

As a new cross-sectoral attempt at territorial development, a “Balanced Regional Development Planning Team” was temporarily established in 2000 under the direct authority of the President. Its main function is the formulation and review of a three year, balanced, regional development plan. The team is headed by the Senior Economic Advisor to the President and composed of eight government officials from the ministries concerned. Additionally, a “Balanced Regional Development Council” is organised under the team, involving ten vice-ministers from related ministries and twelve experts from the private sector. The team has identified three major strategies to implement by the end of 2002:

- Enhancement of local autonomy through dispersion and decentralisation.
- Formulation of bases for endogenous, regional, economic development.
- Implementation of area-wide development projects for efficient use of national land.

The overall co-ordination for territorial development requires a long-term consistency in policy decision and budget allocation. It would therefore be useful to replace the existing *ad hoc* teams and establish a permanent body under direct control of and responsive to the Prime Minister’s Office. This body should co-ordinate policies and prepare strategic decisions on spatial, economic and social development in urban and rural areas.

Governance framework at the local level

Governance at the local level is a relatively new theme in Korean public administration. The government has traditionally been heavily centralised and has long enforced its sole authority upon the entire country. However, recent attempts to implement democratisation and a better-balanced territorial development in Korea have led to substantial reforms that gave a new impulse to local governments. The idea that regional development would be more efficiently achieved through decentralised entities progressively gained ground and was thus put into practice through the enhancement of local autonomy, especially at the end of the 1980s. Local governments were given new institutions designed to help them represent the local population and to work out elaborate solutions adapted to locally specific needs. Such efforts resulted in undeniable progress in territorial policies related to various issues such as residents’ welfare or infrastructure

development. However, local governance still needs to be strengthened and improved towards a more flexible and rationalised system where all territorial actors will be able to combine their competencies and truly co-operate with each other.

Historical background of local autonomy in Korea

The Korean history of local autonomy can be divided into two main periods: the first five Republics (1948-1988), and the contemporary period (1988-present). Throughout these periods, local autonomy was progressively implemented but often remained at the stage of an institutional instrument designed only to set the authority of the central government upon all territorial areas of the country. The democratisation of local autonomy is quite recent, dating back to the 1990s, when political efforts to reform the institutional system led to the reorganisation of the local governments.

From the First Republic to the Fifth Republic (1948-1988)

The current Constitution was adopted on July 17, 1948. Chapter VIII of the Constitution is entitled “Local Autonomy” and includes the following two articles:

- **Article 117:** (1) Local governments shall deal with administrative matters pertaining to the welfare of local residents, manage properties, and may enact provisions relating to local autonomy, within the limit of Acts and subordinate statutes. (2) The types of local governments shall be determined by Act.
- **Article 118:** (1) A local government shall have a council. (2) The organisation and powers of local councils, the election of members, election procedures for heads of local governments and other matters pertaining to the organisation and operation of local governments shall be determined by Act.

Based on the terms of the 1948 Constitution, the *Local Autonomy Act* was promulgated on July 4, 1949. It established local governments that were policymaking assemblies whose members were locally elected by residents. For some time during that period, the chief executives of these local assemblies were directly elected by residents. However, this system was suspended by the military government in 1961. All local assemblies were dissolved and the *Law Concerning Temporary Measures for Local Autonomy* was adopted on September 1, 1961. Thereafter, the Ministry of Home Affairs performed the functions of local governments and the President appointed the chief executives of local assemblies among central government officials. Korean local governments did not have substantial political and administrative decision-making power for another 30 years.

Contemporary period (1988-present)

In 1988, the Sixth Republic government undertook a deep revision of the *Local Autonomy Act* and the *Local Finance Act* to revive local autonomy. These reforms were aimed at ensuring the balanced and democratic development of local areas. In 1991, the local assemblies were reorganised: lower level local assemblies were established in March, upper level local assemblies in June. In addition to these locally formed assemblies, the local chief executives were elected directly by residents from 1995 onwards.

Organisation of local governments

Korean local governments have a two-tier structure consisting of an upper and a lower level. The upper-level governments consist of the provinces (*Do*), the Metropolitan Cities and Seoul Special City; the lower-level governments are the Cities (*Si*), the Counties (*Gun*) and the Autonomous Districts (*Gu*). Lower-level governments are subdivided into administrative units, *i.e.* *Dong* and *Eup/Myeon*. Local government institutions include local legislative assemblies and executive bodies. They govern both autonomous affairs and delegated affairs.

Upper-level local governments

Upper-level local governments comprise the provinces (*Do*), the Metropolitan Cities and Seoul Special City.

Provinces (Do). This unit is quite old in the history of Korean local autonomy, and dates to the very first *Koryo* dynasty. The province (*Do*) has been permanent in the system of local administration: only number and names have changed during political regimes and legislative reforms. Currently, the territory of Korea is divided into nine provinces (*Do*): Gyeonggi, Gangwon, Chungbuk, Chungnam, Jeonbuk, Jeonnam, Gyeongbuk, Gyeongnam and Jeju. Provinces can be considered as intermediate units between the central government and lower-level local governments.

Metropolitan Cities. A few cities within the provinces (*Do*) were growing quite large, in terms of both population and industry. Six were withdrawn from the jurisdiction of their provinces and were given the status of Metropolitan City, under the direct control of the central government and were thereafter treated as equal to provinces. There is no specific legislation regulating the criteria for upgrading a city to the status of a Metropolitan City but, according to the general practice, a city can separate itself from its province when its population is approaching one million inhabitants. Today, there are six Metropolitan Cities in Korea: Busan (1963), Daegu (1981), Incheon (1981), Gwangju (1987), Daejeon (1988) and Ulsan (1997).

Seoul Special City. In 1946, Seoul seceded from Gyeonggi and became a *special city* under the direct control of the central government. When the *Local Autonomy Act* was enacted in 1949, Seoul was upgraded to Seoul Special City. Under the 1962 *Act on Special Measures for the Status of Seoul Special City*, Seoul obtained a unique status that placed it under the direct control of the Prime Minister. This is due mainly to the fact that Seoul is the biggest city and the capital of the country. One example of the unique status of Seoul is that when the Ministry of Government Administration and Home Affairs (MOGAHA) intends to audit the affairs of Seoul Special City, it is required to work through arbitration with the Prime Minister.

Lower-level local governments

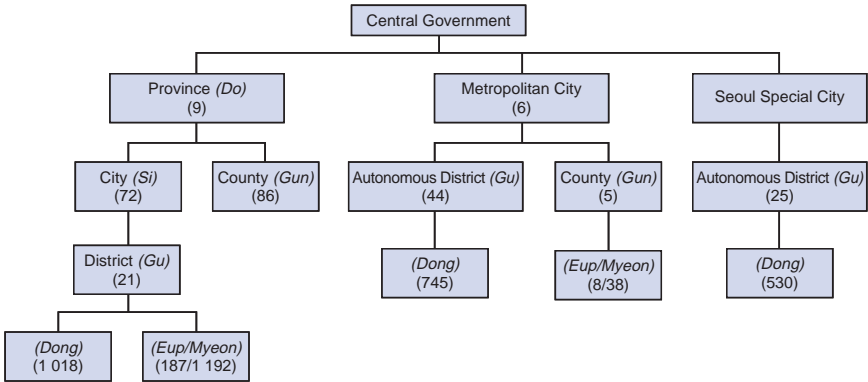
Lower-level local governments are comprised of Cities (Si), Counties (Gun) and Autonomous Districts (Gu).

Cities (Si). A city is an urban government that handles the affairs of its citizens with its own organisation and budget. The conditions necessary for acknowledgement as a city are determined by the Ministry of Government Administration and Home Affairs (MOGAHA) and are related to population density, growth rate, etc. At present, there are 72 cities in Korea.

Counties (Gun). A Gun is a rural unit of government and dates from very early regimes in Korean history. Currently, there are 91 Guns in Korea.

Autonomous Districts (Gu). There are four kinds of administrative units: districts (Gu), Eup/Myeon and Dong. Districts (Gu) should not be confused with Autonomous Districts (the exact Korean word is *Jachi-Gu*, but they are often called Gu for convenience). Autonomous Districts belong to Metropolitan Cities and are lower level local governments, whereas districts (Gu) are administrative units that exist only in a city that has more than 500 000 inhabitants. Administrative units such as districts (Gu), Eup/Myeon and Dong are not legal entities but branches of the administrative organisation and have no autonomous power. It is planned to have abolished and replaced all the Dongs and Eups by local autonomy centres by 2002, whereas Myeons, that cover vast areas in rural and mountainous areas, will be maintained. The purpose of the reform includes improving the quality of local administrative services, especially in urban areas. Local community centres will take over the mainly administrative functions such as residents' registration, issuing certificates, information dissemination; whilst tax collection, policymaking and planning will be undertaken by the cities and counties. Local autonomy centres will be established in the former offices of Dongs and Eups, and will be used for cultural activities, sports, meetings, etc. Some 1 655 centres were already established in 2000 and the others will be created in 2002.

Figure 6. Korean local government system



Note: Korean terms are in italics. Number of units in brackets.
 Source: Ministry of Government Administration and Home Affairs (MOGAHA).

Institutions of local governments

Local governments have both legislative and executive powers. Legislative power is the authority of local assemblies, and executive power is held by local chief executives and their subordinates.

Local assembly

Local residents select local councillors for a four-year term through popular, equal, direct elections. The upper-level local assembly then elects one chairman and two vice-chairmen. These elections are by secret ballot, and the term of these offices is two years. The lower-level local assembly elects one chairman and one vice-chairman for a two-year term. Local councillors gather in standing committees or special committees. Standing committees examine and process bills or petitions under their jurisdiction. Special committees are temporarily established to deal with specific tasks that cannot easily be handled by standing committees (*i.e.*, the Special Committee on Budget and Settlement of Accounts, the Special Committee on Reprimand and Eligibility).

Local assemblies are the legislative bodies of local governments and thus have the power to enact ordinances within the limits of the Constitution and laws (Article 35 of the 1949 *Local Autonomy Act*). Their attributes can be classified in six categories:

- Decision-making power.
- Agreement power.

- Approval power.
- Opinion representation power.
- Direct control power.
- Self-governing power.

Local executives

The local chief executive is elected in the same way as are the local councillors. He is the administrative head of the local government and thus has special powers over the local assembly: to request further deliberation of a decision, to handle urgent proceedings and to execute the quasi-budget.

Size of local governments

The size of the basic administrative units plays an important role in the scope and the limits of local policy making. Small and scattered local governments will generally be confined to fewer policy-making and decision-making areas than comparatively larger ones. The size of local governments is often discussed in the context of mergers with or the reorganisation of existing administrative units and it needs to be examined here since the basic unit of administration serves as the smallest actor for territorial development and the supply of basic services and utilities. The average size of local governments is often related to geographical characteristics and socio-economic factors such as the size of traditional communities and settlements. The average size of the lowest local government unit varies considerably among OECD Member countries. Compared to other countries, Korean municipalities appear to be remarkably large (Table 16).

Functions of local governments

Local governments handle delegated (or compulsory) affairs, which are attributed by specific laws, and autonomous affairs. In order to provide an institutional basis for decentralisation, the *Act on Decentralisation Promotion for Local Authorities* was adopted in 1999. The Presidential Commission on Promotion of Decentralisation, co-chaired by the Prime Minister and a private sector expert, was organised and launched a new reform. Ministries and agencies are now strongly advised to transfer as many functions as possible to the appropriate levels of local governments. Currently, among the total 12 978 government functions, 75 per cent belong to the central government and 25 per cent to local governments. Further transfer is definitely needed, as many functions that local governments had requested are still performed by the central government.

Table 16. **Lowest territorial units in OECD Member countries**

	Number of units	Average size of population	Average size of area in km ²
Korea			
Si	72	254 000	498
Gun	91	66 000	656
Gu	69	343 000	51
<i>Total</i>	232		
France			
Communes	36 000	1 700	15
Germany			
Gemeinde	16 000	3 400	22
Japan			
Shi, Machie and Mura	3 200	36 500	115
Switzerland			
Gemeinde/Communes	3 000	2 400	14

Source: OECD/TDS-TSI.

Local autonomous affairs

Local autonomous affairs, also called local indigenous affairs, are described in Article 9(2) of the 1949 *Local Autonomy Act*:

- Affairs concerning the jurisdiction, organisation and administrative management of local governments.
- Affairs concerning the promotion of the citizens' welfare: social facilities, assistance for the elderly, the poor, the handicapped, the sick and women.
- Affairs concerning the promotion of industries (agriculture, forestry and trade): management of agricultural materials, management of public forests, support for local industries.
- Affairs concerning local development and management of facilities for citizens: management of roads, water supply, and vehicle facilities.
- Affairs concerning the promotion of education (Box 2), athletics, culture and art: establishment of childcare centres and schools, management of libraries, gymnasiums, galleries, etc.
- Affairs concerning local civil defence and fire fighting.

The central government maintains only a passive control over these autonomous affairs.

Box 2. Education in Korea

The 1949 *Local Autonomy Act* introduced a major shift in the educational system of Korea. It prescribes that upper level local governments (provinces, metropolitan cities and Seoul Special City) establish Boards of Education and Superintendents of Education. Boards of Education are specialised institutions that discuss and decide matters related to education, science, technology, physical education and the arts. The Boards of Education receive a 13 per cent share on the total national tax revenue transferred on a normative and conditional base, so that they are financially independent from the general, local budget. Each Board is composed of seven to 15 members who are elected for a four-year term by a special electorate of educators and parent representatives. In addition, a Superintendent of Education is elected as the executive of the local education system. Superintendents are in charge of the implementation of education policy at the local level. These Boards of Education and Superintendents of Education are inhibited by the requirement that they submit their decisions to the audit of local councils, thus leading to repetitive discussions. Inside the Ministry of Education of the central government, the Local Education Support Bureau helps local governments to draft and implement education policy.

Delegated affairs

There are two kinds of delegated affairs: those delegated to local governments and those delegated to local chief executives. Affairs delegated to local governments are subject to specific laws. Examples of such affairs are those concerning vaccination, the extermination of rats and insects, the maintenance of national roads, public health centres, etc. In principle, expenditures are jointly borne by the central and the local government, and local governments also receive national subsidies. Delegated affairs to chief executives are those delegated by the central government or upper-level local governments to the local chief executives; they are mainly associated with national rather than local interests. A few examples are the registration of residents, the administration of referendums, the police, the promotion of commerce and industry, etc. Expenditures are borne by the central government subsidies; and the central government maintains active as well as passive control.

Fiscal decentralisation

Evolution of local expenditures and revenues

The vertical division of public finance in Korea has gone through some extreme changes. In the 1950s, the share of the local budget drastically increased,

peaking at 56.6 per cent in 1955. This is attributable to the increasing subsidies for reconstruction after the war, such as road construction and flood control. After the military took over in 1961, local autonomy and local financial power were severely restricted, and the ratio of local to total finance shrank to around 10 per cent. Throughout the 1960s and 1970s the rapid economic development led by the government expanded the scope of local finance. With the reforms that started at the beginning of the 1990s, the ratio rose again and is now around 35 to 45 per cent, although it oscillates from one year to another in response to local financial reforms and business conditions (Figure 7). Today, the share of local public expenditure in Korea is larger than in classically unitary states such as France or Ireland, but smaller than in federal countries such as the United States, Germany or Switzerland (International Monetary Fund, 1997). However, the local expenditure share is somewhat underestimated because education is not included in it in Korea. Thus, the expenditure share of Korean local authorities is relatively large amongst OECD Member countries.

Local revenue shows a different picture. In the 1970s and 1980s, the share of local taxes was around 10 per cent, but after the decentralisation reforms, it rose to about 20 per cent. This figure has remained remarkably stable during the 1990s (Figure 7). To a certain extent, this reflects the fact that local governments have

Figure 7. Local revenue and expenditure ratios, 1991 to 1998

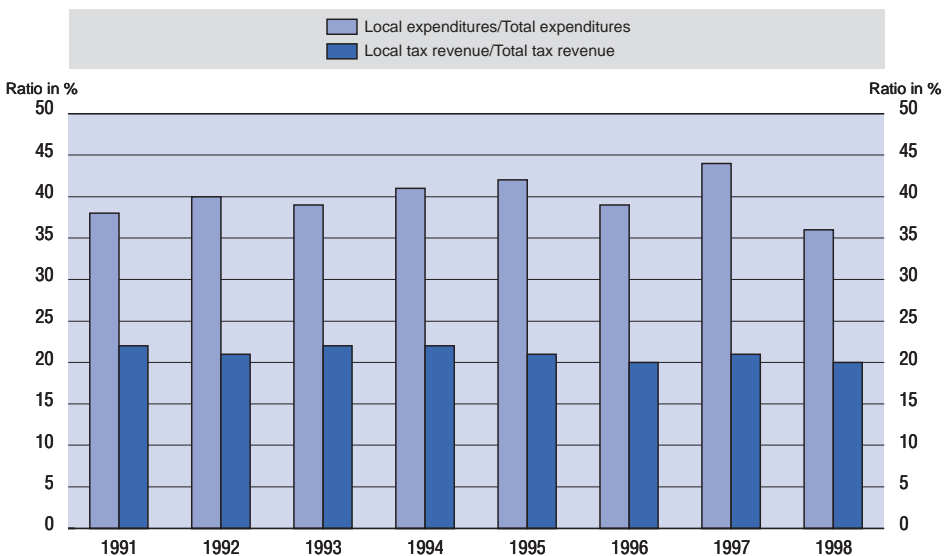


Table 17. Sources of local income, 1999

	Total 100 millions won	%
Intergovernmental grants	152 359	100.0
Tax sharing	61 301	12.2
Block grants	27 279	5.4
Categorical grants	63 779	12.7
Local source revenues	348 295	100.0
Local taxes	161 389	32.2
Non tax revenues	154 806	30.9
Local bonds	32 100	6.4

Source: Ministry of Government Administration and Home Affairs (MOGAHA).

access to taxes and other revenues, a right that is well protected institutionally. Local revenue is regulated in the *Local Tax Law* as well as in the different laws regulating grants and revenue sharing. The percentage of total tax income going to the local level is again somewhere in between that of unitary and federal countries (OECD, 1999c). Compared to most OECD countries however, Korean local governments have rather little discretion on their own tax bases and tax rates.

Local governments' budgets are composed of local revenue and intergovernmental transfers. Local revenue is composed of local taxes, local non-tax revenues and revenues from local bond issues. Intergovernmental transfers consist of a tax-sharing mechanism called "local share tax", a block grant for investment purposes called "local transfer fund" and a large number of categorical grants (Table 17). In 1998, the total local revenue amounted to 50 trillion won, roughly one third of which stemmed each from local taxes, local non-tax revenues and the central government.

Local taxes

Tax distribution across levels of government

Local governments in Korea levy local taxes that currently account for around 20 per cent of total tax income. These have been fairly stable in the last ten years. Local tax income consists of 15 taxes, most of which are related to property, the tobacco consumption tax and the inhabitants' (residents') tax, a surtax on the national income tax (Figure 8). Some of the local – as well as some of the national – taxes appear somewhat unusual to an outsider. They may date back to the past or they may have been introduced for opportunistic reasons; due to the narrow tax base, some of them may cause distortions in consumers' or producers' behaviours.²

Figure 8. Distribution of taxes across levels of government in Korea



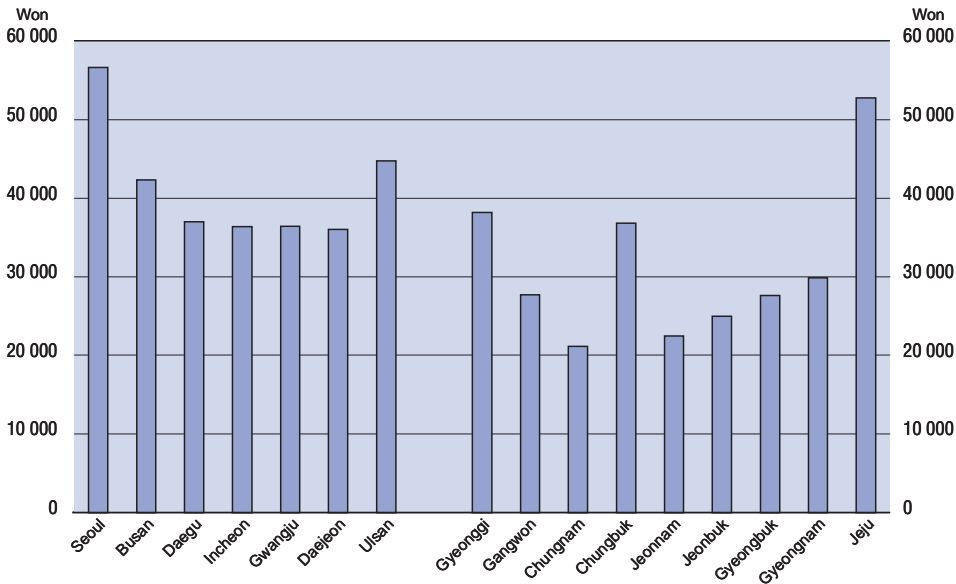
1. Special Metropolitan City and Metropolitan Cities taxes.

2. Autonomous District taxes.

Source: C.S. Moon (1999).

The Korean tax system shows a clear vertical separation of tax sources. Most general taxes like the income tax and value added tax are allocated to the central government, whereas local government principally relies on property tax and consumption taxes and partly on income tax. Except for the local share tax, which is actually a fiscal equalisation scheme, taxes are allocated either entirely to the central or to the subcentral level. This tax structure requires less tax sharing negotiations and consultations across levels of government. Different levels of government usually do not rely on the same tax base, with tax sources between central and local governments being distinct, so that long-lasting political conflicts across the different levels of government can be avoided.

Figure 9. Property-related tax revenue per capita, 1999



Note: Property-related taxes include property tax, farmland tax and aggregate land tax.

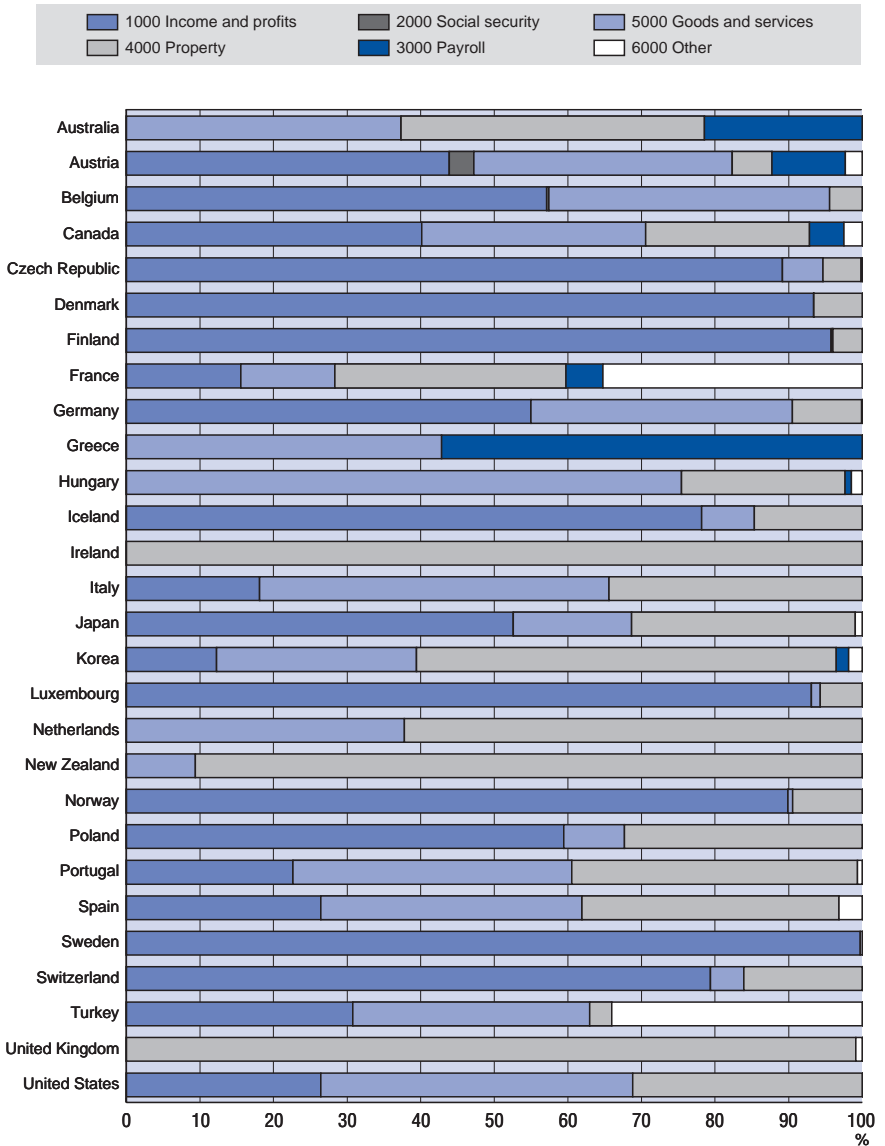
Source: Ministry of Government Administration and Home Affairs (MOGAHA).

Property tax: the most important local tax

The composition of local taxes is marked by a strong reliance on property taxation and relatively little reliance on income taxation in comparison to other countries. The share of property taxation in total local tax income is one of the highest among OECD countries (Figure 10). Property taxation is more advantageous than other local taxes for several reasons. First, it is based on a nonmobile factor, which limits tax evasion; and secondly, it roughly follows the principle according to which beneficiaries pay, since it is generally linked to municipal public services. The Korean property taxation differs from that of other OECD countries (OECD, 2000a):

- It is based on the transaction rather than the possession of property, thereby acting as a barrier to a liquid property market and efficient land use. This may create some rigidity, which may then mitigate a quick and smooth adaptation to changing economic and spatial development patterns.
- Tax rates and evaluation principles are basically administered by the central government. Local authorities have only limited power to adapt property tax rates to their specific needs and purposes.

Figure 10. The structure of state and local government tax receipts, 1997



Notes:

- This refers to only those taxes that are classified as sub-central government taxes.
- Social security contributions paid to social security funds are excluded.

Source: OECD (1999c).

- Property taxes are generally more unequally distributed than income taxes across the country. They accrue mainly in the large metropolitan areas of Seoul and Busan where property prices are still high, thus swelling the metropolitan treasuries. In rural areas, such as Chungnam or Jeonnam, property prices grew much less, leaving poorer rural regions with only a third of the tax income per capita of more developed urban regions (Figure 9).

Given the relative importance of the property tax, local governments in Korea have a markedly uneven access to local public finance revenue. Since a favourable economic environment strongly depends on public services that are paid for – at least partially – by tax revenues, its uneven distribution may aggravate urban/rural disparities in the long run.

Limited local tax autonomy

A delicate feature of Korean local finance is the strictly limited fiscal prerogatives of local governments. With respect to local autonomy, fiscal power lies in two variables: the percentage of total tax income going to the local level and the discretionary power of local governments over these taxes, *i.e.* the power to set their own tax bases and tax rates. In Korea, the percentage of local taxes is around 20 per cent, but local governments seem to have little control over them. The Korean Constitution stipulates that the National Assembly must decide on tax issues, including tax rates, so that the National Assembly currently determines the rates of most local taxes. Local authorities have only moderate power to increase or decrease certain tax rates, *e.g.* the residents' tax or the tobacco consumption tax, but even in these cases the upper and lower margins are narrow.

Local governments have nearly no access to mark-up mechanisms or “piggy backing” on major national taxes. Although local governments are allowed to adjust the centrally determined valuation of property, most of them stick to the guidelines issued by the Ministry of Government Administration and Home Affairs. This stands in sharp contrast to other OECD countries, federal as well as unitary, where local tax autonomy is granted in the Constitution and some local governments have remarkable discretion over at least some important local taxes.³ The power of local governments to promote development through an active tax policy therefore remains severely underdeveloped in Korea (OECD, 1999c).

Grants and revenue sharing

Overview

The Korean fiscal system is characterised by a relatively large imbalance between expenditures and revenues on the local and provincial levels. Whereas subnational expenditures amount to around 35 to 40 per cent of total expenditure,

subnational own tax revenue amounts to only 20 per cent. This fiscal gap is covered by tax sharing agreements and transfer schemes. The most important vertical financial flows are (Table 18):

- *Revenue sharing (Local share tax)*: The “local share tax” is a unique system of vertical tax sharing designed to secure the local and provincial tax base over time. The tax share agreement consists of a fixed percentage of the total national tax income that goes to the local level, as laid down in the *Act on the Local Share Tax*. The purpose of the sharing is to equalise vertical and horizontal imbalances, *i.e.* to cover the vertical fiscal gap and to level horizontal disparities with respect to tax raising capacities and needs. The percentage has been increased from 13.3 to 15 per cent in year 2000, which has increased local revenue by one trillion won. Nearly all (10/11ths) of the total amount is a general transfer that is not earmarked, based on normative criteria, while a small fraction (1/11th) is earmarked, based on the specific needs or projects of local governments. The central government has considerable discretion on this. The local share tax is also used to equalise the fiscal capacities of local governments. Horizontal equalisation consists mainly of a formula that takes into account tax raising capacities of each local government, and population, surface and other standardised indicators. Horizontal equalisation is calculated through the difference between standardised fiscal needs and standardised fiscal revenue for every local government. Revenue shares are then dispensed to local governments with standard expenditure needs exceeding standard own source revenues. Another 11.8 per cent of the total national tax revenue goes to the local Educational Boards. Since those boards are independent from local governments and since the share is earmarked, it will not be considered as tax sharing.

Table 18. **Financial independence ratio of local governments, 2000**

Financial independence ratio	Total	Percentage	Metropolitan city and province	City (Si)	County (Gun)	Autonomous districts
Less than 10%	5	2	–	–	5	–
10-30%	101	41	4	21	72	4
30-50%	88	35	4	22	10	52
50-70%	30	12	2	16	4	8
70-90%	19	8	5	12	–	2
90% and over	5	2	1	1	–	3
Total	248	100	16	72	91	69

Note: Financial independence ratio is computed by dividing the local tax and non-tax revenues by the local expenditures.
Source: Ministry of Government Administration and Home Affairs (MOGAHA).

- *Block grant (Local transfer fund)*: The local transfer fund is an additional fund introduced in 1991 to promote capital investment at the local level. The fund is a mixture of tax sharing and categorical grants. The *Act on Local Transfer Fund* stipulates that a portion of certain national taxes will be entirely or partially redistributed to the local level, albeit with a strong, horizontally equalising element. The fund is used for local road maintenance (around 70%), development of agricultural and fishing villages, water quality improvement, regional development, and youth education (which has been recently added). These tasks have been chosen out of the nationally assisted projects and transferred from the categorical grants to the block grants. Funds are partially based on normative criteria such as road length, and partially on approved projects; all funds are allocated using a factor of fiscal need. The fund allows, compared to categorical grants, considerable flexibility to local governments with respect to their use.
- *National Treasury subsidies (categorical grants)*: These are categorical grants for specific projects. The law on budgeting and managing grants sets out general principles and a process of allocation concerning all categorical grants, which can be provided by more than 20 ministries. They should either provide assistance to local governments or encourage them to undertake certain projects. Some grants are paid for local management of national responsibilities (such as military recruitment). The grants are paid on a basis of matching cost or expenditure and for projects approved by the central government. These categorical grants have slightly decreased in the 1990-1998 period from 13.4 to 12.7 per cent of local budgets, mainly in favour of the local share fund that gives more flexibility to local governments.

There is also an additional fiscal adjustment grant scheme, which was introduced in 1988 to equalise the fiscal base of autonomous districts in major cities, and there are provincial government transfer systems that support their own municipal levels.

The structure of intergovernmental transfers shows a clear trend toward categorical and earmarked grants over general grants, given that the group of categorical grants constitutes the most important part. The above picture underestimates the national government's discretion over local public finance. Since 1/11th of the local share tax is allocated on the basis of approved local projects, this part is allocated with considerable discretion on the side of central government. The block grant scheme also contains restrictions: the share of funds for the different policy areas is predetermined at the national level. In sum, hardly more than one third of intergovernmental transfers are at the free disposal of local governments. The remainder is, in one way or the other, linked to the central government's requirements.

Conditional grants: reducing the grip of central government

Grants form an integral part of the resources for Korean local governments. When taking together all grants (which are allocated through the National Treasury subsidies), grants make up one third of total national transfers. Unlike tax sharing agreements, the Korean government usually pays the grants on a conditional basis. It is difficult to assess the overall efficiency of the grant system since this requires a detailed study of all grants, the objectives they pursue and the criteria on which they are paid.

Currently, there are too many different grants and some of them have very specific purposes, which leaves little flexibility to local governments. It is difficult for a local government to develop large, integrated projects if the grants only support small parts of such a project or if they contain detailed prescriptions. In order to benefit as much as possible from national subsidies, local governments often have to appeal for a multitude of grants, resulting in administrative procedures that consume time. For instance, a local government that planned a multi-purpose general administration building combined with health care, cultural and leisure facilities would have to apply for several grants for each particular purpose. Given the difficulties in following the rules and procedures of all grants, local governments may find it hard to set up solutions that are both efficient and satisfy all grant requirements. Amalgamating the large amount of minor specific grants into more general, multi-purpose grants would not only allow local governments to choose more efficient and user-friendly solutions, but it would also reduce the administrative burden at the central level. Actually, the Korean government is now attempting to reduce and integrate grants, in particular to reduce the total amount of the categorical grants.

Tax sharing and fiscal equalisation: some fine tuning is needed

The local tax sharing system is an important part of Korean local finance. It acts as a fiscal equalisation device as it brings some strong horizontal redistribution among local governments. The system guarantees a secured revenue for local governments, since the amount allocated to them is based not on a single tax but on the entire national tax revenue. The split between central and local governments is set down in the *Local Share Tax Act* and is not subject to annual negotiations in the National Assembly. This promotes financial predictability for all local governments and facilitates long-term financial planning. These equalisation mechanisms are necessary in a country with such wide disparities in fiscal capacity. These disparities reflect the imbalances between the central, developed areas of Seoul and Busan and the rural areas, as shown through the financial independence ratio (Table 18).

There is a particularly strong case for a smooth and efficient fiscal equalisation or for equalising tax sharing agreements in Korea. Korean economic development was largely based on large firms (*chaebols*). The decision to locate a new plant

had a huge impact on a region's economy, employment and fiscal base. The economic structure of many regions is still based on a few large firms and is often monostructural by nature. Once one of the sectors or firms is hit by an external shock, that region will suffer disproportionately. Given that, since the end of the 1980s, the regions have developed in different ways, dynamic territorial instabilities have probably increased, particularly after the financial crisis of 1997. Rather than diversify the regional economy, thus losing the advantages of economies of scale and scope, sophisticated fiscal equalisation systems offer a long-term strategy to cope with the regular overheating and depression cycles found in the regions. Under the condition that the *overall* economy is running well and that downturns in some regions are matched by upturns in others, fiscal equalisation can be a limited remedy against the large *specific* regional imponderables.

The tax sharing system also shows some shortcomings. First, the 1/11th part of the Local Share Tax looks more like a conditional grant scheme. Since the 1/11th part of the Local Share Tax is important in absolute terms, it gives the central government considerable power on subnational decision-making. Second, the fact that some transfers are based on projects approved by the national government rather than on normative criteria gives the central government influence on many details of subnational decision-making. Even if the conditionality of some parts of the tax sharing agreements is to be maintained, the distribution of the funds should be based on clear, standardised or normative criteria. Furthermore, the allocation process should be easy to understand, and transparency should be increased by the disclosure of details.

Intergovernmental relationships

Due to the nature of the Korean regime, which has long been centralised, and to the short history of local autonomy, the concept of intergovernmental relations is quite new in Korea. Improving the relationship between the central government and local governments and that among the local governments is one of the main tasks necessary to carry out territorial development policies. In this perspective, the two types of relationships play a major role: vertical relationships between central and subnational governments and horizontal relationships between subnational governments.

Vertical collaboration

Overview

The term "collaboration" is a relatively new concept in Korea. Until the adoption of the *Local Autonomy Act* at the end of the 1980s, government relationships were mostly unilateral with the central government issuing directives and the local governments receiving them. Intergovernmental relationships reflected the

strongly centralised character of the Korean State. In this context, neither local nor decentralised decision-making, nor a more contractual, balanced relationship between two different but somewhat equal entities could gain a foothold, nor were the local authorities strong enough to get involved in any kind of horizontal partnership to fulfil tasks in the public interest.

The path towards decentralisation and democratisation at the beginning of the 1990s also opened up the path towards a more balanced intergovernmental relationship. The *Local Autonomy Act* enshrined local autonomy and strove for the democratisation and efficiency of the local governments. In many cases, the central government has ceded responsibilities and now restrains itself to issuing guidelines rather than to scrutinising local governments' public service provision. The increase of the local share of total tax revenue and the institutionally rather well protected tax share agreements have also increased local governments' self-confidence with respect to central government and have led to a more balanced intergovernmental relationship.

