

POLITECNICO DI MILANO

Faculty of Architecture and Society

Master of Science in Urban Planning and Policy Design



Strategic Spatial Planning for Hanoi Capital Region

Student: BUI NGUYEN TRUNG

Matricola: 736175

Supervisor: Professor **Balducci Alessandro**

Academic year 2011

Acknowledgement

I would like to express my deepest gratitude to my supervisor Professor Alessandro Balducci who guided me to complete this Master thesis. Although he was very busy with his new career position as the vice rector of the Politecnico di Milano throughout the researching time of my thesis, he always spent his limited time as much as possible in order to assist my thesis's studying. The thesis would not be completed without his invaluable assistance, guidance and support. I also want to thank to Faculty of Architecture and Society, Politecnico di Milano for giving me the permission to commence this Master thesis in the first instance, for supports on the facilities include reference materials and computer to conduct necessary research works.

My further thank is to Architecture and Planning Department of the Ministry of Construction, Ministry of Transport, Ministry of Planning and Investment, Ministry of Industry and Trade, Ministry of Natural Resource and Environment, Ministry of Agriculture and Rural development in Vietnam for their information, statistics data sharing on status quo of urban and social context's conditions of Hanoi Capital City and Hanoi Capital region.

Warmest gratitude is also due to my family members, especially my parents. They always encourage and fully support me with patient and supportive love to finish and pursuit this Master Course. Finally, I would like to give my special thanks to my friends for their patient explanation, interesting discussion, support and friendship that enable me to complete this Master thesis.

I am, of course, the only person responsible for any accidental omissions and all the inevitable mistakes.

Table of content

Table of contents.....	5
Table of figures.....	7
List of tables.....	10
Introduction – the call of new alternative planning approach for regional development.....	12
Chapter 1. Strategic Spatial Planning as an Area of Planning Activity.....	14
1.1. The revival of strategic spatial planning in recent decades.....	14
1.1.1. Uncertainty in planning.....	14
1.1.2. Strategic planning – an approach to cope with uncertainty in planning.....	19
1.1.3 What is strategic spatial planning?.....	23
1.1.4 The role of planners in strategic spatial planning.....	25
1.1.5 Four track approach.....	26
1.2. Strategic spatial planning as a key tool for regional development.....	30
1.2.1 Regions as key actors of national growth.....	30
1.2.2 The call of applying strategic spatial planning for region development.....	31
1.3 Case study of spatial development strategy for regional growth in Northern Ireland.	33
Chapter 2. The case of Hanoi capital region development in Vietnam.....	43
2.1. Introduction of Hanoi city and Hanoi capital region.....	43
2.1.1 Briefly history development of Hanoi city and Hanoi capital region.....	43
2.1.2 The role of Hanoi capital region.....	49
2.1.3 Recent master plans in Hanoi province and Hanoi capital region.....	53
2.1.4 The need and call of suitable planning for regional development.....	67

2.2. Real status and existing conditions of urban context of Hanoi capital region.....	69
2.2.1 Researching area and targets of Hanoi capital regional’s spatial planning.....	71
2.2.2 Physical and natural conditions.....	74
2.2.3 Existing conditions of population, urbanization process and economy.....	79
2.2.4 Existing conditions of transport and infrastructure system.....	104
2.2.5 Existing condition of environment.....	115
2.3 Prediction, target and visions of Hanoi capital regional development.....	121
2.3.1 The premise for regional development.....	121
2.3.2 The influence of Hanoi region in the development with local, nation and international area.....	122
2.3.3 Possible prediction of regional development.....	123
Chapter 3. Proposal and orientation for Hanoi Capital Region development by using strategic spatial planning.....	126
3.1 Strategic targets for Hanoi Capital Region.....	123
3.2 Regional strategic vision to 2030 and to 2050.....	136
3.3 Proposal for regional governance management model.....	138
Conclusion.....	143
Reference.....	148

Table of figures	9
Figure 1: Expectation of government associated with prototype conditions and responses to planning problems.....	15
Figure 2: Premature programming and premature consensus.....	18
Figure 3: From traditional land-use regulation planning to strategic planning.....	22
Figure 4: Possible macrostructure for the overall strategic planning process.....	27
Figure 5: Four-track approach with tentative integration of different concepts of rationality.	29
Figure 6: Main components of regional development strategy for Northern Ireland 2025.....	34
Figure 7: Three territories of spatial development strategy for Northern Ireland region.....	37
Figure 8: Themes of the spatial development strategy in Northern Ireland 2025.....	38
Figure 9: The spatial development strategy for Northern Ireland 2025.....	41
Figure 10: Hanoi in Ly dynasty (12 th century).....	44
Figure 11: Hanoi in the early of 19th century.....	44
Figure 12: Comparing ancient Hanoi area through several dynasties.....	44
Figure 13: Hanoi in 1902.....	45
Figure 14: Hanoi in 1943.....	45
Figure 15: Satellite map of Hanoi core area stitched together from Google Maps (2008).....	46
Figure 16: Hanoi with new administrative boundary in 2010.....	47
Figure 17: Administrative boundary of Hanoi Capital Region.....	48
Figure 18: Comparing area and population of HCR and other regions in South East Asia....	49
Figure 19: Vietnam and Hanoi capital region in South East Asia.....	50
Figure 20: Regional Economic Relationship of Hanoi Capital Region.....	52

Figure 21: Hanoi planning in 1964.....	54
Figure 22: The dual Hanoi city of master plan in 1968 – 1974.....	56
Figure 23: Hanoi general master plan in 1981.....	58
Figure 24: Old tenement house build since 80s.....	59
Figure 25: Hanoi general master plan to 2010 in 1992.....	61
Figure 26: Hanoi’s general master plan to 2020 in 1998.....	64
Figure 27: Hanoi master plan to 2030 and vision to 2050 in 2010.....	66
Figure 28: Political structure of regional management.....	68
Figure 29: Maps of status quo of Hanoi capital region’s context.....	73
Figure 30: The proportion of 3 main terrains.....	75
Figure 31: Each type of land use in Hanoi capital region.....	78
Figure 32: Number of urban and rural population in HCR from 1995 to 2006.....	80
Figure 33: Map of population and density of some provinces in Vietnam North region.....	82
Figure 34: Scale of moving inhabitant from other provinces to Hanoi (1994 – 1999).....	84
Figure 35: Distribution HCR’s urban context.....	86
Figure 36: Map of existing urban network.....	87
Figure 37: GDP contribution of each province in Hanoi capital region.....	91
Figure 38: International tourist customer from 1995 – 2005.....	94
Figure 39: Domestic tourist customer from 1995 – 2000.....	95
Figure 40: Bat Trang village, a village of traditional professional pottery making.....	96
Figure 41: Rat’s wedding: a popular example of Dong Ho folk woodcut painting.....	97
Figure 42: HCR’s Agriculture and Forestry land square area in 2003.....	98
Figure 43: Distribution of industrial districts in region.....	103

Figure 44: Status quo of transportation system in Hanoi capital region.....	106
Figure 45: Road traffic system in Hanoi capital region.....	109
Figure 46: Estimated time travel from Hanoi to other provinces in HCR.....	110
Figure 47: Urbanization progress along high way.....	111
Figure 48: Land depression at underground water exploiting points in Hanoi capital.....	117
Figure 49: Waste on lake’s surface.....	117
Figure 50: Slum area in city.....	117
Figure 51: Rubbish dumping ground in Hung Yen and Bac Ninh province.....	118
Figure 52: Waste releasing from traditional village.....	121
Figure 53: Forecast of land consumption of each type of social activities.....	123
Figure 54: Forecast of regional employee rolling in each type of economic sector.....	124
Figure 55: New master plan for Hanoi capital city in 2010.....	127
Figure 56: Three main strategic primary zones.....	131
Figure 57: Three main strategic primary zones.....	132
Figure 58: Strategic vision themes for Hanoi Capital Region.....	137
Figure 59: Structure of Regional Development Agency model.....	139
Figure 60: Structure of Regional Development Agency model.....	141
Figure 61: 3 phases of Regional governed management.....	142

List of tables	10
Table 1.Land use assumption in Hanoi capital region.....	77
Table 2: The fluctuation of population structure in of HRC from 1995 to 2006.....	80
Table 3: Population and urban population in each province of HRC (2005).....	81
Table 4: The pace of GDP increase of each type economic activity in HCR.....	90
Table 5: Proportion of each economic activity’s GDP contribution.....	91
Table 6: Number of industrial bases and labor in whole region.....	101
Table 7: Status quo of road traffic system in HCR.....	107
Table 8: National railway system in Hanoi capital region.....	112
Table 9: Solid waste in each province.....	119
Table 10: Forecast of regional population and urban population growth.....	124
Table 11: Forecast of GDP contribution’s proportion of each type of economic sector.....	125
Table 12: Forecast of region’s tourist customer.....	125

Introduction

Regions, as considered as key actors of national growth, have an impact on how their national economy performs. Natural and human resources tend to be concentrated and regions' abilities to exploit local factors, mobilize resources and create linkages varies, raise the issue of development capacity. The impact of concentration on national economic growth can be felt, with growth often driven by a few regions within a country.

In recent years, as the impact of modernization, urbanization and globalization, region as well as city government and other entities concern about the growing complexity, the rapid and apparently random development, the problem of fragmentation, the dramatic increase in interest in environmental issues (Breheny, 1991), how to achieving greater national and international vision for their locales, co-ordinating project initiatives, connecting interventions in different parts of an urban area, linking development locations to major infrastructure investments, reducing spatial injustices, thereby promoting economic opportunities, limiting threat to environmental balances (Patsy Healey, 2009), the reemphasis on the need for long term thinking and the aim to return to a more realistic and effective method all served to expand the agenda (Friedmann, 2004).