Yet there still seems to be a rather strong and unilateral grip of the central government. The fact that intergovernmental grants contain detailed and specific regulations is significant and indicates that the central government still has to be considered as superior to and not a partner of local governments. There are no permanent "round tables", or forums, where central and local governments convene on an equal basis, discuss and decide on intergovernmental relationships and their reforms. In Korea, in addition to institutional reforms, a more difficult change in the governance culture is required. Even after the recovery of local autonomy, a centrally oriented nature persists, not only inside the public sector but in the nongovernmental sector as well.

For the central bureaucracy, a fundamental shift in attitude is needed. Past success in spurring economic growth has resulted in a confidence in the implementation of policy led by the central government. However, in the current context of eroding traditional socio-economic relationships, this confidence may resemble arrogance. At the local level, although many of the local governments rely deeply on the financial transfer from the central government, local governments need to take complete responsibility for their decision making. An active and self-critical attitude at the local level may be another key for territorial development. A new governance culture needs to be created through practising policies by involving a variety of actors who are to implement and operate the new systems.

The role of national ministries

The intergovernmental relationship consists mainly of the supervision, mediation and support of local governments. Any national ministry that has delegated a public function can direct and supervise the respective local activity. Since institutional

capacity at the local level is alleged to be somewhat restricted, the various ministries can provide technical support and assistance to local governments in performing administrative functions.

The Ministry of Government Administration and Home Affairs (MOGAHA) holds a particularly strong stake *vis-à-vis* local governments. Any enactment or revision of a rule or ordinance has to be reported to the Ministry. The local governments may at any time request a report on the activities that fall under the jurisdiction of local government. On its side, the Ministry, if it considers a local decision not to be in line with the law or not on a par with public interest, can ask for further deliberation of the local council decision. The Ministry also approves the issuing of local bonds. Local governments need the approval of the Ministry for establishing a public enterprise or for changing the location of a public office. In some cases, horizontal association across local governments is subject to ministerial approval. In cases of conflict between local governments, the ministry can, at the request of one or several of the conflicting parties, mediate the conflict.

In general, vertical relationships between the central government and the various local jurisdictions are hierarchical, with the local governments often being mere agencies executing tasks on behalf of the central government. The tight and detailed control mechanisms need to be replaced by monitoring that is based more on outcome or on quality of public services. In Korea, the policy evaluation system was introduced in 1961 by Presidential Order. Currently, the system is operated under the Office of the Prime Minister and the result is published every year. A new law “the Basic system evaluation law” is under preparation in order to establish the legal basis, which will provide basic principles and guidelines for evaluation to both central and local governments. A more interactive mechanism for effective feedback needs to be elaborated.

Horizontal co-operation and functional regions

General

The lowest government level in Korea – the *Si*, *Gun* and *Gus* – is relatively large in size and population compared with other OECD Member countries. The average population of the smallest entity, the *Gu*, is around 66 000 inhabitants, which is achieved by few other countries and is hardly comparable to the scattered municipal systems of France, Austria, Greece or Switzerland. However, the municipalities may be too small to make economies of scale and scope for some public functions. In some cases, the amalgamation of municipalities can resolve the problems and contribute not only to more co-ordinated decision-making but also to financial savings.

In Korea, the merger of urban and rural cities in the middle of the 1990s can be considered a successful promotion and institutionalisation of urban/rural partnership

and management. In 1994, the government, recognising the difficulties raised by the separation of communities, altered the basic principles for the organisation of administrative units in order to reduce disparity by integrating urban and rural areas into the existing communities. In 1995, throughout long discussion and a careful preparation process, which included public hearings and public opinion polls, 41 cities and 39 counties were merged into 40 cities and the administrative areas for three Metropolitan cities were revised. The administrative reorganisation directly affected the community life, and it raised delicate problems, such as the reduction of honorary positions, managerial works and change in traditional names of villages. By taking advantage of the special timing before the first local election, Korean authorities overcame many of these problems by building consensus among residents.

The year 1995 was probably a rare moment when consensus on far-reaching institutional decisions could be obtained. In general, municipal amalgamation meets with strong resistance from many merger candidates, as revealed by similar efforts in most other OECD countries. Amalgamation of municipalities would not necessarily reduce the problems of economies of scale or intermunicipal spillover, since the cost of many public services does not depend on the size of a political entity but on physical and territorial features, such as population density or settlement structure. The alternative to amalgamation is the promotion of voluntary association, a path that is often closer to economic rationality and political feasibility. This kind of integration is usually pursued on the basis of appropriate economies of scale for a given function and can be referred to as functional integration. Since the optimal size is different for the various public functions, there results a pattern of overlapping municipal associations that may be referred to as functional regions.

The framework of such administrative systems is prescribed in the *Local Autonomy Act*. The heads of any local government must report the establishment of an association to the Ministry of Government and Home Affairs (MOGAHA). Certain kinds of local government associations require the approval of the Ministry. In order to warrant accountability, the Ministry sets minimum requirements for the establishment of associations. Local governments have to lay down association rules, and the association has to be approved by the local councils. In cases of dispute among the members of an association, the Ministry can act as mediator. One good example is the "Gimpo Landfill" which is managing the waste disposal of Seoul Metropolitan Areas. All waste from Seoul, Incheon and Gyeonggi is collected in one area in Incheon and reclaimed. The central government is also trying to encourage waste treatment at the metropolitan level with the support of a categorical grant rather than installing treatment facilities in each region separately.

The associations remain quite inactive as an institutional device to reconcile local conflict. This is partly due to their limited power of co-ordination among the local governments. Administrative consultative councils (ACC) are only given the nominal right to co-ordinate the policies of the local governments concerned. If

the ACC fails to reach an agreement, the *Local Autonomy Act* prescribes that the superior government (*i.e.*, upper-level governments in the case of lower level governments, the central government in the case of upper level governments) can intervene and arbitrate. From the viewpoint of spatial development, with respect to large functional regions, the Comprehensive National Development Plans (CNDP) proposed territorial development units such as river basin areas (the first CNDP) and Integrated Regional Settlement Areas focusing on functional links between cities and counties (the second CNDP).

The concept of voluntary, horizontal co-operation needs to be further elaborated as it is in other countries (see examples of Spain and Switzerland in Boxes 3 and 4) from tight regulations to a collaborative horizontal partnership.

Recommendations: reforming the territorial governance culture

In order to replace the centrally oriented territorial governance system with a more balanced intergovernmental relationship, a continuous striving towards decentralisation is necessary. This would require a more effective promotion of the philosophy of local and regional autonomy in Korean society. For the central bureaucracy, a fundamental shift in attitude is needed whilst at the local level, a more proactive and self-critical attitude should be enhanced. The transfer of responsibilities needs to be accompanied by the transfer of manpower and financial resources. Intergovernmental collaboration should be more oriented to respond to feedback, so that the central government could readjust and refine institutional arrangements and policy implementation. Considering the broadness and complexity of territorial issues, the responsibility of the central government in the future will increasingly be “strategic leadership”, whereas implementation should be more and more handed over to local governments. More specifically, the central government should consider to:

- *Continue the decentralisation process*: Promote more thoroughly and more effectively the idea of local and regional autonomy in the Korean society. Help build up local institutions that are able to provide accountable policymaking and to take over efficient public services. Delegate more responsibilities, mainly in the area of physical infrastructure and economic development (technology diffusion, business promotion, etc.), to local governments, particularly the provinces. Reduce the tight control mechanisms and replace them by monitoring that is based more on outcome or quality of public services.
- *Increase local financial autonomy*: Readjust both the structures of local taxation and of vertical financial transfers in order to provide all local governments with sufficient financial resources. Given the polarisation of economic activities and the considerable regional disparities, fiscal equalisation through

Box 3. **The Spanish *Mancomunitats*: flexible horizontal co-operation and functional integration**

Mancomunitats are a horizontal form of co-operation between several municipalities. They are designed to organise municipal tasks and responsibilities that a single municipality would be too small to handle (*Mancomunitats* are comparable to the German and Swiss “*Zweckverband*”, the French “*syndicat*” or the English “special body”). *Mancomunitats* are based on the following principles.

- They are on a **voluntary** and not a compulsory basis. Every municipality may decide freely to take part in a *Mancomunitat*. The *Mancomunitat* of the Vall d’Albaida consists of 34 municipalities that all adhered voluntarily to the *Mancomunitat*.
- They and their municipalities can collaborate **across the borders of upper-level governments**. For example, the municipalities of the Vall d’Albaida *Mancomunitat* collaborate across Comarcan and even the provincial border.
- *Mancomunitats* are **functional along a “géométrie variable”**: although they provide several services such as waste disposal, social services, culture, etc., they do not provide these services for all municipalities. Some municipalities are participating in a few of these services only, overlapping the “borders” of different services.
- A municipality joins a specific *Mancomunitat* service **if its share of the cost is lower** than providing the service alone. The voluntary basis of the *Mancomunitat* thus leads to an optimal level of economies of scale and scope. Because economies of scale and scope are different for every function, the resulting pattern of functional regions is very diverse: no functional region has the same shape.

What conclusions can be drawn from the *Mancomunitat* example?

- Functional collaboration on contractual grounds can work very well and often replaces additional government layers or upper government interference.
- New information and new technologies changing the pattern of economies of scale and scope can easily be integrated through the adaptation of the size of the functional region.
- Political borders can never be “optimal”, insofar as they can only by coincidence encompass the optimal territorial extension of a certain public service.
- *Mancomunitats* allow lower government levels to take advantage of economies of scale and scope without upper-level interference. They are an efficient means to reach the optimal territorial extension for the supply of public goods. There is a “core” of collaboration to which all municipalities adhere, but all municipalities do not take part in all activities of the *Mancomunitat*. *Mancomunitats* reveal the flexibility that is needed when implementing different policies, and they show that this flexibility can only be achieved if the co-operating entities are not too large, if they are allowed to co-operate across higher level (district, provincial, regional or even national) borders, and if they are given some financial autonomy to fund larger projects.

**Box 4. Public transport associations in functional areas:
an example from Switzerland**

The large metropolitan areas in Switzerland (Zürich, Basel, Geneva and Bern) extend beyond municipal and cantonal borders; the functional commuting zone does not correspond to the jurisdictional area. During the 1980s, the population increasingly demanded a coherent and user-friendly public transport network able to meet the needs of commuters and to reduce the environmental impact of the excessive use of private cars. Since there was no single political entity that could be responsible for such a network, it had to be organised along functional lines and across political borders. Most Swiss urban transport associations created throughout the 1990s are the result of a sometimes strained horizontal collaboration endeavour between municipalities, cantons and transport companies to transform a good idea into a workable and financially sustainable transport network.

The *Tarifverbund Nordwestschweiz* (Tariff Association of Northwestern Switzerland) in the Basel conurbation is the oldest and institutionally most complicated transport association. It was founded in 1987. Today it covers around 160 municipalities, four cantons, six bus and two railway companies and, through cross border agreements, the two countries of Germany and France. The main features of the transport association are:

- Municipalities are free to join. The cantons pay member municipalities between 40 and 50 per cent of their share of the deficit, providing them with an incentive to join. All municipalities of a canton do not participate, particularly those lying outside the functional area.
- The association sets fares and defines the transport offer. The service itself is contracted out by tender or through negotiations among public entities and transport companies. The single private bus or rail company and federal railways remain independent.
- The user has to pay a single ticket, even when several companies or transport means are used. Fares are set according to zones.
- The municipalities share the overall deficit according to a weighted key of users and transport kilometres on their territory. The cantons and, for some services, the federation pay minor subsidies.

The association emerged basically out of a common interest of the central city and its surrounding municipalities in providing commuters with a rapid, inexpensive public transport system. However, upper-level financial support, from cantons or even the federal government, proved to be an important glue for holding the association together. At present, some financial strain remains upon the association. Cantons and municipalities are thus asking for additional financial resources, and the federal government is currently examining additional investment support to urban transport.

the local share tax is imperative. Minimise the conditional part of tax sharing and enhance transparency by disclosing the allocation criteria. Replace conditional categorical grants and other discretionary transfer funds by non-earmarked or normative grants. Restrict categorical grants to areas and projects where strong vertical collaboration is required or where marked externalities between local governments prevail. Streamline and simplify categorical grants by compiling them into more flexible general grants, yet secure local budget discipline. Allow local governments more freedom in setting local tax rates or to introduce flexible mark-ups (piggy-backing) on national taxes.

- *Build up local capacity*: Vertical redistribution of powers and enhanced horizontal partnerships require increased capacity of local authorities and administrators to be effective. Local governments, in particular, and municipal governments are expected to effectively integrate sectoral assistance measures provided by different ministries into a holistic policy for the development of a certain area, by considering location advantages and disadvantages and changing local needs. This requires broad knowledge and administrative skills. Therefore, human resource development at the municipal level needs to be intensified. Education is a cornerstone in the process of devolution and in increasing accountability and efficiency of local governments.
- *Introduce a more balanced partnership*: Replace the strongly vertical relationship between the central government and local authorities with a more co-operative partnership. Set up a body composed of representatives of all government levels. This body should develop a process of vertical dialogue, for co-ordination and negotiation between central and local governments that would formulate substantive policy recommendations on the topics of decentralisation, development policies, public/private partnerships and related areas. Local and central governments should set up a common technical body well equipped for monitoring and evaluating local authorities' performance, with a methodology decided in consensus.
- *Foster horizontal collaboration and functional regions*: Develop the institutional framework for voluntary, horizontal co-operation. Strengthen horizontal co-operation, particularly urban/rural partnerships in large metropolitan areas, as a more flexible alternative to forced amalgamations. Regarding the growing importance of wider area co-ordination, the provincial governments are well suited to take on a more important role in subnational policymaking, particularly in the areas of physical infrastructure, environmental protection and tertiary education. Intergovernmental transfers thus have to be readjusted in order not to create any disincentives for voluntary, horizontal co-operation. The central government may also introduce financial incentives like in other OECD countries.

It is useful to set up a forum where central and local governments can convene, discuss on an equal basis, and then decide on intergovernmental relationships and their reforms. This body should build up a process of vertical dialogue for co-ordination and negotiation between central and local governments that would then formulate substantive policy recommendations on the topics of decentralisation, development policies, public/private partnerships and related areas. These bodies may follow the framework of “negotiated planning” in Italy or the framework for the federal reform project in Switzerland.

Notes

1. Since 1999, the Office of National Budget and the Planning and Budget Commission have merged into the Ministry of Planning and Budget.
2. For a more detailed evaluation of the Korean tax system, see OECD (2000a), p. 85.
3. Compare OECD (1999d) where local taxation in 19 OECD countries has been scrutinised. Unfortunately, Korea was not included.

Chapter 3

Spatial Development Policy

The post-war history of territorial development policies in Korea can be defined as an effort to respond to massive and rapid demographic changes. In order to accommodate the immigration into urban areas and the natural growth of the population, the Korean territory was drastically transformed and urbanised. The percentage of the urban population within the total population increased from 35.8 per cent to 85.9 per cent from 1960 to 1997. Due to the magnitude and the extremely short time period of economic growth and urbanisation compared to that in other Member countries, non-physical aspects of territorial policy have been relatively less developed and are key issues in the new century. The focus of Korean development has been shifting progressively throughout the post-war period, from an emphasis on economic recovery by import substitution and economic development through exports, to sustainable development and improved quality of life, reflecting the transformation of the economy. This transition of the national goals is shown clearly in the four Comprehensive National Development Plans (CNDP), formulated every 10 years, which present the long-term vision and orientation of the government on territorial development. Under the global vision shown in the CNDP, broad coverage of spatial development policy measures has been devised and added in a fragmented manner in relation to the changing goal. Amongst a variety of policy tools, there are two major directions in strategic policy: first, a series of measures to encourage decentralisation from Seoul, including the growth containment policies, as overconcentration in the Capital Region has remained the central concern of spatial development over the past decades (in contrast to several shifts in focus in broader national economic policy); second, development policies for other regions (mainly targeting rural areas), undertaken by individual sectoral ministries. Another group of policy measures that have considerable spatial implication includes policies on land use, the property market and housing. In addition, physical infrastructure development needs to be re-examined in the post-crisis context of funding problems, increasing environmental concern and decentralisation.

This chapter discusses the shift in the national goals of spatial development policies by reviewing the four CNDPs, focusing on the above mentioned two major

directions of policy, with brief outlines of land and housing issues and infrastructure development.

The Comprehensive National Development Plan and the goal of territorial development

Territorial development after the Korean War was first dedicated to reconstruction of the basic infrastructure, concentrating on roads, bridges, housing, and factories to produce goods for the domestic market. Almost all of the previous infrastructures were destroyed during the War. Once the damages were repaired, the President Park government launched a full-scale development programme. The *Urban Planning Act* was passed in 1962 and the *Comprehensive National Development Planning Law* in 1963. In the 1960s, the government's efforts regarding spatial development were led by the Ministry of Construction together with the National Economic Planning Board. The first Five Year Economic Development Plan was formulated in 1972.

That development policy emphasised the building of industrial complexes to produce materials for the domestic market. In 1962, the Ulsan petrochemical industrial complex was implemented by the government, and was further developed as heavy industrial complexes (including ship building and automobile manufacturing). Another focus was the expansion of the basic infrastructure. In this phase, the Gyeongin expressway connecting Seoul and Incheon was constructed in 1968 and the Gyeongbu expressway connecting Seoul and Busan in 1970. Legal bases for infrastructure construction were established during this period, when the *Multi-purpose Dam Development Law* in 1966, the *Export Processing Industrial Estate Development Law* in 1970, the *Local Industrial Estate Development Law* in 1970, and the *Industrial Estate Development Law* in 1973, were passed.

Differing from the majority of OECD Member countries, after the 1970s, in Korea, the national goal of spatial policy was synthesised into the Comprehensive National Development Plan (CNDP) (Table 19), which presents long-term physical visions for the territory. The CNDP has its legal basis in Article 120 of the Constitution and the *Comprehensive National Development Planning Law*. It is formulated through inter-ministerial co-ordination and is approved by the Cabinet. The plan manifests the shared view among ministries based on consensus and sets forth the long-term visions and future orientation regarding distribution of population and industries, supply of infrastructures, management of natural resources and environmental preservation. Its focus has been limited to, primarily, physical infrastructure development and is not directly linked with individual financial measures. It has, however, contributed to information sharing and consensus building among the sectoral ministries.

Table 19. **Changes in national goals and policies in the CNDPs**

Period	GNP per capita at the beginning year In dollars	National goal	Policy measures
1950s	–	Overcome poverty	– Repair existing infrastructure
1960s	–	Promote economic growth	– Construct roads, ports, Ulsan industrial complex
1970s 1st CNDP (1972-1981)	319	Maximise economic growth	– Promote heavy and chemical industry – Construct industrial belt in South coastal region
1980s 2nd CNDP (1972-1981)	1 824	Regionally balanced economic growth	– Effective management of the metropolitan area – Construction of 2 million housing units

Source: OECD Secretariat, based on “The third CNDP” and “The fourth CNDP”, Republic of Korea.

It was not until 1971 that the first CNDP was formulated, eight years after the passing of the Act in 1963. The goals of the first CNDP (1972-1981) were the development of large-scale industrial bases, the intensification of transportation, and the provision of water resources and energy in order to facilitate economic growth. The government used public resources and external borrowing to finance the work, focusing first on manufacturing and services in Seoul. It then went on to create the heavy industry base along the southeast coast by building such industrial cities as Ulsan, the construction of which began in 1969, and a number of other industrial estates in that region. Tax incentives and financial assistance were given to firms willing to locate in the designated zones. Busan, the second largest city and a gateway port to Japan and the Pacific in the southeast, took the role of being a centre for light manufacturing. Daegu emerged as the centre for textiles and apparel. A modern expressway and transportation corridor was constructed linking Seoul to Busan via Daejeon and Daegu. The North/South axis began to stabilise into a bipolar, spatial development pattern anchored on either end by Seoul and Busan. Within the Seoul metropolitan region, new satellite towns were built to create a series of local growth poles as a means of trying to spatially organise the rapidly expanding urban population and enterprises. During the 1960s and 1970s, to improve efficiency, the government’s investment was concentrated on the high priority areas of Seoul, Incheon and Ulsan, so as to facilitate accessibility to human resources, subsidiary material, product sales and infrastructure. This concentration of investment in selected areas, though it contributed to the rapid economic growth in a very short period with limited resources, is criticised as having deepened regional imbalance.

Major infrastructure constructed during the period of the first CNDP includes industrial bases in Pohang, Gumi, Yecheon and Changwon, multipurpose dams at Soyang River and Andong, and the Honam and Namhae Expressways. The government developed satellite cities surrounding Pohang and Gumi, to intensify the functions of the industrial complexes. By the end of the 1970s, the Southeast Coastal Industrial Belt was being fostered as a major centre of industry by connecting Ulsan, Busan, Masan, Changwon, Yecheon and Pohang. The manufacturing output of this zone amounted to 31 per cent of the national output in 1971, rising to 41 per cent in 1981. The first CNDP placed little emphasis on regional balance or living conditions. During this period, population concentration in the Capital Region had already brought about acute problems in Seoul, leading to urban policies such as the designation of a greenbelt and the construction of a subway.

In contrast to the first CNDP, which focused exclusively on industrial development, the national goal for the period of the second CNDP (1982-1991) placed explicit emphasis on balanced regional development, population decentralisation, and the improvement of living standards. Further growth of the Capital Region (which includes Seoul, Gyeonggi and Incheon) was restrained by blocking the construction of new factories, universities, and other large-scale projects, and by relocating public offices to other regions.¹ The Capital Region management plans were formulated in this regard. In contrast, measures promoting growth were implemented in other regions, and included the expansion of infrastructures, and the granting of tax and financial incentives. Industrial development was initiated in the western coastal regions, the most economically depressed and lagging areas in the country. The second CNDP was revised in 1987 when the sixth Five Year Economic Plan was issued. The basic goal of the revised plan was the same as that of the original plan, but with the development strategies of the growth pole cities being replaced by the balanced regional development strategy.

Despite the spatial development policy of the 1980s trying to balance regional development, concentration in the Capital Region continued in the 1990s. The third CNDP set four targets: regionally decentralised development; efficient land use; improvement of the quality of life, and enhancing amenity and unification of South and North Korea. The intention was to balance regional development by strengthening industrial centres along the west coast and the regional and provincial cities. In order to ensure support for less industrialised areas, *the Law on Regional Balanced Development and Promotion of Local Small and Medium-sized Firms* was enacted, establishing eight area-wide development plans. The third CNDP was particularly concerned with the development of lagging regions and with the quality of life within them. The same law also introduced the Development Promotion Districts (DPD).²

During this period, a number of large construction projects were launched. The Incheon International Airport and Seaports in Busan, Gadeok and Gwangyang,

the Seoul/Busan express railroad, are all expected to be completed in the early 2000s. The government intends to transform Incheon and its neighbouring area into a new centre of international business and logistics in conjunction with the opening of the Incheon International Airport. In order to make up for the shortage of public funds for the project, the *Private Capital Inducement Law* was passed in 1994 to facilitate participation by the private sector. Despite the massive efforts to provide physical infrastructure in the 1970s and 1980s, the rapid economic growth induced a significant demand for further such development. During the period of the third plan, housing and living conditions were upgraded considerably, with approximately 500 000 to 600 000 housing units being provided every year, in order to reduce tension caused by the high land prices and housing shortage. Institutional reform and reorganisation were intended to increase efficiency by integrating all the physical infrastructure development. The Ministry of Construction and Transportation (MOCT) was established in 1994, through the combination of the former Ministry of Construction (which was responsible for development of industrial facilities, roads management, etc.) and the Ministry of Transportation (formerly in charge of railways, airports, etc.).

During the decade of the third CNDP, Korean spatial development policy was required to adapt itself to the drastically changing global economy as well as to democratisation, the recovery of local autonomy, deregulation, and subsequent socio-economic change. Most of all, in 1997, Korea experienced an unprecedented economic crisis but rapidly recovered from it within two years. Although the crisis had a devastating impact on the national economy, which resulted in seven per cent output fall and a tripling unemployment rate, Korea achieved a quick recovery, in particular in the regions relying on non-traditional manufacturing industries. Since the latter half of 1998, economic expansion has continued, though recently at a moderate pace. Since the crisis, rising unemployment and decreasing nominal wages have impeded households severely. It should be noted that the number of urban households moving to agricultural areas increased. In 1998, more than 6 409 households emigrated from urban areas and in 1999, 4 118 households left the urban areas.³ Even so, in the 1990s, concentration in the Capital Region increased. Facing the drastic socio-economic and institutional reforms, the government decided to formulate a new CNDP rather than revise the third CNDP.

The fourth CNDP was thus approved by the Cabinet in January 2000, and is characterised by three distinctive differences from the former three CNDPs:

- Preservation of the territorial environment is given top priority; the plan calls for development in harmony with the environment leading to sustainable development.
- The plan was formulated through co-operation with the local governments and the civil society from the initial stage. The Research Commission for the

CNDP was formed in 1998 and developed the plan. “Territorial Forum for the 21st Century” organised by a private sector initiative made recommendations and comments throughout the preparatory stage.

- The term of the plan is set for 20 years instead of the 10 years of each of the former three plans.

The fourth plan states the national goal to be “Realisation of Integrated Territory in the 21st Century”, to be achieved through integration of the regions, integration of development with protection of the environment, integration of the two Koreas, and integration with Northeast Asia. These four targets are given succinctly as “a balanced territory, green territory, open territory, and unified territory”. Balanced territory stresses regional integration and balanced development through the efforts of each region to enhance its own, local identity. Green territory clearly places emphasis on an integration of territorial development and environmental preservation, aiming at a sustainable national development with an improved quality of life. Open territory means being open to the global community in order to facilitate integration with the rest of Northeast Asia and in order for Korea to take the role as a centre of Northeast Asia and as a leading country in the world economy. Unified territory implies promotion of a peaceful unification and the establishment of a co-operative relationship between the South and the North.

The fourth CNDP divides the territory into ten regions and gives directions for future development of each region (Table 20). Moreover, it is intended to establish a development strategy to link the three economic spheres of the Yellow Sea Rim, the East Sea Rim, and the Pacific Rim by focusing on Korea’s strategically advantageous location as a gateway to the Northeast Asian region. This region can be seen as a single, huge regional market comprised of China (north of Shanghai), Japan, Far Eastern Russia, Mongolia, North Korea, and South Korea and contains a total of 700 million people, with a total GNP of USD six trillion.

Compared with the three previous CNDPs, which placed emphasis on the development of a physical infrastructure, the fourth CNDP covers broader goals. However, the link between the spatial visions and the individual sectoral policy measures has become less clear. Currently, provincial governments are formulating their own local plans, based on the national CNDP. The effects of the fourth CNDP should be evaluated together with the local plans by focusing on the central/provincial links and partnership.

Towards a more integrated and interactive planning process

The Korean CNDP has an integrated national goal with a broad coverage of sectoral policies, and it has been formulated through a long process of interministerial co-ordination. Although the CNDP is not directly linked with individual financial measures, it has contributed to sharing information and building consensus among

Table 20. Visions for 10 regions in the fourth CNDP

Names of the ten regions	Directions of the future development
The Asan Bay Domain	Share logistic functions in anticipation of increasing trade with China beachhead for the purpose of decentralising industries in the Capital city region and developing the west coast.
The Jeonju-Gunjang Domain	Establish an international manufacturing stronghold lying in the Yellow Sea economic sphere. Develop industrial complexes and promote image industries.
The Gwangju-Mokpo Domain	Promote international trade with Chinese and Southeast Asian economic regions. Attract cutting edge fibre optics and knowledge industries, including light sources, laser, fibre optic communications, etc.
The Gwangyang Bay-Jinju Domain	Take the role of NE Asia's key port towns and cities, advancing the aviation industry and the joint development between the Yongnam and Honam regions.
The Busan-Ulsan-Gyeongnam Domain	Key towns of international trade and physical distribution as well as major ports in NE Asia. Revitalise existing industries by converting them into upscale information enterprises.
The Daegu-Pohang Domain	Strengthen the role of this region as an international trading centre in the East Sea Rim economic sphere.
The Coastal Domain of Gangwon Province	A key international resort and tourist centre. A stronghold for inter-Korea economic and cultural exchanges anticipating reunification.
The Central Inland Domain	Open up new lifestyles for depressed regions by utilising their latent cultural and tourist resources. Construct inland logistic infrastructures and environmentally friendly strongholds for cutting edge knowledge industries.
The Daejeon-Cheongju Domain	Establish central administrative functions of the government while acting as an inland stronghold for international trade.
The Jeju Province	Establish infrastructures for an international free port that can play a key role in tourism, physical distribution, finance, and trading for the Asia-Pacific region.

Source: OECD Secretariat, "The fourth CNDP", Republic of Korea.

the sectoral ministries and local governments. It can thus be regarded as a solution applying a holistic approach to spatial development. The CNDP has, however, been weak in integrating physical and non-physical measures with urban and rural policies; and in linking financial assistance measures with the spatial vision of the CNDPs. Further institutional elaboration is necessary so as to bridge these gaps, along with development and environmental conservation measures.

In Korea, spatial development, like economic development, has been promoted mostly by the central government. In the formulation of the fourth CNDP, the government attached high importance to wider participation by the local governments and nongovernmental sectors in the planning process. However, in order to secure more active and substantive participation by local governments,

the private and voluntary sectors and the civil society and the roles of the various territorial actors, need to be better institutionalised. The *Comprehensive National Development Planning Act* will be revised in this regard. The local CNDP formulation process provides good opportunities for horizontal co-ordination on the local level as well as central/local vertical co-ordination. These communication processes need to be more focused, since the role of local governments, in particular at the municipal level, will be of crucial importance in integrating sectoral policies at local levels. The processes need to be elaborated into an interactive feedback process involving the implementation phase.

Collaborative planning measures in co-operation with voluntary organisations and the civil society need to be devised based on the lessons learned from the practices at the local level. Territorial development at the local level, the purpose of which is specific and visible, could provide the opportunity and the motivation to prepare the way for new partnerships. The practices of participative territorial development will be good lessons in building consensus at a time when a vision for the Korean Peninsula will be necessary, since territorial development policy after the integration should be discussed in the most transparent and collaborative way, by giving opportunities to all the stakeholders.

Decentralisation policy

Overconcentration into the Capital Region

The percentage of the nation's population living in the Capital Region increased from 7.7 per cent in 1955 to 39.1 per cent in 1985 and currently represents 45.5 per cent of the total population; a large percentage of all manufacturing industries (55.1%) is also located in the Capital Region (Table 21). Yet this region covers only 11.8 per cent of the total land area of the country. The comparable population statistics of the Capital Region of Japan, France and UK are 31.9 per cent, 18.5 per cent and 11.8 per cent, respectively, suggesting an extreme degree of metropolitan primacy in Korea. The concentration of central administrative functions in the area is even more extreme, with over 80 per cent of all government-invested agencies and the headquarters of 95 per cent of the largest 100 businesses situated in the Capital Region.⁴ This excessive share of Seoul in terms of population and economic activity is often frowned upon as a distribution problem, and is blamed for causing serious urban problems within Seoul (housing shortages, chronic traffic congestion, and environmental pollution).

The recent trend in regional population distribution indicates a continued concentration in the Capital Region during the 1990s. Some population flow against the general trend is, however, identifiable. The Chungcheong region has been gaining in population since 1996. This may be related to certain decentralisation and production activities. Relocation to Chungcheong may seem attractive

Table 21. Concentration in the Capital Region

	National	Capital City, Region	Seoul	Rate of concentration	
				Capital City Region/ National	Seoul/ National
Area in km ²	99 408	11 745	606	11.8	0.6
Population in thousands of inhabitants	46 991	21 365	10 389	45.5	22.1
Manufacturing industry, 1997					
– Number of business firms	92 138	50 727	18 104	55.1	19.6
– Number of employees, thousands	2 697	1 225	298	45.4	11.0
Universities, 1998					
– Total	156	66	39	42.3	25.0
– Student enrolment, thousands	1 448	586	381	40.5	26.3
Finance					
– Deposits, billion won	246 310	162 302	122 012	65.9	49.5
– Loans, billion won	201 056	123 980	92 602	61.7	46.1
Public Office Buildings					
– Number of central government agencies	36	25	15	69.4	41.7
– Government Invested Agencies	18	15	10	83.3	55.5

Source: OECD Secretariat, "The fourth CNDP", Republic of Korea.

because of the comparatively low cost of land and labour and the easy transportation to Seoul. There is also evidence of suburbanisation in the Capital and Busan-Gyeongnam regions. The populations of Seoul and Busan have been declining, while those of the surrounding cities and provinces such as Incheon and Gyeonggi have been increasing. During the recovery from the financial crisis, the population influx into the Capital Region looks to be increasing sharply, particularly during the first half of 2000, when 79 000 immigrants arrived, more than three times as many as those during the same period in the previous year. Since change in economic structure is accelerating in the transition from manufacturing information technology industries, more population growth is expected, as 68.3 per cent of venture industries (3 785 firms out of 5 546) are located in the Capital Region.⁵

Growth containment policy

The government has continually taken extensive measures to reduce the overconcentration in the Gyeongbu (Seoul-Busan) axis since the 1970s, as the social costs derived from overpopulation act as a huge burden on the national

economy and as a restraint to development. The government policies to restrict the concentration date back to 1964, when the overconcentration first began to be regarded as problematic. An ambitious programme called “*Measures for the Restriction of Population Growth in the Capital Region*” was announced in 1964. In 1969 another extensive policy package was adopted by proposing individual measures such as the relocation of government offices, the restriction of new industrial facilities construction, the relocation of polluting industries, the restriction of the higher educational facilities construction, etc. However, these measures were not funded. Since the early 1970s, the different authorities have adopted many ambitious programmes tackling overconcentration, comprising numerous experiments with the following policy instruments.

- **Relocation of government functions** was initiated in the early 1970s. The first plan for the removal of a government organisation was formulated in the 1970s by the Economic Planning Board to relocate to outside Seoul 46 government organisations which were not directly related to policymaking, including training institutes, laboratories, and testing centres. Under this first plan, 35 organisations were relocated, mainly in and around the Capital Region, but five of them returned to Seoul later. In the 1980s, based on the second plan by the Ministry of Government Administration and the Economic Planning Board, 8 of 14 government and public organisations were relocated. Under the third plan of 1985, nine government agencies, among them the Customs Agency, the National Statistical Office, the Intellectual Property Agency, and the Forest Management Agency, were relocated to the new town of Daejeon. This major relocation took a dozen years to complete and reduced the employment by ten thousand and population by 80 thousand. Another relocation project, begun in 1996 and expected to be completed by 2006, is under way to move organisations related to insurance, medical care, and related industries. The minimum size of the government offices permitted to be built within the Capital Region was reduced from 3 000 m² to 1 000 m². The advantages of the relocation of the government offices are numerous. Compared with other measures, it has visible effects such as population reduction, which can be directly estimated. Selling off the office buildings will reduce the existing financial burden, and there are plans for the development of multi-function cities involving not only government agencies but also universities and private industries, which should generate a synergy.
- **Relocation within the Capital Region** has been attempted as well since the mid-1970s. The government launched the development of the Ansan industrial city and Gwacheon government office town within the Capital region. Ansan was expected to accommodate 300 000 people and a number of manufacturing industries, whilst Gwacheon was designed to accommo-

date a population of 60 000 and the central government offices. Construction of the two cities was completed in the mid-1980s. In the 1980s, large industrial estates were developed along the western, coastal line of the Capital Region, including the Sihwa and Namdong industrial estates and the Asan Bay area industrial estate in the southwestern region.

- **A relocation programme for the universities in Seoul** was initiated in 1972 by the Executive Office to move Gyeonggi, Myeongji and Hanyang Universities. Twelve other universities established their branch schools beyond the boundary of the Capital Region. All but one of the branch schools were located within 150 km from Seoul. Since the early 1980s, the limits placed on university enrolment in the Capital Region have been strictly applied and have reduced the number of university students from 46 per cent in 1980 to 32.3 per cent of the national total in 1995. Restrictive measures relating to educational facilities have caused complex side effects. They may perhaps be blamed for a loss of opportunities to study in the Capital Region, for traffic congestion within the Capital Region, and for an increase in transportation costs for students. On a positive note, they may have contributed to the expansion of opportunities for higher education in less populous regions. Despite the fact that the presence of good schools in the Capital Region might have been one of the key reasons for the concentration and that the policy furthered the original goal of decentralisation, the overall benefits are questionable considering the complex secondary effects.
- **The restriction of industrial establishments and facilities that increase population** has been led by strong central government leadership. The growth control policy for Seoul and the Capital Region has been pushed vigorously with the enactment of the *Industrial Location Act* of 1977 and the *Capital Region Growth Management Planning Act* of 1984. Construction of relatively large manufacturing facilities in the Capital Region (industrial establishments with more than 16 workers and larger than 200 m²) and other facilities that encourage population (such as universities, private training institutes or education facilities larger than 66 m², or public office buildings larger than 3 000 m²) has been restricted. Such construction is permitted only on approval by the Capital Region Growth Management Deliberation Committee. There have been, however, innumerable violations. Many manufacturing plants were built without the required permits after the enactment of strict zoning codes in 1984. In the recent trend of deregulation of land use control, the restriction on physical development was modified in 1994 and construction of factories will be permitted within the restrictions established by the individual city or county. Construction of shopping buildings larger than 15 000 m² and of office buildings larger than 25 000 m² are accepted within the Capital Region, but with the payment of a congestion

charge equal to ten per cent of the construction cost. One advantage of this newly enacted Development Charge lies in its ability to finance the infrastructure necessary to meet the region's increasing demand.

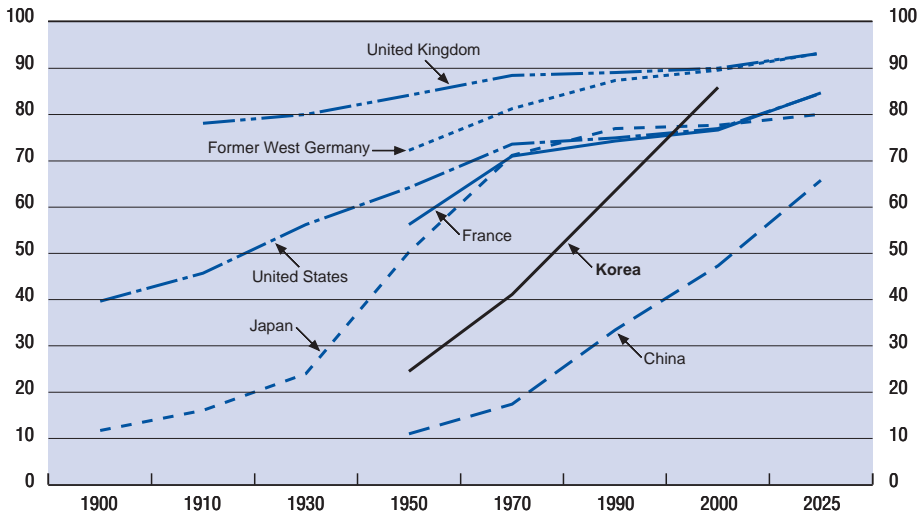
- **Relocation of manufacturing establishments** violating zoning regulations in large cities, was proposed by the government in 1969. A tax incentive was introduced to encourage firms to relocate from Seoul. This policy was intensified by the Population Relocation Plan for Seoul in 1977. Approximately 1 000 firms were ordered to leave Seoul, most of which stayed in the Capital Region due to the wide gap between the business environment there and that in other regions. Large firms, which were successfully relocated to other regions seemed to be those which found location factors less important to their operations; whilst smaller and newer firms may still be finding it difficult to survive in regions other than Seoul. In August 1999, the government announced "Relocation Promoting Measures" which provide huge financial incentives to those businesses willing to relocate. These incentives include tax reductions and/or exemptions, loan opportunities, supporting city development rights, and more. This has been followed with the enactment or amendment of the relative acts, and the amendment of loan guidelines. In addition, the government gathered together related agencies to set up the "Relocation Support Centre" where they provide consultation on tax and financial matters, on permit and approval procedures, and on other practical services that businesses would need in moving to the regions.

Complex effects of the containment policies

The effect of the individual policy measures concerning decentralisation is difficult to evaluate, since they have had complex positive and negative effects on territorial development, some intended and some not. At the initial stage, the proposed measures were unfunded policy demonstrations, but later in the 1980s, substantive measures such as the relocation of government offices, were carried out under the strong leadership of the central government. As for the physical measures, there is scepticism that they can hardly control the behaviour of individual households and firms in selecting residences and business sites. The economic disincentives like the residential tax have proven to be insufficient to restraining the perceived supremacy of the Capital Region in comparison with other regions. Economic incentives to divert growth into other provincial areas would have been too costly to implement.

The policy effects relate not only to the appropriateness of individual measures but also to the cumulative impact of the decentralisation policy as a whole. In this regard, the magnitude of the population flow towards the Capital Region has been far beyond that of the outflow, as shown by the fact that the population

Figure 11. Share of the urban population



Source: National Statistical Office, Economic Planning Agency in Japan.

share of the Capital Region has reached 45.5 per cent. It may partly be attributable to the timing and magnitude of the Korean urbanisation and industrialisation process rather than being solely a failure in policy. Throughout the periods of rapid population growth and urbanisation, thousands of people emigrated from European countries to other continents. In Asian countries such as Korea and Japan, the rapid population growth and urbanisation period mainly occurred in the latter half of this century (Figure 11) and the outflow of the population basically needed to be accommodated domestically. Thus, concentration in Seoul may, in the long run, be inevitable, and the full effects of policy need to be evaluated so as to determine if they have successfully brought relief.

Moreover, the growth control policy has at times been inconsonant with other sectoral policies, such as those on housing and high technology industry. The housing shortage prompted the construction of five satellite towns within commuting distance from Seoul during the late 1980s. To promote high technology industries for the purpose of participation in global competition, restrictions on manufacturing activities were relaxed. The construction of the Incheon International Airport at Yeongjong Island can be also considered to have been a significant growth stimulant for the Capital Region.

Overconcentration and regional disparity thus remain key policy issues to be addressed by the central government. However, strategic decision-making at the

Table 22. **Intra-regional distribution of roles in the Capital Region in the 4th CNDP**

Four zones in the Capital Region	Major functions
Eastern area, pastoral zone	To be set aside as a comprehensive residential and resort zone with small housing lot development to preserve water quality and nature, resort villages, cutting edge industries and research complexes, recreational complexes, etc.
Western area, international trade zone	To strengthen the functions of this area involving composite transportation, international intermediary trading, and business administration linked to Incheon International Airport, Yeongjong International Business Town, International Harbours, Songdo Media Valley, and so forth.
Southern area, industrial/logistic zone	To strengthen harbour and distribution functions interlinking the greater Asan Bay sphere and to offer planned sites for small to medium high technology industries within the Capital region so that this area can grow into a logistic stronghold.
Northern area, inter-Korea trade zone	To perform inter-Korea exchange duties through inter-Korea exchange and economic co-operation complexes and border area development and management.

Source: The fourth CNDP, Republic of Korea.

central level will be more difficult under the democratised system, requiring a process based on consensus and transparency. The policy formulation process is getting more complicated and involves not only central government, but also local authorities and nongovernmental sectors. For the moment, the series of decentralisation measures are surviving the trend toward deregulation, but the solution to overconcentration as shown in the fourth CNDP is somewhat ambiguous. It gives different roles to Seoul and to other regions. It defines Seoul as a global city of finance and business whereas it aims at fostering major regional cities and small and medium-sized towns as centres for specific functions. Intraregional redistribution of roles as seen in Table 22 is proposed as well. For example, Yeongjongdo and Incheon are expected to provide the basis for international logistics and cutting edge technologies. An airport town is expected to be interconnected with Incheon International Airport and Songdo Media Valley.

These seem to be clearly targeted at intensifying the functions of the Capital Region. The fourth CNDP, like the earlier CNDPs, has two purposes without determining a clear priority between them (which may be a realistic for consensus building). However, whether or not the goals listed in the plans are compatible will, in the final result, depend on the efforts made during the implementation stage. Decentralisation needs concerted action by government ministries, yet each sectoral ministry is likely to introduce more market-oriented measures in the trend toward deregulation. The government needs to develop a clear spatial

vision enhancing further the quality of life, which could be supported by the urban and rural population and thus by other related ministries.

In addition, the pervasive influence of the government in the private sector has increased the advantages of concentration. There is an incentive to locate in Seoul to be close to the government decision-makers. Further reduction of government control and the change in centrally-oriented business culture is essential to promote spatial decentralisation.

Development in special areas and assistance measures for lagging regions

Behind the economic growth of Seoul and other metropolitan areas, local economies in small and medium-sized cities and in rural areas remain stagnant. In rural villages, the outflow of the young population to large cities has left the elderly alone in farming and fishing villages. Along with the containment policy of the Capital Region, the government has been pushing forward the development of rural areas which has been undertaken by various sectoral ministries; the Ministry of Construction and Transportation (MOCT) has designated the Special Development Area (SDA) and the Development Promotion District (DPD) based on the CNDP; the Ministry of Government Administration and Home Affairs (MOGAHA) provides assistance measures for the backward areas and the Ministry of Agriculture and Forestry (MOAF) has supported rural areas. Investment in rural areas must be continued, as regional disparity in infrastructure development and living conditions is most evident. Cross-sectoral co-ordination of individual measures is insufficient. A holistic view of local governments could make up for the lack of cross-sectoral co-ordination.

Development in special areas under the CNDP

At the beginning of economic development, the Korean government, as did other OECD Member countries, designated various types of special areas for development, the most important of which is named Special Development Areas (SDAs). This was done for the strategic purpose of concentrating investment for infrastructure development in certain regions. These regions included the Ulsan industrial estate development in 1962, the development of export industrial estates in duty free zones from 1965 to 1974 (in Seoul metropolitan region and in other cities), and of the country's second largest seaport in Incheon. Under the *Industrial Estate Development Law* of 1964, land owned by government was sold to the private sector on preferential terms. In the 1960s, particularly between 1965 and 1967, the government designated five areas, including the Seoul-Incheon corridor, the Ulsan, Jeju, and Asan-Seosan areas, and the Yeongsan River, for the purpose of intensive resource and industrial development programmes for services, industry sites, tourism, mining, and agricultural development. The SDA designation

was expanded during the succeeding three decades and in total, twelve areas were designated as SDAs. The total designated area accounted for 30 per cent of the whole territory.⁶

Designation of the Development Promotion Districts (DPD) – which have replaced the Special Development Areas – is based on criteria defined in the *Law on Balanced Regional Development and Promotion Of Regional Small and Medium-Sized Enterprises* of 1994. The purpose of the DPD is clearly defined as the supporting of backward regions, as compared to that of the SDAs, which covered a wider spectrum: developing industrial estates, conserving natural resources, and supporting lagging areas.

The DPDs are divided into three different types:

- The underdeveloped type, which refers to a city or county that is significantly underdeveloped and where any two indices among five are in the bottom 20 per cent nationally.
- The integrated urban/rural type, which includes those areas to be developed in connection with nearby urban centres.
- The balanced development type, which regroups wide areas that require private investment for concentrated development.

Local authorities are entitled to request that the MOCT designates as a DPD any area that satisfies at least two out of five criteria, which the MOCT is reviewing toward adjustment to the post-crisis situation (Table 23). As of the end of 1999, development plans were established for 24 areas, of which one is an integrated urban/rural type, one is a balanced development type, and 22 are of the underdeveloped type. There are a few undesignated areas, even though they may satisfy the criteria, which will be additionally designated as DPDs.

Unlike the SDAs, the designation of DPDs is based on indicators stipulated by law. It is sufficiently clear and rule-based as to make it difficult for the government to be influenced by pressure from regions. However, in order to increase the strategic spatial effects, the locational and geographical factors of individual areas identified in the CNDP and other regional spatial visions need to be better examined in designating the areas, in instead of generally providing financial assistance to municipalities, the designated indicators of which reach a certain level.

The *Balanced Regional Development Act*, which stipulates the DPD, provides another scheme to promote metropolitan areas by creating an independent growth hub in the regions: the Area Wide Development Plan. The third CNDP restructured spatial organisation of the territory into nine large extensive metropolitan areas to establish self-sustaining, spatial, economic units in order to intensify national competitiveness through upgrading the economic performance of each region. In determining the scope of the area, the population distribution,

Table 23. **Development Promotion Districts (DPD)**

Legal base period	Balanced Regional Development Law, 1994-1996
Purpose	Promoting the development of lagging areas and contributing to balanced development of national territory.
Competent authorities	Ministry of Construction and Transportation.
Responsibilities of local governments	<ul style="list-style-type: none"> – Establishment of development plan. – Designation of developer. – Development of DPD by themselves.
Basic unit of area designation	Whole or parts of cities and counties. Two or more cities and counties can jointly be designated as a DPD.
Detailed criteria for designation	Specified by law and by presidential decree. Any area with at least two out of the five following indices in the bottom 20th percentile of all municipalities will be designated as a DPD upon request by the local government: population growth rate; fiscal independence; share of employment in manufacturing; road ratio and average land price.
Designation process	<ol style="list-style-type: none"> 1. Request by the local authorities. 2. Consultation with the related ministries and local governments by the MOCT. 3. Review by the Comprehensive National Development Planning Board. 4. Designation by the MOCT.
Status of current designation, Under-developed type	<ul style="list-style-type: none"> – Number of municipalities: whole or parts of 47 cities or counties. – Surface areas: 6 497.2 km². – Number of DPD areas: 28 DPDs are designated and development plans for 22 DPDs are completed so far.
Development plan	Development plan encompasses specific development projects, investment schedules, impacts on environment. The items included in the Plan that require financial support by the government are to be established by mayors or governors upon approval by the MOCT, and the rest of the plans are established and implemented by local authorities. The municipality governments designate the developer of each project and approve the implementation plan.
Special measures	<ul style="list-style-type: none"> – Financial assistance for basic infrastructure development, 50 billion won per district. – Permissions and approvals pursuant to 22 Acts are exempted. – Tax exemption, acquisition tax, registration tax, capital gains tax, and corporate tax. – Land expropriation rights are given to the private companies.
Total investment for the areas	Total investment until 1999: 693 billion won. 397 billion won by central government, 157 billion won by local governments, and 138 billion won by private sector.

Source: Ministry of Construction and Transportation.

employment, and commuting distances in and around the metropolitan city or industrial centre were taken into consideration. The MOCT has the authority over designation of the areas and over the establishment of plans that include the following factors:

- Land use, *e.g.*, industrial locations, residential complexes, recreation centres.
- Public facilities such as transportation facilities, water supply, drainage.
- Development of tourism and preservation of the environment.
- Population and industrial structure adjustment.
- Plans to induce private investment.

Designation of wide areas began in 1994 and development plans for eight wide areas have been completed so far. The different types of wide areas are categorised as follows and the planning period is to last up to 2011: Large City Type (Busan/Gyeongnam Area, Daegu/Pohang Area, Daejeon/Cheongju Area, Gwangju/Mokpo Area); New Industry Area Type (Asan Bay Area, Gunsan/Janghang Area, Gwangyang Bay/Jinju Area) and Adjacent City Type (Gangwon).

Measures for lagging areas

The Ministry of Government Administration and Home Affairs (MOGAHA) designates four kinds of special areas, mainly by their geographical characteristics (Table 24). The MOGAHA designates cities and counties satisfying the criteria and provides extensive support through categorical and block grants, and loans to promote infrastructure development, provision of cultural and welfare services and improvement of the living environment. The special rate of grants is applied. Permissions and approvals pursuant to 21 acts are exempt upon the approval of development project by municipalities. Tax exemption or reduction for private developers are provided. Under these schemes, the designated municipal governments first propose development projects, some of which will be adopted by the provincial governments and included in the development plan. Municipalities will thus implement the plan. These measures have contributed to improvement of the living environments and income generation in the designated backward regions. However, assistance measures may be partly duplicated due to insufficient co-operation of other ministries. Some ministries provide assistance on each sectoral policy, *e.g.* remote area development measures include road construction by the MOCT and the provision of environmental facilities by the Ministry of Education (MOE). Furthermore, the uniform allocation of project costs over long periods may reduce strategic effects.

Table 24. Measures for lagging areas by MOGAHA

	Remote Areas Development	Islands Development	Bordering Areas Development	Residential environment improvement in farming and fishing villages
Legal base	Remote Area Development Promotion Act 1988	Island Development Promotion Act 1986	Bordering Area Support Act 2000	Farming and Fishing Village Housing Remodelling Promotion Act 1995
Period	2000-2004	1998-2007		1995-2008
Purpose	Comprehensive development of backward rural areas, increase income, improve welfare, balanced national development <i>via</i> reducing regional disparity	Improvement and expansion of productivity, income, and basic living facilities in island areas, and improving living conditions	Economic development and enhancement of residents' welfare, preservation of natural environment, preparation of groundwork for peaceful unification	Improvement of inferior housing in farming and fishing villages, improvement of residential environment
Detailed criteria for designation	Areas far from urban centres where public transportation is inconvenient, areas with significantly low incomes and standards of living	Islands with at least 10 permanent residents, islands with less than 10 residents but for which a need for development has been recognised	1. Areas within 20 km from south of Civilian Restriction Line prescribed by Military Establishments Protection Law. 2. Areas where more than three out of five criteria are below the average; housing growth rate, road pavement rate, water supply rate; manufacturing worker force ratio; military facilities protection zone; occupation rate	Villages with a minimum of 20 households at present and in the future
Total investment	801 800 million won	1 trillion won	Plan to be established	8 trillion won
Government grants	561 300 million won	542 500 million won	Plan to be established	496 900 million won

Source: Ministry of Government Administration and Home Affairs (MOGAHA).

Assistance measures for backward regions under sectoral policies

Apart from the policies to designate areas for systematic support, special attention is given to underdeveloped regions by individual ministries. Major examples are as follows:

- *Transportation.* In remote areas, the local governments provide financial support for local, private bus companies to open and maintain services by compensating for operational losses due to low demand. Some local governments operate public bus services in the areas where no private bus service exists. The central government provides grants for purchasing the vehicles (Ministry of Construction and Transportation).
- *Education.* Inter-ministerial collaboration for improving educational conditions in rural areas has been intensified in recent years. The co-ordinated policy efforts include: close consultations with the concerned ministries on increased provision of preferential opportunities for rural high school students to enter universities; increased provision of support to cover entrance and tuition fees paid by rural, technical high school students; interest-free loans for school expenses to university students coming from rural areas (Ministry of Education); provision of financial assistance to universities for constructing dormitories to accommodate students from rural areas (Ministry of Culture and Tourism); and support for the construction of public libraries in rural areas (Ministry of Culture and Tourism).
- *Medical care.* Local governments may establish health subcentres; smaller facilities to provide healthcare services in rural areas where access to private health services is limited. Some 1 217 health subcentres have been established in 14 provinces (excluding Seoul and Gwangju). The government has placed 1 945 public health doctors and 1 911 healthcare professionals (nurses, etc.) in these health subcentres, especially in remote areas and on islands. On average, one subcentre is established per *Eup* and *Myeon* except for those that have already established a health centre. When the local authorities attach greater importance to health care, additional centres and integrated health centres can be established. The Ministry of Health and Welfare employs medical doctors, dentists, and oriental medicine doctors as public officials for a three-year term, in accordance with the *Military Service Act*, and assigns them to each city or county. Some 1 876 doctors are currently working at health subcentres.

Rural development

In Korea, as in many other countries, agricultural policy had been regarded as rural development policy, although “agricultural area” is not synonymous with “rural area”. Agricultural policy, in principle, promotes agriculture as an industry

and, through this, has contributed to the development of rural areas and to the reduction of the urban/rural income disparity. Throughout the post-war history, farm household income has increased remarkably. In 1997, the average farm household income amounted to 23.5 million won, which is close to the 27.4 million won income of the average urban household. However, the increase is due mainly to the diversification of income opportunities. On average, less than half of the farm household's income actually comes from farming.⁷

The history of post-war agricultural policy can be divided into four periods:

- From 1948 to 1960, the agricultural land reform carried out following the Korean War directly affected rural communities and social disparity (Box 5). The emphasis of the policy was placed on food production since, at the time, it was insufficient to meet demand and relied largely on aid from the USA.
- During the period of rapid economic growth (1961-1976), a large infrastructure was developed, a high yield variety of grain was disseminated and average income rose considerably. Saemaul Undong aiming at rural modernisation strongly motivated the rural communities (Box 5). In 1976, self-sufficiency was achieved.
- During the period of 1977-1988, agricultural imports were increased as the consumers' preferences were diversified, as was the case with the increase in meat consumption. The policy focused on non-agricultural income such as the promotion of tourism, the construction of recreational facilities and of rural industrial complexes. As a result, non-agricultural income significantly increased.
- The fourth phase, from 1989 to the present, is characterised by the globalisation of the economy and by structural adjustment. Current agricultural policy involves a variety of rural development measures such as the improvement of living conditions, assistance measures for new rural industries in agricultural areas and measures related to the enhancement of the environment and of amenities. The coverage of agricultural policy has been significantly broadened in recent years.

During the past 40 years, the agricultural sector has received relatively less attention. Following the general trend in OECD countries, the agricultural share of the GDP fell from 25.5 per cent to 5.8 per cent from 1970 to 1997 and that of employment also declined, from 49.5 per cent to 11.0 per cent. Despite the government efforts to support agricultural income with a policy to support prices and by other forms of assistance, the income disparity between the agricultural and manufacturing sectors persists. The farming population was ageing rapidly, and farms began to be abandoned in some regions.⁸ All of these factors created a general downward spiral of both town and countryside in the rural regions, with out-migration causing a further decline in non-agricultural employment opportunities in regions located away from the major urban/industrial corridors. In recent years,

Box 5. **Two important reforms in the history of agricultural development**

Throughout the post-war history of rural development, the land reform undertaken in the 1950s and the *Saemaul Undong* in the 1970s have shaped Korea's rural areas.

Land reform in the 1950s. In 1950s, following the Korean War, a radical land-to-the-tiller agrarian reform took place. With populations dislocated by the war, landlords were without local, personal or political clout to counter the reform; and with rampant inflation, the government was eventually required to pay only a fraction of the land compensation awarded at the time of confiscation. The impact of the reform, which is one of the few peaceful agrarian reforms of its type to have been accomplished in the post-colonial world, was twofold. First, it gave at least subsistence incomes to the vast majority of the Korean population. Income inequalities were instantly levelled, and what would later become Korea's heralded process of industrialisation with equity gained an important rural foundation. Second, in the context of low levels of urbanisation and the "as yet" small urban working and middle classes, the elimination of a landed rural elite gave enormous autonomy to the Korean government to construct what has come to be known as the "developmental state", namely, a strong-arm government capable of heavily intervening in economy and society.

Saemaul Undong. In the 1970s, the government launched a massive green revolution programme and a village modernisation programme: *Saemaul Undong*. The intention of the green revolution was for the country to achieve self-sufficiency in grain production, which was a response to three issues: national food security, providing cheap food for rapidly increasing urban populations, and limiting foreign exchange losses. Substantial increases in land productivity were achieved through strict enforcement of the adoption of high-yield crop varieties, subsidised fertiliser and pesticide programmes, and collection and distribution systems run by the government. In order to rebuild agriculture, the *Saemaul Undong* was first initiated from 1971 to 1973, under the strong leadership of the central government. At the beginning, 6 000 rural villages participated, increasing to 34 665 villages in 1973. During the second stage, from 1974 to 1976, the activity was extended considerably across the nation, with participation from schools and social organisations. In 1975, a NGO, the *Saemaul Undong* Council, was set up to carry out campaigns aimed at achieving a wider participation. The council also placed emphasis on four measures, including projects to generate income, public work projects, education, and *Saemaul Undong* in urban areas. Since 1977, as the third stage, projects to improve the living standards and the income structure were carried out to complete the activity of *Saemaul Undong*.

the scope of the agricultural policy has been widened to cover non-agricultural industry development in agricultural areas, the construction of various facilities related to the quality of life, rural tourism promotion, education and dissemination

of information technology (IT) in agricultural villages, and environmentally friendly agricultural practices, including various measures for rural area development *e.g.*, to improve rural living environments, and to promote and diversify rural industries (Box 6).

Box 6. Major agricultural policies related to spatial development

Improvement of rural living conditions. The Ministry of Agriculture and Forestry, without establishing a special area designation system, offers grants or loans to rural areas for improving living conditions such as the development of public infrastructures including rural roads, recreational facilities, water supply and sewage facilities. Currently, spring water for human and agricultural use is exploited in the villages where water supply facilities are not available.

Industry development in agricultural areas. Transformations of farming areas into areas with mixed possibilities for primary, secondary and tertiary industries have been tried. Since 1984, in order to diversify measures of income generation in rural areas, agricultural/industrial complexes have been developed. At the initial stage, the emphasis was placed on manufacturing, but recently, agricultural industries are highly stressed by taking advantage of natural resources. Traditional food processing industries will be supported with help in management, the improvement of product quality, marketing, and packaging. Local specialty development is also emphasised by providing the finances to introduce automation facilities.

Human resource development for the next generation. Since many of the agricultural communities are ageing, it is clear that human resource development for the next generation is critical. The government has set a goal of training 140 000 young farmers and 150 000 farmers with special skills by 2004. Selected candidates are entitled to receive financial support such as low-interest farming loans. Training in using information skills in farming is intensified in co-operation with professional consulting firms.

Green tourism and urban/rural links. In the last decades, with the increase of income, there has been an increasing demand among urban dwellers to visit and stay in rural areas. Since 1989, the government has made attempts to develop rural tourism resources. As a result, a total of 640 tourist farms, resort complexes and bed and breakfast villages are now in operation. This contributes to income generation and to urban/rural communication. The MOAF is providing urban dwellers with opportunities to experience rural living and farming activities through stays at rural lodgings.

Support to start farming. Recently, particularly after the crisis, an increasing number of urban households have moved into rural areas and started farming. The number of households immigrating into rural areas tripled in 1998 and amounted to 6 409 by late December 1998. In order to support the newcomers, local authorities provide support such as information and training for farming activities.

Currently, the Korean agriculture sector is in transition. A series of agricultural policy reforms is under way to improve competitiveness by introducing more market-oriented measures. *The Agricultural and Rural Basic Law* came into effect in January 2000, replacing the *Agricultural Basic Law* of 1967. A new framework for agricultural policies is to cope with the current economic crisis and to open the agricultural market following the Uruguay Round Agreement on Agriculture. The new agricultural policy emphasises promoting environmentally sound and sustainable agriculture since the environmental conservation function of rural areas is increasingly highlighted. The *Sustainable Agriculture Promotion Act* came into effect in 1998. A variety of measures have been launched such as: the designation of pilot villages to encourage environmentally friendly farming, financial assistance for SMEs in hilly and mountainous areas, a labelling system for the environmentally friendly agricultural commodities. In many countries, in order to improve the competitiveness of rural areas, specific measures to encourage endogenous development capacities and entrepreneurship have been attempted: enhancing business assistance, especially efforts to diffuse new technologies through R&D, commercialising natural and cultural amenities through direct exploitation of the relevant resources, aiming at a niche market by creating local products based on local identity, developing quality labels and guarantees linking products to places, and particular production techniques. In many cases, these refinements and innovations are recent and have not been comprehensively evaluated. Additional work will be needed to ascertain the durability and transferability of these initiatives on a wider international scale.

In Korea, several types of direct payment have been introduced since the 1990s and were recommended as an effective measure with less distortion for the allocation of resources in the domestic market. They constitute a small proportion of the overall support for farmers when compared to other Member countries. The share of direct payments in budgetary outlays increased on average to 23 per cent that of other OECD countries in 1996.⁹ From 1997, retirement payments have been available: farmers over 65 years old who are willing to sell or rent their land to full time farmers for a period of more than five years will be eligible and will receive a lump sum payment of 2 810 thousand won per hectare of farmland either sold or leased, calculated as the difference between annual farming income and rent during three years. Direct payment for environmentally friendly farming was launched in 1999. Initially, this was for farmers in environmental protection areas who were willing to practice environmentally friendly farming, but the measure will be broadened in line with the positive effects of the policy. The role of rural areas in the territory as well as the policy effects of direct payments needs to be put in perspective with respect to territorial development and to be discussed from a broader point of view. For a long period of time, agricultural policies have been considered as rural policies and current agricultural policy has widened its

coverage to encompass not only assistance for farming activities but also overall measures relating to improvement of living conditions. However, an approach extending far beyond agriculture is required to cure rural ills. The interests of the majority of rural citizens, and even most farm families, are no longer (if they ever were) best served by sectoral policies, since they increasingly depend on employment and income generated by a complex mix of interacting economic activities. This is why an eventual shift from an approach based on subsidising sectors to one based on strategic investments to develop new activities is anticipated.

Future direction

Living conditions in rural areas should be upgraded so as to satisfy both the rural population and the urban dwellers. Vicious cycles such as that in which the insufficient quality of life gives further incentive to the local population to move to urban areas should be ended. Financial transfers may be necessary, though continuously increasing financial assistance to local governments might distort the structure of the local economy; increases in local public works may lead to heavy reliance on construction and related industries in the local economy, a consequence that may reinforce an assistance culture instead of favouring entrepreneurship.¹⁰ Given the difficult economic situation, assistance measures for backward regions may be problematic at this time. Huge investments in those rural areas with a low population density might be economically ineffective under the budgetary constraints. The major role of the central government will be to encourage local initiatives to enhance their advantages in addition to providing assistance measures to reduce regional disparity. Since rural areas play a crucial role in territorial conservation, the future vision of rural areas needs to be established as an important part of the spatial development policy.

Moreover, in order to tackle regional disparity in an integrated manner, individual financial assistance measures should be linked to the CNDP and to other spatial planning. Alternatively, the possibility of cross-sectoral co-ordination between ministries needs to be explored on an individual basis, in particular among the Ministry of Construction and Transportation, the Ministry of Government Administration and Home Affairs and the Ministry of Agriculture and Forestry. All three ministries provide support for rural areas, dealing separately with many of the same recipients. Considering a growing demand for improving the quality of life in rural areas and for social welfare services at the local community level, the physical facility development and the provision of services need to be linked with other related services. Since inter-ministerial co-ordination at the central level takes time to establish, a realistic solution to the problem of fragmenting and duplicating assistance measures will lie in integration at the local level. If local authorities are sufficiently watchful over the assistance measures provided by the central government, they can integrate several assistance

measures for their particular purposes, since territorial development at the local level is more oriented toward concrete outcomes, particularly at the municipal level. The central government should take the role of adviser on policy measures. Measures to enhance amenities, local culture and specialties should be actively explored to revitalise rural areas. Despite the growing concern about environmental conservation, in Korea, the major target of environmental policy measures seems to be the urban areas. In rural areas, the main concern still relates to the improvement of living conditions, which means modernisation. Investment to enhance amenities will be worth exploring in order to share the enjoyment of the natural environment of the rural areas amongst the whole population. After the retirement of those who left the rural provinces at the early stage of economic development, return migration from urban to rural areas may happen, if the rural area is sufficiently attractive.

Land and housing issues

Land and property policy has significant implications for territorial development. First, the pattern of territorial development has been drastically altered by both property inflation and land use regulations. Korean land and property problems are largely attributable to the huge gap between the supply of and demand for urban residential land and housing units. The share of the urban population rose from 35.8 per cent to 84.2 per cent of the nation's total population, during the years from 1960 to 1997. In order to accommodate the increasing urban population, a significant amount of nonurbanised land area has been converted to residential land. The percentage of the urban land increased from 3.9 per cent in 1985 to 5.0 per cent in 1996. Given their significant spatial impacts, further adjustment in land and property policy measures is required to support the changing goals of territorial development.

Second, property and housing problems have had a deep social impact. The severe lack of housing units brought about land and housing price inflation accompanied by serious social tension. The government was tackling the difficult task of increasing housing supply while at the same time regulating the disorganised development in the urban fringe areas. The positive result of these efforts is that the Housing Supply Ratio (HSR) increased from 72.6 per cent in 1977 to 92.4 per cent in 1998. However, asset disparity and the uneven distribution of land ownership are still problematic. Currently, as a result of the property price depreciation, the housing price to annual income ratio fell from 5:7 in 1995 to 3:9 in 1999. Even so, a housing unit in an urban area is not easily affordable. Housing problems are not completely solved, nor are those problems concerning the quality of life and the environmental conditions.

Finally, land and property policy in the globalisation trend also has important economic and financial implications. The property market will now be deeply

affected by both domestic and international financial trends. In the past, the main concern of land and property policy was limited to the regulation of land use and the stabilisation of property inflation. More recently, the government has been active in creating better conditions for investors and in enhancing market transparency. Property market policy will need to be established with close links to the financial market.

Land use and management policy

The Korean land use system dates back to the 1960s and was developed mainly after the 1970s in the growing awareness of the negative effects of overconcentration. The current urban land use planning system in Korea consists of a three-tier system: the Comprehensive National Land Development Plan (CNDP), the National Land Use and Management Plan, and the City Plan. The CNDP, as mentioned earlier, provides the overall vision for spatial development and land use with which all other spatial plans should comply.

The National Land Use and Management Plan (NLUMP), was formulated on the requirements of the “*National Land Use and Management Act*” in 1972. The plan originally divided the national territory into ten areas. However, in 1994 it was simplified and now the whole territory is classified into five areas following the policy orientation shown in the CNDP. This classification serves as the basis for all other development plans and projects based on any additional individual laws. Thus the NLUMP is regarded as the highest authority plan on land use, except for the Capital Region, for which the *Capital Region Growth Management Planning Act* is applied. The five zones of the NLUMP include the urban area (13.5% in 1995), quasi-urban area (1%), quasi-agricultural area (26%), agricultural area (48.3%), and natural environment protection area (11.2%). The first two areas are to be developed, the last two are to be protected, and the quasi-agricultural area is to be considered from both points of view. In the agricultural area and in the natural environment conservation area, development activities are restricted by individual laws and regulations. Land use in the urban area is controlled by the *Urban Planning Act* and the other four areas are under other specific laws, such as the *Agricultural Land Act*, the *Forest Act*, the *National Environment Protection Act*, and the *National Land Use and Management Act*. The typology is based on the inappropriate criteria that distinguish urban and agricultural areas. In Korea, as well as in other Member countries, nonmetropolitan areas are no longer strictly synonymous with agricultural area. A stronger change of perspective towards a territorial, instead of a sectoral, approach would be beneficial.

Quasi-agricultural areas, located around the urban planning area are problematic as they are regulated neither by the *Urban Planning Act* nor by agricultural and forestry laws and regulations. Development only requires permission by the

local government. Local governments need to formulate a development plan based on the guidelines issued in 1994. A major portion of the plots classified as quasi-agricultural areas are of irregular shape. The floor ratio as well as the maximum size of land use conversion was tightened by the government in the 1990s against the original goal of deregulation, which has led to small, scattered development in the quasi-agricultural area. Due to these limitations, both topographical and regulatory, large projects were almost impossible and small housing development projects, characterised by roadside restaurants or small isolated apartments, have been criticised (Chung-Ho Kim and Kyung-Hwan Kim, 2000).

The *Capital Region Growth Management Planning Act* was promulgated in 1982 to achieve a more balanced distribution of population and economic activities. Since then, the Capital Region Growth Management Plan has been formulated. In 1982, the entire Seoul Metropolitan Area was divided into five subregions. Construction of industrial establishments and large office buildings were allowed in a limited area. The targets of the law include: i) controlling the construction of facilities increasing population, ii) regulating development in densely populated areas, and iii) constructing relocation facilities in suburban areas, supported by two major measures; placing a limit on growth and imposing an obligation fee. Restrictions placed by this law on development activities take precedence over any development allowed by other laws. In 1994, the Act was revised to introduce a congestion fee and a location quota for the manufacturing industries. The zoning was simplified and considerably reduced: the overpopulation control area (2 095 km², 17.8%), the growth management areas (5 972 km², 49.5%) and the nature conservation areas (3 831 km², 32.7%).

In urban areas, land use is basically controlled by the *Urban Planning Act*. There are two systems relating to urban land use: the City Plan and the Area-wide City Plan. The latter was recently introduced with the intention of altering the greenbelt areas designated in Seoul and the metropolitan regions. The *Urban Planning Act* divides the urban area into four zones (residential, commercial, industrial, and green area zones) and two regions (the greenbelt and reserved regions). The city master plans are drawn by cities after public consultation and publication. Major functions of the city master plan include stating the future direction for development and land use by the local governments and setting the framework for the city plans. The city plan provides a detailed guide for land use planning and sets out proposals for the development and use of land. City plans should be reviewed every five years. The area-wide city plans will be formulated for areas covering more than two municipalities since that scale increasingly requires a wider perspective. No area-wide city plan has yet been formulated, though plans for seven major urban centres are under preparation regarding review of the greenbelt.

The greenbelt, or, the Restricted Development Zone (RDZ), is mandated by Article 21 of *Urban Planning Act*. The first was designated in the suburban area of

Seoul in 1971 and others were later created in major cities throughout the country. The total area of greenbelt amounted to 5 397.1 km² in 1994, or 5.4 per cent of the whole territory, 29 per cent of which are in the neighbouring area of Seoul, (61.1% are covered with forest, 24% by agricultural land) (Table 25). In the greenbelt, all development activities are prohibited in principle and only those limited projects listed in the regulations can be permitted and then only by the head of the related local authorities. This policy has been strictly enforced to protect the natural environment and open spaces. A nation-wide network of property owners living in the greenbelt, called the Association of Green Belt Residents, has protested the regulation.

The effects of the greenbelts are problematic. In the light of the decentralisation of the population and of economic activities, the policy effects of the greenbelts are questionable. Indeed, the RDZs were designated to further growth management. Yet, they stimulated development outside the boundary of the greenbelt and the population density inside the greenbelt did not decrease. From the viewpoint of land policy, the greenbelt has had both positive and negative effects. It has had a marked impact in restricting urban sprawl – but has produced leapfrogging – and in preserving green space, and has fuelled land price inflation. Finally, the greenbelt is in conflict with private property rights. Compared with the situation in the UK, Korea's land price disparity between that inside and that outside the greenbelt is enormous. In the UK, outside the greenbelt area, there is no automatic right of development and the gap between prices is minimised (Town and Country Planning Association, 1999).