These objectives above unfortunately are often uncertainly. Therefore, a crucial planning task is to discover, assess and address uncertainty. The traditional planning has assumed that both mean and end are known, thus this professional legacy bases planners toward and may easily misconstrue their problems because they address such condition of certainty. Urban and regional planning practices only focused on projects, especially for the revival of rundown part of cities and regions. However, by the end of the 20th century, new effective planning was underway and began by confronting the problem at hand and assessing conditions of uncertainty: an alternative strategic spatial planning approach. The creation of strategic vision implying the design of shared futures, the development and promotion of common assets offer a chance to overcome or at least reduce uncertainty.

City, region must transform to adapt with the rapid development trend in new era. One of crucial question is how to cope with these uncertain changes while retaining the sustainable

development with urban, social and culture balance. My home city, Hanoi in particular, and Hanoi capital region in general, is now in the chance to grasp the opportunities of development and modernization. However, there are still many challenges and negative externality in the process of regional innovation such as urban context fragmentation and social unbalance. To deal with these problems, circumstances, and to ensure the better qualification, the premise of the integrating economic, environment, cultural and social policy agenda in future, there is need and call of deliberated effective way of strategic planning, especially in spatial planning for region in the sense of shaping future development scenarios.

In this thesis, it can be seen that the first chapter gives a summary of studying about strategic spatial planning theory, its definition, main tasks and characters as well as its dimensions in the process of applying at macro level. The second chapter is about the overview of Hanoi capital region's real conditions of urban context and space, the advantage resource as well as existing problems, the chances, opportunities and challenges, some prediction and forecast of the region development. The last chapter will suppose some proposal and solution to deal with region's problem. Possible crucial and selected orientations for the spatial planning of region are also addressed in the last chapter as mentioned by Pasty Healey: "city governments and other entities concerned with urban futures have been exhorted to produce spatial strategies, indicating how their area might develop in the future" (Pasty Healey, 2009).

Chapter 1

Strategic Spatial Planning as an Area of Planning Activity

1.1. The revival of strategic spatial planning in recent decades

1.1.1. Uncertainty in planning

In recent decades, as the rapidly growing and spreading of globalization process that can affect any country, any region in the world, the swiftly innovating of new modern technology that can change human social and lifestyle day by day, that raises a question and consideration for each government or planner of how to making planning not only for short time period but also for long term development because society or urban context is a very complex entity, and it is transforming quickly and can be out of control, unbalance or fragmentation. Government and planner should not only respond and deal with social issues spontaneously. Therefore, it means that planning activities now relates to predict, to deal with complex social problems, and to create better future scenario in a long term. But as mentioned that society and urban context is a complex entity, thus to deal with its negative issues, circumstances that exist or maybe emerge in future also means that planner have to know how to cope, to overcome or at least reduce something uncertainty as Karen S.Christensen said that “A critical planning task is to discover, assess and address uncertainty” (Coping with Uncertainty in Planning, p.63)

According to Karen S.Christensen, actual problem vary in uncertainty over means and ends, but in the real world the line between means and ends often blurs because goals are influenced by the technologies considered available. In addition, technologies are sometime known or completely unknown; and one important point that overtime, technologies can be more to be less effective. Therefore, to identify and analyze planning problems, a matrix of means and end matches in order to distinguish different kinds of uncertainty that can help to find and classify planning problems conditions. Then by assessing the actual conditions of uncertainty that characterize the particular problems, planners can confront and select a style of planning that suit with those conditions. In doing so, the planner can cope rationally with uncertainty.

The matrix means – end is divided into 2 dimensions. The vertical dimension is “technology” that illustrates broadly as the knowledge or means of how to do something or solve problem. The horizontal dimension is “goal”, as can be understood as the purpose, desired outcome or end. Each dimension is also divided into 2 parts according to certainty/uncertainty. The technology can be “known” or “unknown” that means knowledge or means either have or have not been proven to be effective for achieving a goal. And a goal can be “agreed” or “not agreed”. Therefore, the matrix produces 4 possible prototypes of conditions that can characterize planning, namely (A) known technology with agreed goal; (B) unknown technology but agreed goal; (C) know technology but not agreed goal; and (D) unknown technology and not agreed goal. (see figure 1).

		GOAL	
		Agreed	Not agreed
TECHNOLOGY	Known	A Programming: <ul style="list-style-type: none"> ▪ Predictability ▪ Equity ▪ Accountability ▪ Efficiency ▪ Effectiveness 	C Bargaining: <ul style="list-style-type: none"> ▪ Accommodation of multiple preferences
	Unknown	B Experimentation <ul style="list-style-type: none"> ▪ Innovation ▪ Responsiveness 	D Chaos <ul style="list-style-type: none"> ▪ Discovery of creation of order

Figure 1: Expectation of government associated with prototype conditions and responses to planning problems

In figure 1, according to Christensen, in case A, if planners agree on what they want and how to achieve it, then certainty prevails and planning is rational application of knowledge. When both means and end are certain, a public action prescribed through standard procedures set into a replicable program. In certain conditions, since technology is known that is proven effective, thus the technology can be predictable. Then by treating like situation in the same predictable way, a program can be equitable and to ensure the same outcome to everyone. And therefore, it also can be accountable, efficient and effective. However, it should be noted that the conditions of an agreed goal and an effective technology cannot be permanent. Because even when the theory is well grounded and proven effective, social conditions or values can change and transform, especially in modern world with the rapid of globalization spreading process, thus this shift can threaten its continued operation.

In case B, if planner, governors agree on what they want but do not know how to achieve it or without a proven solution (unknown technology), then the planning becomes a learning process or experimentation. Many public problems fall into this category of agreed goal and unknown solution. Without a known technology, standards of efficiency and effectiveness as mentioned in case A is meaningless. Public officials usually deal with uncertainty about means by thinking pragmatically, trial and error search for something that is suitable and can solve problems, receive feedback from the environment, and then make further modifications in response until the situation become tolerable. Thus the search for effective means maybe more through and systematic formal research. In this way, ignorance is confronted directly. Conscious experimenting in public programs aims not at finding what cause the problems but at finding workable solutions. And when the solution is unknown, innovation is needed, as Christensen said that “inventiveness and creative sensitivity to varying constraints are the keys to learning the solution” (p.65). It is obviously that open and innovation is novel and thus contradicts routine. Therefore, officials addressing an unsolved problem should not only respond for bureaucratic standard but also a constructive. Over time, this adaptive process tends to generate knowledge of workable means and thus reduce uncertainty. Another way to deal with this circumstance is, as being practiced this process in United State, the system is prone to premature programming. That is, a particular proposed but unproven technology is selected because of narrow set of alternatives, and then implemented through prescribed procedures and organization mandates, as

if the technology were already proven effective. Thus, instead of being treated as an experiment, the proposal is cast into case A, called prematurely programmed (showed in figure 2).

In case C, if planners, participants do not agree on what they want but do know how to achieve alternatives, then the planning resolution is reached through bargaining process. There are effective and proven methods but there is uncertainty or conflict over goals. In this circumstance, politics and the ways antagonists communicate influence the level and perception of conflict to accommodate multiple preferences. Each bargain must be tailored to its particular participants, their issues, their circumstance etc. But each deal is unique, thus the bargaining process is antithetical to bureaucratic routines that yield identical result. The restructuring method for accommodating multiple preferences aims at structuring bargaining multiple contexts, rules, and resources, in such a way that all affected interest can participate fairly. Therefore, adjustments are necessary in bargaining. Participants in negotiations cannot and should not to be expected to produce predictable, uniform outcomes. Instead, they should be expected to accommodate diverse preferences and join into a single process for reducing uncertainty about the public goals. Another way to deal with situation is that, the US institutional context skews democratic access and curtails debates between specialties in such a way that each specialty's goal appears acceptable. So that each specialty' goal is cast into case A, and called at premature consensus (showed in figure 2)

Box D in figure 1 represent a situation in which if the planners agree on neither means nor ends, the planning becomes part of the search for order in chaos. Nevertheless, these circumstances are common. Goals are often nebulous and changing, facts are often ambiguous. Confronting these conflicting goals and unproven technologies may be perplexing. The appropriate expectation for government in this situation of uncertainty over both means and ends is to establish order. Condition of uncertainty about both means and ends demand that the planners articulate the issue. Then the planners or politics should focus on clear, shared goals or to focus on workable technologies, thus the situation can be transferred into one of case B or C. Afterward, the situation becomes a continuous process of action and reaction as mentioned in case B,C. If the planner or participants reformulate the problem, casting the problem in the new light so that everyone agrees that it is the right problem to tackle. Thus, by the success of

reformulation, it reduces uncertainty about the goal and simplifies conditions so that planners and participants can focus on technical aspects of how to solve the problems. As a result, the condition in case D is transferred into case B. If problem finding makes the planners and participants confused, they cannot focus on competing goals that already have effective technologies. In this way the problem is articulated as conflicts, and results in agreement not what the problem is, but about which competing solutions must be chosen. When this sort of issue clarification is successful, it will reduce uncertainty about technology, and then the problem condition is now transferred from case D into case C.