In 1999, the government issued guidelines on the greenbelt that proposed substantial modifications. According to the guidelines, greenbelt designation of the

Table 25. **Status of Restricted Development zones, 1998**

Designated cities	Capital Region, Busan, Daegu, Gwangju, Daejeon, Ulsan, Cheongju, Jeonju , Masan/Changwom/ Jinhae , Yeosu , Jeju, Chooncheon , Jinju, Tongyeong .
Area	5 397 km ² (1.6 billion <i>pyeongs</i> ¹); 5.4% of nation's total area (30 billion <i>pyeongs</i>).
Land use in the greenbelts	Forestry 61%; Agricultural land 24%.
Population	742 000 people (1.6% of total population) and 245 000 households; 589 000 population, 79% of the residing population moved out of these areas after designations; 486 000 population, 66% of the total residents live in rented houses.
Building status	450 000 buildings.

1. One *pyeong* is equivalent to 0.33 square metres.

Source: Ministry of Construction and Transportation.

areas with a low potential for disorderly urban expansion and environmental damage is expected to be removed in the future (for seven small and medium-sized cities, covering 1 130 km²). At the same time, the designation of those areas with a high potential for disorderly urban expansion and environmental damage will be maintained (except for a partial removal for some areas with low preservation value). The guidelines also propose measures to reduce inconveniences for people living in the area. These proposals came about because of the need for readjustment in response to socio-economic changes in the surrounding areas, after RDZs were first designated in the 1970s. Due to a recession in the local economy in some of the small and medium-sized cities, urban sprawl will be very unlikely. Systematic adjustments will be made to the various rules and regulations, but the negotiation among the parties concerned will require time before a final decision is reached.

Recently, a series of important moves has been made, in addition to the review on the greenbelt. A proposal to subdivide the quasi-agricultural area into three areas is under consideration in order to preserve or develop the area appropriately by classifying it in detail. For the purpose of intensifying land use planning, a fundamental institutional reform is scheduled which will integrate two basic acts, the “National Land Use and Management Act” and the “Urban Planning Act”. The new law is expected to enter into force in January 2002. It would be premature to make an evaluation since the future orientation of land use policy remains under consideration. However, several points may be noted. First, integrated land use planning is required to cover both urban areas and the agricultural areas, in particular the urban fringe areas, which are largely classified as quasi-agricultural areas. An area-by-area approach, which respects the local spatial development visions, needs to be promoted by developing more detailed principles. Authorities in local land policy should thus be involved in the formulation of spatial development policy.

Coherence between spatial development policies, particularly those on land use and the environment, is of crucial importance in sustainable territorial development. Indeed, the third and fourth CNDPs attach great importance to sustainable development. Concern about environmental issues in Korea has increased significantly in recent years. However, most of the laws and regulations concerning environmental conservation were enacted during the 1990s in an *ad hoc* manner (Box 7). Better linkage between environmental policy and territorial development policy needs to be explored for the long term, since the spatial impacts and methodologies for environmental policy and land use policy duplicate one another.

Land, property and housing policy

Korean land and property policy has been directed by fluctuating land prices. During the post-war period, Korea experienced repeated land price inflation (Figure 12). According to the Standard Land Price Index published every year by

Box 7. Environmental policy measures related to land use

Environmental laws and regulations related to territorial development can be classified into two types, each with its own approach (M.C. Hwang, 1996):

- Land use regulations include the *National Land Use and Management Law*, the *Urban Planning Law*, the *Capital Region Growth Management Planning Act*, the *Nature Conservation Law*, the *Natural Park Law*, the *Urban Park Law*, the *Water Pipeline Law*, the *Agricultural Land Law*, the *Green Area Law*.
- Nature conservation and pollution control laws include the *Natural Environment Protection Law*, the *Basic Environment Law*, the *Water Environment Protection Law*, the *Noise and Vibration Regulation Law*, the *Soil Environment Protection Law*.

Almost all the laws of both types require establishing a land use plan or an environmental management plan to designate a certain area for protection. These are not guidelines but binding plans affecting private property rights. Major laws on nature conservation that have spatial implications are as follows:

The 1991 Natural Environment Conservation Act, last amended in 1994, is the basic law for biodiversity and nature protection. It defines categories of protected areas and provides for species protection. The Act serves as a common framework for other nature laws administered by government agencies. Under the Act, areas of natural or semi-natural forest that were at least 20 years old as of 1990 are preserved from environmentally harmful development through the environmental impact assessment process and prior consultations between Ministries of Environment (ME) and agencies involved in development. Under the Act, specific laws or revisions of most development plans, including forestry management plans, are decided after consultation with ME, usually before the EIA process.

Under **the Urban Planning Law**, the green districts – in addition to the green belt – earmarked for conservation as a preventive measure to control sanitation, pollution and unplanned urban sprawl, and areas with natural scenery can also be designated as zones of scenic beauty. Unless specific regulations exist, construction or prohibited use of land inside these zones is regulated according to the standards of the *Construction Enforcement Ordinances Act*.

Nature parks consist of National Parks, Provincial Parks and County Parks. Designation and management of National Parks is carried out by the Secretary of the Interior, of Provincial Parks by the mayor or the provincial governor; and of County Parks by the mayor or county head. Currently, Korea's Nature Parks comprise a total area of 7 450 km². Designed to preserve parks and protect their utilisation, *The Nature Parks Act* prohibits any activities on park grounds or in protected parkland that may obstruct this purpose.

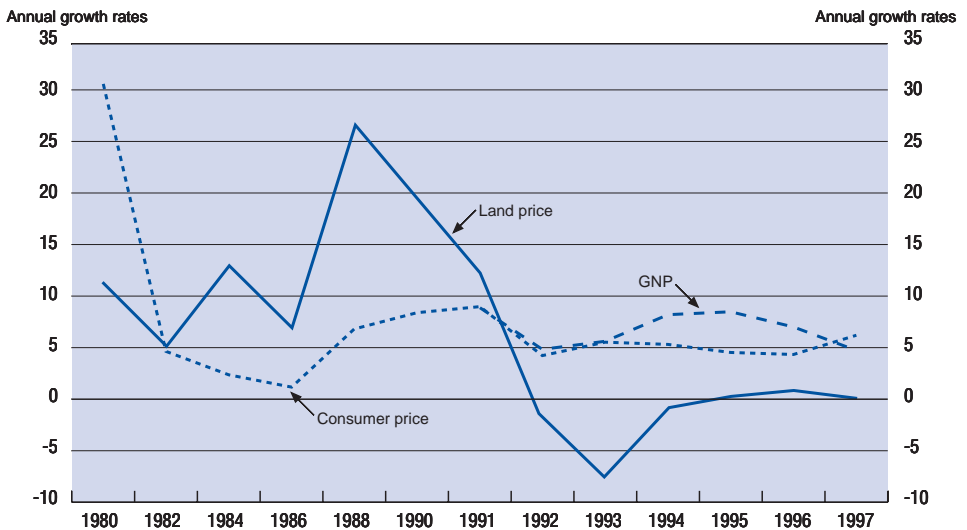
The Urban Park Act regulates the establishment, management and conservation of urban parks and green districts. Urban parks are designated inside urban planning areas as part of urban planning for the health and relaxation of city dwellers and for nature conservation. The parks are classified into Children's Parks, Neighbourhood Parks, Urban Nature Parks, Cemetery Parks and Sports Parks. Green districts inside urban planning areas serve to conserve and ameliorate nature areas within the city and to prevent pollution and disasters. They are

Box 7. **Environmental policy measures related to land use** (cont.)

classified by function into green scenic districts and green buffer districts. The former are established to improve the urban environment by ensuring the conservation and amelioration of nature areas inside the city. The latter are established to help prevent air, noise, odoriferous and other forms of pollution and to deter accidents or any emergencies. The mayor or county head governs the establishment and management of the zones in their administrative districts. As of the end of 1998, there are 10 314 urban parks covering around 969 861 km². However, in reality, due to the lack of funding for local governments, the creation and use of urban parks seems still insufficient.

the MOCT, land prices in urban areas multiplied by 17.7 times between 1975 and 1997, despite the 1.2 per cent annual decrease that occurred between 1992 and 1997. This inflation rate was 2.4 times more than the increase of consumer prices. Land prices increased by a multiple of 19.1, whilst consumer prices rose by a multiple of only 5.6.

Figure 12. **Change in land prices, 1980-97**



Since 1992, land price has been stabilising, but the level of land prices in Korea remains relatively high (Table 26).¹¹ This is largely attributable to a high demand for and a physical scarcity of urban land. Regulations on land use may have contributed to the scarcity but a variety of other macro economic factors have encouraged the upward trend of property prices. The negative consequences include unaffordable housing, distortions in income distribution resulting largely from huge capital gains from land sales, high land acquisition cost in infrastructure development, high production costs, and weak international competitiveness. More than 80 per cent of the total budget for infrastructure investments is spent on compensation of land acquisition in the urban areas. The land cost share to the total budget for urban apartment housing increased from nine per cent in 1963 to over 60 per cent in 1997.¹²

Due to the massive destruction of housing during the War, Korea suffered a shortage of housing in the initial stage of post-war development. Urban land, which could have easily been developed, was scarce. At the same time the population tripled from the post-war period to the end of the century. A huge mismatch was brought about by the rapid urbanisation and the transformation of the family structure. The Housing Supply Ratio (HSR) (attained by dividing the total number of housing units by the number households) increased from 72.6 per cent in 1977

Table 26. Office rent and housing prices in major cities

Cities ¹	Currency	OECD purchasing power parities	Office rent in Central Business Districts ² In m ²	Housing price index ³	Size of housing In m ²	Size of land lot In m ²
London	GBP	248.5	135	67.3	140	400
Tokyo	JPY	–	100	100.0	150	200
Seoul	KRW	0.3	97	49.3	150	190
New York	USD	163.0	84	28.5	186	279
Sidney	AUD	124.4	73	46.2	110	550
Paris	FRF	25.0	64	24.1	120	400
Brussels	BEF	4.4	52	44.4	200	900
Vancouver	CAD	140.5	44	51.5	223	368
Frankfurt	DEM	81.1	43	43.1	120	300
Auckland	NZD	111.6	39	25.4	120	400
Mexico City	MXN	32.4	25	29.7	220	250

1. Real estate appraisers in each country selected an average size and location of housing unit and office building, respectively, evaluated the price and the rent converted into Japanese Yen for comparison by using OECD purchasing power parities in 1998 and computed the index.

2. Average office building located in the Central Business Districts.

3. Average size of housing unit located in an average residential area distanced one hour from the city centre.

Source: National Land Agency, Government of Japan, "World property price analysis", 1998.

to 92.4 per cent in 1998 for the whole county – although it declined in the mid-1980s due to the gap between supply and demand (Table 27). According to the government, a total of 7.7 million houses are still needed by 2020. The HSR will reach 100 per cent by 2002 and 106 per cent by 2020 through the provision of 385 000 homes per year. The rate of investment in housing projects relative to GDP will be an average of five per cent until 2004, and approximately three per cent thereafter. The Korean housing problem is not over, for the shortage of housing units in urban areas remains and the quality of housing needs to be improved, particularly in rural areas.

In order to tackle fluctuating land prices and the shortage of housing, a wide range of policy measures was developed in a rather *ad hoc* manner, from government announcements of land price stabilisation to unprecedented measures addressing the root causes of the disparity in property ownership. Housing policy in Korea started with the first Five Year Economic Plan in 1962, although at that time it was still regarded as a low priority issue. In the 1960s, the prime concern on land policy was to develop land for industrial estates. The fundamental system of

Table 27. Housing supply and housing investment ratio

	Number of households (Thousands)	Housing units (Thousands)	Housing supply ratio	Housing units constructed (Thousands)			Housing investment ratio
				Total	Public	Private	
1977		4 927	72.6	204	78	126	5.4
1978		5 082	72.5	300	115	185	6.4
1979		5 211	72.0	251	118	133	5.8
1980	7 470	5 450	71.2	212	106	105	5.9
1981	7 749	5 460	70.5	150	78	72	4.4
1982	8 039	5 640	70.2	191	68	123	5.0
1983	8 340	5 852	70.2	226	82	144	5.8
1984	8 652	6 061	70.1	222	114	108	4.8
1985	8 751	6 317	69.8	227	132	95	4.4
1986	9 037	6 303	69.7	288	153	135	4.4
1987	9 320	6 450	69.2	244	167	78	4.2
1988	9 612	6 670	69.4	317	115	202	4.7
1989	9 920	7 032	70.9	462	162	300	5.4
1990	10 167	7 357	72.4	750	269	481	8.2
1991		7 853	74.2	613	164	449	9.0
1992		8 631	76.0	575	195	381	8.1
1993		8 798	79.1	695	227	469	8.3
1994		9 133	83.5	623	258	364	7.4
1995	11 133	9 570	86.0	619	228	391	7.4
1996	11 335	10 113	89.2	592	232	360	7.2
1997	11 542	10 627	92.0	596	219	377	6.6
1998	11 761	10 867	92.4	306	131	175	6.4

Source: Ministry of Construction and Transportation.

land use legislation was created during this period, beginning with *The Law Concerning the Use Of Housing Funds Planning Act*, and *The Building Codes*, introduced in 1962. During this period, the Korean National Housing Corporation (KNHC) was established and the *Housing Act* was enacted. In the late 1960s, during the second Five Year Economic Plan, institutional measures to increase housing supply were introduced, such as the establishment of the Korean Housing Bank in 1967, the enactment of *The Land Readjustment Law* in 1966 to increase the supply of urban land in urban periphery. Housing construction did not receive adequate financial support and thus the provision of new housing was slow. The city of Seoul started housing projects for low income households in the late 1960s, in particular in areas with illegal housing. The KNHC focused on apartment housing, targeting middle-income households. From 1967 to 1971, housing investment as a share of total GNP rose to 3.1 per cent. Already in the 1960s, facing a property inflation, the government announced the price stabilisation policy and issued a presidential decree in 1964, neither of which had much effect on land markets.

In the 1970s, the third Five Year Economic Plan was concerned with housing problems in urban areas. In 1972, the Ten Years Housing Construction Plan was adopted, which was the first government intervention into the land market. The *Housing Construction Promotion Act*, 1972, was enacted to facilitate land acquisition and development, and large housing development projects by private developers were initiated. In the late 1970s, housing prices were soaring so that by 1978, presidential decrees “8.8 Anti-speculation measures” and the “Comprehensive anti-real estate speculation measures” were adopted. The government intervened in the housing market with regulations on land transactions, licensing real estate brokers, an increase of capital gains tax, and an expanded application of the standard land price. Housing price controls applied to any new supplies of apartments with 20 or more units. The Korean Land Development Corporation was established to provide land at low cost.

In 1980, the “Master Plan for Public Housing Construction and National Urban Land Development” was issued by the newly formed Special Committee on National Security Measures. The *Residential Land Development Promotion Act* was passed and the National Housing Fund (NHF) was established in 1981 to provide financing for those not owning a housing unit. The NHF raised a total of 36.7 trillion won from 1981 to 1999, and provided support for the construction of 2.9 million housing units during the same period. The average proportion of the total GNP taken by the housing investment increased to 5.6 per cent from 1982 to 1986, despite the recession in the mid-1980s. Land prices also were increasing during the 1980s, but land policies until the mid-1980s were devised hurriedly and in a fragmented way. Although various policy tools were introduced, such as regulations on transactions and the registration of real estate brokers, they were more a demonstration of government concern with serious problems having social and

political implications. With the inflation in land prices following the 1988 Summer Olympic Games in Seoul, the government was faced with acute social problems caused by the housing shortage, and challenging and unprecedented land and housing policies were ventured.

As for land and property, an integrated land policy was established and encompassed the property market, land use, land ownership, land prices and basic principles. The last is unique and challenging. A basic principle of “To-Ji-Gong-Gae-Nyeom” was established, which means “The Public Concept of Land” implying that land, being a public resource, must be used with a consideration of public welfare, even when that land is privately owned. It was followed by some new policy measures:

- The Urban Residential Land Ceiling, a ceiling ownership of urban land to reduce inequality, was applied only to residential plots within urban planning areas. No households or firms were allowed to own residential land in excess of 200 *pyeongs* (660 m²). Landowners with more than the limit were prohibited from purchasing additional land, but for a few exceptions, and they needed to dispose of the excess land or pay an excess holding charge.
- The Land Development Charge was levied on the land price increase after the development in order to recapture the benefit of land development projects, such as those on residential land or on industrial estates, for infrastructure. Some 50 per cent of the post-development land price increase was charged against some of the development projects.
- The land value increment tax was another measure to capture the capital gains of land price appreciation, which was levied on unrealised gain and was applied to unused land and to land held in excess of the ceiling. It was, however, abolished in 1998.
- Since 1989, the comprehensive land tax has been imposed on the landowners as well, at a progressive rate, by computing all the properties owned by the individual owner; clearly an exceptional system.

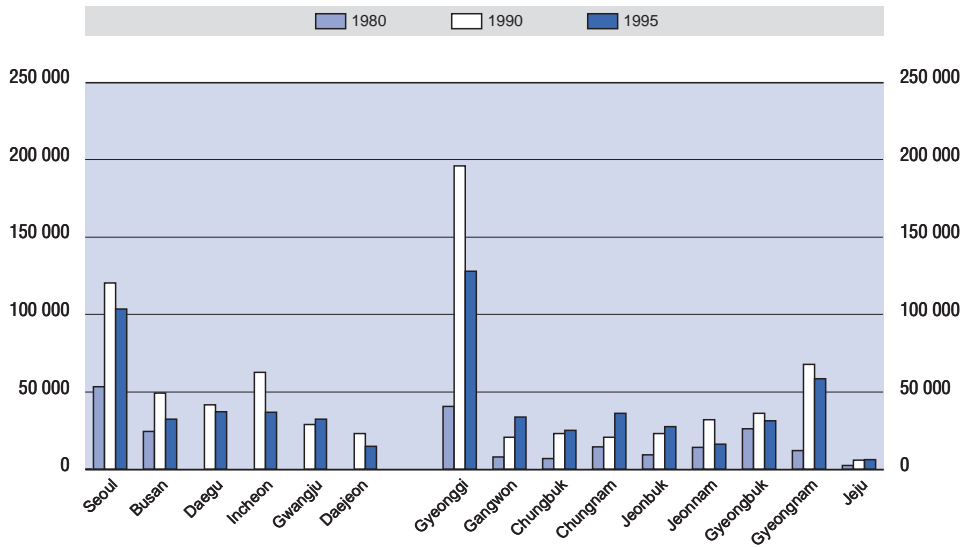
In the same year, the *Law on Land Price Publication and Land Appraisal* was enacted and became the basis for all public land price appraisal. In 1990, the government ordered 49 *chaebols* to sell their unused land within six months, and prohibited the purchase of lands except for production activities for the following year. Even after the stabilisation of land prices in 1992, the government continuously introduced important policy measures, such as the registration of real estate owners' names in 1995. The efforts made by the government were unprecedented and challenging in their aim to address the root causes of land and property problems and to modify the land ownership structure, although these measures were taken urgently to stabilise the critical social situation. It would be difficult to reach a consensus on measures related to ownership unless a clear vision on future land use

as a real goal of the land policy and territorial policy were to be established. Since 1992, land prices have stabilised, but this might have been caused by general macroeconomic trends, so the effects of individual policy measures are difficult to evaluate.

As for housing policy, in 1988, the government issued the Two Million Housing Construction Plan, which included new town construction projects in the Capital Region that were launched in order to provide housing units immediately. Five new towns were constructed: Ilsan, Jungdong, Pyeongchon, Sanbon and Bundang, all of them located within 15 to 20 km from Seoul. This led to 300 000 housing units being provided to accommodate 1.2 million people by the end of 1993 (Figure 13). The government focused more on encouraging housing supply rather than on controlling demand for urban land. It was effective, from the social viewpoint, in providing housing units urgently. Increasing supply significantly eased housing shortage problems. However, the problems persist, especially in highly populated urban areas. It should be noted as well that spatial problems may arise in the future. Considering the unbalanced age differences of the inhabitants of the new towns, a proactive long-term vision, encompassing wider surrounding areas, needs to be established.

Since 1992, property prices have been stabilising, which requires a fundamental shift in land and property policies in Korea. Although the level of the

Figure 13. Housing construction by region



Source: Ministry of Construction and Transportation.

prices remains relatively high, stabilisation in property prices provides positive effects such as the reduction of production costs and an increase in competitiveness for firms, as well as an increased affordability of housing for families. The ratio of housing prices to annual income was reduced from 5.7 in 1995 to 3.9 in 1999. An excessive decline in asset value, however, leads to mortgage crises and to a shrinking economy and consumption, considering the dominance of the land and property sector in the Korean macro economy. After the crisis, land prices fell 13.6 per cent in 1998 and the government removed major restrictive measures in 1997 and 1998. Land transaction regulation was completely removed in an effort to facilitate structural adjustment by selling off property. The Urban Residential Land Ceiling was abolished and the Land Development Charge was modified as applied to the private sector. The price controls on apartments were gradually lifted in the 1990s as well.

Currently, the government is acting to improve the land and property markets and to galvanise the sluggish housing market. The *Mortgage Backed Security Act* was enacted in 1999 and the Regulation on Asset Liquidation was issued to introduce Asset Backed Securities (ABS) in order to provide an environment for small investors to participate in rental housing development. The introduction of a Real Estate Investment Trust (REIT) is also under consideration. Information dissemination and the development of a database are another priority issue to enhance property market transparency. Since May 1998, land and property markets have been opened to foreigners and the need for information by various investors is diversified. Land prices increased slightly in 2000, though at a slow rate. According to the Korean Real Estate Information Centre, this was attributed to the economic recovery, to a stability in interest rates, to the expectation of a readjustment of the development restricted areas, and to the expectation of North and South economic co-operation following the two Koreas' summit talks. During the second quarter of 2000, land prices increased by up to 0.37 per cent, in addition to the increase of 0.53 per cent that occurred during the first quarter of 2000, for a cumulative total of 0.90 per cent. In some urban areas, prices showed a slight increase of approximately one per cent, due to the increasing number of venture industries choosing to locate there. The airport construction area had an increase of 0.33 per cent, small to medium areas an increase of 0.41 per cent, and county areas had an increase of 0.38 per cent.

Closer links between land policy and spatial policy

The links between territorial development policy and land, property and housing policies should be explored. This is a difficult issue since land use at the local level directly affects individual property ownership. The tools of land use policy need to be more diversified according to the types of regions and to be based on the spatial development vision. The spatial implications of housing

provision need to be well integrated beforehand into the broad, spatial development vision. For example: the construction of new towns can have a huge spatial impact and could lead to a further concentration of population. Vertical and horizontal communication needs to be intensified.

To this end, a holistic approach at the local level should be applied to the various aspects so that the land use and housing policy at local levels match in detail the vision for the local spatial development policy. Housing policy in the future involves the provision of related facilities to the lifecycle needs of citizens (*e.g.*, elderly care and social welfare) as well as that of housing units. According to the fourth CNDP, the focus of housing policy is shifting from the provision of housing units to a policy oriented toward developing communities by encompassing facilities related to the living environment as a whole. The demands for housing will be remarkably diversified, in the consequence of the changing family structure, the emphasis on the quality of life, ageing and the provision of housing free of barriers, and an increasing concern for the environment. Policymaking from the ground up reflecting the demands of the local community will be more important. Local authorities should thus be given more flexibility in housing policymaking and in other, related, sectoral policies in order to formulate holistic, spatial, development policies more adaptive to the diversifying demands for community life. As far as the land use regulation is concerned, local governments are expected to take the lead in finding the right solution, whether or not it be that further modification of land use is appropriate, by achieving a balance between the agreed spatial development vision, the emerging local environmental concern and the individual's property rights.

Moreover, land and property policies in Korea have traditionally been regarded as serving to stabilise land prices. However, in the future, a market policy for land and property needs to be firmly established. This should be done through close links with the financial market policy, since the property market is now more closely influenced by capital markets and may thus be exposed to excessive speculative trends in the international financial market. Highly skilled asset and property management services linked with financial services need to be encouraged. A commitment to a land market information strategy should be another priority. Land information is relatively well-developed in Korea; however, more extensive information will be required by various investors who will need to know land values, transaction histories, ownership, regulations and environmental information. From the viewpoint of housing provision, the environment for small investors needs to be improved in order to mobilise private funding.

It is important to recognise that land and property markets, particularly residential land and housing markets, have a substantial social impact. Sudden increases in housing prices and rent have imposed severe financial burdens on non-homeowners. Property prices relate to urban/rural asset disparity as well.

Special care is still needed to provide residential areas for middle and lower income levels so that excessive fluctuations of property values does not seriously affect households. This can be done by implementing policies on effective land use planning, covering both urban and non-urban areas. Korean housing policy was characterised by direct government intervention, including price controls and large housing development undertaken by the public sector. The size and price of housing supplied to the market were deeply affected by the government regulation and were concentrated in a few groups. They were mainly focused on high and middle-income households rather than on those with lower income. Further diversification of housing supply is necessary through deregulation. Recently, more urban dwellers rent rather than purchase housing, as property price appreciation cannot be assured. Provision for lower income households, including rental housing, will remain a priority issue. Coupled with this is the fact that people have become more cautious in deciding to purchase, due to the increasing insolvency of homebuilders before completing construction. The growing number of impoverished people and the weakening of the middle class after the crisis will affect housing demand. The supply of rental units will expand, as well. Types of housing supply need to be diversified, targeting various social groups and taking into consideration changes in life styles.

During the post-war period, land prices increased; the goal of land policy was to reduce the price and to increase the supply of urban land and housing. After the crisis, the authorities seem to be facing other difficulties in setting goals. Further decrease of land prices will have the positive effect of reducing production costs and housing prices, whereas the negative effect will be a reduction in the value of mortgages and the subsequent financial difficulties. The goal of land policy is not simply to decrease or to stabilise land prices. The purpose of the stabilisation is to have an effective territorial development. Land use issues previously were carried out mainly under each sectoral policy. However, the role of a land policy that covers both urban and rural areas should remain a prime issue. The authorities of land policy as well as territorial policy should be substantially involved in the fundamental policymaking process on agricultural land, urban land, and environmental conservation issues.

Furthermore, in order to achieve effective land use for spatial development, the ideal territorial land management structure, including consideration of alternative property rights regimes, remains to be identified. Currently in Korea, the central and local governments own 14 per cent and six per cent of the land respectively. The majority of the land is owned privately. The size of urban land lots may be getting smaller. New problems related to recent territorial changes may arise, such as the management of abandoned housing and farms in depopulated areas; in particular, those important in the light of environmental conservation. Landowners living in urban areas cannot always manage their properties.

For foreign investors, the existing property regulations may be an impediment. Re-examination of alternative property rights regimes from various aspects will be useful in addressing the newly arising territorial problems as well as the urban housing problem.

Infrastructure development

In Korea, there remains a basic demand for infrastructure investment and the share of the investment in the GDP is relatively high. At the same time a seeming shortage of funds is becoming more serious for the private sector as well as for local governments. The infrastructure development scheme needs to be fundamentally re-examined from the current, centrally oriented model to a new scheme that places a greater emphasis on local initiatives and participation from the private sector. It may be necessary to re-orient the sectoral distribution of financial resources.

Capital investment: budgetary constraint and growing demand

In the OECD Member countries, the public gross investment as a percentage of the GDP peaked around 1975 and declined thereafter. The two main reasons for the reduced investment being that, by the 1970s, reconstruction after the Second World War had been completed and then, in 1974, most of the countries were affected by the oil crisis, although some countries such as Spain, Italy and Norway, actively invested during the 1980s (A. Munnell, 1993). Public expenditure by the Korean government is characterised by a high proportion of expenditure for national defence and for education. Economic development, which involves a major part of capital investment, accounted for 26.1 per cent in 2000. Before the financial crisis, Korean fiscal policy had been directed towards budget balance. After the major shift to a more supportive stance that would provide a temporary demand stimulus to a worsening economic downturn, the proportion designated for economic development increased remarkably in 1998 (Table 28). The amount of the budget for Social Overhead Capital (SOC), which includes most of the major infrastructure, has been increasing as well (Table 29).¹³ Transportation facilities account for 86.3 per cent of the SOC investment in 2001. A reduction in the budget for infrastructure projects for the following year was attempted in order to increase expenditure for welfare and for provincial financing; however, due to the difficult macroeconomic situation, the future direction of SOC investment remains unclear. For the fiscal year 2001, 14.6 trillion won have been allocated for SOC.

Many local governments find little flexibility for new capital investment, although the amount of financial transfers from central to local has been increasing. In order to promote capital investment at local level, the Block Grant for SOC was introduced in 1991, amounting to 2 772 billion won in 1999. The amount of categorical grants transferred to local governments totalled 7 981 billion won in 2000,

Table 28. Breakdown of public expenditure

	Total (billion won)	Economic development	Social development	Defence	Education	General administration	Grants to local governments	Others
1980	6 486	21.6	6.8	35.6	17.3	9.7	6.3	2.7
1985	12 406	16.1	6.8	30.7	20.1	10.1	8.1	8.1
1990	27 436	14.1	8.9	25.0	20.4	10.2	10.1	11.3
1991	31 283	16.4	10.2	25.4	17.7	11.2	11.0	8.1
1992	33 362	18.6	9.7	25.9	19.4	12.5	11.8	2.1
1993	37 268	20.7	9.2	24.6	19.8	11.9	11.7	2.1
1994	42 794	23.1	9.0	23.7	19.3	11.1	11.1	2.7
1995	51 498	22.3	8.1	22.1	18.8	10.6	10.6	7.5
1996	58 480	22.4	8.6	22.1	18.9	10.7	10.9	6.4
1997	63 962	25.4	9.2	21.3	18.9	10.7	10.7	3.8
1998	73 225	30.3	9.8	19.3	16.6	10.0	9.6	4.4
1999	83 685	26.9	11.0	17.1	13.7	9.3	8.0	14.0
2000	88 736	26.1	11.9	17.0	14.3	9.1	9.3	12.3
2001	94 125	25.6	13.1	17.1	17.2	9.6	10.9	6.5

Notes:

– Special account expenditure not included. The figures for 1980 to 1998 are the settled expenditure whilst those for 1999 and 2000 are the budget.

Source: Ministry of Planning and Budget.

Table 29. Budget for capital investment, 1997-2001

	1997	1998	1999	2000	2001
Social Overhead Capital					
– 100 million won	102 756	116 454	134 088	140 768	146 332
– Increase rate		13.3	15.1	5.0	3.9
Roads	49 902	56 932	69 511	73 410	78 872
Rails	17 590	18 283	18 080	21 887	24 621
Subway	8 137	9 441	10 334	11 749	9 190
Airport	6 099	9 914	10 283	7 410	3 409
Ports	9 292	10 059	10 170	9 642	10 123
Dams	7 557	6 782	10 600	10 871	12 768
Others	4 179	5 043	5 110	5 799	7 339

Source: Ministry of Planning and Budget.

51.7 per cent of which were targeted for capital investment. The shortage of financial resources has led to setbacks in the implementation of projects to construct large transportation facilities.

Since the mid-1990s, private participation in infrastructure investment has been promoted. The *Private Capital Inducement Promotion Act for the Expansion of Social Overhead Capital* (PCIP Act) was passed in 1994, and 45 projects were then identified

by the government for private sector sponsorship and financing. Although the bidding process has been completed for ten projects, only five of these projects are in progress. Some projects have been delayed due to stagnation and funding problems.¹⁴

Transportation infrastructure

In Korea, the transportation infrastructure is still the prime concern in infrastructure development. Roads, as a principal element of the transport infrastructure, consume more than half of the total investment for SOC (Table 29). As of 1998, the total length of roads was 86 990 km, with 64 808 km of paved roads (including 1 996 km of expressways) and 22 182 km of unpaved roads. The road pavement ratio has improved remarkably over recent decades, but county and city roads need to be further improved (Table 30). A regional gap remains, as in rural provinces the pavement rate is relatively low. The Social Statistical Survey indicates that 54.9 per cent of the population in rural areas have identified “shortage of public transport” as a problem related to transportation whilst that was a problem for only 27.5 per cent of the people in urban areas (National Statistical Office, 1997*b*).

Table 30. **Road pavement ratio**

	National highway	Special city road	Provincial road	City road	County road
1977	51.3	54.3	8.4	24.2	3.1
1999	90.1	86.4	77.1	77.9	45.2

Source: Ministry of Construction and Transportation.

According to the MOCT, most of the transportation facilities have reached their full capacity, due to a continued, drastic increase in the number of vehicles, causing serious traffic congestion. The estimated cost of traffic congestion amounts to 18 trillion won, 4.4 per cent of the GDP in 1997, with a 22.4 per cent rate of annual increase. The transportation network connecting the eastern and western regions is weak and underdeveloped. Some 70 per cent of all freight is carried along the Seoul-Busan axis.¹⁵ In the trend toward globalisation, the government has focused more attention on airports and ports. By 2019, 335 trillion won will be required for transportation facilities, based on the National Intermodal Transportation Plan, which corresponds to 2.4 per cent of the total GDP assuming a four to five per cent average annual economic growth (Table 31). The expenditure for the transportation infrastructure is covered by a special account that holds the revenue from transportation taxes.

Table 31. **Estimated demand for capital investment concerning transport facilities**

Types of infrastructure	Amount	Percentage
Roads	186	55.5
Railways	94	28.1
Airports	14	4.2
Ports	37	11.0
Logistics	4	1.2
Total	335	100.0

Source: Ministry of Construction and Transportation.

Compared to European countries, the share of the investment in transportation seems high. Investment in the inland transport infrastructure, including inland waterways, roads and railroads, varies from 1.5 per cent of the GDP for Switzerland to 0.5 per cent of that for Austria, with one per cent being the average (Table 32) (European Conference of Ministers of Transport, 1999).

 Table 32. **Investment in inland transport infrastructure**
 In percentage of GDP

Some OECD countries	1987	1988	1989	1990	1991	1992	1993	1994	1995
Austria	0.9	0.9	0.9	1.0	0.9	0.8	0.8	0.7	0.5
Belgium	0.8	0.9	0.7	0.7	0.7	0.8	1.0	1.0	0.9
Denmark	0.5	0.5	0.4	0.6	0.4	0.5	0.5	0.5	0.5
Finland	1.1	1.1	1.0	1.1	1.3	1.3	1.2	1.2	1.0
France	1.0	1.1	1.1	1.2	1.3	1.2	1.2	1.1	1.0
Germany	1.1	1.0	1.0	0.9	1.2	1.3	1.2	1.2	1.2
Greece	0.6	0.5	0.6	0.4	0.6	0.6	0.8	0.6	0.6
Ireland	0.6	0.5	0.6	0.7	0.7	0.8	1.0	0.8	0.8
Italy	1.1	1.2	1.1	1.1	1.1	1.1	1.0	0.8	0.6
Luxembourg	1.4	1.4	1.4	1.3	1.4	1.5	1.4	1.1	
Netherlands	0.8	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8
Norway	1.0	1.1	1.1	0.9	1.0	1.2	1.1	0.9	0.9
Portugal	0.6	0.6	0.6	0.8	0.8	1.0	1.1	1.2	1.4
Spain	0.9	1.1	1.3	1.6	1.7	1.5	1.6	1.5	1.2
Sweden	0.5	0.6	0.7	0.7	0.7	0.8	1.1	1.3	1.3
Switzerland	1.5	1.5	1.6	1.6	1.8	1.6	1.7	1.6	1.5
Turkey	0.5	0.6	0.9	1.3	1.8	1.5	1.2	0.8	0.6
United Kingdom	0.9	0.9	1.0	1.1	1.1	1.2	1.1	1.0	0.9
Average	1.0	1.0	1.0	1.1	1.2	1.2	1.1	1.1	1.0

Source: European Conference of Ministers of Transport (1999).

Box 8. Large projects for key transportation infrastructure development

In Korea, various large, national projects extending over a long period have been initiated since the 1990s and have involved the private sector, such as: a high speed railway project between Seoul and Busan, the Incheon International Airport, the Gyeong-eui line. However, an accumulation of deficits is problematic.

A high-speed railway project between Seoul and Busan. The Seoul-Busan corridor is a transport and logistics line that carries 66 per cent of the passengers and 70 per cent of the freight of the country. The transport volume on this route has been increasing on an annual average of three to four per cent. The existing facilities are already at full capacity and cannot accommodate this increase. A high-speed railway seems the best solution, when compared to expressways or regular railways, in terms of travelling time, construction costs and transport capacity. It would be three times more efficient than an expressway and twice as efficient as a regular railway. With the entire section scheduled to be in service by 2005, the train will travel the 412 km in less than two hours at a maximum speed of 300 km/h. A train stock of 20 cars will transport a maximum of 520 000 passengers a day. Projects to induce private capital are under review. The government is currently considering constructing four to seven stations, with participation from the private sector. Stations already under consideration are Cheonan, Daejeon, Daegu, and Busan. Private capital contributions are currently being sought for the development of the zone for Cheonan station. A developer will be asked to exercise his creativity with a view to maximising the passengers' comfort. The project will develop a commercial zone around the station and new towns in Asan Bay. Feasibility studies for ways to encourage private funding may be undertaken in the near future for the construction of other stations.

The Incheon International Airport. The main goal of the Incheon International Airport construction is to promote the new airport in Incheon as a hub airport in Northeast Asia by offering connections to 43 cities, each with a population of more than one million, with travel times of less than three-and-a-half hours. Another plan is to construct an international business centre equipped not only with functions related to the airport, but also to residential, commercial, and international business, to logistics, industrial, research, and educational facilities. When the first phase of the construction, begun in 1992 and scheduled to be concluded in 2000, is completed, the new airport will be able to handle 27 million passengers and 1.7 million tons of cargo per year. The second phase is to be completed by 2020 and will increase the capacity level to 100 million passengers and seven million tons of cargo per year. The airport is scheduled to start operation in March 2001. The ten private capital inducement projects related to the Incheon International Airport can be divided into two main categories:

- *Transport facilities:* a highway and a railway connecting the airport to downtown Seoul with an estimated travel time of about 40 to 50 minutes.
- *Facilities in the airport:* a co-generative power plant, a bi-fuelling facility, a cargo terminal, catering facilities, ground service equipment, a maintenance hangar, a transportation centre, and a cargo agent air house.

Box 8. **Large projects for key transportation infrastructure development** (cont.)

The Gyeong-eui Line. The first phase of restoration work on the railway between Seoul and North Korea's Sineuiju (Gyeong-eui Line) began on September 18, 2000. The government will invest an estimated 54.7 billion won to restore a 125 km section between Munsan, in the province of Gyeonggi, and Changdan in the DMZ (demilitarised zone) that is expected to be completed by next September. According to the Ministry of Construction and Transportation, a six kilometre, four-lane highway, parallel to the railway, should also be built. Its cost is expected to reach 100 billion won. The restoration work will also involve repair work on five bridges and a 290 meter-long Munsan tunnel. North Korea, meanwhile, is reportedly planning to invest 89.8 billion won to restore its side of the railway, disconnected just before the outbreak of the Korean War. The Ministry has said that the two Koreas have not yet reached an agreement on issues concerning the operation of the railway and on where to place the stations. The Ministry predicts that, around 2005, when the operation of the Gyeong-eui Line is expected to be fully under way and connected to rail services in Japan, China and Europe, the two Koreas will be able to earn over USD 230 million in freight revenues annually. It is also expected to open the way for more trade with China and Europe while turning the country into a major logistics hub in Southeast Asia. A special team is responsible for reconnecting the Seoul-Sinuju Line and for the construction of a highway along the railroad. The team will also draw up plans for the management of the rail system and highway, including signal compatibility, which will be discussed at inter-Korean meetings.

Dam construction and sustainable water management

In Korea, floods cause great damage and loss of life due to the high population density near rivers and to geographical and climatological causes. The proportion of the budget allocated to dam construction amounts to 8.1 per cent of the social overhead capital investment in 2001.

Korean water resource management policy started as a part of industrial resource development in the 1960s, when the first economic plan was formulated. In 1966, the *Law on Special Multipurpose Dams* was enacted and the Korean Water Resource Development Corporation was founded. Increasing water demand is associated with the growing population, the spreading of piped water supply and general economic growth. Although ten multi-purpose dams and 31 piped water supply systems are already in operation or under construction, local water shortage problems remain serious. Piped water supply is not available for 15 per cent of the population, or seven million people, and 28 cities and counties without sta-

ble water sources frequently suffer water shortages. According to the government estimation, from 2006, nation-wide water shortages may occur and, by 2011, annual shortages will reach 2 000 million tons.

Currently, faced with growing environmental concerns, more difficulties arise regarding dam construction. The government thus attaches a high importance to water resource management. The goals of the current policy in Korea are extensive. They include sustainable water resource development and management, structural and non-structural measures for disaster prevention, an integrated and environmentally friendly river basin management, policies targeting water source regions, the settlement of water disputes and the formulation of a water resource management policy in North Korea after the integration. Five multipurpose dams are under construction, and 20 to 30 small or middle-sized dams are planned by 2011. Joint operations between multipurpose dams and hydroelectric power stations in the same river system are also under consideration. The *Law on Dam Construction and Assistance for Neighbouring Areas* has been in force since 2000, and was enacted for the purpose of providing support to river source areas, the population of which may be forced to move to another area.

Since 1990, Korea has established an up-to-date body of water legislation by involving the ME, the MOCT and the MAF. But the fragmentation of water management responsibilities and the vertical structure of the institutions have made it difficult to solve problems jointly. As a solution, a comprehensive system of river basin planning is being explored, with links to land use planning and involving all stakeholders from an early stage. The government thus places emphasis on an integrated and environmentally friendly river basin management to further improve cross-sectoral co-operation.

Water resource management needs to be better linked with the local territorial development policy, particularly in relocation project areas related to dam construction. Building a consensus will be increasingly difficult in the climate of enhanced local autonomy and of growing environmental concern. The relevant authorities need to take on the hard task of co-ordination by presenting a convincing spatial development vision for each region. The integration of natural disaster mitigation and of disaster relief services should be further intensified. In Korea, disaster relief is under the authority of the MOGAHA whilst structural measures like flood control facilities are managed by the MOCT and other ministries. The cost for the large projects for water management facilities could be effectively reduced through closer links between disaster preparedness measures, including land use policy in disaster prone areas, insurance, public awareness raising, etc.

Information society and new infrastructure

In addition to the traditional physical infrastructure, there is a growing demand for new types of investment to enhance the information society, includ-

ing the development of an information super highway, the establishment of incubating facilities, access centres, etc. Information technology may significantly change the organisation of the territory and the locational advantages and disadvantages may have less importance. In Korea, the Internet is widely used and there is a high awareness concerning the information society and digital divide. In 1999, the government issued "Cyber Korea 21", the master plan for achieving an information society.¹⁶ This has set as a national goal that the entire Korean population, regardless of age, sex, region and income, should be provided the opportunity to use computers and the Internet. A high-speed information network will, by the end of 2000, provide ADSL service to almost all households in urban areas and to some large rural cities. For the population in rural areas, technology verification tests for the use of small DSLAM (digital subscriber line access multiplexer) will be implemented in 2000. In addition to this, satellite Internet service also will be provided to households in remote areas. In order to facilitate access to telecommunication services, 53 community access centres have been established already, as of 1999, and 60 more will be opened in communities with low incomes in 2000. The Post Office has also provided Internet access points to local residents by opening 102 Internet Plazas in the Post Office buildings located in rural towns, and 100 more are scheduled to open in 2000. "Digital Data Rooms" will be installed in all 381 public libraries and 160 branch libraries by 2002 to provide Internet access. Mobile phones can be used throughout a major part of the country.

The government programme is ambitious in including various support measures to raise computer literacy and to reduce the digital divide effecting the rural population and to promote the physical development of an information highway. In order to further promote rural development, investment in multimedia content such as a graphic map database, a database including images and sounds of the local natural environment, and information on specialties and traditional culture, would be useful to increase the appeal of local information and facilitate its dissemination.

Moreover, government ministries launched a comprehensive effort to develop a national geographical information system in the 1990s. A basic plan was established by the Ministry of Finance, the Ministry of Construction and Transportation and the Ministry of Information and Telecommunications. A new law is expected to be enacted in 2000. Three scales of base maps covering the whole territory were developed from 1995 to 2000. Digital maps at a scale of 1:1 000 for 68 cities have already been completed; those at a scale of 1:5 000 and 1:25 000 are also available throughout the country except for in areas around the truce line and for some islands. Nation-wide basic map data is a requisite infrastructure for a knowledge-based society, as a basis of new IT related services, *e.g.* mobile phones, positioning services targeting elderly people, or delivery services. Financing for updating the data should be continuous.

A map database can also be used as a tool for territorial development policy-making or for the management of facilities by combining various layers of data related to individual initiatives. It will facilitate complicated analysis focused on location, simulation and visual presentation in territorial development planning, facilitating public participation, for example. Land use data and cadastral information could be integrated on the base map at the municipal level if sufficient a scale of the map database is developed, since in Korea, due to land speculation, tools for land policy and management are well developed. The related legal issues need to be discussed: copyright, authenticity, and pricing.

Private financial investment

Central government monopolies in infrastructure development have been under mounting pressure in the trend toward privatisation and deregulation, even though the role of the private sector in infrastructure development varies among the Member countries (Table 33) (World Bank, 1997). In Korea, telephone and communication is privatised but telecommunication infrastructure is provided by a state-owned corporation, which is responsible for establishing and maintaining the telecommunication infrastructure. Power, water and sewerage are provided by the public sector. Railroads are currently managed by the government, but will be privatised within several years.

As in the UK and in some other Member countries, the government in Korea has actively introduced and improved the measures for Private Participation in Infrastructure (PPI) in order to finance capital investment, although current economic stagnation has caused funding problems and delays in some projects. The *Private Capital Inducement Promotion Act for the Expansion of Social Overhead Capital* was enacted in 1994. In 1998, the law was wholly amended considering international standards and was renamed as the *Act On Private Participation In Infrastructure*. Major cases of such

Table 33. **Private investment in infrastructure, 1995**

	Telecom	Power	Transport	Water/Sewer	Weighted private share
In % of total investments in infrastructure					
France	0	0	10	36	13
Germany	0	67	0	20	9
Hungary	98	100	53	0	76
Japan	35	96	3	0	14
Netherlands	100	23	8	54	46
United Kingdom	100	100	21	100	71
United States	100	81	13	22	47

Source: World Bank staff estimates, 1997.

private participation include the expressway from Seoul to Incheon International Airport at Yeongjong Island. On the local level, small facility developments by PPI have been attempted as well. The revised Act requires a feasibility study for each project and permits new schemes of Build-Transfer-Operate (BTO) and Build-Own-Operate (BOO), in addition to the existing schemes of Build-Own-Transfer (BOT), Rehabilitate-Operate-Transfer (ROT), and Rehabilitate-Own-Operate (ROO). The governmental financial support has been extended to minimum operation revenue guarantees and to the sharing of foreign exchange risks. The Private Infrastructure Investment Centre of Korea (PICKO), was established to support the entire process of PFI project implementation. Further improvement is scheduled for 2000.

Since the Korean PPI looks to be heavily supported by the government, compared to the case of the UK, for example, where the overall replacement of public investment by the private financing is targeted, the risk of capital loss to which the private sector is exposed seems modest. The goal of the PPI in Korea is not yet clear; whether it aims simply at seeking financial resources and skills in the private sector, or at drastically slimming down the government and reducing the share of public works in the GDP. The last two would require a fundamental reorganisation of the budget system and of the government administration, including the career system for government officials, if human resource transfer to the operating consortium is needed. It might be premature to evaluate the effects; however, in order to establish equal partnership with the private sector, the policy direction to increase government assistance needs to be re-examined.

Environmental concern and infrastructure development

In developing infrastructure, environmental impact assessment (EIA) is of crucial importance. In Korea, as in other countries, there has been a growing concern regarding environmental issues in recent years. The Korean EIA system was first introduced in 1977 and it has been improved both in terms of the scope of projects and the methodology; in particular, for assessing opinions of affected local populations. Currently, an EIA is undertaken based on the *Environmental Impact Assessment Act* of 1993. The scope of the EIA was initially limited to urban development, industrial sites, and energy resource development conducted by government agencies; however, this has been expanded to 17 subjects covering 62 unit projects with the addition of river use and development, construction and installation of military facilities, sand, mud, and mineral collection. Similar to the EIA system, there is a prior consultation system between the Ministry of Environment (ME), and other ministries by individual law under the "*Regulations on the Environmental Review of Administrative Plans and Projects*". Prior consultation under applicable laws covers large project plans, such as the designation of sites for the development of residential areas, and changes in national land use plans, which have great impact on the environment. The "*Regulations on the Environmental Review of*

Administrative Plans and Projects" require prior review of certain small development projects not subject to EIA on the sites in environmentally sensitive or ecologically vulnerable areas. They also require administrative plans related to regional development to reflect the opinions of the Minister of Environment or those of the Heads of the Regional Environmental Offices in consideration of environmental preservation from the initial stage of the establishment of the plans.

In order to permit prompt and fair compensation in the amount of actual damage to health and property of citizens caused by pollution, the *Environmental Dispute Settlement Act* was adopted in 1990. Disputes over pollution damage are generally settled by agreement between the concerned parties. In case of failure to reach agreement, one or both parties may lodge a civil suit or request settlement through dispute resolution procedures established under the Act, which involve a formal process of mediation, conciliation, and ruling. A total of 63 requests were made in the three years from 1991 to 1994. In Korea, due to rapid socio-political change in recent years, the relationship between the government sector, the environmental organisations, and the civil society is seemingly immature and, in many cases, in conflict. The recent recovery of local autonomy may have increased negotiation and conflicts on environmental problems. Communication and negotiation between the governments and with opposing groups and with environmental NGOs is increasingly difficult. The dispute settlement mechanism as well as the EIA system needs to be further elaborated. Currently, about 200 NGOs are carrying out a variety of campaigns and work together in the Korean Federation for Environmental Movement (KFEM). The NGOs are expected to serve as catalysts between the government sector and the nongovernmental sector by promoting active dialogue between the stakeholders. The NGOs need to upgrade their skills and expertise so that they might work together with the government sector as an equal partner.

Evolution of infrastructure policy

In Korea, due to the exclusive emphasis on industrial development at the initial stage of economic development, any improvement of the quality of life has long been neglected. The gap in the living conditions between urban and rural areas is distinct. In the rural provinces, further modernisation is a priority issue for water services, sewage and housing, whereas in urban areas, due to the increasing population flow particularly to suburban areas, the effort needs to be stepped up to improve the living environment, although land acquisition is still a burdensome cost. Apart from the traditional, physical infrastructure, various demands are newly arising. Social welfare facilities, particularly those for the care of the elderly are, at the moment, the least developed. In 2000, 13 172 elderly people (0.4% of those aged 65 and over) were cared for in 233 facilities. Family ties are weakening and more and more elderly people are living in institutional accommodation.

Providing such accommodation may significantly increase budgetary demands. In order to reduce the necessary costs, better co-ordination between physical and non-physical measures is necessary. Facility construction and operation including provision of related services need to be well integrated. Furthermore, the maintenance and repairs for existing facilities will also impose considerable costs. The safety of existing facilities is increasingly important since the sudden collapse of some of these facilities has threatened the whole nation. In order to finance all of these increasing demands for investment, a reorientation is necessary, including a review of the sectoral distribution of the investment.

Spatial development policy extends over several decades and thus needs long-term vision beyond the horizon of a single fiscal year. Under the annual budget system, the consistency in investment may not be institutionally guaranteed. In order to maintain long-term consistency, it would be desirable to devise an institutional mechanism to establish a long-term plan for investment, irrespective of the changes in the short-term macroeconomic policy. Temporary increases in public investment to provide economic stimulus or sudden cuts in government expenditure to cool down an overheated economy could provide good reasons to easily modify or abandon the plan.

In Korea, in order to promote capital investment, a concept of Social Overhead Capital (SOC) was introduced in the 1990s, and the Parliament can approve the SOC budget for more than one year; normally, for five years at the initial stage of the project. The mid-term and long-term plans concerning SOC are prepared by the related ministries, mainly by the MOCT: the key transportation network plan for 20 years, the midterm transportation investment facilities plan for five years and the water resources comprehensive plan for ten years. At the local level, local SOC's such as city and county roads are financed through the block grant allocated by the MOGAHA. The government has placed a high priority on improving the infrastructure; however, SOC is limited to traditional capital investment. The proportion of the budget for individual infrastructure projects may be firmly established and difficult to modify in light of changing demands. New demands for investment in other facilities and related services need to be regularly examined in this regard.

Another problem inherent to infrastructure development is that the planning phase of major infrastructure projects is likely to be lengthening in Member countries. Possible reasons include technological complexity, compensation for compulsory acquisition of properties, shortage of funding, time consuming vertical and horizontal co-ordination, and increasing environmental concern. In the UK, current trunk road procedure takes, on average, 13 years before work starts on site (B. Stevens and W. Michalski, 1993). The necessity of the projects, which were approved many years ago, before the crisis for example, should be re-examined in the changing socio-economic context and from a spatial perspective.

Re-examination of individual, approved projects should be combined institutionally with the regular process of following up of the CNDP and of other spatial development plans.

In recent years, high-level accountability increasingly has been required in promoting infrastructure development. The government issued administrative guidelines concerning project management, such as the *Total Project Cost Management (TPCM)* guidelines, and the *Preliminary Feasibility Study (PFS)* guidelines. The TPCM guidelines have been developed for the purpose of enhancing financial efficiency and the quality of large construction projects implemented or supported by the central government. The Preliminary Feasibility Study guidelines aim at maximising financial efficiency through economic analyses, regional economic impact analyses and overall project evaluation by an independent third party before initiating the projects.

Simplification of the administrative process is a precondition for a flexible integration and for the co-ordination of related projects. The budget for infrastructure development is formulated based on the requests made by each sectoral authority and the projects are implemented individually. Co-ordination beyond ministries is, in general, difficult even among those projects targeting the same area, due to many practical reasons. A holistic approach at the local level needs to be encouraged, such as the development of multipurpose facilities by integrating several funded projects, the co-ordination between facility development and related services. The central government should thus facilitate flexible co-ordination at the local level, by drastically simplifying the administrative rules and processes. Concerning categorical grants, the period of decision-making for the allocation and disbursement of funds should be shortened. The types of grants should be integrated into a smaller number of projects to increase flexibility at the local level. Redundancy in facility development needs to be eliminated. Some local governments face financial difficulties due to excessive infrastructure development. The administrative cost for maintenance and operation incurred by the construction of facilities will be an extra burden for local governments. It could be reduced through co-operation in wider areas beyond municipalities and provinces, *e.g.*, by introducing bus services to access a welfare facility located in a neighbouring municipality, or by extending operation hours for a library. Related ministries and provincial governments should encourage joint projects in functional regions. Renewal of the unused facilities in rural areas, such as closed schools, reorganised regional offices of the governments and others may be more useful than constructing new buildings. These efforts contribute to upgrading the policymaking capacity at the local level.

Conclusions and recommendations

Institutional challenge for cross-sectoral co-ordination

In Korea, during the past three decades, the national goals of the spatial policy have been synthesised into the *Comprehensive National Development Plan (CNDP)*

which presents a long-term vision of the spatial policy. The Korean CNDP has an integrated national goal, with a broad coverage of sectoral policies, which has been formulated through a long process of interministerial co-ordination. However, further elaboration is necessary so as to bridge more completely the spatial development with social and economic development issues. Those issues requiring further elaboration are summarised here:

- Korean spatial development policy has placed a strong emphasis on physical infrastructure development but has not sufficiently integrated non-physical sectoral policies.
- CNDP has been weak in integrating urban and rural policies.
- Links between financial measures should be firmly established. Currently, assistance measures for backward regions are under separate sectoral authorities and few efforts are made to link the allocation of financial assistance with spatial vision.

In short, in order to achieve an overall orchestration for territorial development, through horizontal and vertical co-ordination, institutional reorganisation may be useful to allocate the co-ordinating functions to a single authority under the Prime Minister's office. The co-ordinating entity should also be given funds for its activities. In Korea, a temporary task force for cross-sectoral co-ordination has already been established under the Blew House; however, a permanent body is necessary to carry out long-term territorial development since territorial development requires long-term consistency extending for decades in policy decisions, and in budget allocation.

In many countries, as sectoral policies were developed, the need for co-ordinating territorial development functions was evident. Instructive examples include the DATAR in France, the Development Department in the Treasury Ministry in Italy, the National Land Agency in Japan and others. Although co-ordinating bodies in Member countries was not always successful – due mainly to explicit and implicit opposition arising from ministries with a vested distribution of functions and budget – a new, institutional challenge would be useful to motivate related ministries and local authorities, and to improve communication with each other.

However, it should be noted that greater cross-sectoral, horizontal and vertical co-ordination are not the final goals. It is a method for achieving effective territorial development and the territorial vision, and the purposes of establishing a new agency that should be clearly identified. Central level territorial development policy is by its nature conceptual. However, target fields of cross-sectoral co-ordination in the new agency need to be specified, whether they are land use, industrial development, or others.

A regional development agency is necessary, as is one at each provincial and metropolitan level of government, in order to empower territorial development at

the local level and to facilitate vertical co-ordination. These agencies will work closely with provincial governments. They can be financed by both the local governments and the local private sector, with the staffing comprised of those on secondment from local or central governments. The major role of these agencies will be to promote local venture industries by providing assistance measures, information and training opportunities. They will also facilitate local partnership by providing a forum for local actors connected with territorial development.

Vertical and horizontal human resource exchange should be accelerated. In Korea, interministerial human resource exchange is institutionalised but does not function well. By exchanging personnel on a regular basis, a quasi-institutionalised human network will be established. Between central and local governments and with nongovernmental sectors, human resource exchange is useful to eliminate suspicion and to establish mutual trust and partnership.

Considering the increasing role of local governments in territorial development, training opportunities need to be provided for local officials in order to upgrade their capacity in policymaking and planning. Since the co-ordination in laws and policies at the central level requires time, a realistically quicker solution for cross-sectoral co-ordination is that of local level integration. Local authorities should look carefully at all policies and assistance measures provided by the central government with an eye to ensuring the integration of spatial policies with each particular area of development. They should thus be systematically informed, on a regular basis, of the latest developments in central policy of related sectoral policies. Increasingly, more specialised knowledge is required in infrastructure development in such fields as Environmental Impact Assessment, Environmental Management and Auditing, Private Financing, and so on. Both central and local governments will require specialists on territorial development. The current human resource management system (including promotion, rotation, career development system, seniority and pension systems) should be flexibly adjusted to the increasing needs. For the purpose of a smooth co-ordination with nongovernmental actors, the development of peer relationships that promote communication among equal partners should be fostered at all territorial levels. The skills and knowledge necessary for territorial development should be systematised. Experts on territorial development need to be trained at the local government level as well as in the related ministries.

Regional disparities and rural development

Living conditions in rural areas should be upgraded so as to satisfy, not only the present inhabitants, particularly the younger generation, but also the potential demands of the non-rural population who wishes to return to and live in rural areas. It is time to end the vicious inducement to migration whereby an

insufficient quality of life gives further incentive to rural people to move to urban areas. Rural provinces have the potential to achieve a better quality of life than that found in urban areas. As urban dwellers experience the discomforts and displeasure of increasing congestion, rural areas could take on a new role for urban populations; that of providing living spaces rich in natural amenities, local specialties, and traditional culture.

The government statistics do not show clearly the regional disparity in all its different aspects. Development of a regional statistical database on living conditions would be most useful in providing a basis for comparison and raising awareness of the need for balanced development. Considering the intraregional disparity, this database needs to be developed at the municipal level as well as at the provincial level. Social indicators, results of opinion polls, and economic indicators need to be integrated into the database. In order to facilitate a wide area of co-operation on all local levels, data on the smallest administrative units, *Dong*, *Eup* and *Myeon* would be useful as well. Links with the map database would facilitate simulation and analysis. This database should be made available electronically.

In Korea, as in other countries, the traditional dichotomy between urban and rural areas is fading away. Collaboration amongst neighbouring municipalities will be necessary. Daily commuters from sparsely populated municipalities in suburban areas of London or Paris have values and behaviours that are much closer to those of inner city residents than to those of residents in small and medium-sized towns in predominantly rural regions. In this context, the crucial unit of analysis and intervention is not the small municipality but rather the functional region, defined in terms of its local labour market or commuting area. In Korea, several proposals on spatial units at regional level have been made in previous CNDPs. The second CNDP introduced a new concept of planning unit. The original plan proposed "Integrated regional settlement areas" (IRSA) based upon a functional link between cities and counties and dividing the national territory into 50 areas. Although these proposals were not sufficiently supported, the concept of planning units will be useful and is to be further elaborated under the term "functional region". A functional region will encompass neighbouring municipalities, which correspond to a local labour market or commuting area, in order to facilitate urban/rural links.

Infrastructure development

Recently, the demand for infrastructure investment has been increasing and diversifying while the funds shortage is perhaps becoming more serious. Reorientation is necessary regarding the sectoral distribution of financial resources, with a consideration for the new demands caused by the information society, care for the elderly and the need for a good quality of life. The scheme of infrastructure development

needs to be reformed fundamentally from the centrally oriented model to a new framework placing more emphasis on local initiative and private participation. The feasibility and efficacy of large infrastructure projects requiring long implementation periods should be re-examined in the regular review process of the CNDP and other spatial development plans. Local actors should be encouraged to promote the development of multipurpose facilities, and to strive for a better co-ordination of facility development and related services. The central government should thus facilitate flexible co-ordination for multipurpose facilities on local levels by drastically simplifying the administrative rules and processes. The process of decision-making for the allocation and disbursement of categorical grants should be shortened. The many types of grants should be integrated in order to encourage more flexible investment.

Land and housing issues

The goal of land policy is not simply to decrease or stabilise land prices. The purpose of land policy needs to be identified with effective territorial development. The link between land policy and local, spatial vision will be crucial in the near future in light of deregulation and more market oriented measures. In contrast to the traditional practice of zoning, land use issues at the local level will become extremely delicate with the application of more detailed principles. Local authorities should derive more confidence from their territorial development goal whether or not it is necessary to modify the land use. Planning systems need to be more sophisticated to encompass both urban and urban fringe areas. For the goal of effective land use for spatial development, the ideal land ownership structure and property regime in the future is yet to be identified. Fundamental discussion on the goal of land policy needs to be encouraged. Re-examination of the alternative property rights regimes from various aspects will be useful in addressing the newly arising problems such as the management of abandoned properties in depopulated areas along with the urban housing problem.

Housing problems are not completely over. In metropolitan areas, an acute housing shortage exists. Further improvement of housing quality is needed, particularly in rural areas. Housing policy in the past targeted the provision of housing units, however, the spatial development of the future should involve the provision of other facilities related to the lifecycle needs of citizens – such as care of the elderly and social welfare. Local authorities should be given the prime responsibility in policy formulation to provide facilities and services and to improve the quality of life. Spatial implications of housing provision, such as the construction of new towns, need to be well integrated into the broad spatial development policy.

Sharing the idea of sustainable development

There is a growing concern about the environment amongst Koreans. According to a survey in 1995 on the Korean citizens' awareness of environmental issues, 63 per cent of respondents were "highly concerned" about environmental problems. About half the people surveyed indicated they were strongly opposed to installing polluting facilities in their neighbourhoods, even if treatment facilities were installed at the same time. As the CNDP focuses on environmental issues, in Korea, the idea of environmental conservation is generally shared among citizens, but with a gap between urban and rural regions. It seems that the traditional attitude of modernisation and development still remains of primary importance in rural regions in particular, where the living conditions require further upgrading. The idea of sustainable development needs to be further promoted and the value of the rural natural amenities should be recognised both by the urban and rural populations.

Future spatial vision in Asia

Korea has been a Member of the OECD since 1996 and is now expected to contribute to the global community, not only by effectively implementing domestic macroeconomic policy but as an important actor in the Asian economy, as the administration of President Kim Dae-Jung has emphasised. Private companies have been active in international strategic partnerships, namely in semiconductor production, now characterised by horizontal co-operation in contrast to the former vertical relationship. It may be useful, in public policymaking as well, for regional communication and co-operation to be intensified so that future spatial and territorial visions will be shared by re-examining the changing global situation, their spatial and locational advantages and disadvantages, and their demographic, economic and industrial structures. In the European Union, attempts to formulate the "European Spatial Development Perspective" (ESDP) have been intense. In this effort, the EU member countries have reached an agreement on common objectives for the future development of the territory of the EU. ESDP focuses mainly on spatial policy and it does not cover all territorial development issues. Nevertheless, it will serve as a policy framework for future regional development in the EU. Communication across national frontiers is becoming more important and substantive regional co-operation in territorial development will be required in the near future, including in Asia.

Notes

1. See below section on growth containment policy.
2. See below section on assistance measures for backward region under sectoral policies.
3. Data from the Ministry of Agriculture and Forestry.
4. Data from *The fourth* CNDP, Republic of Korea, 2000.
5. Data from the Small and Medium Business Administration, Korea.
6. In the 1970s, Yeongdong-Donghae was designated as SDA to develop tourism and to preserve environment and in the 1980s, four areas such as Taebaeksan, Jiri-Deokyusan, Dadohae, and areas adjacent to 88 Olympic Expressway were selected for a variety of purposes. In the 1990s were added two Unification Hill Parks to prepare for increasing exchange and co-operation between South and North Korea and Baekje (dynasty) Cultural Domain.
7. Data from the Ministry of Agriculture and Forestry.
8. About nine per cent of the population of Korea were over age 65 in 1998. In rural areas (Counties), the proportion is about 12 per cent or higher.
9. The EU allocated a 33 per cent budget for direct payments, Norway 56 per cent, and the United States 20 per cent.
10. The share of construction workers in all the workers is relatively high in Korea (9.5% in 1996) compared to other countries – Canada (4.1%), Australia (7.0% in 1995), Japan (10.2% in 1995), Ministry of Construction, Japan.
11. The office rent index in Seoul ranks third, behind London and Tokyo, and the housing price index ranks relatively high among the surveyed countries as well, according to “World property price analysis”, January 1998, by the National Land Agency, Japan.
12. Data from the Ministry of Construction and Transportation (MOCT).
13. In Korea, the government introduced a concept called “Social Overhead Capital (SOC)” in the 1990s, which includes transportation facilities (road, railroad, subway, airport, harbour, support to mass transportation such as public parking place), water resource facilities (multi-purpose dams, flood control facilities, facilities for using water), industrial complexes and so on.
14. Data from the Private Infrastructure Investment Centre of Korea (PICKO).
15. Data from *The fourth* CNDP, Republic of Korea.
16. See Chapter 4 on economic development policy.

Chapter 4

Economic Development Policy

In the past, regional economic policy has been mainly a mix of active sectoral policies. During the 1960s, it was based on policies to promote exports, *i.e.*, to give steady support to exporting firms, either through subsidies or through indirect assistance. Korean Banks increasingly used export performance as a criterion for creditworthiness, thus favouring those enterprises selling to foreign markets. In addition, the government introduced Five Year Plans and initiated the heavy and chemical industrialisation drive of the 1970s. This industrial policy took a more technological stance as the competitiveness of Korea was increasingly threatened by a newly emerging economy with low wage, labour-intensive industries. At the same time, territorial aspects, as in many other OECD countries, became more important and are increasingly taken into account within industrial policies.

While these policies had their merits within the context of limited or managed free trade, their distorting effect became clearer in a more globalised and less protectionist world and especially within the context of the 1997 financial crisis. Although it brought a serious decrease in output (–6.7% in GDP in 1998), soaring unemployment (reaching 6.8% in 1998) and a spread of poverty to the lower economic stratum of the population, this crisis also had positive consequences. It stressed the need for structural reform and more market-based approaches, notably with regard to large firms and *chaebols*, and it triggered a major turnaround in politics. The new administration engaged in an active deregulation of government practices and in the overhauling of strategic objectives. Top priorities now include renewing the local autonomy and balancing regional development. Small and medium enterprise (SME) expansion and entrepreneurship are considered important means to attain this goal, especially in the less developed regions. Extensive deregulation of FDI business has resulted in a strong increase of capital influx and in greater leeway for local and regional governments to attract FDI. Such a trend should facilitate the transition of the whole Korean economy from one which imports technology and is based on low wages and unskilled or minimally skilled labour to one which utilises and develops its own technologies and human resources. Policies favouring knowledge-based activities, information technologies,

embedded clusters, and bottom-up initiatives are being designed to accelerate these changes.

Corporate policies

Large firms and chaebols

Chaebols are multicompany business groups which have a relatively high rate of internal ownership and which operate in a wide range of markets. They are a peculiarity of the Korean economy. Collaboration and often collusion between *chaebols* and the central government have been commonplace in the past. The restriction of competition and the receipt of large amounts of support from the government, notably within the framework of the third and fourth Five Year Plans, helped them to spearhead the industrialisation process of the 1970s. The government provided cheap credit sources along with preferential tax and business treatment in a number of priority sectors and diverted resources in favour of a few large groups operating in heavy industries, semi-conductors and electronics, ship-building, and mechanics. In return, most *chaebols* participated in the dispersion policy of the 1970s and relocated their branch plants outside Seoul, but generally along the Seoul/Busan axis, the Gyeongbu corridor. Although average tariffs had dropped and liberalisation on imports had made significant progress by the end of the 1980s, the *chaebols* were still deriving profit and rents from protection linked with a mass of regulations and legal procedures. Most of the *chaebols* diversified across industries and the top 30 groups had an average of 22 companies in 1996, operating in 19 different industrial sectors.

Although the standard measure of concentration does not seem to suggest that Korea is more concentrated than the most advanced countries (OECD, 2000c), the government has tried in the past decade to limit the *chaebols'* power through regulations and restrictions on the amount of bank lending to the conglomerates, on trade within and among the *chaebols* and on mutual loans between affiliates. Incentives were also granted to those *chaebols* willing to increase their specialisation in core activities. These policies nevertheless had deficiencies:

- They contributed to increasing the regulatory burden on the economy.
- They had little effect on the *chaebols*, which continued to carry out a practice of risky investment through excessive borrowing.

The 1997/1998 crisis sanctioned these policies. The IMF bailout, the massive credit crunch following the bankruptcies of certain *chaebols* (including in the top 30: Hanbo, Kia, Haitai, Halla, and Daewoo) and the recession emphasised the need to restructure the corporate sector. It was becoming urgent to enhance corporate transparency, to raise the accountability of controlling shareholders, and to streamline the financial structure of large firms. A debt workout programme is now

nearly completed for most of the 104 companies that entered the programme. Other *chaebols* also continue to reduce their debt and most of those among the top 30 have now met the 200 per cent debt to equity target set in 1998. Initiatives to increase the flexibility of the labour market and to induce foreign direct investment complemented the above programme.

It is difficult to analyse what impact such restructuring has had at the territorial level. For a long period, regional development was influenced by a combination of government industrial policy and by *chaebol* decisions. During the early 1990s, the nature of regional development started to change and different results emerged in different provinces. Large branch plant and *chaebol* investment has been at the heart of the manufacturing economy in the provinces where mass production remains dominant. Some of these provinces continued to enjoy growth because the *chaebols* invited their subcontractors, located in Seoul, to move to the provinces in order to decrease transport and transaction costs. In the 1970s, *chaebols* were strongly encouraged to begin manufacturing machinery in Gangwon. Gumi was designated as an electronics assembly place and a textile district, while Pohang was selected as the host for steel industry, and Ulsan for chemicals. In Gumi, spin-offs of larger firms became more common as did co-operation between firms. Recently, big deal agreements to limit overinvestment have sometimes resulted in the closing of the plant, but the focus on viable assets will reinforce territorial competitiveness in the medium term. Within the framework of the emerging co-operation between South and North Korea, the *chaebols* are likely to play an important role in the construction of links between infrastructure and industrial estates (*e.g.*, the Hyundai Deal).

Small and medium-sized enterprises

While large enterprises and *chaebols* had been the main focus of government policies in the post war period, imbalances between regions and firms became more apparent in the 1980s, when the government started to take initiatives in favour of small businesses. It is now recognised that SMEs are major players in job creation and wealth generation. They account for 70 per cent of manufacturing employment, 48 per cent of value added, and 37 per cent of all manufacturing exports. More than half of SME establishments are concentrated in the Capital Region, but their number is decreasing in the Seoul urban area, illustrating a deconcentration process in favour of Incheon and the surrounding Gyeonggi Province. Regional trends in SME employment are similar. Small firms significantly increased their value added in manufacturing, and the Gyeongnam Province, where heavy industries such as chemicals are concentrated, now ranks second behind Gyeonggi, but ahead of Seoul (Table 34). Small business was hit particularly hard by the financial crisis and the concomitant recession, but the number of bankruptcies in the Capital Region, in Daegu (Gyeongbuk), and in Daejeon

Table 34. Value added by region in manufacturing SMEs

Regions	1995		1996		1997	
	Billions	Ratio	Billions	Ratio	Billions	Ratio
Seoul	9 041	12.2	9 395	11.4	8 963	10.7
Busan	5 829	7.9	6 197	7.5	5 742	6.8
Daegu	4 435	6.0	4 427	5.4	4 434	5.3
Incheon	6 393	8.7	7 071	8.6	7 215	8.6
Gwangju	868	1.2	1 254	1.5	1 179	1.4
Daejeon	1 209	1.6	1 251	1.5	1 331	1.6
Gyeonggi	21 122	28.6	23 620	28.7	24 401	29.0
Gangwon	1 024	1.4	1 143	1.4	1 133	1.3
Chungbuk	3 260	4.4	3 753	4.6	3 978	4.7
Chungnam	3 480	4.7	4 419	5.4	4 592	5.5
Jeonbuk	2 043	2.8	2 293	2.8	2 464	2.9
Jeonnam	2 022	2.7	2 144	2.6	2 400	2.9
Gyeongbuk	5 018	6.8	5 559	6.8	5 999	7.1
Gyeongnam	7 918	10.7	9 590	11.6	10 121	12.1
Jeju	148	0.2	165	0.2	196	0.2
Korea	73 808	100.0	82 281	100.0	84 148	100.0

Source: Small and Medium Business Administration (SMBA).