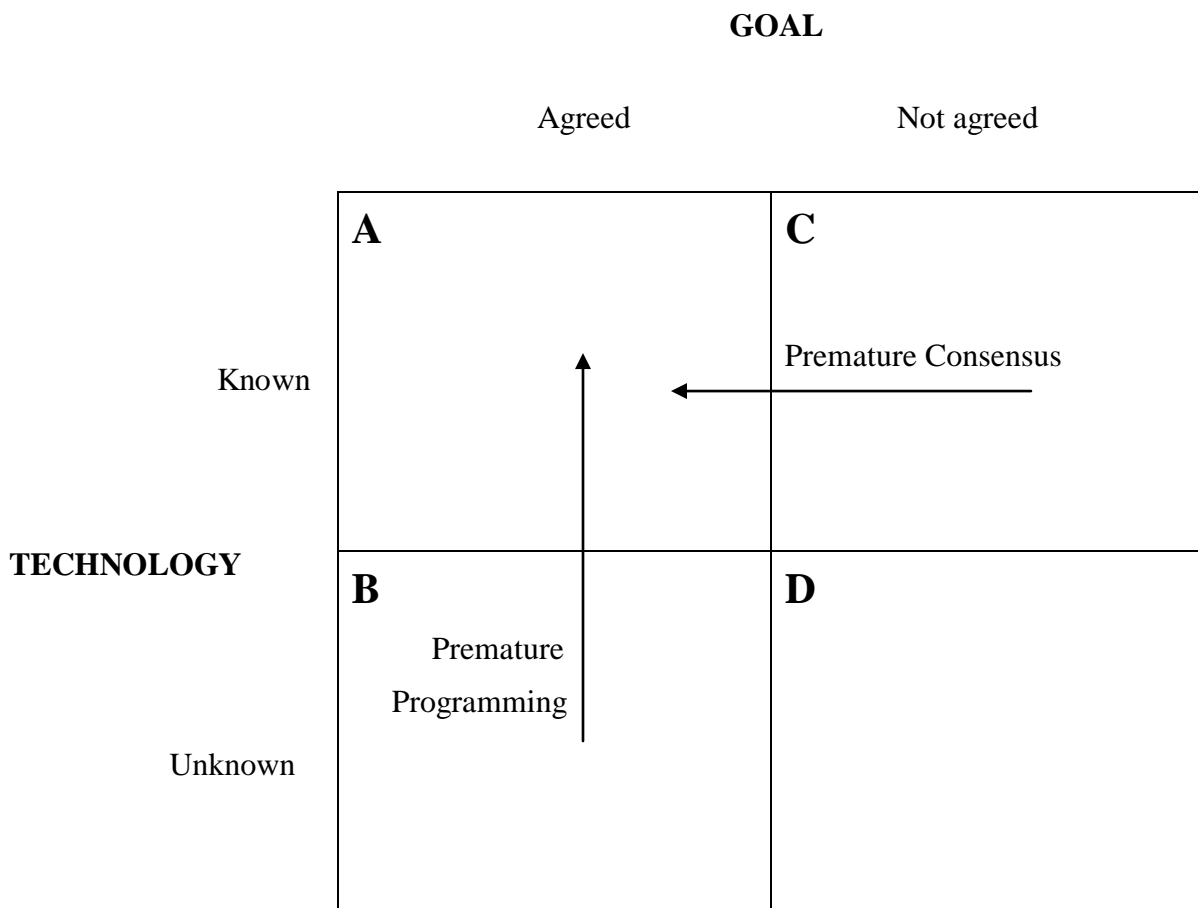


Figure 2: Premature programming and premature consensus

In conclusion, planner should address uncertainty, not ignore it. They should adapt styles and suitable processes to actual problem conditions. By matching planning processes to problem characters, planning offers a chance to overcome or at least reduce uncertainty. In this way,

planning processes can be understood not as predetermined but as tools that vary depending on circumstances. If the problem condition is set in case B or C, planner can save time, energy and money in solving those problems through premature programming or premature consensus.

1.1.2. Strategic planning – an approach to cope with uncertainty in planning

During the 1990s and 2000s, there has been a wave of energetic effort in producing strategic spatial planning for city regions and metropolitan areas in Western countries as alternative planning that to cope or to manage future uncertainties of urban complex issues that is raising in the new era. In the tracing of some evidence of strategic spatial planning in Australia and Europe, according to the Albrechts's research, in the Australia 1930s, there was a report by Perth Metropolitan Town Planning Commission that recognized the need for long – term strategic spatial planning. The Stephenson – Hepburn plan of 1955 is considered by many in Western Australia as the first strategic plan in Australia. In the 1960s the accent shifted to new-look strategic structure plans to facilitate long-term growth. While in some Western European countries, for Mastop (1998), the first trace strategic spatial planning in Europe dated back to the 1920 and 1930s when the strategic spatial planning was closely linked to the idea of the modern nation-state or a battery of welfare state policy. Strategic spatial planning was actually evolved in the 1960s and 1970s toward a system of a comprehensive planning - the integration of nearly everything (see Perloff, 1980) and at different administrative levels. However, in the 1980s, Europe witnessed a retreat from strategic planning. The reason was not only by the neoconservative disdain for strategic planning, but also by post modernist scepticism that both of which tend to view progress as something which, if it happens, cannot be planned (Healey, 1997b). Thus instead, the focus of urban and regional planning practices shifted to projects (Motte, 1994; Rodriguez and Martinez, 2003; Secchi, 1986), especially for the revival of run down parts of cities and regions, and to land-use regulations. Only by the end of the 20th century, new efforts were underway in many parts of Europe to produce strategic planning for cities, sub-regions and regions when the awareness of the need of managing future uncertainty arose, and the consciousness terms “sustainable development” and “territorial development” emerged.

But why is traditional land-use regulation not suitable in the new era? To answer this question, the transformation of strategic planning from land-use regulation should be researched

and analyzed, compared the advantage and disadvantage factors of each type of planning. This part, at first, will mainly evaluate the pros and cons of land-use regulation.

According to Albrecht's study (Strategic spatial planning re-examined, p.743 – 758), the aim of land-use planning is basically concerned about the location, intensity, form and harmonization of land-use development that required for different target or functions such as housing, transport, nature, culture activities etc. Thus land-use plan propose the way of how land should be used as the expansion and restructuring proceed in the future. Therefore, traditional land-use planning nearly focuses on the municipality or functional urban region by using framework plan and regulatory plan. The framework plan covers the whole of the local authority's area and sets out the broad land-use and infrastructure system that crosses the area through zoning or land-allocation maps. The regulatory plan covers the whole or maybe a part of local authority's area and indicated the location, the form and size of the development and physical infrastructure. Local governments are generally responsible for the production of these plans and for approval. Thus the framework plan and regulatory plan imply legal certainty and rigidity, and therefore are passive, pragmatic and can be considered as localized planning. Consultation with other tier of government, administrations, official agencies, land-use regulation helps to steer developments in a certain direction, however, makes the daily routine in plan making. In this way, land-use plan can ensures that the undesirable developments do not occur, however it means that the desirable developments cannot be ensured actually take place where and when they are needed, because maybe the desirable development is not in the line with the approved land-use plan and regulation. In addition, according to Kreukels, Scharpf and Schnabel, the approach to land-use planning via a single policy field may be challenged from other policy fields which can be more powerful. Thus, although land-use plans have formal status and serve as official guidelines for implementation, when it comes down to the actual implementation, other powerful policy fields that also need for this implementation can easily undermine the land-use spatial planning by their budgetary and technical resources if they want. Moreover, another criticism on land-use planning is that the plans is very rigid and lack of flexible, less of quickly responsive to changing circumstances because of its limited resources. Only focusing on physical aspects, solution to social and economic problems, lack of coproduction of plans with major stake holders and the involvement of weak groups in the planning process, thus it is often abstract from real situations

and existing conditions that determine the parameter of human, social, community activities, and even it assumes the existence of transcendent operational norms (see in figure 3). As a consequence, traditional land-use regulation in general finds difficulty in dealing with the uncertainty conditions of social change in long term development, especially in macro urban level.

As a result, there is need and call of new alternative planning system which is more open and less prescriptive in determining precise land use, more concern with existing city conditions than new developments as the idea of sustainable development, more flexible in order to respond more quickly and adequately to social change and economic circumstances and agenda of government organization for larger urban regions evolve. In addition, according to Pasty Healey and Klaus Kunzmann (Strategic Spatial Planning and Regional Governance in Europe, p.115), there were also other driving forces that raised the concern and effort in European for the revival of strategic spatial planning such as: the competitiveness position of city regions in global economic, changes in financing of local government with reduced national and local budgets, attention on environmentally sustainable resource management and the quality of life/environment of places, regional and local identity and image, the search for new modes of territorial policy integration to supplement the welfare state functional organization, etc. The motivation are varied, but the objective is mainly to articulate a more coherent spatial logic for land-use regulation, for resource protection, for action orientation, for a more open type of government, for investment in regeneration and infrastructure, as mentioned above: the ideal of sustainable development and territorial development. The creation of strategic vision with short term actions that implies the design of shared future spatial change, the development and promotion of common assets gives the solution to complex and uncertain urban problems. As can be seen in figure 3 (Albrech, Planning and Design 2004, page 748), it shows in detail the differences, the transformation and the complement of type of planning from land-use regulation to strategic planning. The characters of strategic spatial planning will be discussed deliberately in next part.

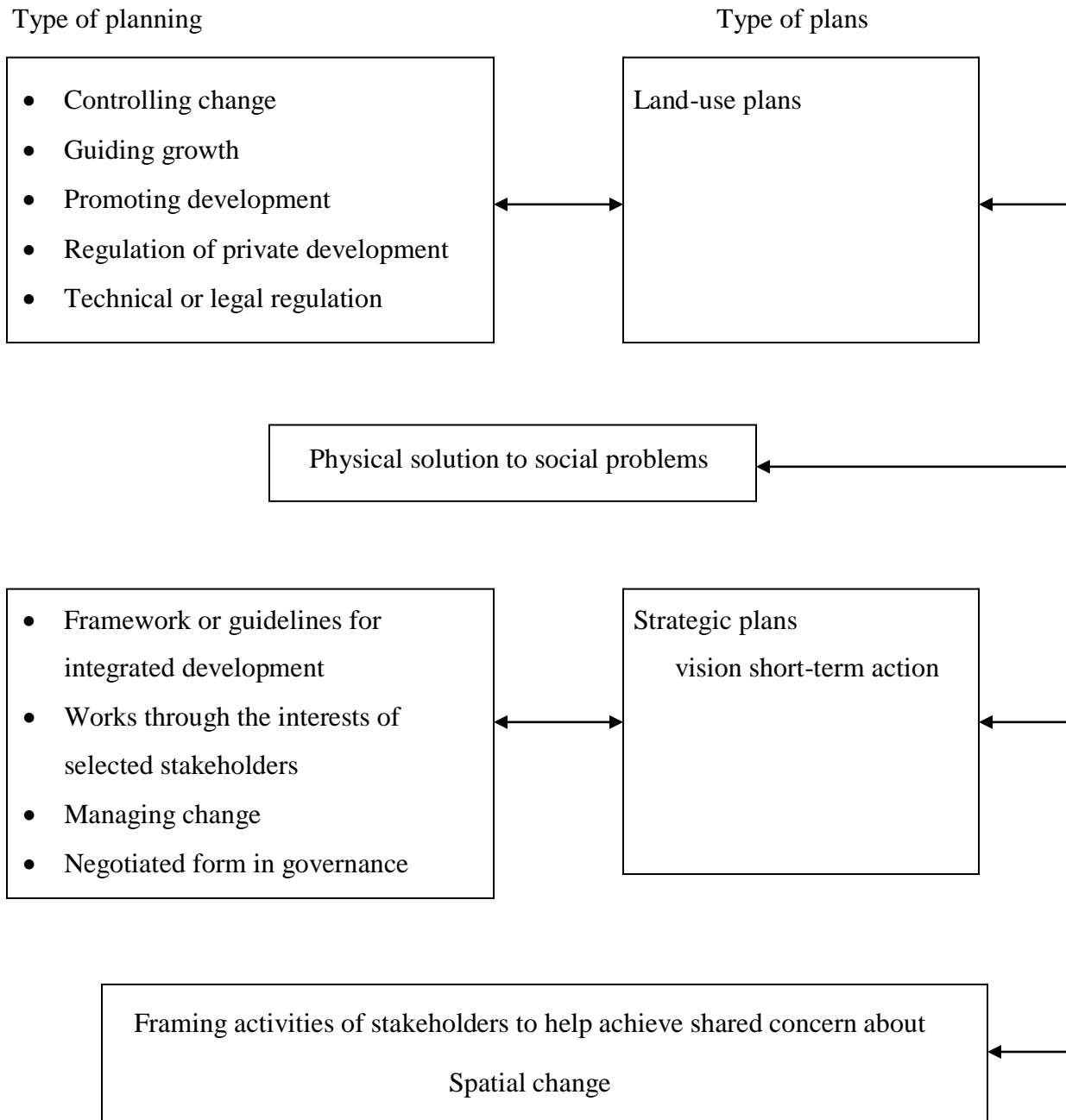


Figure 3: From traditional land-use regulation planning to strategic planning

1.1.3 What and how is strategic spatial planning?

The word “strategy” originated within a military context that describes “the science and art of employing the political, the economic, psychological and military forces of a nation or group of nation to afford the maximum support to adopted policies in peace or war” (Webster’s dictionary). Thus, when someone considers about strategic actions, it is obviously that he has to logically organize and manage his framework actions to cope with different circumstances may happened in order to get the maximum the efficiency and effective outcome. Therefore, according to Kaufman and Jacob (1987), strategic planning originated in the *private sector* in 1950s due to the need of planning effectively and managing future when the future itself seemed to be increasingly uncertain due to the rapid change of environment. Strategic planning approaches developed in the private sector can help governments and public agencies become more effective because it provides a set of concepts, procedures and tools that can help public sector organizations to deal with recent dramatic changes in their environment. Obviously, it does not mean that all approaches of strategic planning in private sector are equally applicable to the public sector.

So what is the normative view point of “what” and “how” of strategic spatial planning. In general, there are different traditions of strategic spatial planning and there is no “one best or one single way” to carry out strategic spatial planning. According to Albrechts, “the ‘New’ Strategic spatial planning is a transformative and integrative, (preferably) public sector led socio-spatial process through which a vision, coherent actions and means for implementation are produced that shape and frame, what a place (city-region) is and what it might become... This definition implies that strategic (spatial) planning is not a single concept, procedure or tool. In fact it is a set of concepts, procedures, and tools that must be tailored carefully to whatever situation is at hand if desirable outcomes are to be achieved”.

A several characters related to “how” of strategic spatial planning that also give the specific complementary clear definition to “what”:

- It focuses on a limited number of strategic key issues because strategic planning is selective and oriented to issues that are really matter because it is impossible to do everything that needs to be done. Strategy implies that some decisions and actions are considered more important than others and that much of the process lies in making the tough decisions about what is most important for the purpose of producing fair, structural responses to problems and challenges.

- It takes a critical view of the environment (impact on the environment of development, competition on basic resources, increasing cost etc.) in terms of determining strengths and weaknesses in the context of opportunities and threats, and evolves of studying of analyses problems, external trends, forces and resources available because creating a vision for future environment should be extrapolated from the past and present status quo. New strategic planning ‘creates’ a future environment, but all decisions are made in the present.

- It identifies and gathers major actors (public and private) and allows for a broad (multi-level governance) and diverse (public, private, economic, civil society...) involvement during the planning process. Thus it adopts a democratic polity environment that can encompass the realities of difference, inequality, unfairness. In addition, it also stresses the need to find effective connections, mutual dependence between political authorities and implementation actors (such as officers, individual citizens, community organizations, private corporations, private corporations and public departments etc.) who even if compete interest, goal and strategies.

- It designs plan-making structures and develops content, images and decision frameworks for influencing and managing spatial change that might happen. It focuses, both in the short and the long term, on framing decisions, actions, projects, results and implementation and incorporates monitoring, feedback as well as adjustment and revision. It creates solid, workable long-term visions or perspectives (geography of the unknown) and strategies at different levels taking into account the power structures (political, economic, and cultural), uncertainties conditions and competing values. Briefly, new strategic planning is centered on the elaboration of a mutually beneficial dialectic between top-down structural developments and bottom-up local uniqueness in order to achieve the general sustainable development of time flowing.

- It enhances innovation, new ideas and processes that can carry them forward, thus generating ways of understanding, ways of building agreements, and ways of organizing and mobilizing for the purpose of exerting influence in different arenas

Moreover, according to Healey (2004), the term “spatial” can bring the consideration or focus to “where of thing”, the creation and management of places and sites, the interrelations between different physical activities in an area, and significant intersection and nodes within an area. Actually, strategic planning that focus on spatial relations allows a more effective way of integrating different agenda such as social, politic, economic, cultural and environmental agendas which have a crucial impact in local activities and territorial vision development. Then, with the framework and vision for territorial development that emphasis on place qualities and spatial impacts and integration of investment, agreement of major stake holders, strategic spatial plans can complement, manage and provide a strategic context for specific development projects.

1.1.4 The role of planner in strategic spatial planning

As strategic plan making is as much about the process, institutional design and framework for actions, thus those who take a central role in deliberate initiatives in spatial strategy making are sometimes portrayed as “author” creating a script for others to enact, or as “artist” creating an idea of the future to inspire others (Beauregard, 1998). The role and position of planners who involve in strategic spatial making are more located within the complexities in the three main roles. Firstly, strategy planners have a political role, they could be the leaders and advisers of a new political regime, and they raise the difficult questions about their legitimacy and accountability. Secondly, strategy makers are technical expertise, they could be consultants, hired by municipalities or some other multi-agency partnership to prepare a strategy, they become advocates of particular kinds of opportunity for future generation. Thirdly, spatial strategy planners has a managerial role, they could be the strategic sections of governmental, municipal department, they will be faced not only with the pressure to keep an open to comprehensive orientation to complex interrelation which co-exist in the urban area, but also have a specific moral position, responsibility about why certain strategic direction should be encouraged, applied or other closed off.

However, whatever the starting position of spatial strategy makers are, according to Albrechts (Albrechts, December 2001, Planners’ role in strategic spatial planning), strategic planners’ role have to play a role that carries the main characters of spatial strategic planning as below:

- Scanning the environment (strengths, weaknesses, opportunity, threats) external trends, forces and the resources available.
- The identification and gathering of major stakeholders.
- The development of a (realistic) long-term vision and strategies taking into account the power structures, uncertainties, competing values).
- The design of plan-making structures and the development of content, images and decision framework through which to influence and to manage spatial change.
- Generating ways of mutual understanding, ways of building agreement and ways of organization mobilizing to influence in different arenas.
- Preparing decisions (short- and long term) action and implementation.
- Monitoring and feedback.

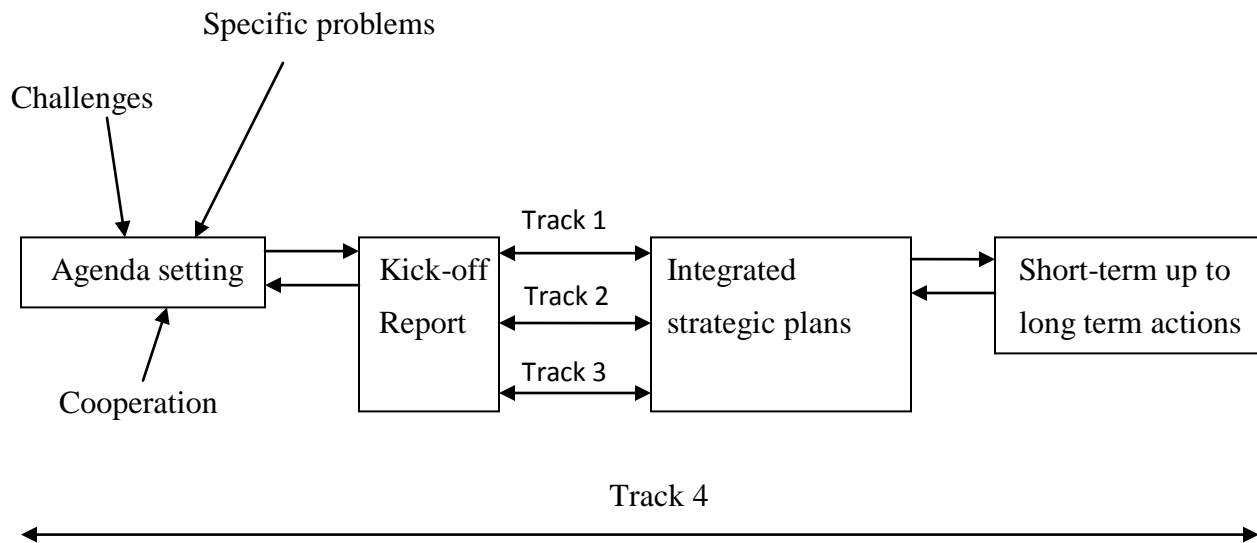
1.1.5. Four track approach of strategic spatial planning

After describing the crucial definition, characters of “what” and ”how” strategic spatial planning, Louis Albrechts (Strategic spatial planning re-examined, 2004. P.753) also analyses the principles of strategic planning process in order to fill the gap between theoretical reflection and reality practice experimentation by using 4 track approach in the possible macrostructure of strategic spatial planning process (see figure 4) . The four tracks can be seen as working tracks that are:

- Producing a long term vision
- Long term and short term action
- Reach or contact with stake holder
- Basic process with citizen.