(Chungnam) was less than the number recorded during the 1993 recession (Small Business Institute, 1999). At the same time, the ratio comparing the number of start-ups to the number of bankruptcies decreased from five in 1996 to 2.6 in 1998, but was boosted by the recovery and significantly rebounded in the first months of 1999.

In that context, apart from temporarily alleviating the adjustment burden of small firms after the crisis, the central government has strengthened its structural policy so as to lay the foundation for small firms to be more resilient against shocks, and to increase contributions to regional wealth. Several laws and acts regulate SME operation; two of them¹ directly acknowledge the crucial role of small business in local and regional development. Not surprisingly, funds for the promotion of regional SMEs have increased greatly central government support, (from 240 billion won in 1995 to 436.2 billion won in 1998), and local and regional government support (from 229 billion won in 1995 to 416.6 billion won in 1998). Together with the debt workout programme for *chaebols* that led to the downsizing of several conglomerates, which in turn helped to release tensions on the credit market and thus provided easier access for SMEs, these trends reflect a shift of emphasis in Korean policy, which was previously oriented almost exclusively toward large firms.

The Small and Medium Business Administration (SMBA) and Small and Medium Industry Promotion Corporation (SMIPC) are Korea's main support organisations for

SMEs (Box 9). Both agencies, which are wholly financed by the central government, direct their policies toward improving the structure and international competitiveness of SMEs so as to keep ahead of the changes and challenges in the new decade in which they are expected to play a leading role. Efforts are being made to strengthen the management of the existing SMEs and to promote the start-up of new, technologically viable SMEs to be internationally competitive. They provide SMEs with a wide range of support measures in the areas of financing, management, technological development and innovation, training, venture business, and marketing. In addition, they provide assistance to enhance the culture oriented toward information within SMEs, to promote business start-ups and to aid in relocation (funds are offered to help SMEs in collective factory operation).

Recently, SMEs have become more important in Korea's economy due to the increase in subcontracting. This is most notable at the regional level. The most important external technology sources for Korean SMEs have been the *chaebols*, both as their customers and technology importers. Many SMEs, therefore, lack functions spanning across boundaries, such as R&D, which in turn has a negative effect on their level of productivity and output. The SMEs suffer more than large enterprises from the increase in labour costs and from the difficulties in finding

**Box 9. The public infrastructure to assist SME:
An example of dispersed institutions**

The Small and Medium Business Administration (SMBA), established by the central government in 1996, operates as a network of eleven regional offices with headquarters in Daejeon. The regional office's main functions are to inform SMEs on the spot about national aid schemes, to assess applications for aid schemes and to refer SMEs to other agencies, such as universities and Regional Research Centres (see below). In addition, it also provides SMEs with technological advice and test and analysis equipment. Regional offices are totally supported by the central government and the services for SMEs are free of charge.

The Small and Medium Industry Promotion Corporation (SMIPC), a non-profit organisation, is also fully sponsored by the central government. The SMIPC consists of eleven regional offices with an average of 20 employees each. Their headquarters are in Seoul and they have a Small Business Training Institute and Centre for Advanced Manufacturing Technology, both serving SMEs nation-wide. The SMIPC was created in 1979 and, after the SMBA was set up in 1996, the SMIPC was put under its umbrella. A typical regional office employs about five technology advisers who are, in contrast to SMBA's consultants, professional engineers with long experience working in a company.

highly qualified personnel. In order to improve their situation, the central government has recently set up many initiatives to boost the innovation and competitiveness of SMEs. Government support is necessary not only because of the lack of functions spanning across boundaries; it is also needed because of a shortage of private consultancy and engineering companies in Korea.

There are contradictory judgements on the strength of the Korean innovation support to SMEs, which may be caused partly by the lack of a systematic evaluation. According to the OECD (OECD, 1999), "it is surprising that there seems to be no systematic establishment of technical assistance offices throughout the territory [...] of the sort to be found in a number of European countries [...] or even in Japan" (J.K. Park, 1998). Yet, Korea has been identified elsewhere as an international leader in SME oriented innovation support systems (Kim and Nugent, 1994). There is more agreement on what can be improved about the support policies:

- "Following practices in most OECD countries, the development of infrastructures and programmes to support technology needs to involve local and regional authorities" (OECD, 1999 and J.K. Park, 1999).
- SMEs themselves need to have a greater voice in the agencies, as nearly all agencies are set up by the central government (J.K. Park, 1998 and Kim and Nugent, 1994).

The latest feature emerging from SMEs in Korea is the spectacular increase in management buyouts, spin-offs, business start-ups and venture firms.² The people who set up these enterprises used to work either in a *chaebol* or in a public research establishment. There is a strong cluster of small software and Internet firms in Gangnam, a district in the South of Seoul. There has been no government policy whatsoever to support this cluster. The availability of young highly qualified people and the modernity of the area have probably facilitated the concentration of new IT companies in Gangnam. This business, which already accounts for three to four per cent of Korea's employment, is expected to make up 25 per cent of the GDP by 2005. The venture policy of the central government has recently been benchmarked by local and regional authorities, but not necessarily adjusted to differing regional particularities. The Capital Region seems to be the ideal location for venture businesses and types of businesses associated with the new economy, since it can offer a highly qualified labour force and an environment rich in information.

FDI development policy

Before the economic crisis, the foreign investment rate was low and Korea depended very little on FDI even though a significant share of its manufacturing technology was acquired through licensing agreements with firms headquartered in Japan, the US and Europe. As late as 1995, Korea's FDI stock reached only 2.3 per cent of its GDP, whereas foreign investment rates in comparison to GDP in

Table 35. **Foreign investment record**
In millions of US\$

	Japan	USA	EU	Others	Total
1980	39	71	14	19	143
1985	364	108	33	27	532
1990	236	318	187	62	803
1995	418	645	461	417	1 941
1996	255	876	892	1 180	3 203
1997	266	3 190	2 305	1 210	6 971
1998	504	2 973	2 885	2 490	8 852
1999	1 750	3 739	6 260	3 792	15 541

Source: Data from the Ministry of Commerce, Industry and Energy.

developed or developing countries are all above 10 per cent. Foreign investment has nevertheless been increasing rapidly in the recent period with USD 8.9 billion and USD 15.5 billion respectively in 1998 and 1999, thus bringing the percentage of foreign investment to GDP to 7.7 per cent (Table 35).

This change is, to a large extent, the result of a new policy. Numerous regulations inhibiting and prohibiting direct foreign ownership of enterprise had been erected in the past in order to protect the domestic market. Korea's economic success was built around the growth of indigenous enterprises. This policy began to be rapidly dismantled in response to the collapse of several major *chaebols* and to the IMF requirement for financial and economic reform to open Korea's economy fully to global capital. Since 1997, the government, in accord with IMF bailout agreements, has further lifted restrictions on FDI by opening 40 previously closed business lines (Box 10). From 1998, foreign investors have been allowed for the first time to purchase real estate. Merger and acquisition markets are now fully open and even allow hostile take-overs of Korean companies by foreign corporations. Ceilings on the purchase of stocks of listed companies were abolished in May 1998. Also, a Foreign Investment Zone System was introduced in November 1998 to encourage large foreign investments.³ More incentives include the reduction and/or exemption of taxes and financial support for the fundamental facilities of transnational investors.

In addition to opening protected sectors to FDI, selected locations were designated as key points for receiving global investment as a means of establishing Korea's hub position in Northeast Asia. In 1998, the government announced intentions to establish four customs free zones at the ports of Incheon, Gwangyang Bay, Busan and at Gimpo airport in Seoul. In these zones, firms are exempt from customs duties, value-added taxes, and various other indirect taxes. Dispensations and subsidies allowed in the zones include: exemption from corporate income

Box 10. The new Foreign Direct Investment regime and the 1998 law

The government introduced big changes in the Foreign Investment Promotion Law, switching its emphasis from “control and regulation” to “promotion and support” as of 2 September 1998. All laws relating to foreign investment, including the Foreign Investment and Foreign Capital Inducement Act, were streamlined and incorporated into a single legal framework. The new Act has been developed to create a more transparent and liberalised system, to abolish cumbersome regulations, to augment incentives, and to give greater autonomy to local governments by incorporating seven major objectives:

- *Liberalisation and protection of FDI.* All business sectors are now liberalised, as is acquisition of land irrespective of its use. Restrictions still apply, however, where national security, public order, public health, environmental protection and social morals are threatened.* Korea has signed 56 bilateral agreements with various countries to protect FDI and to guarantee the free flow of capital.
- *Increase of tax incentives.* The Korean government provides various tax reductions and/or exemptions for 436 types of advanced technology businesses and for 97 types of services that support the internationalisation and competitiveness of domestic industries and businesses located in the Foreign Investment Zones (FIZs).
- *Improving transparency.* A comprehensive announcement on all FDI restrictions is now made every year.
- *Simplification of procedures.* FDI notification and registration have been made easier.
- *Provision of a one-stop service.* At the foreign investment support centre, foreigners can get a one-stop service on all that is needed to invest in Korea, from initial consultations to permit and approval procedures. Services are provided by the Korean Investment Service Centre (KISC) free of charge.
- *Establishment of FIZs.* In the past, industrial parks for foreign firms were selected by the central government. The FIZs are now designated by the local government of the region where the potential investors wish to locate. A designation plan is submitted for approval by the CFDI (see following). Criteria for consideration for designation include the FDI amount and the number of jobs to be created.
- *Establishment of the Commission on Foreign Direct Investment Policy (CFDI).* The Commission deliberates and decides based on the improvements to the FDI environment, the designation of a FIZ, possible conflicts between central and local government on FDI, and on local involvement in FDI inducement.

* The liberalisation ratio increased from 97.6 in 1997 to 99.7 in 2000. Four sectors linked with fishing and broadcasting are still closed to FDI while 17 others including telecom, transportation, publishing and rice production are still partially restricted.

taxes and various other taxes, no rental charge for land, and freedom of entry and exit of goods in the zones, with activities such as storage, manufacturing and production fully allowed. One industrial complex became a free trade zone (FTZ) in 2000 and several airports, seaports and industrial complexes are under consideration to be designated as duty free zones and FTZ, including Jeju Island, the most southern part of the country.

A salient feature of the overall pattern of FDI during this period is that merging and acquisition (M&A) related investments *via* the acquisition of shares increased substantially. Between January and August 1998, such investments reached USD 930 million, accounting for 22.7 per cent of total investments (versus 10% in 1997). Particularly, out of 83 cases in which investments exceeded USD ten million, 31 cases were M&A related. Thus, the considerable rise in corporate restructuring via security purchases is evident.

The early phase of liberalisation measures before the crisis allowed an avalanche of investment in the service sector; namely, short-term portfolio investment in finance, which fled in late 1997. Signs of recovery are now being witnessed, paralleled by new heights of foreign direct investment in manufacturing as well as in finance and services. Moreover, this investment is more diversified in terms of origins of investment in the EU and North America. In 1999, FDI increased by 16 per cent in money terms. Where individual investment cases had not surpassed 100 per month during the 1995-1998 period, by the end of 1999 more than 200 new cases a month were being registered. By April 2000 FDI was up 24 per cent over the previous year, and a new monthly record was achieved in July 2000 with USD 2.12 billion.⁴

While mergers and acquisitions skyrocketed among major corporations, an equally profound change began to take place at local levels. From a long experience of having virtually no foreign investment pursued by local governments, the air of national economic and financial reform beginning in 1998 witnessed the rise of campaigns by provinces and cities to attract FDI. This is supported in principal by new opportunities given to local governments to provide their own incentives to foreign investors "within limits of their authority". Offices are being set up by provincial and city governments to promote their friendliness and location advantages to the outside world. Local governments are putting new pressure on the national bureaucracy to facilitate rather than inhibit FDI flows into the country. Across the country, plans now abound to attract high technology industry into a host of science and industrial parks being planned and built by local governments. All of this is resulting in a new sense of hyper-competition among cities and provinces for global linkages through foreign investment in new enterprises. In most cases, however, capacities to attract and manage this investment remain weak. In 1999, Seoul and the Gyeonggi Province were still attracting more than half of all foreign investment in Korea (Table 36 and Box 11).

Table 36. Evolution of foreign investment by region

	1980	1985	1990	1995	1996	1997	1998	1999
Seoul	31	347	210	2 225	955	1 328	2 771	6 270
Busan	1	7	7	53	65	391	74	319
Daegu	2	20	7	43	2	38	91	11
Incheon	10	14	21	152	338	89	429	172
Gwangju	–	23	16	94	10	61	618	4
Daejeon	0	7	6	329	287	688	28	87
Ulsan	5	18	51	636	83	53	174	758
Gyeonggi	14	44	108	947	415	508	1 221	2 232
Gangwon	–	–	11	55	15	1	43	854
Chungbuk	0	3	70	299	122	167	247	185
Chungnam	–	2	54	516	382	75	95	845
Jeonbuk	1	1	35	176	44	35	1 211	187
Jeonnam	9	5	13	160	82	71	746	10
Gyeongbuk	12	17	44	205	88	650	72	2 598
Gyeongnam	23	5	45	123	229	761	866	724
Jeju	3	3	19	227	0	2 009	20	19
Not classified	32	15	105	358	85	45	146	266
Korea	143	532	803	6 598	3 203	6 971	8 852	15 541

Note: The figures are classified according to the location of the main office.

Source: Data from the Ministry of Commerce, Industry and Energy.

Policies to develop a knowledge-based economy and new growth engines

Korea's industry pattern has experienced significant changes in the post-war period, the most noticeable being the steady decline of agro-fishery and forestry industry, from 28 per cent of the GDP in 1970 to five per cent in 1998. This occurred together with a growing urbanisation, particularly along the Gyeongbu axis where most industrial complexes are concentrated. During the same period, while the tertiarisation of the economy gained momentum, the share of the secondary sector also continued to grow, propelled by the expansion of knowledge-based activities. The knowledge-based sector, which includes not only high technology production but also highly skilled activities in the areas of finance, insurance, education and health care, now accounts for around 40 per cent of the Korean business output. Given the above-average rate of growth of this sector (12.5% from 1985 to 1995), the government intends to strengthen its share in the national as well as in the regional economies in order to place them on a more sustained and stable growth path. Apart from its specific focus on SME and FDI, the central government is poised to enhance the R&D performance in regions, to focus on human resources and knowledge and to trigger a catching up process in

Box 11. FDI inflow in the Gyeonggi Province

The Gyeonggi Province followed behind only Seoul in volume of foreign investments last year. Just this year so far, it was able to draw over USD 1.9 billion. The province surrounds Seoul, allowing it to be very close to the political, business and cultural centres of Korea. It is also the base of many advanced technology related industries. Gyeonggi has a consumer population of 22 million and a highly educated workforce. The administration made decisions to streamline its industrial structure to be more knowledge-based and at the same time decided to make inducement of foreign investment based on market principles a priority in its policies. In October of 1999, Gyeonggi was the first province to set up a foreign investment promotion division for the convenience of investors. The division hired nine experts in investment from private companies, including two foreigners. The province is eager to provide the best investment environment and, to do so, a one stop service system has been created. Foreign investors can give suggestions on removing any inconveniences or barriers related to investing in the province and the administration strives to be quick to carry them out. All these factors assist in making the province one of the most sought after investment sites in East Asia. In addition to Carrier-LG, Kishimoto Group is investing USD 37.5 million in the construction of the Sanjong Silver Town. The Shihwa co-generation power plant will be a co-operation of Sangyong Engineering and Construction Company, Marubeni Corporation of Japan and US-based KMR Power Corporation. The first foreign investment in the area of social overhead capital (SOC) was the commitment by Sansei Company to invest USD 250 million. Several investments in environment related projects have also been successful. Unisyn International Incorporated of the US, and Geophex International Limited have invested USD 50 million and USD 18 million, respectively. In a number of cases, Japan is at the top as it invests in 414 cases, equalling 40 per cent of all investment projects, followed by the United States, which takes up 26 per cent. In terms of the volume of investment, the United States leads other investors with USD 2.6 billion, which accounts for 46 per cent of all investments. The Netherlands is second with USD 715 million invested in the province, closely trailed by USD 706 million invested by Japan. Investments under USD one million are most frequently made, in some 667 projects, constituting 65 per cent of all foreign investments. So far, there have been 188 investments of between USD 1 million and USD 5 million, 66 investments of USD 5 million to USD 10 million, and 113 investments of over USD 10 million.*

* The box draws heavily on a *Korea Herald* article published December 20, 1999.

information technologies. Subnational authorities have an increasing role to play to stimulate bottom-up initiatives and to link local initiative with increasingly global markets.

Research and development

Korean R&D policy has passed through several phases, responding to changing national development objectives and strategies. Throughout the period of rapid economic growth and industrialisation, R&D policy was adjusted to meet economic and social needs. In the 1980s, the government gradually shifted emphasis from industrial policy to *technology policy*. This policy shift led to a sharp increase in R&D expenditure in general and in the share spent by the private sector in particular (from 32% in 1971 to 80% in 1987) (L. Kim, 1993). Since the 1980s, however, the government has systematised national R&D funding. More recent trends witnessed an increasing share of indigenous innovation in R&D and a decreasing emphasis on research linked with imitation and absorption of technologies from abroad. While the government intends to expand at a significant rate its research budget, it is increasingly concerned by the diffusion of technologies toward small firms. Small businesses have been slower to expand their R&D capabilities than have been the *chaebols*. Half of the small enterprises are not conducting any innovative activities at all.⁵ The Technology Transfer Law, with its emphasis on commercialisation of R&D results and the increasing support to venture firms, reflects the perceived need to balance the Korean large technology programmes.⁶

Regional Research Centres (RRCs) and Technology Investment Centres (TICs) have now been established in all provinces of Korea, and specialise in those technologies that dominate the region's industry. These RRCs and TICs include: in Gyeongbuk-Daegu, the Centre for Research of High Quality; the Automated Process in Electronic Parts Industry in the electronics district of Gumi; the High Sensitivity Polyester Textile Products Development Research Centre in Gyeongsan (close to Daegu's textile cluster) and the Centre for Automotive Parts Technology in Daegu. These centres are part of an initiative taken by the Ministry of Commerce, Industry and Energy and of the Ministry of Science and Technology, which began in 1995 (Chung, 1999). The 37 Korean RRCs and 20 TICs aim to upgrade research facilities at universities so that they may become interesting partners for co-operation with SMEs. They offer SMEs in the region technological advice, seminars, training courses and the use of scientific equipment for tests and experiments and thus carry out joint R&D projects with them.

Recently, the central and local governments have strongly supported six regional technology parks. This initiative can be regarded as the delayed follow-up of a much older initiative, namely Daedock Science Town in Daejeon, about 170 kilometres south of Seoul, which was planned and built by the central government at the beginning of the 1970s. Although the six technology parks are much smaller in scope than Daedock Science Town, which has 24 Public Research Establishments (PREs), 25 private R&D centres and three universities which employ in total about 15 000 people, they are still supposed to contain the R&D centres and

the production plants of *chaebols*, small business support centres and learning factories (D.H. Shin, 1999).

To correct the imbalance between regions of science and technology expenses and to build the foundation for scientific and technological reforms in the regions, the government has prepared the "Comprehensive Plan on Promoting Local Sciences and Technology". The Plan involves the development of regional, strategic and specialised technologies and the fostering of regional technological reform hubs. Some 215 billion won will be spent to draw up and implement plans for the fostering of special technologies. Given the regional concentration of related activities, this will benefit mainly industries such as Daegu's textile industries, Busan's shoe industries, Gwangju's ray industries, and Gyeongnam's machinery industries.

Despite this increasing governmental involvement, several weaknesses have been observed in Korea's innovation system (L. Kim, 1997). First, the quality of research at universities is relatively weak. In 1994, universities employed 33 per cent of Korea's total R&D personnel, whereas they received not more than about 7.7 per cent of the national R&D expenditures. Only at the Korean Advanced Institute of Science and Technology (KAIST), Pohang University of Science and Technology (POSTECH) and Seoul National University does research take place at an international level (L. Kim, 1997). Second, given the teaching orientation at universities, there is a fundamental lack of interplay between universities and the private sector (L. Kim, 1993) and there are relatively few technological spin-offs (L. Kim, 1997). Although the government extensively financed the establishment of a whole range of PREs (80% of public R&D spending goes to PREs, compared with 41% in Germany and 24% in the USA), these institutes lack the diffusion mechanisms necessary to transfer research results to industry and particularly to SMEs. Furthermore, the hierarchical character of the higher educational system, both in the sense of quality and geography (strong concentration of top universities in the Capital Region), strongly hinders regional economic development opportunities in peripheral regions, which also suffer from a severe brain drain. Decentralisation would raise the quality of regional universities, which would then be much better tailored toward demand in the regions. It would also make it easier to involve university staff in regional strategic planning and thinking about the future of regional development. At the moment there is a mismatch between demand and supply of highly qualified people in many regions.

Although decentralisation is taking place at a slow pace, regional authorities are getting more power and are also getting more involved in science and technology (S&T) policy. The provinces now spend 7.6 per cent of the total public expenditure for S&T in Korea, which is, however, still low compared to Germany (more than 40%) and Japan (20.2%). On average, 1.3 per cent of the total budget of each of Korea's provinces is invested in S&T, whereas the central government devotes

four per cent of its total budget to science and technology. The metropolitan councils spend less than average on S&T (0.4% of their total budget), and the provincial governments more than average (2.6%). There are strong differences between the individual provinces concerning their share of S&T expenditures, which does not correlate with their economic strength, but more with the commitment and motivation of the provinces' governors to invest in S&T (Chung, 1999). The structurally weak Gangwon Province, for instance, is the region with the highest share (5.84%) in all of Korea. The majority of the provincial budgets for S&T policy is devoted to co-financing recently developed, nationally devised policy initiatives. Of the Gyeongbuk Province's budget for S&T policies in 1998, for instance, no less than 50 per cent went to technoparks, 25 per cent was spent on the consortium initiative and 12.5 per cent on the above-mentioned Regional Research Centres; all national initiatives.⁷

Human resources

Given the insignificance of foreign investment until the recent period and the need for skilled manpower linked with the fast catching up process, the government has had to invest heavily in the education and training of the workforce. Korea's emphasis on education dates back to the early stage of the post-war reconstruction period. By 1965, 16 per cent of the government budget was devoted to education. By 1997, total expenditures on educational institutions reached 7.4 per cent of the GDP, the highest of all OECD countries. Although the Ministry of Education budget has increased from three to four per cent of the GDP and from 22 per cent to 24 per cent of the government budget between 1990 and 1996, public support is relatively weak according to OECD standards. The high investment performance in education is mainly due to the strong zeal of Koreans and to the importance of private education expenses including tutoring and out of school supplementary education (which consume as much as 6% of the GDP). As a consequence educational attainment is above OECD average for secondary and tertiary graduation.

Despite the growing enrolment, the expansion of facilities, and the increased number of teachers, it has been argued that the quality of education has failed to improve at the same rate. The current education practices are considered to be too monotonous to accommodate the demands of students and firms. Preparation for college examination and memorisation of knowledge are overemphasised. Curricula are ill adapted to the information society, and creativity and lifelong learning are not sufficiently promoted. Moreover, this examination-oriented style of education often induces a self-centred individualism and frustration. Such shortcomings have been reflected in the higher unemployment rate of well-educated people (at least until 1997, and unlike in the rest of the OECD zone).

Recent reforms have attempted to eliminate uniformity, a major problem of Korean education. The fifth and the sixth National Curricula in 1995 were efforts to diversify school education through the localisation of curricula. The latest revision modified curricula for primary and secondary school education by giving more weight to individual differences in academic ability. Teacher training has also been intensified in order to enhance teachers' professionalism. Though many courses remain mandatory, school districts and schools have been allowed greater autonomy in choosing courses to offer to their students.

At the university level, demand exceeds supply and the government has privatised higher education while it has also expanded programmes at public institutions (OECD, 1996c). Most Higher Education Institutions (HEI) have been interested in increasing services and profitable tuition. They have been reluctant to expand costly programmes without government subsidies, resulting in gaps between university programmes and corporate needs. Increasing access to institutions abroad through information technologies and reducing the number of applicants because of demographic trends will help to redress imbalances. The government is also pushing specialisation and has increased its support to a number of provincial universities and colleges, which have set up specialisation plans.

The Kim Dae Jung administration in 1998 gave a new impetus to the reform, within the framework of the establishment of the new education system. The economic crisis showed that the growth process was not based on solid foundations and that its education pillar had to be restructured in depth. The reform is focused on the establishment of new selection processes, on the evaluation of students, and on citizens' participation. The Ministry of Education formulated a five-year plan for educational development in March 1999 to prepare the Korean workforce for the knowledge-based society. At the higher education level, the reform is underpinned by a major development programme: Brain Korea 21 (BK 21). This programme aims to foster world-class regional universities and to stimulate competition between them. BK 21 will provide about 50 billion won every year (during seven years) to nurture graduate and postgraduate university programmes for encouraging creativity and technology so that they might better meet industrial demand. By the end of this year, 26 technology reform centres and 222 new business support centres centring on university and research institutes will be added.

Better matching of skills supply and needs can also be achieved through vocational training. The government has initiated a series of active manpower development policies and new laws.⁸ Measures taken include setting up technical high schools, augmenting the number of classes, increasing scholarship, and providing laboratory equipment and facilities. Opportunities for vocational higher learning have increased to support the shift of vocational education from secondary schools to tertiary levels to respond to new industry needs. The

number of high schools participating in the school/industry co-operative programme (dual system) has grown quickly. Many skilled labourers have nevertheless left the productive sectors for better work conditions in the tertiary sector, thus worsening the skill shortage.

Recently, new initiatives have been taken by the central government to address training deficiencies (such as the narrow scope of programmes, limited accessibility of young people and SME workers) and to tackle the mounting unemployment problem. The Vocational Training Promotion Act replaced the basic law for vocational training based on compulsory training, and training subjects have been expanded. The number of unemployed people receiving training was multiplied by eight in 1998 (compared to the previous year) and continued to rise in 1999. A manpower development fund will be established to fund employee training in small firms and to pay for vocational education for self-employed and deprived groups. Other initiatives carried out include the launching of “new” universities (called at present technical colleges) where workers can acquire advanced knowledge and skills relevant to their work without having to leave their jobs. It is expected that these technical colleges will strongly contribute to the establishment of a lifelong learning society. The government is encouraging corporations to open such colleges.

Information society

IT is a powerful vehicle for diffusing knowledge-based products and services. In this area Korea is still far behind the more advanced countries (Table 37). It spends only 2.5 per cent of its GDP on communications and information technologies (against four per cent on average for the OECD zone) and only 29 Internet hosts are registered per 1 000 inhabitants (as against 60 in the OECD zone). To bridge the gap, Korea set “Expansion of Knowledge Foundation” as one of its national objectives for 1999 and is currently involved in establishing the “Basic Plan for Development of Knowledge-Based Economy”. In addition, with 88.9 per cent of information and communication related businesses located in the Capital Region, the national authorities are making multifaceted efforts to ease the regional imbalance of knowledge-based industries.

Building the telecommunication infrastructure has been a priority of the government. The number of telephone lines per 100 inhabitants now exceeds the OECD average and subscribers for mobile phones are now more numerous than those with fixed installations. While the mobile network is fully digitalised, this is not yet the case for fixed lines. All markets are now open to competition, but the former monopoly KT still holds a dominant position in fixed service markets. The MIC is responsible for making regulatory policies, while the Korean Communication Commission is in charge of implementation of laws and regulations. A universal

Table 37. Selected indicators of the information age, 1996

Per 1 000 people	High income group	Korea	Middle income group	China	India	Low income group excluding China and India
Telephones	540.0	430.0	105.0	45.0	15.0	11.0
Telephones in largest city	569.0	466.0	305.0	140.0	80.0	56.0
Daily newspapers	303.0	404.0	94.0	23.0	..	13.0
Televisions	611.0	326.0	224.0	252.0	64.0	47.0
Mobile phones	131.0	70.0	10.0	6.0	0.0	0.0
Fax machines	47.0	9.0	1.5	0.2	0.1	..
Personal computers	224.0	132.0	22.0	3.0	1.5	..
Internet hosts	203.0	29.0	4.0	0.2	0.1	0.1

Source: World Bank (1998).

service was introduced in January 2000 through a revision of the Telecommunication Business Act, but it is too early to assess its impact on remote or poor areas.

In April 1999, the Korean government launched Cyber Korea 21, a blueprint for the promotion of the development of telecommunications and IT. The financing of this USD 8.6 billion endeavour will be borne by the government ($\frac{1}{3}$) and the private sector ($\frac{2}{3}$).⁹ It aims, over a period of three years (1999-2002), to complete the Korean Information Infrastructure (KII), to enhance national productivity by using KII and to promote new business while revamping the old economy. By 2002, a national network covering 144 local call areas should be in place, for easy and equal access to e-commerce and other multimedia information services from anywhere in the country. In 1998, 80 major cities were already connected to the fiberoptic backbone network and an additional 14 were hooked to the information superhighway. The government is also preparing the ground for knowledge intensification of existing industries and for fostering new knowledge-based industries like software, multimedia, and cultural industries.

As a knowledge-based economy will play a leading role in providing income and job opportunities, regional development policy is becoming more concerned with the improvement of human resources, and with the promotion of entrepreneurship and technological innovation. There is a growing perception of the inequalities within and between regions with regard to information technology infrastructure availability and access. Some 38.5 per cent of the population is using the Internet, but this does not include much of the rural population, the elderly, and the disabled. The central government recently earmarked some USD 70 million to support a computer literacy programme for the underprivileged. The MIC already raised 10.5 billion won for training housewives and setting up

computer centres in the post offices. It will support the informatisation of local communities and establish regional information centres in provinces.

New education laws consider IT as a viable means of education and the newly enacted Lifelong Education Law provides legal ground for the use of telecommunications media and information technology for lifelong education. It is planned that PCs will be distributed to schools so that every school has at least two computer labs by 2000. In 1998, 866 elementary and high schools were connected to a computer network and 25 per cent of teachers had received training in computer and networking. A pilot project is being conducted at the tertiary level to study the feasibility of creating cyber universities.

Local and regional initiatives

The local governments are doing their part in creating different types of knowledge industry complexes as well as in pursuing various measures for promoting and fostering knowledge-based industries. Examples of such local complexes include the Suyeong Information and Communication Complex in Busan, the Songdo Media Valley in Incheon, and the Cultural and Visual Complex in Jeonju.

Daegu Metropolitan Council recently initiated and launched the Milano Project, a large five-year support programme that should restructure the Daegu textile industry from a low to a high value-added industry. More than half of the financial input (54%) for this comes from the central government.¹⁰ A whole range of projects, in which the local Korea Textile Development Institute is much involved, such as a textile information centre, a new product development centre including a pilot plant, and an annual fashion show, should turn Daegu into the fashion Mecca of East Asia.

Because Gyeonggi Province has the largest absolute S&T budget of all provinces in Korea, it is more able to set up and finance certain innovation policy measures (Chung, 1999). It is the only province in Korea that has set up a regional version of Regional Research Centres (RRCs). Three centres that were not selected by MOST to become RRCs received support from the province and are now called Gyeonggi Regional Research Centres (KRRCs). Furthermore, the province has established its own intermediary agency for SMEs in 1996, called the Gyeonggi Small Business Foundation (KSBF). The KSBF, which has 41 employees, has two aims. First, it promotes business start-ups and existing SMEs, which develop new products. It has an "on the spot innovation team", consisting of engineers with extensive company experience who technologically advise Gyeonggi SMEs. Second, the KSBF is going to set up a science park in Suwon, the capital of Gyeonggi, within the coming two years. In contrast to the above-mentioned technoparks, this science park will only provide high tech, R&D oriented business start-ups (*i.e.* no production) with office space. In addition to the office space for about 100 high-tech business start-ups, the science park will also become a new home for

25 innovation support agencies of the Gyeonggi Province in what is being called an “under-one-roof one-stop shopping centre”.

Gyeongnam did not manage to get financial support from the central government for its technopark plans. However, the committee that was set up to write a proposal for the technopark, the Regional Industrial Restructuring Steering Committee, remained active and managed to receive central government support for an industrial restructuring plan. This committee, in collaboration with a task force appointed by the province, published the report *Knowledge-based Mechanical Engineering Industry Development Plan* in 1999. The plan calls for USD 400 million to support mechanical engineering research and infrastructure in the region. After the central government pledged to financially support the plan, the provincial government extended the task force with members from local universities, technical colleges, economic support agencies and SMEs, with the task of refining the restructuring plan. The plan aims at upgrading and integrating the following existing systems of innovation in mechanical engineering into a Mechanical Engineering Industry Technobelt: the auto parts and medical equipment industry in eastern Gyeongnam, the machine tools and transport equipment in Changwon-Masan and the aerospace industry in western Gyeongnam. The following support areas will be covered by the plan: R&D and technology transfer for SMEs and large enterprises, vocational and professional training, services for SMEs and venture firms (business incubators) and supporting infrastructures (TICs). The plan clearly illustrates the shift in regional development policy from centrally led growth pole orientation toward the endogenous development model.

At the local level in the steel city of Pohang in Gyeongbuk Province, an intermediary committee was recently set up by the local chamber of commerce, Pohang City Council and the Research Institute of Industrial Science and Technology (RIST), which has 600 employees and which is 90 per cent sponsored by Posco, Korea's largest steel manufacturer. This committee aims at transferring technological knowledge developed at RIST to local SMEs.

Policy assessment

The four decades of explicit policies toward a balanced spatial development pattern were successful in terms of spreading basic infrastructure evenly over the nation and of stimulating the growth of secondary metropolitan regions and selected industrial growth poles. Much of the spread of infrastructure was, however, instrumental in expanding the reach of large firms based in Seoul rather than in developing long-term economic strength in provincial areas. Even though other metropolitan centres did grow, their economies have been precarious and without local enterprise headquarter functions. Important manufacturing business activities located in provincial regions were processed through the headquarters or

branch offices in the major metropolitan area. This geographical division of labour failed to create strong links between the manufacturing activities implanted in industrial complexes and those in the local economies (S.W. Hong and J.H. Kim, 1997).

In the past, manufacturing activity sites were selected without much consideration for the development of related service industries. Many rural areas did not succeed in attracting producer service industries to support the existing manufacturing activities locally. The development of industrial establishments generates positive employment and demographic impacts on local and regional communities during the period of construction and operation. Jobs filled by the local workforce, however, vary widely depending on the location of industries. The variation of local employment is related to the size of the commuting area and availability of local workforce qualified for jobs.

While branch plants in provincial areas might produce high levels of value added, the profits and income streams from that production are largely transferred to corporate headquarter functions in Seoul. As mentioned above, the capital city is paying almost three times the per capita average for the nation, thus indicating that GDP accounts seriously underestimate the much higher level of income produced in and captured by Seoul.

Korea has a relatively short history concerning both industrial development and regional policies. Until very recently, Korea's regional policy could be characterised as traditional Fordist: it has been central state driven, firm centred, incentive based and of a standardised kind. At the same time, regional policy has had relatively little impact on reducing regional economic inequalities, as economic and industrial policies (efficiency) often have a clear priority over regional disparity issues (equity). It remains the case after the economic crisis of 1997 and 1998.

An important, emerging feature of regional policy has been observed; namely, the increasing focus of Korea's innovation policy on SMEs. The central government has recently designed many initiatives to boost the innovation and competitiveness of SMEs. It is unclear to what extent local and regional institutions play a role in designing and implementing these innovation support policies. In other words, does Korea follow the international trend towards regional innovation policies?

The *decentralisation* of SME oriented innovation policy, which has been pleaded for by many, was facilitated by political reforms in 1995. The large increase in the number of initiatives of the central government in which regions participate as co-financiers, such as the technoparks, the consortium programme and the RRCs, has clearly been boosting the role of regions in innovation policies. Nevertheless, innovation policy still has a strong national character, as some agencies, such as the SMBA and SMIPC, are fully supported and controlled by the central government. Other agencies, which are devised and implemented by the central govern-

ment, such as the RRCs, are only to a small extent co-financed by provinces. Korea's regional innovation support systems, therefore, can be clearly typified as *dirigiste*.¹¹ Only Gyeonggi, which is the most populous and financially the strongest province, along with Daegu, Busan and Gyeongnam, areas with large restructuring problems, have recently set up some initiatives parallel to the central government initiatives. These regions, therefore, seem to be moving from a *dirigiste* to a more integrated kind of regional innovation support system.

The existence of *dirigiste* innovation support systems and therefore the limited role of regions in them can first and foremost be explained by their inability to levy taxes and hence their lack of financial resources to fund initiatives. Moreover, Korea's regions, in contrast to European regions, are not connected to a supranational sponsor and promoter of regional innovation policies that has an interest in "hollowing out" the nation-state.