The four-tracks is based on interrelating four types of rationality: firstly, value rationality means the design of alternative futures that create a positive-sum strategy combining economic, environmental development objectives, visions in their spatial manifestation for future environment in order to pursuit sustainable development; secondly, communicate rationality means involving a growing number of actors – private and public – in the process because in these days, the prevalence of more sociological view stresses the need and power of agency in

interaction with broader forces that examines the participation of informal relations and networks into formal procedures; thirdly, instrumental rationality means looking for the best way to solve the problems and achieve the desired future by using framework actions thought innovative, integrative process in order to reduce the uncertainty conditions of situation; fourthly, strategy rationality mean a clear and explicit strategy for dealing with power relationships to avoid utopian thinking.



(Source: Louis Albrechts, 2004, p 751)

Figure 4: Possible macrostructure for the overall strategic planning process

The first track emphasize on the long-term vision. The vision is constructed (communicated rationality) in relation to the social values (value rationality) to which a particular environment is historically committed (Ozbekhan, 1996). The creation of a vision is a conscious and purposive to represent values and meaning for the future. But it involves the understanding of the material and cultural history of an urban area, it stresses the need of maintaining and redeveloping of status quo, it describes the sort of place we want to live in, or think we should live in. In this way, strategic planning can create a vision for future environment, but all decisions are made in the present. This mean that over time strategic planning must stay and adapt to change in order to make the best decisions, thus it must be managed strategically (strategy rationality).

The second track focuses on creating trust by solving problem through action on a very short term. By creating strategic framing actions to tackle the problems in view of vision, strategic planning help to reduce the uncertainties in planning and allow people to see and justify future vision possibilities. Because strategic plans can simplify how urban development dynamics are understood and how possible future orientation are identified. Thus these plans allow shaping their own action to position in a wider context, and to develop a way of thinking and valuing which inspires and justifies what future image might become. In this track, the four types of rationality interrelate.

Track 3 indicated the need of involving relevant actors for their substantive contribution, their procedural competences and the role they might play in acceptance, in getting basic support (budget) and in providing legitimacy. As Albrechts said that “spatial planning has almost no potential for concretizing strategies”, doubts and dilemmas challenge and critique those involved in strategic making, key actors need and try to find the way to keep in play a rich and multi-dimensional conception of urban dynamics when shaping a strategy, their assumptions and their framing of what is stake. This implies a degree of selectivity (means a limited) and the mutual dependency of actor, which mean that problem and challenges cannot be solve by just one actor. There is a call and technical skills, power to allocate sufficient means to build alliances in order to implement proposed actions that spread over a diverse sectors, actors and department because all kinds of resources can help to feed the imagination, planning assumptions and future scenarios of strategy makers.

The fourth track is about an inclusive and more permanent process (mainly at local level) involving the broader public in major decisions. Citizen has a right to be heard and to have a creative input in matters that affect their interests and concerns at different scale levels. That track can help to eliminate the unequal power structures between social group and classes (Friedmann, Doulas, 1998). Therefore empowerment for ordinary citizens is needed to overcome the unequal distribution of resources, and overcome of inequalities in social position, status. Moreover, an open public dialogue may have advantages as new people, new alliances, network and new ideas are brought together, and as new area s are provided in which strategy articulation

takes place. These arenas may enable processes and may provide some initial form of a social basis plurality and diversity that support to strategic plans.

The four-track approach with tentative integration with different concepts of rationality can be showed in figure 5. The end product of the strategic process may shape a future environment, a dynamic, integrated and indicative of long-term vision, a plan for short-term and long-term actions (framework) and a strategy for implementation. (Source: Louis Albrechts, 2004, p 753)

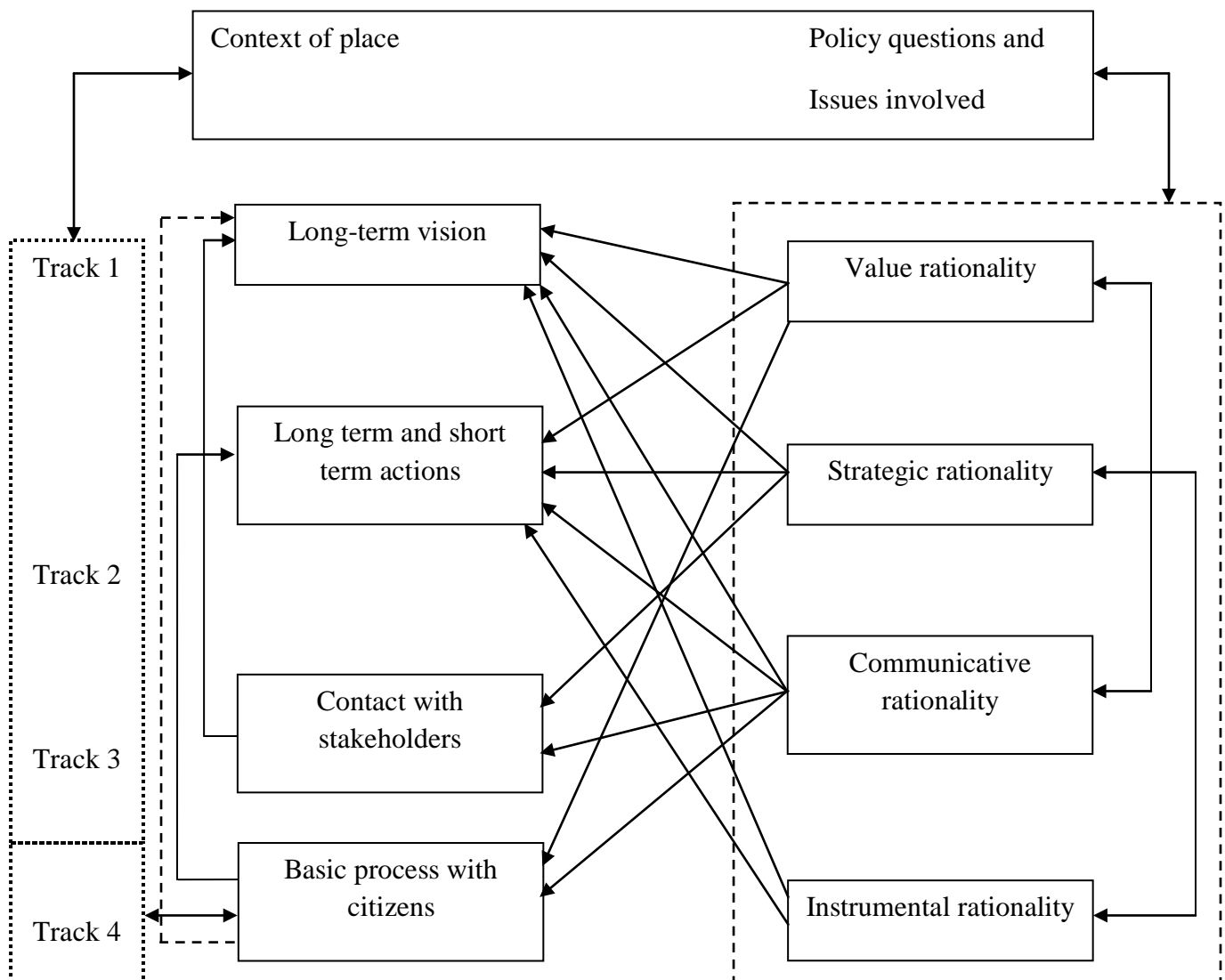


Figure 5: Four-track approach with tentative integration of different concepts of rationality

1.2. Strategic spatial planning as a key tool for regional development

1.2.1 Regions as key actors of national growth

Regions are actors of growth and have a great impact on how their national economy performs. Natural and human resources tend to be concentrated and regions' abilities to exploit local factors, mobilise resources and create linkages varies, raising the issue of development capacity. The impact of concentration on national economic growth can be felt, with growth often driven by a few regions within a country. For example, according to the document "OECD Regions at a Glance" released by OECD (Organization for Economic Co-operation and Development), in 2005, 38% of the total output of the OECD member countries was generated by only 10% of their regions. This number obviously dresses the important of regional development as the crucial catalyst for national growth. There are many famous city regions in the Europe: the Great South East England where London is now the centre of a system of some thirty to forty centres within a 150-kilometre radius; The Rhine-Main region of Germany, encompassing core cities of Frankfurt; The Paris Region with the region's economic core 'Golden Triangle' bounded by the city's western borough, La De'fense and the suburbs of Boulogne–Billancourt and Issy-les-Moulineaux (Beckouche 1999) etc.

The concentration of economic activity occurs due to the benefit of agglomeration. The relative growth of these urban regions is related to their ability to attract businesses and people. Region contributes to the concentration of GDP, the change in employment. Actually, the ability of a region to contribute to national economic growth can vary greatly, driven by factors such as its share of the national population and employment, its mix of rural and urban areas, and the amount of industry in the area. Each region must have at least one core large city that is character by its density, employment and regular daily journeys to the core. People tend to move to places where job opportunities are plentiful and firms tend to locate in large markets (of labor and goods) where economies of scale can be achieved. Thus the more concentration and agglomeration of business activities in core cities of region are, the more attraction of people moving is. The increase in the number of employment also can enhance regional competitiveness with other regions at national and also at international level.

Moreover, as the effect of globalization process and the shift to the informational economy give special value to large cities as centres for efficient face-to-face information exchange. They are the locations of the major hub airports and the high-speed train stations; they also are hubs for commuter traffic. Urban educational systems also play a crucial role here; regions in America and Western Euro are a great example of integrating successive generations of immigrant children. There is also a place of numerous historical relics that has an important role of historical and cultural value of each country. Many national or international events, social activities would be organized and happen in there that are considered as the dynamic in order to enhance the urban development, to re-qualify the context of city, region or even nation image. Core city in addition maybe is a place of government headquarters that has a role as a brain to manage and control politic activities of whole region or even nation.

In overall, the typology of region normally generates a progressive redistribution process of functions: in the core large city or cities, continuing concentration of higher-order service functions (political and administrative activities, financial and business services, design services, media, higher education, health care system, culture even, historical conservation, transport main hub and so on); while in secondary cities or in suburban zone, growth of more routine functions (research and development, high-technology manufacturing, industrial districts or even university cities). Some scholars also call this as the process of “concentrated de-concentration”. The entire complex of urban area achieves major agglomeration economies through clustering of activities, however maybe not in only one centre, but in a complex of major areas with some degree of functional differentiation between them.

1.2.2 The call of applying strategic spatial planning for region development

The concentration of economic activity occurs due to the benefit of agglomeration, however, has a double-edge effect that also brings negative externalities such as congestion, environment quality or inadequate supply of services, shows that agglomerated economies are not necessarily the places for an efficient allocation of resources. In addition, regional inequality is growing, not only between urban and rural area but also within core city that was mentioned as the term “the dual city model” by Saskia Sassen, “Cities in a World Economy”, 2000. The gentrification process versus low-income that lead to disparity and the demand of reconstructing economic

structure, transformation in the organization of labour force and as a result, change in spatial function and land consumption pattern. Moreover, there is also the demand of new form of multi-government in order to establish the specific and separate or cooperated responsibility to deal with region, province and municipality problems.

By the end of the century, new efforts were running in many parts in the world in order to produce strategies for cities, sub-regions and regions to articulate a more coherent spatial logic for land-use regulation, resource protection, investments in regeneration and infrastructure, to avoid disparity and fragmentation of society, spatial regulation, to recompose governance structure in order to breakaway the functional organisation typical of national, regional, local government, to widen the incorporation, relation of government relations and local community stakeholders in new ways of significant economy. For example, according to Albrechts, Healey and Kunzmann, there are many driving force behind European for the new strategic efforts as below:

- The competitiveness agenda, positioning city regions in a European/global economic space, supported by business interests.
- Changes in financing of local government, with reduced national and local budgets, leading to the search for joint financing among public bodies and between public and private agencies.
- Socio-cultural movements and lifestyle changes that focus voter and lobby group attention on environmentally sustainable resource management and the quality of life/environment in places.
- The reassertion of regional and local identity and image formation in the face of globalisation and the European integration project.
- New forms of multilevel governance and a government reorganization agenda involving decentralisation and the formation of alliances.
- The search for new modes of territorial policy integration to replace/supplement the welfare state functional organisation.
- The discourses and practices of a trans-European spatial planning policy community, diffusing principles of spatial development across Europe.

- Local response to pressing local and regional problems, articulated by local political process.

The motivation for new planning efforts can be varied from European, America, and Asia regions, but the objectives have been typically to get the term of sustainable development that defined as the concept of potential for creating a positive-sum strategy that can combine economic, environment, cultural and social, political objectives effectively in their spatial relations. Therefore, strategic spatial plan is demanded in applying for regional future image due to its characters and the innovation way it deal with social, urban complex uncertainty problems. Strategic spatial plan creating frameworks and visions for territorial development that emphasis on place qualities and the spatial impacts and integration of investment can complement and provide a context for specific development projects as Albrechts suggests “strategic spatial planning is not a single concept, procedure or tool ... it is a set of concepts, procedures and tools that must be tailored carefully” to the specific situation.

1.2.3 Case study of spatial development strategy for regional growth in Northern Ireland

The part will show the summary of case study in applying strategic spatial planning for regional growth. The case selected is regional development strategy for Northern Ireland till 2025 and 2 of its main strategic components, namely its vision and guiding principles, its themes for spatial development strategy (see figure 6). The regional development strategy (RDS) for Northern Ireland 2025 was prepared by the Department for Regional Development, with advice from an inter-departmental steering group and a panel of international experts, with public consultation and participation that involved of almost 500 voluntary and community groups through a consultation exercise, a series of conferences, seminars, workshops and meetings. The strategy strongly responded to local problems and the views of the community that equality and equity should be to the forefront of the long-term development of the region. The spatial elements of the RDS seek to achieve balances between urban and rural communities and the east and west of the Region to provide equality of opportunity for all. With its slogan “Shaping our future”, the purpose of RDS is to promote the sustainable development and sustainable communities in order to build a more prosperous and fairer region, to help achieve a strong spatially balanced economy, a healthy environment and an inclusive society as mentioned by

Gregory Cambel - Minister for Regional Development: “The Strategy is critically important to the future development of Northern Ireland. It seeks to balance the needs of a resilient, outward looking, more dynamic economy whilst preserving and sustaining that essential quality of life which is cherished by all of us”

Northern Ireland is a province of the United Kingdom with a 2001 population of 1.7 million with 2 main metropolitan: Belfast city in the East and Londonderry urban area in the North West. In Northern Ireland, the forces driving change can be considered in four broad groupings:

DEVELOPMENT STRATEGY -MAIN COMPONENTS



Figure 6: Main components of regional development strategy for Northern Ireland 2025

Social force: including demographic factors, changing trends in relation to quality of life, education and life skills, and spatial development trends. A regional population growth rate which is twice the current UK rate and exceeds that of the Republic of Ireland makes Northern Ireland to be one of the fastest growing regions in Europe. This trend is continuing to grow and may reach 1.835 million by 2025.

Economic force: Wealth creation is a powerful force for change. Northern Ireland has experienced the largest growth in Gross Domestic Product (GDP) per capita, albeit from a relatively low base, and the greatest fall in unemployment. Other economic factors that have a great impact on the economic change are the developments in telecommunications, agriculture with intensive farming methods, advancing technologies, the ‘green image’ that supports for the competing internationally in tourism etc.

Transport force: Northern Ireland is almost totally dependent on a roads based transport system reflecting the small internal transport market and dispersed settlement pattern. The road network is the ‘artery’ for the Region’s economy with 98% of goods being transported by road. Northern Ireland has good modern port facilities providing high quality shipping services and freight handling with Belfast that performs a shipping role of international/European importance. The three main airports – Belfast International, Belfast City and the City of Londonderry – offer an extensive range of air services and facilities

Environment force: Northern Ireland is fortunate in the richness of its environmental inheritance. However, at the regional level the environment is under pressure in a variety of ways. Technological and social change is increasing the speed and scale of new development and producing forces towards dispersal. Changes in agriculture and the expanding scale and impact of modern development are eroding the quality of distinctive regional landscapes (*source: DRDNI 2002, “Shaping our future”*)

The Regional Development Strategy (RDS) takes account of local, national and international forces which are collectively driving change in Northern Ireland and presenting a range of development challenges. The 2 main strategy components will be summarised to make the overall frameworks and the implementation process of strategic spatial planning in Northern Ireland 2025.

Vision and guiding principles

The development of Northern Ireland towards the achievement of the Shared Vision will be guided by the Regional Development Strategy. The aim of spatial development policies is to work towards a balanced and *sustainable development* of the territory of the EU by the achievement of three fundamental goals: economic and social cohesion; conservation and management of natural resources and the cultural heritage; and more balanced competitiveness of the European territory. Thus the guiding principles of RDS are (*source: DRDNI 2002, “Shaping our future”*):

- Taking an approach focused on people and community (recognising the diversity of people and place) by the involvement of community as the part of the implementation process in order to reflect the views and aspirations of key stakeholders
- Achieving a more cohesive society based on equality of opportunity and targeting social need, spatial equity and complementary, a partnership approach, strengthening community cohesion in region, a new and more sustainable approach to transport, and an outward looking perspective.
- Achieving competitiveness based on investing in intelligence, improving accessibility communication, reconciling growth with quality of life.
- An integrated approach to future development of the Region based on strengthening interconnections, building on the many strengths of the regional institutions in Northern Ireland, protection and enhancement of the environment.

Spatial development strategy

The Spatial development strategy (SDS) will contribute to meeting a number of key regional challenges emerging from the significant local, national and international forces as mentioned above which will drive change over the next 25 years. The strategy plan is designed to maximise the potential of the whole Region by seeking to integrate development in order to optimise the distinctive contributions of the principal component areas. The strategy for Northern Ireland is a framework for the future physical development of the Region based on urban Hubs and Clusters, key and link transport Corridors and the main regional Gateway of ports and airports. The ideal of SDS is a hub, corridor and gateway framework designed to achieve a balance of growth which will maintain a strong economic heart in the wider Belfast 'travel to work' hinterland while encouraging decentralised development at identified growth poles across the Region; this will be focused on the North-West and the main towns throughout Rural Northern Ireland, located on the key and link transport corridors (see figure 7)

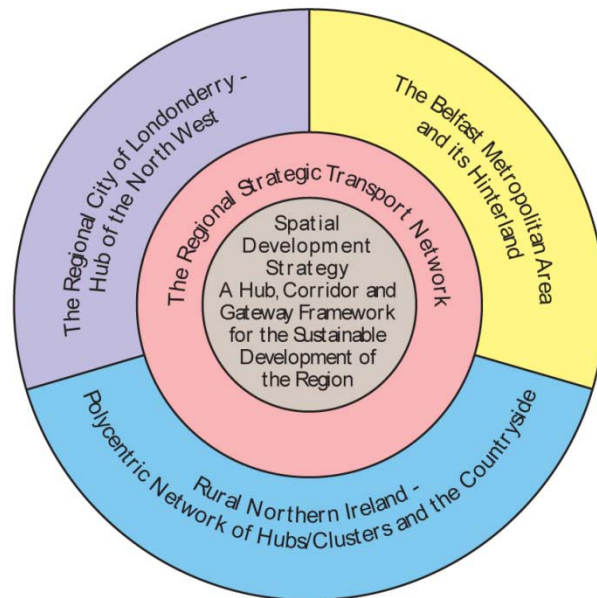


Figure 7: Three territories of spatial development strategy for Northern Ireland region