There are two clear disadvantages to the current *dirigiste* system in Korea in which the central government dominates SME oriented innovation policies (R. Hassink, 2000). First, it generates homogeneous innovation support agencies, which are not focused on specific *regional economic demand*. In addition, these agencies are much too dependent on financial support from the central government. In a society that changes at an increasingly rapid pace, central government is less and less able to adapt its innovation support policies to the demands of companies. Therefore, the closer the proximity, geographically, socioculturally and organisationally, of the agencies to SMEs, the more flexible and efficient they are. Too much dependence on central government support leads to both inflexibility and to rent-seeking instead of to innovation. Second, this kind of system generates horizontal policy *co-ordination* problems, which are partly due to strong vertical dependencies of agencies in the regions on their sponsors in the central government. Despite the establishment of the SMBA, which is supposed to co-ordinate innovation support for SMEs, the support infrastructure can be characterised as fragmented with overlapping activities (L. Kim, 1995). Since the division of labour between the agencies is not clear and interaction between them is at a low level, they form an innovation support infrastructure rather than a system.

Regionally-embedded innovation support systems are clearly preferable to those that are *dirigiste* for Korea in its current development stage (between being investment driven and innovation driven). It would be realistic to concentrate on an integrated approach which is to some extent bottom-up, but also planned and co-ordinated by regional government and based on partnerships between a broader set of actors, namely regionally and nationally initiated support agencies, large enterprises, SMEs, universities and PREs. Such a system will help to promote the formation of innovation networks between these actors in Korea's many satellite and hub and spoke industrial districts, which lack the necessary intra-regional networking (S.O. Park, 1995).

Central government, therefore, should put the principle of subsidiarity more into practice: it should give regional governments greater access to sources of revenue and help them more to develop skills and knowledge, so that they can become responsible for those agencies which can be perfectly operated by regional authorities, such as the SMBA and SMIPC. Temporarily transferring central government officials to the provincial administrations might support the development of skills and knowledge at the regional level. More concretely, in developing skills and knowledge on how to set up regional innovation policies, Korean policy-makers certainly can benefit from a wealth of experience recently gained in regions in, among others, European countries.

At the same time, the government efforts to support local industries should remain of a functional nature. During the past 40 years, the government has played too great a role in supporting specific sectors and even firms, leading to serious moral hazard problems and contributing to the problems that led to the crisis in 1997. It should be clear that government efforts should not lead to a continuation of the problems of excessively close government-business ties.

More specific recommendations include the following:

- *Streamline SME assistance packages and promote tailor-made programmes for small business in regions.* The current multiplication of programmes in favour of SMEs raises concern about the cost and efficiency of the whole SME policy. While the development of a network of SME related institutions – the creation of small merchant and industrialist support centres, export assistance centres, counselling centres – is welcome, co-ordination and integration of the different services are crucial to avoid complexity and inefficiencies. In particular, there should be closer co-operation between SMBA, SMIPC and other SME related institutions and agencies (*e.g.*, Korea SME bank, KOTRA, KAITECH) through the Presidential Commission on Small and Medium Business that is already established. Participation of small business representatives on the boards of these agencies (it is not the case for all agencies) may facilitate the process. The emphasis on deconcentration of support management at the regional level will also allow agencies to meet SME demand. This should reinforce the trend toward more indirect assistance and subsidies to small firms.
- *Encourage entrepreneurship and put the formation of new business at the centre of local and regional authorities' economic development strategies.* The central government has given a high priority to the promotion of new business and especially to venture enterprise. It has engaged in a concerted effort in the wake of the Law on Special Measures for Fostering Venture Enterprises (1997). Various initiatives have been taken including the creation of a business friendly climate so that young people can start their own firms. New impetus has been given to the venture capital market and assistance has been provided for

Box 12. Best practices

Regions which were recently supported by the European Union's RTP/RIS/RITTS programmes provide a first example. These programmes, launched by the European Commission in 1994, are called Regional Innovation and Technology Transfer Strategies and Infrastructures (RITTS), Regional Technology Plans (RTP) and Regional Innovation Strategy (RIS) Programmes. Their purpose is to support regions in Europe to (re)organise their innovation policies in order to better meet the demands of firms. They can be characterised as bottom-up, as they are demand driven and carried out in exchange with SMEs; as regional, as they are built on a high quality and open regional dialogue; as strategic, as they are based on a regional plan with socio-economic objectives; as integrated, since both public and private sectors are involved; and as international, as interregional institutional learning between regions in Europe is a specific aim. The first reflections on the impacts of these programmes on the regions' capacities to organise and co-ordinate innovation policies are positive. Based on first evaluating observations of the RTP programme, experts recommended that the regions define regional priorities first. Only after having a better understanding of the regional situation and a definition of priorities (intra-regional learning), could there be involvement in external exchanges on the basis of the results achieved internally (inter-regional learning). Politically weak regions, such as some English regions, seem to benefit most from these European support programmes for setting up regional innovation policies. Strong regions, such as the German *Länder*, do not see the need for support from Brussels, as they already have an established and more or less well co-ordinated regional innovation policy. Great Britain's highly centralised, but currently devolving administrative system resembles Korea's system. With the help of the European programmes mentioned above and partly of the government, many regions in Great Britain are making good progress in streamlining and strengthening their hitherto weakly co-ordinated innovation support initiatives (R. Hassink, 1992).

In addition, Great Britain is an interesting benchmark, as Britain's regions are similar to many areas in Korea, in that they are largely dominated by branch plants of large enterprises. Some of Britain's regions have recently been successful in promoting branch plants' embeddedness into the regional economy. Wales, for instance, managed to increase co-operation networks between branch plants and regional SMEs through innovative policies (K. Morgan, 1997). Since Korea has too many satellite and hub and spoke industrial districts with relatively little intraregional networking, it needs policy strategies in order to promote the formation of innovation networks between large companies, SMEs, regional higher educational institutes, PREs and other innovation support institutions (S.O. Park, 1995).

Another relevant and generally positive experience of decentralisation of regional economic policies in Europe can be found in the German State of North Rhine-Westphalia. With the implementation of the Initiative for the Future of the Regions, this most populous German State (17 million inhabitants) decentralised power and means to its 15 regions in the 1990s (R. Hassink and M. Wood, 1998). On the basis of a sound regional development concept, a variety of societal

Box 12. **Best practices** (cont.)

groups in the regions, such as the trade unions, the church, the Chamber of Commerce, universities etc., must agree about proposals to foster the regional economy. Regional negotiating tables must lead to a sound consensus about the list of project proposals. Existing economic development programmes of the European Community, the federal government and North Rhine-Westphalia are used to finance the projects that are selected for support by the state government. The idea behind this bottom-up initiative is to foster regional enthusiasm and initiatives and to reduce the distance between problems and policymakers. The initiative provides the regions with increasing room to devise their own policies tailored toward their own regional economic needs. This bottom-up approach is accompanied by a top-down strategy, since the projects have to be created within five action fields decided by the state government, which will also select the projects that receive support. Therefore, the future initiative has three basic principles; namely, regionalisation (more decisive power to the region), co-operation (broad consensus in the regions) and co-ordination (between region and state).

It must be noted that decentralisation does not mean that the central government no longer has a role to play. Apart from being responsible for basic, precompetitive research and development and a legal, fiscal and administrative framework, it also needs to co-ordinate, evaluate and publish on regionally initiated innovation policies, so that regions can learn (not copy) from each other. Furthermore, it has to make sure that monies are channelled to structurally weak regions so that decentralisation does not lead to the exacerbating of existing regional economic inequalities. It should carefully monitor whether certain regions defend their traditional end-of-the-product-life-cycle industries and thus hinder restructuring or the promotion of new industries. In such a case it needs to intervene in order to avoid the emergence of policy and cognitive rigidity. To the region "belongs the (major) role of creating an adequate spirit for fostering innovation with the productive as well as the public sectors – that is, that of organising and making best use of available resources through the fostering of co-operative learning mechanisms, specific to the regional situation. This role can go far in terms of establishing support instruments and organisations fine-tuned to the needs of the enterprises". Thus, a partnership between central and regional governments is necessary which should be characterised by a clear division of labour. This partnership should also be characterised by consultation and negotiation rather than hierarchical top-down relationships and should allow for local initiatives and diversity (J.K. Park, 1998). A decentralisation of innovation policies to the regional level embedded in such a partnership would contribute to an efficiently operating and co-ordinated innovation support infrastructure, which would then help Korea to master its economic crisis and to bring it to an innovation driven growth.

technological development, export, foreign investment inducement and linkages to the international network, but not much attention has been devoted to the regional dimension of entrepreneurship and territorial differences in social capital. Although programmes on incubators, science parks and service centres are gaining momentum, the education institutions are still lacking curricula integrating entrepreneurship courses especially at pretertiary levels. Regional government could play a more active role in this respect and launch a media campaign in order to better link regional identity, risk taking and business formation. The Atlantic Canada strategy for entrepreneurship would be a good benchmark in this context.

- *Strengthen ties between FDI, large firms and small business.* The Korean national government, in co-operation with the large conglomerate (*chaebols*), has long promoted a policy of industrial dispersion based on poles of growth and on large firm led expansion. The emergence of industrial districts has been strongly encouraged by the state and incentive packages and relocation policies designed for that purpose. The fast development of new cities such as Ulsan, Changwon, Daejeon, Pohang, Kumi, Daegu or Ansan is a direct outcome of these active policies. As there was no pre-existing labour force in several of these areas, manpower was supplied through migration. As a consequence, these branch plant based complexes are different from traditional industrial districts in Europe or the United States. Since they are not locally embedded, are operating with captive subcontractors and are integrated in most cases in the network of their parent firm usually headquartered in Seoul, they are usually considered as satellite industrial districts. While this development pattern has been an important source of wealth for a number of provinces, it has also rendered regional economies more vulnerable to shocks, given their strong orientation towards mass production, their weak flexibility and high specialisation. Current restructuring of the *chaebols* and the wave of FDI may give some opportunities to modify existing vertical ties and to build more regional links. In this context, national and regional government could design strategies to help the reshaping of local economies and in particular to encourage small and medium-sized firms to improve their networking capacities and their ability to specialise and diversify, and facilitate the emergence of intermediate integrators and service providers.
- *Build learning regions and dynamic territorial innovation systems.* The government is making significant efforts to expand its research budget at a rate exceeding national growth. The share of public investment in research in total R&D is nevertheless relatively limited (27%) and it is particularly important to increase the incentive value of government financing. The establishment of RRC and the favouring of university/industry/public lab consortium are first steps to activating technological platforms in regions and to correcting

systemic market failures. Reconfiguration of university research in line with government technological priority is also needed. As emphasised by many researchers, innovation often originates in the supplier/buyer relationship, so technology diffusion will be accelerated at local and regional levels through the intensification of partnerships between institutions and firms or between firms. The involvement of local and regional government is crucial in stimulating networking, in integrating higher education and community colleges and in responding to local demand.

- *Streamline vocational training and devote more attention to regional needs.* Vocational training for the employed dates back to the early 1950s but a major change was witnessed in 1999 with the implementation of the Vocational Training Promotion Act which transformed the centralised system initiated by the government into one steered by the private sector. Training supply has expanded and autonomy in designing programmes has considerably increased. Participation of SME workers remains nevertheless low compared to large firms' personnel involvement. Emphasis on regional needs through appropriate support to local and regional organisations such as polytechnic colleges and special vocational schools should be strengthened and attention paid to regional disparities reinforced.
- *Improve evaluation procedures and strategic approaches at the territorial level.* The central government has initiated a great number of programmes, drafted a Comprehensive Plan on local science and technology and set up a Committee for the promotion of regional S&T. It is also gradually expanding the number of incubators and is planning to increase the number of science parks. To further implement this approach the above Committee could establish subgroups to come up with strategic plans to assess strengths and weaknesses of regions and territories, and propose policy recommendations. By doing so, more balanced supports might be given to universities and firms, basic research and applied science, large and small innovative programmes. The balance should be modified according to regional situations and development patterns.
- *Assure minimum IT services in lagging regions and launch pilot projects in small cities and remote areas.* Increased competition in the telecommunication and media markets tends to give the advantage to densely populated areas where the cost of connections is lower and where diversified supply of programmes and services is more profitable. It is important that minimal service be ensured through the setting up of an appropriate regulatory framework in order to reduce geographical inequality of access. This is a necessary but not sufficient condition to accelerate the diffusion of information technologies towards less advanced regions. Training is of course crucial and the government has already committed important funds to support computer

literacy programmes. A certain resistance to training might occur in particular social groups such as housewives, older people, and peasants. Pilot projects in small cities and an active regional campaign might help considerably in overcoming psychological barriers against technologies that are often not very user friendly.

Notes

1. The Act on the Balanced Regional Development and the Act on Special Measures for the Deregulation of Corporate Activities.
2. Venture enterprises are those with R&D expenses exceeding five per cent of their sales and with patents and technological products accounting for more than half of their turnover. In 1998, these firms grew by 22 per cent and generated profits equivalent to nearly 20 per cent of their sales.
3. Foreign investment projects over USD 100 million are now exempt from plant/site rental fees and receive infrastructure support. An Ombudsman Office was opened in October 1999 to speed up FDI processing.
4. *Korea Herald*, 8 May 2000.
5. According to the STEPI 1997 Korean Innovation Survey. See Gong-Rae Lee, "Characteristics of Korea's National Innovation System", STEPI Seoul, 1999.
6. E.g. the HAN Project, the Strategic National R&D Projects (on generic technologies) or the Critical Technologies Project (creative basic research).
7. I.e. collaborative R&D among industries, universities, and government-supported research institutes (GRIs).
8. Since 1996, as many as three new laws on training have been passed in parliament: the Vocational Education and Training Promotion Law, the Fundamental Law on Qualification and the Korea Research Institute for Vocational Education and Training (KRIVET) Law.
9. The cost of upgrading the telecommunications network is estimated at USD 6.6 billion for the building of the Information Superhighway (backbone and local loop) and USD 2 billion for completing the digitisation of local exchange network.
10. See *Korea Herald* (1999).
11. See for example the typology developed by Cooke in H.J. Braczyk, P. Cooke and M. Heidenreich (1998).

Chapter 5
Social Policy

Since the beginning of the first Five-Year Economic Development Plan in 1962, Korea has made major achievements. Policies intended to encourage growth have led to a substantial increase of the GNP per capita; Korea has now moved to the upper developing countries group in the United Nations ranking. The remarkable reduction in population growth and the dramatic education development have together played a key role in the economic development. Outstanding progress was made in raising the standard of living; average household income levels rose significantly and the unemployment rate remained at a low level. Poverty and social difficulties were considered to be solved due to economic growth and full employment while the informal, private and family welfare system compensated for the lack of public welfare. But the 1997 economic crisis clearly revealed the limit of these policies. Rising unemployment and the decrease of nominal wages have destabilised households severely, and the poverty level has risen both in absolute and relative terms while income disparities are widening. While there has traditionally been a gap between urban and rural areas' wealth, new patterns of poverty have emerged in the cities. The crisis has brought a realisation that economic development cannot be socially sustainable without social policy measures. In this context, the government has introduced a set of temporary measures as well as an important reform of the welfare system. The first initiatives of social policies launched at the end of the 1980s have found a new momentum with the extension of the coverage of the pension system, employment insurance and social safety system. Unemployment measures have also been introduced and are mainly focused on public works and vocational training. Besides, thanks to a high priority given to education, Korea has achieved high educational level and enrolment rate though Seoul still concentrates the most prestigious universities. Some degree of decentralisation has been achieved but local governments could be better involved in educational policies as well as in other fields such as the improvement of women's status.

Living conditions and social disparities

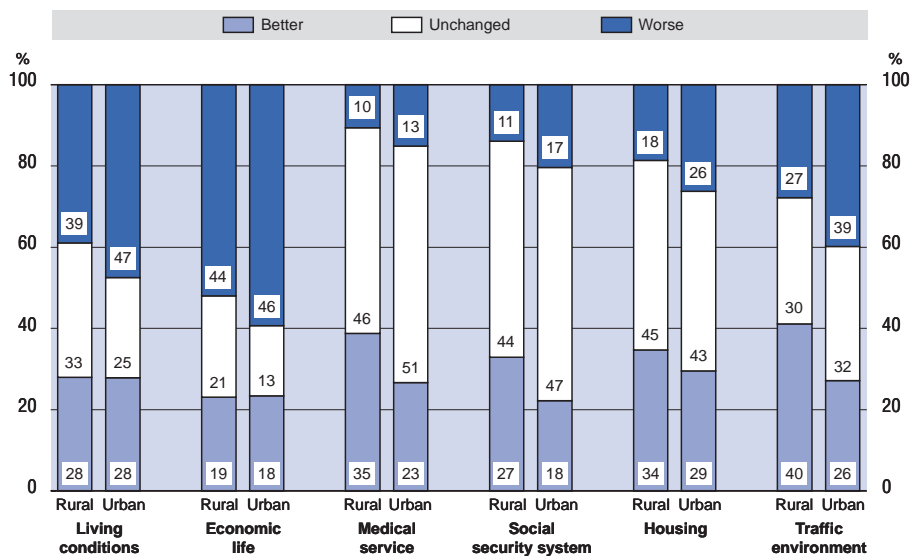
Rapid economic growth over the past three decades has led to major social improvements: per capita income rose from 490 000 won in 1977 to 11 290 000 won

in 1998; consumption expenditure per capita increased from 300 000 won in 1977 to 5 392 000 in 1998; and the percentage of the population living in absolute poverty declined from 41.4 per cent in 1965 to around four per cent at the beginning of 1997 (National Statistical Office, 1999b). The standard of living has improved along with the economic growth and Korea's material standards have now reached the level of those of industrialised countries. Health standards have continually improved as is evidenced by the life expectancy, which rose from 53 to 69.5 years for males and from 58 to 77.5 years for females from 1960 to 1995. Other major achievements were made in the literacy rate, in enrolment in the primary and secondary schools, in the daily calorie intake per capita, and in the access to potable water and to other basic utilities.

Notwithstanding these significant socio-economic changes, Korea still faces major social challenges. Koreans' quality of life remains moderate and lags behind that of industrialised countries. The status of women in Korean society remains a matter of concern. Discrimination is present in all aspects of their economic, political and social life. The rapid industrialisation and the high concentration of the population in urban areas have had several unwanted effects, most importantly: environmental pollution, and a housing and welfare services shortage. The poor economic and social conditions of many Korean male workers, which include long working hours, a high risk of death from industrial accidents, a high rate of road accidents, and unhealthy personal habits, explain the remarkable gap in life expectancy at birth between males and females (7.9 years in 1995 as against 2.6 in 1960).¹ This gap is particularly the case in urban areas where citizens have a more stressful lifestyle and tend to have health-damaging personal habits, a claim supported by the fact that the proportion of drinkers and smokers as well as the mortality rate are higher in urban than in rural areas. A survey held by the National Statistical Office in 1998 on urban and rural inhabitants' perceptions of living conditions showed that respectively 71.6 and 71.4 per cent of the respondents thought that their living conditions have not changed or had worsened (Figure 14) (National Statistical Office, 1999b). Similarly, only 18.2 per cent of the urban respondents and 19.3 per cent of the rural respondents believed that their economic life was better. The aggregate share of those who chose the "better" and the "unchanged" responses is higher in the rural areas. This also holds true for opinions on housing conditions and welfare services.

The better perception of living conditions in rural areas as opposed to those in urban areas can be explained by the significant improvement achieved in the former. For instance, the number of homes with a flush toilet and hot water identified during the period of 1990 to 1995 was higher in urban areas, but the increase in the number of homes with those facilities was dramatic and was more important in rural areas (Table 38). The reasons behind the dissatisfaction of respondents concerning their housing conditions differ between urban and rural areas. Urban

Figure 14. Perception of living conditions in urban and rural areas, 1998



Source: National Statistical Office (1999).

citizens are confronted with a shortage of housing and with the deterioration of their dwellings due to overpopulation, while rural citizens suffer more from poor quality housing and weak infrastructures.

As far as social welfare is concerned, more respondents in rural areas think that their situation has improved. This can partly be explained by the recent extension of eligibility of social welfare to the rural self-employed previously outside the system. The perception of a worsened situation in urban areas has been increased by the rise of unemployment and the decline of nominal wages following

Table 38. Disparities in living conditions in urban and rural areas

	Urban areas		Rural areas	
	1990	1995	1990	1995
Housing space	35.8m ²	56.5m ²	47.2m ²	65.9m ²
Housing with flush toilet	64.0%	84.2%	14.0%	43.8%
Housing with hot bath	40.9%	78.9%	14.2%	60.7%

Source: Ministry of Construction and Transportation.

the 1997 economic crisis, which led to an upsurge of urban poverty. In December 1998, there were an estimated 6 000 homeless in urban areas, with more than 60 per cent in Seoul (W.B. Kim, 2000). Health is now a matter of concern for the urban poor householders; four to five per cent suffer from some form of physical handicap caused by accidents, and another 10 per cent suffer from chronic disease, thus weakening their position on the labour market.

To sum up, the deterioration of social conditions following the 1997 financial crisis has led to a rise in the demand of welfare services, while family ties and mutual co-operation in communities are declining. A new type of poverty has emerged, among women, children, the disabled and the elderly without relatives, and within the urban areas, calling for greater assistance. At the same time, income inequalities are widening, threatening social cohesion.

Social welfare policies

The Korean social welfare system can be traced to the early 1960s. It was fragmented until 1988, when the basic framework of social insurance was established. With the increasing demand for a social safety net after the financial crisis, the call for social policies has gained a new momentum. The welfare functions that once were carried out mainly within the extended family system are now more and more falling upon the government and the local communities. A new law on social assistance, the *National Basic Livelihood Security Law*, was enacted in 1999, under which the benefits of livelihood protection, which had been provided as a temporary protective measure, were redefined as a fundamental right entitled to all citizens. The goal of the new law includes a more coherent delivery of existing public policies, stronger partnerships with NGOs, reciprocity in benefit receipts for those who are able to work and the promotion of beneficiaries' employability through active labour market policies. The philosophy of the new law is that of "Productive welfare" hailed in the new President Kim's "Korean welfare paradigm".

Main suppliers of welfare services

The current social welfare system can be classified into three categories: Social insurance (health insurance, national pension, worker's compensation, unemployment benefits); Public assistance (livelihood protection, medical aid, veterans' relief, disaster relief), and Social welfare services (for children, women, the elderly and the mentally handicapped). Many actors are involved in the system. First and most important is the Ministry of Health and Welfare (MOHW), which is responsible for two major social security programmes: the National Health Insurance and the National Pension System. The Ministry is also responsible for planning, co-ordinating, budgeting and proposing the enactment or amendment of related laws for public assistance and social welfare services.² At a

lower level, local governments are responsible for the implementation of the public assistance and social welfare services. They also develop community services independently. The local offices in charge of social security services are the Bureau of Health and Social Affairs and the Bureau of Family Welfare (for Seoul, Metropolitan cities and provinces), the Bureau of Health and Social Affairs (in cities of more than 300 000 inhabitants), the Bureau of Social and Industrial Affairs (for cities of more than 100 000 inhabitants) and the Social Affairs Division (in cities of less than 100 000 inhabitants and counties). Funds come from the central government though local governments take part in the financing of certain social policies such as social assistance. More than 1 400 NGOs, of which most are funded by the government, are involved in the operation of social welfare facilities.

The private sector, through non-profit private welfare organisations or corporate institutions, is also highly involved in welfare provision. In 1998, the private income transfer was 5.6 times higher than that from the public welfare. (For instance, volunteer activity organisations have been managed privately in the central region as well as in local areas.) Government support is limited to the provision of the required information and expenses.

A community fund raising system was adopted in 1997. Under this system, professional organisations comprised of only the public have been formed to systematically collect funds. An advantage of this is that the collection, supervision and employment of funds became public and thus transparent. The fund raising system was established to form a systemic and complementary relationship between the government and the private sector. In particular, the distribution of civilian welfare resources became efficient by adopting the community-based fund raising system that was able to reflect regional diversity and specificity.

Despite its importance in welfare services, the effect of the private transfer on poverty remains limited and many poor people have to rely on informal welfare through family networks. This form of help remains important in Korea. The most common income transfer is provided by married children to their parents, but some parents also continue to help their children financially. Some 58.2 per cent of children receive financial support from parents living in rural areas (UNDP, 2000). Nevertheless, this form of transfer of wealth cannot truly tackle poverty as it occurs mainly within high-income families. Among poorer families, more so than among others, traditional family ties are weakening, with the result that family assistance is also disappearing, thus confirming the urgent need to develop public welfare.

Social assistance

Social assistance is based primarily on the Livelihood Protection Programme (LPP) and, since the financial crisis, on the Temporary Livelihood Protection Programme (TLP). The LPP gives support (living expenses, medical care and educational

costs) to those who are unable to work, *i.e.* the disabled, the elderly and children.³ Beneficiaries of LPP live mainly in rural areas: 40.2 per cent of LPP beneficiaries live in Chungnam, Jeonbuk, Jeonnam and Gyeongbuk provinces whose population amounts to 20 per cent of the total.

The TLP was created after the 1997 economic crisis with the aim of helping the newly unemployed people whose income was less than 230 000 won (one sixth of the average factory worker's wage). The TLP gave support – living expenses, medical care and educational costs – for six months (from October 1999 to March 2000) to those who were able to work but temporarily unemployed. After 1982, the number of recipients of livelihood programme assistance was gradually declining, but the number has started to increase slightly since 1997 with the introduction of the TLP. In 1999, the total number amounted to 1.9 million people, or 4.4 per cent of the population but only half of those estimated to be living below the poverty line.

The limited coverage by the livelihood programmes is essentially due to budgetary constraints – though the total expenditure has doubled since the crisis. The benefits are subject to the availability of funds, which come from both central government and from local government, with the former providing two thirds of the funding. Until recently, receiving benefits under the LPP or TLP programme was not a right, and even now many potential beneficiaries do not apply either because they do not know of the existence of the programmes or because they feel ashamed to ask for social benefits. Other limitations stem from the strict eligibility criteria for the LPP, which are based on a means test that takes into account the income and earning capacity of the extended family and any assets they may have. To correct this, the government has rationalised criteria for the selection of recipients by adjusting the level of income and property allowed and by narrowing the range of family supporters. For some specific cases, the social welfare officials can be flexible in determining a person's or family's eligibility after carefully evaluating their situation.⁴

Significant changes have recently been introduced with the enactment of the National Basic Livelihood Security Law in August 2000 that went into effect in October 2000. With this law, social assistance has become a right to all those who meet the eligibility requirements. Furthermore, the level of livelihood protection, which was gradually raised to near the minimum cost of living (60 to 90% in 1997), reached the 100 per cent level. At the same time, in compliance with the principles of productive welfare, beneficiaries of social assistance who are able to work are obliged to search for jobs and to accept training, public works jobs and any job placements provided by the local welfare office. To assist recipients, the total number of welfare officials – which had already been extended to 4 800, *i.e.* one official per 317 recipients – will be increased to around 5 500 in 2001.

Although the law was recently adopted, it is still possible to make some ex-ante remarks. Considerable progress with the situation that prevailed before has been made as everyone with an income below the minimum cost of living is now entitled to public support regardless of the ability of family members to work. The Act also rationalises the eligibility criteria, as the estimation of the minimum cost of living will be made by regions and sizes of the households on the basis of on-site researches. However, the law is not expected to increase the number of beneficiaries that is projected to remain at 1.7 million in 2001, while the number of welfare officials will remain insufficient to respond efficiently to the rising demand. Finally, the new law ignores the territorial pattern of social needs. There is no provision to extend the programmes to the newly poor in the urban areas. The eligibility criteria remain the same for the applicants in both rural and urban areas while TLP, which targeted the newly unemployed people in urban areas, was abolished in 2000.

Since the financial crisis, public authorities have also been confronted with the rising problem of homelessness in big cities, especially in Seoul. The number of people who have been forced to leave their houses within a few months of losing their jobs is very high. In February 1999, the number of homeless exceeded 6 000 (M.H. Lee, 2000a). The government was forced to take emergency measures. Currently, more than 3 000 homeless people are dwelling in facilities under the jurisdiction of Seoul Metropolitan Government (these dwellings are called Houses of Freedom). The number of homeless people sheltered in the Seoul Station increased significantly: from 400 in April 1998 to 2 000 in September of the same year. As the city was unable to accommodate all the homeless, the government requested those coming from provincial areas to go back to their home towns, where their livelihood was in fact worse than in Seoul as many towns did not provide appropriate solutions.

The Employment Insurance System

The current Employment Insurance System, which dates back only to 1995, is based on three components: unemployment benefits; employment subsidies to avoid the lay-offs or promote the employment of vulnerable groups; and vocational training. The EIS is funded by employers' contributions for employment subsidies and vocational training. As for unemployment benefits, half are paid by the employers and half by the employees (calculated as a proportion of the total wage). Despite a low level of contributions, the EIS has had a surplus in the last two years. This indicates that the system has not developed adequately to cover the needs.

Before the crisis, only those workers belonging to firms with more than 30 employees were covered by the EIS. The coverage was extended in March 1998

to workers of firms with at least five employees and in October 1998 to firms with less than five employees, to temporary and part-time workers employed for at least one month and working more than 18 hours a week. Despite these major improvements, much remains to be done to upgrade the system to be closer to the OECD standard. First, the number of workers covered by the EIS is still insufficient: only 12.8 million out of the 20 million Korean employed in July 1999. The categories of workers who are still not eligible include part-time workers,⁵ civil servants and self-employed, unpaid family workers. Second, the number of those who actually receive benefits is low (only 12% of the unemployed). This is mainly the case for workers of small enterprises whose employers have not paid their contribution. Apart from the strict eligibility criteria previously mentioned that exclude the workers from the system, there are a great number of potential beneficiaries who are not informed of its existence, even if significant efforts were made to raise public awareness through big-scale and continuous advertising campaigns (television, subway posters) after the currency crisis. Third, unemployment benefits are equal to only 50 per cent of the worker's previous salary. This can, to a certain extent, be considered as an incentive for the beneficiaries to find a new job. Finally, the duration is still too short. The most important challenge for the government is now to greatly increase the coverage of the EIS. Local government can play a role by helping to identify the characteristics of the excluded unemployed and by improving circulation of information about the programme.

Health care system

The level of medical facilities and services has significantly improved over the past decades with the increase of individual real income and with easier accessibility to medical facilities. Health indicators have improved and Korea now has one of East Asia's most sophisticated healthcare systems. The current medical insurance scheme was introduced in 1977 but it was first limited to large companies. Coverage was then expanded to the self-employed in urban and rural areas as well as to employees working in private companies with more than five employees. In 1989, coverage reached a universal level. Today, the National Health Insurance (NHI) scheme is compulsory except for the beneficiaries of the Medical Aid Programme which targets low income people (3.5% of the population). The medical insurance is financed by contributions paid half by the employers and half by the employees, while the noncompulsory Medical Aid Programme is funded by the government. The private sector remains dominant in healthcare services with more than 80 per cent of hospitals and clinics owned by private institutions. Thus, there is a conflict of interests between providers seeking profit and the healthcare insurance system focusing on equity. This is complicated by the fact that there is not clear division of functions between private and public health organisations. This situation has led to cost effectiveness problems and limits strongly the modernisation of the system.

The main challenge for the health system is to improve the accessibility and the availability of health care for all at a lower cost. Healthcare spending is among the highest in Asia and is rising by 15 to 20 per cent per year, but most of the financial burden falls on the individuals. At the moment, there are still some problems in providing healthcare at the community level. Despite universal coverage, many people find it difficult to afford the contribution payments. Several measures have been taken to alleviate the burden of payment for low-income households, *e.g.*, the government gives subsidies of up to 36 per cent of the payment to self-employment in rural areas (and more recently in urban areas). The Medical Aid Programme is another scheme to provide healthcare to the poor at no cost or at very low cost, with low interest loans according to the level of income. The main beneficiaries of this programme, which is part of the social assistance scheme, are the rural provinces of Chungnam, Jeonbuk, Jeonnam and Gyeongbuk. However, total recipients decreased significantly from 3 930 389 to 1 322 696 in 1991-1998.

Considering the socio-economic consequences of the 1997 crisis and, in the long term, of the ageing of the population, it is highly probable that the demand for support to health care will continue to rise. Public health expenditures are already under pressure despite a decline of 46 per cent between 1997 and 1998. According to a report made by the Samsung Group at the request of the National Health Insurance Corp., the deficit of the NHI is expected to soar to 1.64 trillion won this year and to 3.5 trillion won in 2004. The government is considering raising the health insurance premium and implementing measures to prevent unjustified claims on medical bills. Significant structural reforms are required to respond to the needs.

A new system incorporating corporate insurance (for wage earners) and regional insurance (for non-wage earners) has recently been launched by the Ministry of Health and Welfare with the aim of increasing coverage and improving management. Under this new system, premiums will be set at 2.8 per cent of the monthly income of each policyholder, depending on his financial status. Consequently, those with higher incomes are expected to pay higher premiums. This new system also provides extended coverage of services, including those related to disease prevention and rehabilitation, whereas the previous system only covered treatment of diseases. The main idea behind this system is to combine the financial holdings of the 139 corporate insurance associations and the 188 branch offices of the National Health Insurance Corporation. However, this option faces strong resistance from the corporate insurance associations that refuse to support the high deficit of the regional insurers.⁶

Another important issue to be tackled is that of the need for a more even distribution of medical facilities between urban and rural areas. Most facilities are concentrated in urban areas and people in rural areas face difficulties in accessing medical care (Table 39). The ratio of people per hospital bed is the lowest in the two metropolitan areas of Seoul and Busan, put respectively at 256 and 242, as

Table 39. **Regional distribution of health resources**

	Urban areas	Rural areas
Population	78.5	21.5
Number of beds	91.1	8.9
Number of physicians	90.7	9.3

Source: Ministry of Health and Welfare.

against 355 and 323 for the rural provinces of Jeonbuk and Jeonnam (UNDP, 1998). This situation is the result of the dominant position of the private medical facilities that tend to be concentrated more in urban areas where demand is higher. Many disadvantaged areas such as Incheon, Daegu and Gwangju are under-equipped. In this context, the government has tried to address the issue by taking several steps, *e.g.*, it used to subsidise local insurance societies based on the number of insured people, but now provides a graduated support according to the financial capability of each society, thus giving more support for insurance societies in rural and fishery areas. It also invests in the repair and/or extension of the facilities and equipment of local health centres and provides loans to private institutions in rural and fishery areas.⁷ The public health centres were expanded to the hospital level in remote areas and primary health care posts operated by community health practitioners were constructed. The government also runs a network of public health centres, mostly used by the poor in rural areas.

Care for the elderly

Since the enactment of the Welfare Law for the Elderly in 1981 which has been amended several times since then, the government has introduced several programmes targeting care for the elderly. In 1990, it created two special divisions for the elderly within the Ministry of Health and Social Affairs in 1990, the Elderly Welfare Division which administers the Old Age Allowance, the Elderly Homes and Leisure Activities and Senior Hall, and the Elderly Person's Health Division for the health and long-term care for the elderly. Old Age Allowance and institutional care consume the bulk of the budget (respectively 78.3 and 13% of the total budget for older people in 1999). The Old Age Allowance is provided under the Livelihood Programme to the elderly poor who are not covered by the public pensions scheme. The number of recipients was 660 000 in 1999 and was expected to reach 715 000 in 2000 (Ministry of Health and Welfare, 2000). There are public programmes to enhance employment opportunities and health for the elderly. As the support from family members to the elderly is weakening, institutional care has been developed, including welfare facilities such as elderly homes and nursing homes. In particular, social community care services for the elderly have been extended with

currently 78 home help services, 42 day care centres and 21 short-term centres. Leisure facilities are also supported by the central and regional governments.

Besides assistance to the elderly, a national pension scheme was introduced in January 1988. It does not cover the entire population, as qualification for a pension requires a minimum of ten years of contribution. However, people who fulfil specific conditions may qualify for a pension with only five years of contribution. Other occupational pension schemes established for civil servants (1960), military personnel (1963) and private schoolteachers (1975) cover 200 000 people, *i.e.* six per cent of labour force. The coverage was limited to workers of firms with five or more employees. Special provisions were introduced in 1995 to expand coverage in rural areas to those who work in farming, forestry, livestock raising or the fishery industry. The self-employed of urban areas later became eligible for the voluntary pension scheme. Now, workers of all firms are covered by the compulsory scheme and it was recently extended to informal workers, not in their capacity as workers but as regional subscribers, which means that they have to pay all the contribution themselves, with no payment from the employers. There are plans to change their status to that of other workers. Under the new scheme, the number of beneficiaries is expected to multiply by 12 over the next decade. Another problem is that the level of benefits remains low in the total income of the beneficiaries. Thus, the retirees have to rely on other income sources such as employment wage and family supports. Consequently, the pension expenditures amounted to less than 0.3 per cent of GDP in 1999, against more than 10 per cent in several European countries.

The pensions system, which is still immature, will have to face the challenge of the growing number of elderly people. Contrary to the situation in many OECD countries, ageing of the Korean population is still not a problem: the ratio of people over 65 to the working age population is only 10 per cent compared to an average of 25 per cent in the OECD countries, but this ratio is expected to reach 30 per cent in 2030. Serious financial challenges are linked to the fact that, due to the low contribution rates, the system remains largely unfunded. For instance, the self-employed in rural areas, who account for only one-fifth of all insured in 1997, paid only four per cent of total contributions while the government paid one third of the contributions of farmers and fishermen. Additionally, compliance rates are low for the urban self-employed, with only one third making income tax declarations. In the context of a young population and the existence of accumulated amounts of assets, there is room for the government to introduce structural reforms to ensure the viability of the system. According to OECD estimates, the contribution rate will have to double from the current nine to 18 per cent in order to maintain the actuarial balance under the current public programme (OECD, 2000a). The recent measures of the government to lower the replacement rate and to raise the retirement age to contain spending are positive steps in this direction.