(source: DRDNI 2002, "Shaping our future")

The spatial development strategy is articulated through six core themes the future spatial development of the Region as showed in figure 8 below:

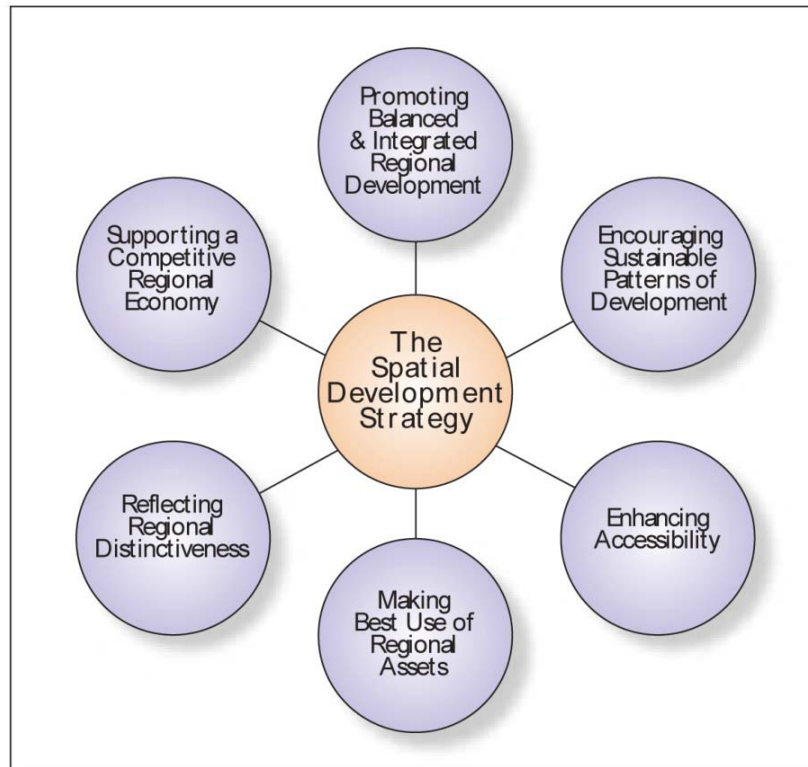


Figure 8: Themes of the spatial development strategy in Northern Ireland 2025

(Source: DRDNI 2002, “Shaping our future”)

Promoting regional balanced: The purpose of this theme is that the balanced growth crossing the identified network of cities, main and small towns and their rural hinterlands will enhance “*equality of opportunity*” for people living in all parts of the Region, and offer the wider variety of development needs in a divided society to local. Local rural centres need to be revitalised. The aim is to ensure that every town, main and small continues to generate employment and investment opportunities and to receive new housing development, appropriate to its size and functions, in order to renew itself and maintain its vitality and vibrancy. That as a result, the decentralised process can reduce the pressure of concentration and congestion circumstance in 2 main metropolitan areas (Belfast and Londonderry cities). The benefits of the decentralisation process are based on a polycentric network of main and associated small towns in Northern Ireland. The towns identified as main hubs have the potential to develop as 'growth poles' for the clustering of economic activity, thereby providing a counter-balance to the

metropolitan heart of the Region centred on Belfast. Therefore, these main towns will be developing as the major locations providing employment, a range of services, functions for their distinctive urban and rural areas as local engines of economic growth, and a range of cultural and leisure amenities. The key is to achieve an optimum balance between over-concentration around the Belfast and Londonderry metropolitan areas, to recognise the catalyst for economic growth and development that can concentrate from the two largest cities and to sustain a reinforced network of strong urban hubs that is linked by an upgraded strategic transport network.

Encouraging sustainable patterns of development: The spatial development strategy places a strong emphasis on the sensible use of resources and care for the whole environment. The impact of climate change, the consumption of good agricultural land by urban development, and other adverse impacts of development on air, water and land, underscores the need to take a sustainable approach to the future development of Northern Ireland. To pursue this aim, the Strategy identifies not only the strategic plan for natural resources, but also emphasises the need to value and exercise positive-sum strategy for the whole environment, including the coast and the cultural heritage. In addition, the Strategy also reflects the rising of public concern about environmental issues and makes sustainable development a central objective. It will provide a strategic planning framework for future environmental policy making and will assist integrated environmental management to be delivered.

Enhancing accessibility: developing the regional strategic transport network: The strategic transport network has a fundamental role to play in achieving the regional goals relating to social progress, economic development and sustainable development. The network of transport corridors will provide the skeletal framework for the future development of the whole Region, connecting all the main centres of economic and social activity, and the major public transport hubs. To achieve this aim, the strategy is to shape the strategic transport network in general, and the potential for achieving greater public transport usage both by road and rail in particular. Firstly, a high quality strategic transport network, with quick and reliable journey times, has an essential role in stimulating a balanced spread of future growth in towns across the Region. Secondly, the provision of efficient transport corridors incorporating a strong public transport usage offers a number of wider benefits by improving accessibility generally and facilitate

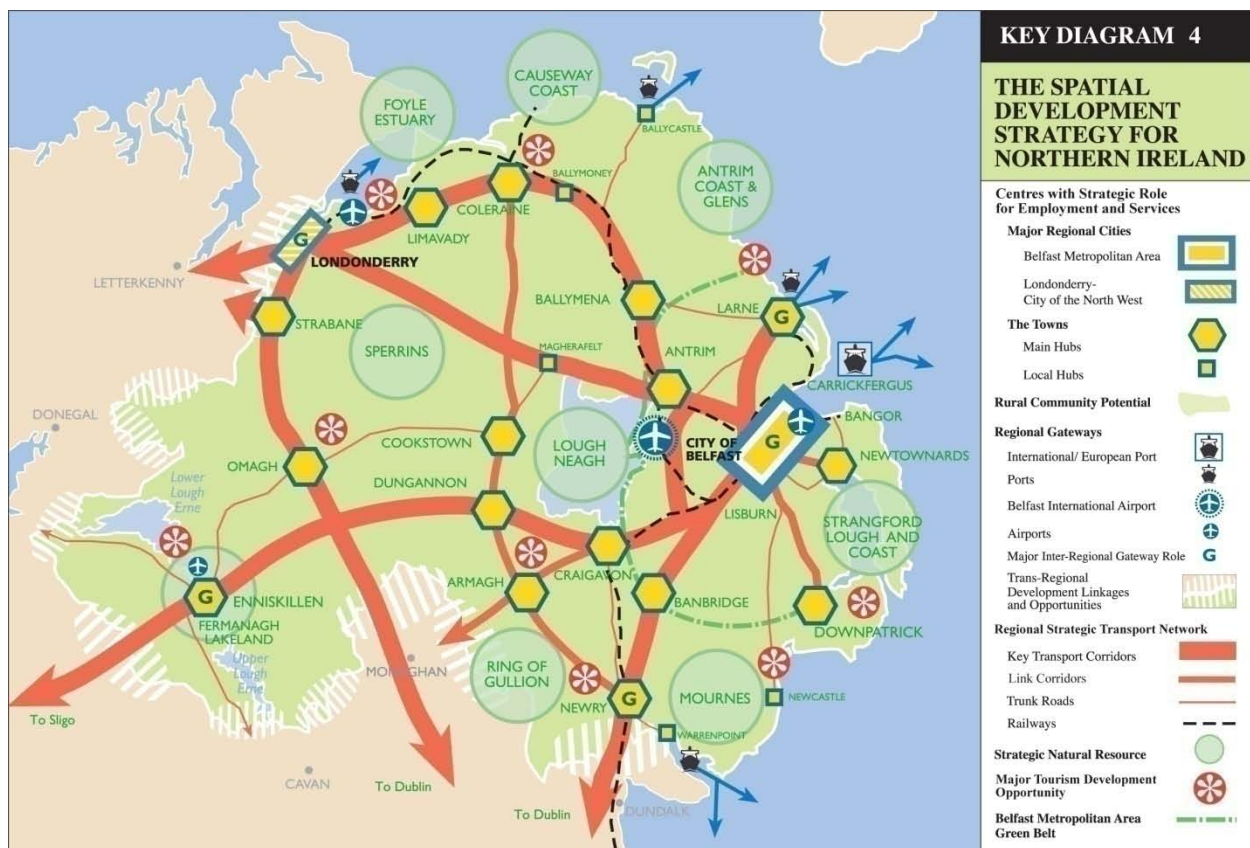
trading, ‘economic clustering’, and help to reduce negative environmental impacts by contributing to a progressive change in travel culture.

Reflecting regional distinctiveness: The spatial development strategy seeks to reflect the distinctive settlement pattern in the Region and the strong local identities associated with particular sub-regions, towns and rural areas, and to respect the high quality landscapes of Northern Ireland. Development patterns which contribute to community spirit, neighbourhood and a sense of belonging to a particular place are encouraged.

Strengthening economic opportunities and regional competitiveness: Spatial planning has a key role to play in providing a platform for growth by creating conditions which are conducive to sustainable economic development. The objective is to maximise the economic potential by capitalising on the use of the regional resources including land, buildings, infrastructure and labour skills, and with a particular focus on areas of social need. The main local hubs and the strategic transport system, physical infrastructure systems have a critical role to play in providing a network of growth poles across Rural Northern Ireland with the necessary concentrations of infrastructure and services to support business initiatives; whereas the cities (Belfast and Londonderry) have a key role to play as a strategic centre in relation to Europe, and in winning inward investment for Northern Ireland. In addition, the strategy encourages the strengthening and development of complementary economic development relationships, co-operation within sub-regions, and between towns generated through innovative local arrangements in order to ensure that there is balanced growth which will sustain counter-magnets to the economic pull of metropolitan areas.