Considering that the social welfare policy for the elderly is still in a transition period until the full payment of the national pension programme starts and that the family tie is weakening, immediate provision of social care may be needed in some communities. This is particularly the case in rural areas where the number of elderly people living alone is growing (23.6% against 18.1% in urban areas). Many of the rural elderly population whose income is relatively small face economic difficulties as the livelihood programmes do not guarantee the minimum cost of living. Securing medical assistance may be more burdensome for farm households than for urban workers as family members are providing less financial support. Aged farmers are likely to be alienated from the recent agricultural policy aiming at higher competitiveness through structural reform. Since the introduction of a compulsory coverage of the national pension for farmers and fishermen in 1995, reliance on this source of income for rural elderly has significantly increased compared with urban beneficiaries. The government also assists voluntary organisations that organise income generation programmes aimed at supporting the elderly at the early stages. Since 1993, the Rural Development Administration has organised the "Total service programme", a three-year integrated programme targeting the rural elderly, which encompasses health care, income generation, education and social activities. In 1998, this programme was implemented in 130 villages, although the scale was small due to budgetary limitation.

Education and labour market policies

In contrast to its attention to the welfare system, Korea has put a great emphasis on education. This has been a key factor in the economic development since the early 1960s. Major improvement has been made in school enrolment rates though more progress remains to be done to improve the learning content of classes and the physical educational environment. The fact that unemployment has been higher among better-educated people, at least until the economic crisis, and among the young, suggests that there is some mismatch between the education curricula and vocational training and the labour market requirements.

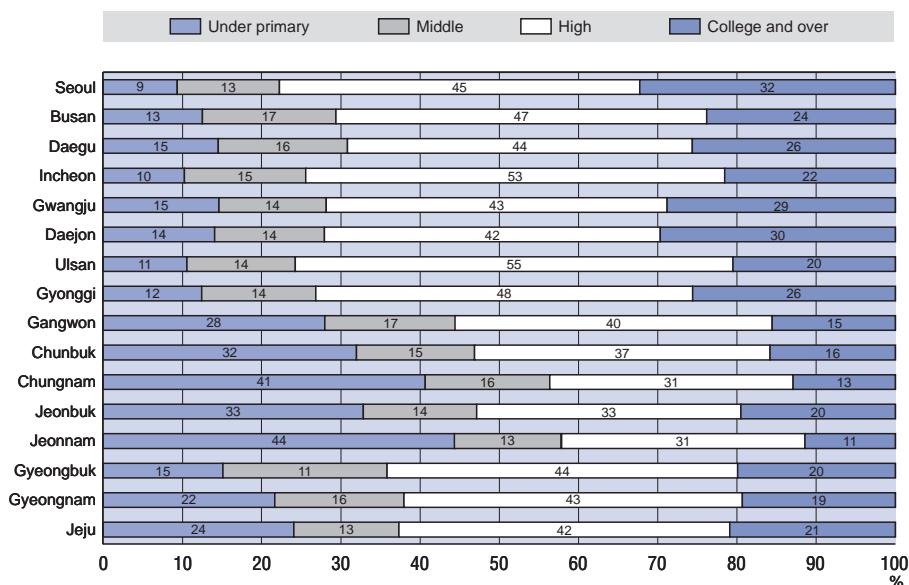
Education policies

From the early stage of its economic development, Korea placed a high priority on its education policy, extending access to primary and secondary schools to all children. Consequently, universal education was achieved in the mid-1960s for primary schools, in the late 1970s for secondary schools and in the mid-1990s for high-schools. In 1996, the enrolment rate at university reached 84 per cent. Several reforms have been successively introduced to modernise the system both in quantity and quality. Today, the proportion of young adults (25 to 34 years old)

with university degrees is the highest in the OECD countries (and the proportion of those with only a secondary school degree ranks third).

Regional differences of educational attainment are minimal, at least until the middle-school level. In both rural and urban areas, parents are willing to make great sacrifices for their children's education. The relative number of college students per 10 000 is even higher in rural or mountainous provinces such as Gangwon or Chungbuk than in Seoul or Busan, and the class sizes and the ratio of students per teacher are more favourable in rural areas (UNDP, 1998). Disparities appear in the level of attainment. The urban areas, including Seoul, Busan, Incheon and Gwangju have the highest rates of high education, college and university attainment (Figure 15). Regional inequality exists regarding the opportunity for higher education and regarding the quality of the institutions: the most prestigious are located in large cities, principally in Seoul and Busan. This is an important problem to be tackled as the students coming from other regions to study in these cities generally stay after graduation, thus contributing to the concentration of population in metropolitan areas. Relocation programmes of universities were introduced in the 1980s to impose a restrictive ceiling of college enrolment. A School Equalisation Policy was introduced in the 1970s in order to prevent a widening

Figure 15. Educational attainment by region, 1998



Source: National Statistical Office (1999b).

of the gap between schools and to reduce the concentration of students from rural areas in cities. It changed elementary and secondary school acceptance from being by school entrance examination to being by a lottery system. The Ministry of Education adopted a merit system for teachers working in rural areas and a rotation system between urban and rural areas among public school teachers. Moreover, in order to attract good teachers to schools in rural areas including islands and isolated areas, a merit system was introduced for those who teach in rural areas. Those who teach at schools in designated rural and isolated areas receive monthly merit points and the points are added up for promotion. Provisions for the special admission of students from rural areas to universities were also introduced. For instance, the Ministry of Education has allowed colleges to recruit an additional two per cent of the admission quota, controlled by the Ministry for each college, from high school graduates in rural areas since 1996 in order to prevent rural families from moving to cities for the education of their children (this provision was enlarged in 1997 to 3%).⁸ These measures may have contributed to the expansion of the opportunities in less populous areas, though the effects concerning the original goal to control the excessive growth of the capital region may remain limited.

All in all, the main cause of territorial disparities in university education between Seoul and the rest of the country lies in the trend of regional universities to keep a generalist and comprehensive standard of organisation, instead of making the best use of their own regional specificity. Currently, most regional universities are organised into the same departments, whereas each university should rather develop a strategy of differentiation, seek out and foster leading sectors related to the key industries of the region (*i.e.*, shoe industry in Busan, textile and clothing in Daegu, electric home appliances and mining industry in Gwangju).

The high standard of the Korean education system has been achieved at a low cost and low public spending, but with a high number of classrooms, though major improvements have been made in recent years. In 1997, the government's share of spending for education in total budget was 16.7 per cent, which is higher than the OECD average (14%). However, in terms of GDP, public expenditures for education are only 4.4 per cent against an average 5.1 in the OECD countries. The Ministry of Education budget decreased from 18 170 billion won in 1997 to 17 903 billion won in 1999 when the government budget rose from 71 401 billion won to 88 485 billion won in 1999 (National Statistical Office, 1999b). As a result, the bulk of educational expenditure lies on the parents' shoulders – the share of total private educational expenditures is the highest in the OECD countries. In both urban and rural areas, as much as 10 per cent of household consumption spending goes to the children's education (UNDP, 1998). Consequently, drop out rates started to rise after the crisis that hit household budgets reaching 25.3 per cent in 1999 against 18.8 per cent in 1997. Cities and regions that were more affected were Incheon (33.7%),

Daejeon (39.5), Ulsan (30.8) and Jeonnam (34.7). The government has introduced measures to improve educational opportunities for students from lower socio-economic backgrounds and from disadvantaged areas. Besides educational aid provided under the livelihood programmes, it created in 1998 the National Compensation Fund which allocates 17.8 million dollars every year to students from disadvantaged backgrounds for after-school activities. Around 98 per cent of elementary and secondary school students take part in these after-school activities. Furthermore, since 1999, low-income households receive kindergarten fees in rural areas. The government intends to extend this measure to low income urban households and to expand the subsidy to cover secondary school expenses.

One reason behind the financial burden of education for the parents is due to an over-enthusiastic attitude towards education among the population irrespective of generation or region. While this has been a key factor of the economic development, it has also affected territorial population structure, as most students seek the most prestigious universities located in the capital, and it has boosted educational expenses mainly through private after-school instruction. This system has been encouraged by a great emphasis on the quantity of education to the detriment of quality. These aspects were underlined in the last OECD *Reviews on Education in Korea*. Since 1998, a new momentum for educational reform has allowed the country to meet many of the OECD recommendations. In particular, the Educational Environment Improvement Plan (1996-2000) was introduced to improve the educational environment. More than 500 elementary and secondary schools were constructed between the period of 1996 to 1999, while the number of students per classroom was reduced to an average of 37.7 as of April 1999.⁹ Moreover, a newly drafted curriculum was introduced for primary and secondary education with the aim of reducing the number of subjects and the scope of the course content and of promoting self-initiated learning as a quality control evaluation mechanism to raise the teachers' qualifications. To encourage diversity in curricula, universities have also been allowed to set their own admission criteria but this decision has yet to be implemented. A clause for lifelong learning was introduced in 1999 as were measures to support educational activities that use information technology and research at universities.

A major improvement has also been made in the direction of institutions' autonomy and decentralisation. A School Council formed by the trilateral participation of teachers, parents and community figures, has been established to expand individual schools' autonomy; universities have been given the right to determine the size of student enrolment and to manage student affairs. Administrative power has been gradually transferred from the central government to sub-national levels for primary, middle and high schools.¹⁰ Local councils now make final decisions on legislation, budgets and the closing of accounts. They can elect superintendents who are responsible for the implementation of education policy

at the local level and, in cities and provinces, they can provide the Ministry of Education with information. Competition with municipal and provincial boards of education is, however, a source of inefficiency.

Despite greater autonomy for local governments, financing remains in the hands of the central government. In 2000, central government spending amounted to 19.7 trillion won (20.7% of its total budget), a 10.1 per cent increase from the precedent year. Over 80 per cent (about 16.5 trillion) is transferred to regional education finances. Education finances for elementary and middle schools is about 19.5 trillion won, consisting of 84 per cent central government funds, six per cent local government funds and 10 per cent from revenues of education administration. Local governments spend only two per cent of their budget for education,¹¹ which is low in OECD comparison (Table 40). The reason for such low

Table 40. **Financial responsibility in elementary and middle schools**
In percentage

	OECD average	Korea	France	Japan	USA
Central government	54	94	72	24	8
Local governments	46	6	28	76	92

Source: OECD (1998b).

investment in education by the local governments is that separation of local autonomy and education autonomy makes the local governments view education as a “responsibility of the central government”. Municipal and provincial education responsibilities are overseen by the superintendent of educational affairs in accordance with the *Act On Administration of Local Education* and not by the mayor or governor. As a higher body, the Education Committee performs the functions of deliberation and decision-making with 180 regional education administrations established as lower education administration bodies. Despite the fact that education is the local residents’ biggest concern, heads of local governments have no authority in matters concerning incentives or disadvantages in relation to investment in education. This problem stems from the separation of local and education autonomy and measures should be taken to improve the current situation.

Unemployment issues and labour market policies

Before the economic crisis, employment was high, the participation rate was increasing and unemployment was low. Economic recession led to a rise in unemployment from 2.5 per cent in 1997 to a peak of 8.5 in early 1999 and hit mainly the

manufacturing industries in the big cities. Even if there has been some migration of urban workers to find jobs in agriculture, fishery and forestry in rural areas, geographical labour mobility has played a limited role to offset the job loss. Unemployment in Korea has been unique in that it is higher among those who are more educated. In spite of this, the economic recession hit mainly the low-income earners, including daily workers in manufacturing, construction, mining, power gas, transportation and warehouse businesses. Unemployment is also high among women, the disabled and those with only a middle school to high school level of education. Unemployment among the youth has increased (12% in 1998) as it has among those aged 30 to 50 years (almost 6% in 1998). With economic recovery, unemployment has recently been reduced to 4.5 per cent. This can partly be explained by the decline of participation among women and young people as well as by the rise of unstable unemployment such as temporary and daily jobs. In fact, public authorities have taken several measures to increase the employment flexibility. Firms have now the right to lay off workers in cases of urgent managerial needs, possibly to reduce wages and bonus payments.

After the crisis, the government introduced new programmes and increased the budget for unemployment. Spending on active labour market policies increased from 0.2 per cent of GDP in 1997 to 2.4 per cent in 1999. Within the Employment Insurance Service, the government provided subsidies to firms that employ workers who had been laid off (the subsidy period has been lengthened to eight months and firms are allowed to collect more than one subsidy at a time). Various wages subsidies have also been introduced to encourage firms to retain workers (4 200 companies received such support in 1998). The lion's share of the expenses went to public works projects and to loans for the unemployed. For such loans, applicants are required to find co-signers, thus ensuring that only the relatively better off unemployed have a chance of getting a loan. Concerning public works, in 1998, the number of applicants for these programmes was 400 000, of which 100 000 were at the central level and 340 000 at the local level. Public works programmes were conceived as an income support for the applicants. The eligibility criterion is mainly based on income, skill, age (30-55), and family dependence. Practically, public works have been useful for the public sector as they mainly apply to university graduates who have helped to improve the computerisation of government records. Some critics have pointed out that public works did not pay too much attention to the regional dimension of unemployment problems (W.B. Kim, 2000). There is some unevenness among regions where the works programmes are co-financed by three levels of government (central, provincial and district governments) at rates that differ from one region to another. As many actors are involved in the administration of public works (*e.g.*, central and local governments each manage about half of all public works), there might also be some overlapping.¹² It is thus crucial to introduce a cost-effectiveness assessment as well as a monitoring system to control the use of the funds by local governments.

Measures have also been taken to expand the Public Employment Service and improve its efficiency. A “one-stop service” system was created in August 1998 integrating vocational training, employment insurance and other services. The number of offices was tripled from 52 to 142 in 1999. They are concentrated in the seven largest cities where four fifths of the unemployed reside. However, the number of staff working in these offices remains low compared to the number of people registered, which has increased eightfold.

Private job placement firms continue to play a major role in providing employment services. In 1998, private agencies contributed over 90 per cent of placements, but they have a higher number of short-term job offers for low-skilled people. Regulations on private job placement firms have been relaxed and limitation on the approval of new agencies has been removed. Since July 1998, temporary work agencies have been allowed to operate. By the end of the year, there were 789 temporary agencies established, employing dispatched workers who are allowed to join firms for up to two years in 26 occupations that require special expertise and experience.

Public intervention has appeared in the extension of the vocational training programmes. The education level of the Korean workers is among the highest in the world, but most of those who were newly unemployed following the crisis had a lower education level. In 1998, the number of unemployed who received training reached more than 300 000; eight times more than in the preceding years, and half of them covered by the EIS. However, results were rather weak as only 20 per cent of those trained found a job. A “tailor-made training system” was introduced in March 1999 to better meet business needs. Incentives in the form of a bonus equal to 10 per cent of training costs were also offered to institutions that managed to place at least 80 per cent of its trained in employment. To promote competition among institutions that provide training, a pilot programme of vouchers was launched in 1998 in the province of Chungcheong. An evaluation of this programme will be necessary to consider extending this experience to other regions.

The governmental aid package seems to have put priority on public work programmes and on loans for the unemployed. This approach appears to be too much supplier oriented. Overall, the territorial dimension of unemployment does not seem to be taken into account in the elaboration of labour market programmes. The employment stabilisation package includes a Regional Employment Stimulation Grant whose purpose is to expand unemployment opportunities in regions with a high unemployment rate by subsidising employers who create or extend business into regions designated by the Minister of Labour.¹³ As of July 1999, no region had been designated for the Regional Employment Stimulation Grant that in fact is still not instituted. Moreover, in parallel to regional labour offices of the network run by the Ministry of Labour, many local governments have created or extended their own employment offices and launched active labour

markets programmes. The funding for these local employment services comes from municipalities and other local governments, with some additional funds from central government. It is important to assess the efficiency of such initiatives to avoid duplication and overlapping and to foster appropriate resources for the most efficient bodies.

Gender equality issue

Although Korea has achieved remarkable economic growth over the last three decades, the status of women stands out as a particularly acute problem. This is basically due to deeply rooted, Confucian, male oriented cultural traditions and to a patriarchal family system that tend to relegate women to the position of submissive and devoted mates. Nowadays, Korean women still suffer from various kinds of sexual discrimination, especially in the workplace and are excluded from decision-making procedures. Since the beginning of the 1990s, the status of women seems to have drawn closer attention from the Korean society. The government has taken several steps in order to improve the status of women and has started to support progress in this field. However, the most influential actions are taken at the local level through non-governmental organisations that bring substantial help and support to women in distress.

Different aspects of discrimination against women

Despite major progress achieved in education, economy, politics and society, there are still many forms of discrimination against women. Most extremely, a gender gap is noticeable in the sex ratio. Society's conventional preference for male offspring has frequently led to sex selective abortions that resulted in distortions in the natural sex ratio at birth, the climax of which was reached in 1990 when there were 117 male births for every 100 female births. Although the government has sought to solve this problem by prohibiting prenatal sex identification and abortion, changes in the sex ratio imbalance at birth have been insignificant in recent years.

Educational opportunities have increased tremendously both for females and males in primary and secondary education, so that no major gender imbalance can be noticed at that level. However, the gender gap is still significant in regard to college and university education. In 1999, the enrolment rate was only 52.2 per cent for females as against 81.2 per cent for males. Moreover, women tend to concentrate in such fields of study as the humanities, the arts, physical education and teacher training. The female proportion among graduate degree holders is smaller than the male proportion. In 1999, the proportion of female degree holders per 10 000 inhabitants was 50.40 for a Bachelor's degree (against 56.27 for males), 5.51 for a Master's degree (12.14 for males) and only 0.49 for a Doctor's degree (1.88 for males) (Ministry of Education, 2000).

The most visible form of discrimination concerns the economic participation of women, which stood at 47.4 per cent of the labour force participation in 1999 as against 74.4 per cent for men (National Statistical Office, 1999*d*). The participation rate in 1999 was 1.7 percentage points below its 1997 level, with the decline concentrated among women. The unemployment rate is lower for women: in March 2000, it stood at 4.2 per cent against 5.1 per cent for men. However, these figures tend to conceal the reality of job profile. Indeed, women accounted for only a quarter of regular employees in 1998 and they are more affected by non-regular employment and job precariousness. In comparison with working men, working women are heavily concentrated in low-level low pay manual labour, sales and service jobs. Despite recent progress, gender wage inequality remains one of the largest among OECD countries: in 1987, it was the first time that women's wages had exceeded one half of men's, and in 1997 they still stood at about 40 per cent lower. Gender wage inequalities are significantly smaller for more educated, high tenure women: in 1997, women with a university degree and over 10 years of tenure earned on average 15 per cent less than their male counterparts. Female workers continue to face sexual discrimination such as restrictive recruitment practices, limited opportunities for promotion and unstable employment.

Women's political and social activities remain quite restricted. Politics was the area most closed to women until the 1990s. In the last parliamentary elections in 1996, only 2.6 per cent of candidates were women. Only two women were elected through direct election for 253 seats, while women were appointed to only seven out of 46 positions under the proportional representation process. Women accounted for only 16.9 per cent in the success rate in High Civil Service Examinations in 1998 (MOGAHA, 1999). The share of women among trade union members is only 20 per cent compared to about a third in the average OECD country. In 1998, women accounted for only 16.1 per cent of the total employees in newspaper companies, 15.0 per cent in broadcasting stations and 13.7 per cent in communications services (Korean Press Institute, 2000).

Policies to promote gender equality

Women have to face two major barriers when entering the labour market. The first is sexual discrimination in the workplace, along with the general assumption that most women will quit their jobs once they get married. The second is the lack of institutional preparation for alternative childcare, which discourages female labour force participation.

In order to solve these problems, the government has implemented a policy to help working women. An Equal Opportunity Act was adopted in 1989, forbidding employers to discriminate against women with respect to hiring procedures, career opportunities and pay. In addition, the government's budget for childcare

facilities increased by a factor of 5.7 between 1991 and 1996, resulting in 274 centres covering 17 000 children in 1997. Moreover, employment promotion programmes granted a subsidy to the firms that either provided a childcare leave, hired a woman who left her previous job no longer than five years earlier to have or take care of children, or hired female heads of household who registered as job seekers.

Several institutions have been created at different levels in order to help and support women in Korea. Among the governmental organisations, the Presidential Commission on Women's Affairs (established in 1998) endeavours to implement policies to improve the status and rights of women as well as to hasten gender equality in society. At the level of central government, several ministries have set up a specific office in order to deal with issues related to women in the field of the ministry's competencies: the Gender Equality Office of the Ministry of Government Administration and Home Affairs, the Office of Women's Policy in the Ministry of Health and Welfare, the Women's Education Policy Office in the Ministry of Education, the Working Women Policy Division in the Ministry of Labour. At the level of local government, there are women's policy co-operation departments in 16 local governments (Seoul, Busan, Daegu, Incheon, Gwangju, Daejeon, Ulsan, Gyeonggi, Gangwon, Chungbuk, Chungnam, Jeonbuk, Jeonnam, Gyeongbuk, Gyeongnam, Jeju). These departments work to protect women's rights and to develop their potential (Box 13). Local governments also manage women's institutions such as women's culture centres and research institutions.

Box 13. Case study of Daegu Metropolitan City, Health and Welfare Women's Policy Bureau

Within the local government of Daegu Metropolitan City, the Health and Welfare Women's Policy Bureau specifically deals with issues related to women. The Bureau is divided into three services: Women's Policy, Women's Welfare and Childcare. The total budget for the year 2000 amounts to 27.71 billion won (12 708 from local income, 15 002 from national income). The Bureau currently manages 13 employment agencies and 21 education centres for the 1 245 million women living in Daegu Metropolitan City (49.7% of the total population of the city). It also supports six welfare institutions, such as Daegu Hyerim Institution for single mothers, and 18 counselling centres (of which two are for women victimised by sexual violence). It also organises various events, *e.g.* encouraging artistic activities with a Recycled Art Festival (April 2000), or improving family relations among women through a Mother-in-Law/Daughter-in-Law Debate (May 2000).

The government supports 110 welfare-counselling centres for women and 10 temporary shelter facilities for women in abusive situations or with a history of prostitution, which are generally managed by a non-profit private organisation. There are 55 active non-governmental organisations with full-time workers such as the Council of Saemaul Women's Clubs, FemiNet Korea, and Korea National Federation of Women's Welfare Services, but there are also some local organisations such as Incheon Council of Women or Gangwon Council of Women. Many women's research centres have been created in collaboration with universities; among them the Research Centre for Women's Concerns at Yonsei University. These institutions perform academic research and create a network of women's studies. Non-governmental organisations have proved to be particularly active in the struggle against gender discrimination in the society. Many NGOs are struggling to reform the current "Ho-ju" civil registration procedure; a good example of the extent to which women are put at a disadvantage compared with men. According to this procedure, only men are considered as household leaders. As a consequence, all children, without exception, must bear the family name of their father. When a couple divorces, their children remain registered in their father's household even if they actually live with their mother, and she will have no legal rights concerning them. This procedure was first implemented in Japan, but Japan revised its Family Act in 1947 and adopted a procedure that allows, among other rights, men and women to choose the family name of their children by mutual agreement.

Over the past few years, improving the social status of women has progressively drawn increased interest in the Korean society. The government has paid greater attention to this issue with regard to the project of revising the *Government Organisation Act*, and has even considered that a Ministry of Women should be established. During the 9 May 2000 meeting of the State Council, President Kim Dae-Jung declared that, "It is necessary to realise that in the current information era, we need women's sensitivity and rigorous way of thinking. The government itself should acknowledge that women should be usefully employed and take interest in improving the status of women".¹⁴ This political will is still waiting to be put into practice. Presently, it seems that the various institutions in charge of promoting women are rather dispersed. Creating a specific ministry and developing coherent links between this central organ and its local offices should help to elaborate a solid policy on the national level and to implement it on the local level with rationalised feedback mechanisms. It should thus be possible to gather the resources that have been allotted to women but have been inefficiently scattered until now. On the local level, many organisations concerned with women's social status and welfare were created and have begun to establish a common network of solidarity. This is a very encouraging phenomenon that needs to be strengthened. As experienced in other countries, the key of success generally lies in close partnership between the central and local governments, the private sector and women's associations (Box 14). Tight

Box 14. **International experiences to improve women's status**

It could prove helpful to draw inspiration from foreign examples of efficient practices. In the Netherlands, the Burgerziekenhuis Hospital in Amsterdam was to be vacated and be put to a new use. The municipality of Amsterdam organised meetings with the local residents, and they decided together to set up the Burgerziekenhuis Foundation for Women in the hospital. Capital was gathered through financial support from the Employment Office, the Province of North Holland and the central government. The old hospital was renovated to create residential and employment accommodation for women. Such co-operation between all levels of the government, the private sector and local residents has led the newly set-up Foundation to win the National Renovation Prize in 1993.

Another relevant example is the Urban Basic Services for Poor (USBP) programme which is run by the Ministry of Urban Affairs and Employment in India and which is a strategy for the involvement of urban poor women in poverty alleviation through community participation. Within the national framework, Resident Community Volunteers are elected by 15-40 households and form a Neighbour Group. These Neighbour Groups prepare activity programmes related to health, sanitary facilities, childcare, literacy promotion, etc., and implement them in partnership with central and local governments, NGOs and UNICEF. This programme has created 100 000 jobs for urban poor women, and it has inspired other national programmes such as the Rashtriya Mahila Kosh national credit scheme for poor rural women.

In Austria, a very original initiative in 1993 led to the organisation of a housing project called "*Frauen-Werk-Stadt*", in which a part of Vienna would be designed exclusively by women architects and planners as part of the urban expansion programme. A group of young female architects were entrusted with the task of formulating the requirements of a women-friendly public housing project based on the guidelines of the Viennese Housing Promotion Act and on the Building Code. As a result of this competition, the master project submitted by Franziska Ullmann and three other architects convinced the jury, and 359 housing units and infrastructural facilities will be constructed in partnership with the City of Vienna and non-profit housing co-operatives. Women make up 52 per cent of the Viennese population, yet up to now their everyday life was largely ignored. Moreover, in the tradition of European urbanism it was almost exclusively men who created and constructed cities. This project has been a first step to implementing the everyday experience and requirements of urban women on a large scale and will increasingly be incorporated in other national projects.

Source: UNESCO Management of Social Transformations Clearing House Best Practices Database, "Women and Gender Equality" (www.unesco.org/most).

collaboration among these actors and rationalised distribution of financial resources should actively help involve and promote Korean women.

Conclusion and recommendations

Korean society is facing drastic societal change in the 21st century due to the transformation of the population structure, the weakening of family ties and the globalisation of the economy. The 1997 economic crisis led to a rise of unemployment that caused a dramatic rise in poverty and social problems. Despite the recent economic recovery, the income level of low earners has not reached the level prior to the crisis. Korea, which was considered to be a prosperous country with a relatively egalitarian society, is now confronted with growing social disparities, mainly between the highest 20 per cent of income earners and the rest of the population. Furthermore, alongside the traditional urban-rural gap, urban poverty has emerged as a crucial problem. In particular, the elderly cannot rely strictly on family members anymore while the role of the private sector in delivering social services is weakening. In this new context, the idea that economic growth is enough to tackle social issues is no longer valid.

Since the crisis, public authorities have extended the existing social welfare framework and introduced some additional programmes. They have inevitably increased the financial burden and it is often argued that further social expenditure will increase the public debt burden and further slow the economy. On the other hand, public social expenditures in Korea, including active labour market policies, remain relatively low: in 1997, they stood at 5.1 of GDP against an average of 23.1 per cent for the OECD. Although this gap might be partially explained by the smaller share of elderly people in the Korean population and by the only recent introduction of pension schemes (in 1988), social expenditures stand at 23.9 per cent of the tax burden compared to 49-67 per cent in developed countries.

- Considering territorial disparities as well as the importance of social exclusion, the current goals set by the government should remain medium to long-term policy goals.

While still at its initial stage, social safety has begun to move in a positive direction. However, many poor people are covered neither by any social assistance programmes nor by unemployment benefits; sometimes simply because they are not aware of the existence of such programmes. In addition, access to these programmes generally does not guarantee the minimum standard of living. The Basic Livelihood Guarantee Act, recently put into force, provides livelihood assistance to all the households with less than the minimum of living earnings regardless of their ages or the working ability of family members. As the number of applicants is expected to rise, the budget allocated to welfare policies should be significantly increased, including the allocation dedicated to livelihood support.

- It is important that the government adds sufficient resources to social assistance and does not forget its primary objective to alleviate poverty as soon as signs of confirmation of the economic recovery appear. Meanwhile, to

avoid waste of financial resources and make the policies effective, it is required to make a careful selection of recipients, ensuring that only those who are really in need are chosen. The circulation of information about the assistance programmes should be improved at the local community level.

- Government services and agencies that deal with and protect people from income loss and other disadvantages should be fully established. The role of central and local government in delivering social services should be clarified. A monitoring system should be established at the local level to avoid waste of financial resources.

Rising unemployment has emerged as a social issue. The governmental aid package seems to have put priority on public work programmes. One positive result is that the selected candidates who were generally highly skilled graduates have helped to modernise public software infrastructure. However, public works remain a short-term measure that has contributed to the rise of unstable employment along with the introduction of new flexibility policies. Public employment services have been developed with the creation of additional offices mainly in the big cities, but there is still not enough staff to assist the job seekers and so, private agencies continue to play a major role in job placement. As for vocational training, the creation of a “tailor-made training system” the better to meet the need of the enterprises is a positive step, as are the different measures to promote competitiveness between the different institutions. More generally, employment policies appear to be too much oriented toward the supplier, short-term targeted, and not enough adapted to the regional and business needs.

- A more systematic and longer-term strategy is required, taking into account regional patterns of unemployment and local market needs. City and provincial governments should co-operate and forge networks with private actors within their regions. Alternative solutions should be found to the current coexistence of two types of public employment services, in order to avoid overlapping and waste of resources.
- Vocational training should be more responsive to the local needs. The pilot programme launched in the province of Chungcheong should be evaluated and possibly extended to other provinces and cities.

Despite relative territorial equality for educational attainment, disparities exist between regions concerning the attainment level, the enrolment rate in higher education, colleges and universities, which is much higher in the metropolitan areas, particularly in Seoul and Busan where the most prestigious institutions are concentrated. A new momentum has been given to educational policies: there are several reforms underway towards deregulation, quality improvement, lifelong learning, and local autonomy; but it is not clear how all these reforms will be financed to be implemented. Some progress has been made toward further decentralisation, as

the central government has delegated most of the authority over education and training to the local governments, and has thus tried to confine its own responsibilities to the evaluation of local activities. However, one of the stumbling blocks in the Korean educational system is that it still remains heavily centralised.

- Given the number of projects launched by the government in the field of education, it is important to establish a priority as well as a precise time framework and strict budgeting.
- Stronger action to decentralise educational functions is earnestly required. An important financial share from the central government should be allocated to avoid a situation where only richer regions can give appropriate financial means to their educational institutions. However, given the very small share of local governments' financing in education compared to other OECD countries, there is room to increase their financial responsibilities in line with their increasing autonomy. Among other things, this will raise competitiveness and efficiency.
- An active strategy of revitalisation of regional universities needs to be set up and implemented. In particular, the existing universities ought to evolve from the present state of generalist universities lagging behind Seoul universities, to the state of specialised universities oriented towards global competitiveness. Each university should develop a strategy of differentiation, seek out and foster leading sectors related to the key industries of the region (*e.g.*, shoe industry in Busan, textile and clothing in Daegu, electric home appliances and the mining industry in Gwangju). From this perspective, local governments should actively support their universities to re-structure their departments so that the most is made of regional strong points. Moreover, regional universities should be encouraged to organise institutions of co-operation by themselves. Eventually, another way to revitalise regional universities would be to establish branches of foreign universities in the regions and develop exchange programmes with foreign universities so as to raise the competitiveness of regional universities to a global level.

More generally, a shift in the philosophy behind territorial policy is required. Rather than emphasise a physically balanced use of land, policies should focus more on the quality of life, including the environment and appropriate social care at each territorial level. Current social welfare policy is formulated mainly by the central government and is principally supported by the national budget, while local governments are responsible for its implementation. Social disparities between the metropolitan areas and the provinces, as well as within urban areas, show that patterns of poverty and unemployment differ at territorial levels. So, as regional problems seem to be varying, policy measures should be tailored at a subnational level. Local governments are often better placed to identify social

problems and to deliver appropriate welfare care in response to the demands of local communities. For instance, local governments could play an important role in the field of prevention of health problems [health prevention]. They could establish links among the different administrative agencies, health clinics, social welfare centres, and centres for the elderly and disabled. Local communities could also give more attention to human capital via education and training. They should also work closely with NGOs and the private sector, which are still important providers of welfare services.

- It is crucial for the government to seek a more efficient distribution of responsibilities. More chances need to be given to local authorities in discussing and formulating the national social policy to include their views and to tailor the policy of each territorial situation. It is also important to provide appropriate budgetary and administrative support to local governments and to take this dimension into account in the enactment and amendment of related laws and regulations that are being reviewed.
- More support should be given to NGOs, for they have a lot of experience in providing social services. Local authorities could better involve local non-governmental sectors and establish partnerships with them. While the government should continue to support gender equality, local governments should work closely with NGOs involved in women's issues.

Notes

1. The life expectancy at birth increased from 53.7 years for women and 51.5 for men in 1960 to respectively 77.4 years and 69.5 years in 1995. See UNDP (1998).
2. Other ministries involved include the Ministry of Finance and Economy (MOFE), the Ministry of National Defence (MOND), the Ministry of Education (MOE), the Ministry of Labour (MOL), the Ministry of Patriots and Veterans Affairs (MPVA), the Ministry of Government Administration (MOGA). The National Welfare Planning Board, established in 1995 and chaired by the Health and Welfare Minister, plays a key role in policy formulation.
3. Education Aid is a programme that provides basic educational opportunity by assisting school-aged children of families under Livelihood Protection with entrance fees and tuition. It formerly supported only junior middle school students and vocational high school students, but coverage was then expanded to include all high school students from recipients' families. In 1997, a total of 151 000 students were supported by this programme. From 1993 to 1997, the total number of applicants for the aid fell due to the decrease of the total number of students in Korea, but Education Aid's budget increased due to higher educational costs per student. The budget for the disabled has also been increased. In addition; under the employment promotion act, companies with over 300 employees must have a minimum of two per cent of their paid staff being disabled people, and risk paying a penalty upon violation. Ministry of Health and Welfare, <http://www.mohw.go.kr/>
4. This is the case for those who need to receive protection but have supporters in the family register, those who have income and property above the selection level but are not able to become self-supportive, and those who do not have actual family supporters. Additionally, households composed of the disadvantaged (households with elderly, disabled and single parents) can be protected even when their income and property are above the selection criteria.
5. Part-time workers who have worked more than 18 hours a week and 80 hours a month are eligible.
6. The health insurance scheme is run by three groups: salaried workers, civil servants and teachers, and the self-employed. While the insurance scheme for the civil servants and the teachers will show a surplus this year, those for the salaried workers and the self-employed are registering deficits.
7. As a part of the healthcare service improvement program, the government invested 102 billion won to repair the facilities and equipment of local health centres from 1994 to 1996, and plans to invest approximately 46.5 billion won in 1998. Through these efforts the government supplemented the medical facilities of a total of 169 local health institutions (54 health centres, 15 hospitalised health centres, 75 health sub-centres,

25 primary health care posts) and the medical equipment of a total of 131 health institutions (70 health centres, 15 hospitalised health centres, our health sub-centres). The government afforded private health institutions in rural and fishery areas with loans of 80 billion won from 1995 to 1996. Out of the total amount, 44.9 billion won were loaned for construction and extension of hospital buildings, 12.7 billion won for repair and reconstruction, and 16.4 billion won for the purchase of medical equipment.

8. Qualification for the admission is given to those who have lived with their parents and completed high school education in rural areas.
9. In addition, the Special Account for Improving the Educational Environment was established in 1996 to procure funds required for improving working conditions. Through these measures, the physical conditions for both teachers and students have improved substantially through the investment of USD 830 million per year since 1996.
10. Regarding local education, the President's Commission for the New Education Community (PCNEC) was established in June 1998 to carry out local education reform by assisting in the creation of a new education community that includes many participants.
11. The total budget of local governments for 2000 was 55.5 trillion won, and education investment by local governments amounted to 1.1 trillion won.
12. Many programmes are financed solely by the central government while some others are co-financed by central, provincial and district governments based on a tied grant financing mechanism. See OECD (2000d).
13. The Grant amounts to one half of the payroll of the newly employed workers for priority enterprises and one third for large enterprises. The employer receives 30 per cent of the grant if the number of newly employed workers exceeds 200 people. The grant is limited to one year. See Kil-Sang Yoo, "The Employment Insurance System in Korea", Korea Labour Institute, 1999.
14. Hyun-Jae Kim, "President Kim stresses the necessity of reforming government organisation", *Donga Daily* (5 May 2000).

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