Making best use of the regional assets: The spatial development strategy emphasises to the need of capitalising on the inheritance of major regional assets. To achieve sustainable development involves making positive-sum strategy of using of past investment in the physical and social infrastructure of *the hubs, corridors and gateways*, and generally managing resources more efficiently and economically for the benefit of the whole community. In investing in main hubs, the Strategy promotes a sustained urban renaissance grounded in maintaining compact cities and towns, maximising the use of neighbourhood resources, creating high quality urban environments and improved urban transport systems, in short, creating more attractive towns to

live in and offering a better quality of life and social harmony. To upgrade the transport corridors, the Strategy emphasises the benefits to be gained from making good use of existing infrastructure, particularly the key and link transport corridors which provide essential links to urban hubs and regional gateways. In enhancing the strategic role of the regional gateways, the strategy promotes the regional gateways as key economic development opportunities. With improved connections to corridors, the gateways offer the potential of clustering economic development to create strong magnets for regional growth to the benefit of everyone in Northern Ireland (see more in figure 9 below).



(Source: DRDNI 2002, “Shaping our future”)

.Figure 9: The spatial development strategy for Northern Ireland 2025

In conclusion, the process of developing the Northern Ireland Regional Development Strategy, also called “Shaping our future”, tries to achieve the tricky goals of both focusing on

the Metropolitan Area as the gateway and spreading development through polycentric network of main hubs and clusters by using transport corridor. That is fostering both competitiveness and social cohesion by promoting balanced and integrated regional development. This strategy also has provided frameworks, goals focused, power-sharing by the integration between devolved government and public participation practices. Although this strategy is still criticised by some scholar notes such as the lack of an effective regional economic analysis, the case of Northern Ireland is considered as a striking example of applying strategic spatial planning for regional growth with the term of sustainable development.

Chapter 2

The case of Hanoi capital region development in Vietnam

2.1. Introduction of Hanoi city and Hanoi capital region

2.1.1. Briefly history development of Hanoi city and Hanoi capital region

Hanoi capital city, also known as another ancient name Thang Long meaning the flying off of dragon that illustrated an image of the geography curve of Red River part flowing through this bank area, was built and be chosen as Vietnam capital in 1010 by the emperor Ly Cong Uan (Ly dynasty). Throughout 1000 years over many dynasties, wars as well as developing and expanding periods, Hanoi is still being capital of Socialist Republic of Vietnam. With its long history culture and conveniently physical natural and politic conditions, Hanoi is considered as a most important urban centre in Vietnam, as mentioned in the decree 15NQ/TW of Politic ministry in 15/12/2000 “*Hanoi is a national heart, a politic and administrative brain of Vietnam, a greatest national centre of culture, science, education, economy and international connection*”. It has a great influent and attractive developing to local provinces, region, nation as well as international area.

Hanoi's map throughout several dynasties

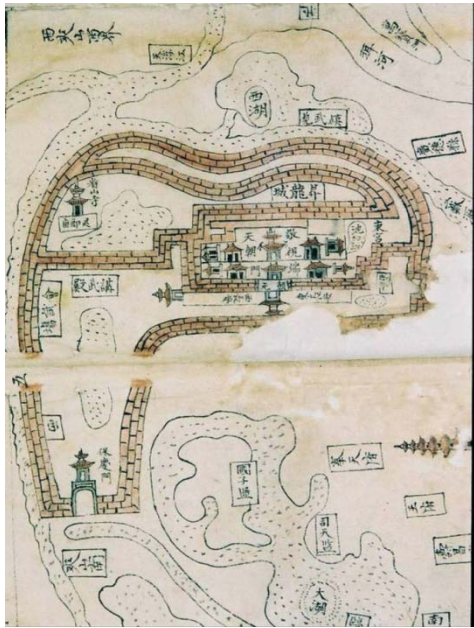


Figure 10: Hanoi in Ly dynasty (12th century)

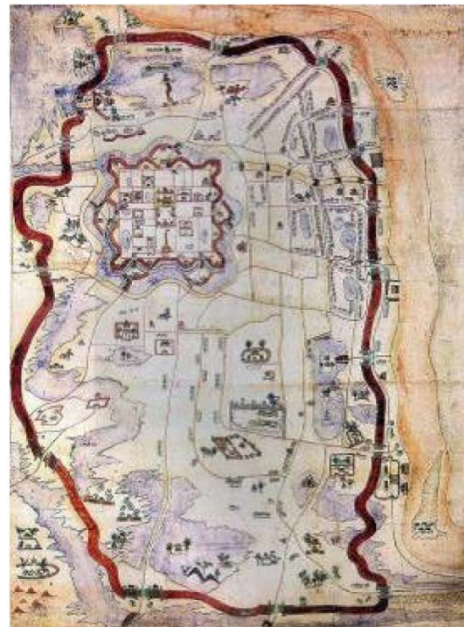


Figure 11: Hanoi in the early of 19th century



— Ly, Tran, Mac dynasties (12th, 13th, 16th century)

— expanded Hanoi in Mac dynasty (1580s)

— new compact Hanoi castle in Trinh dynasty (1740s)

Figure 12: Comparing ancient Hanoi area through several dynasties

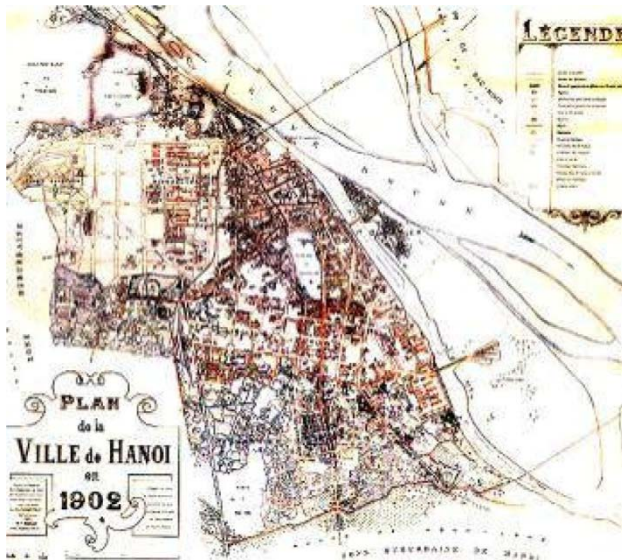


Figure 13: Hanoi in 1902



Figure 14: Hanoi in 1943

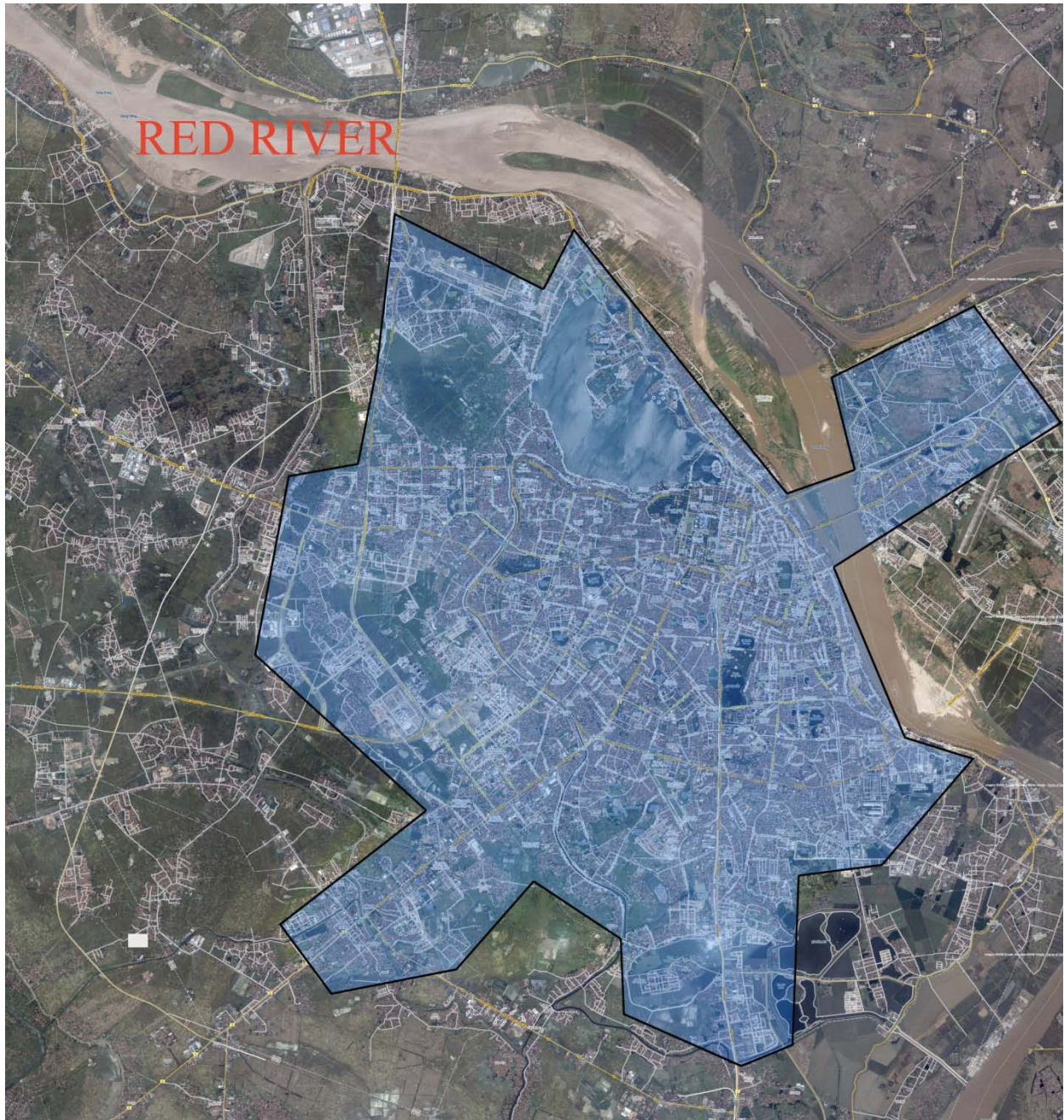


Figure 15: Satellite map of Hanoi core area stitched together from Google Maps (2008)

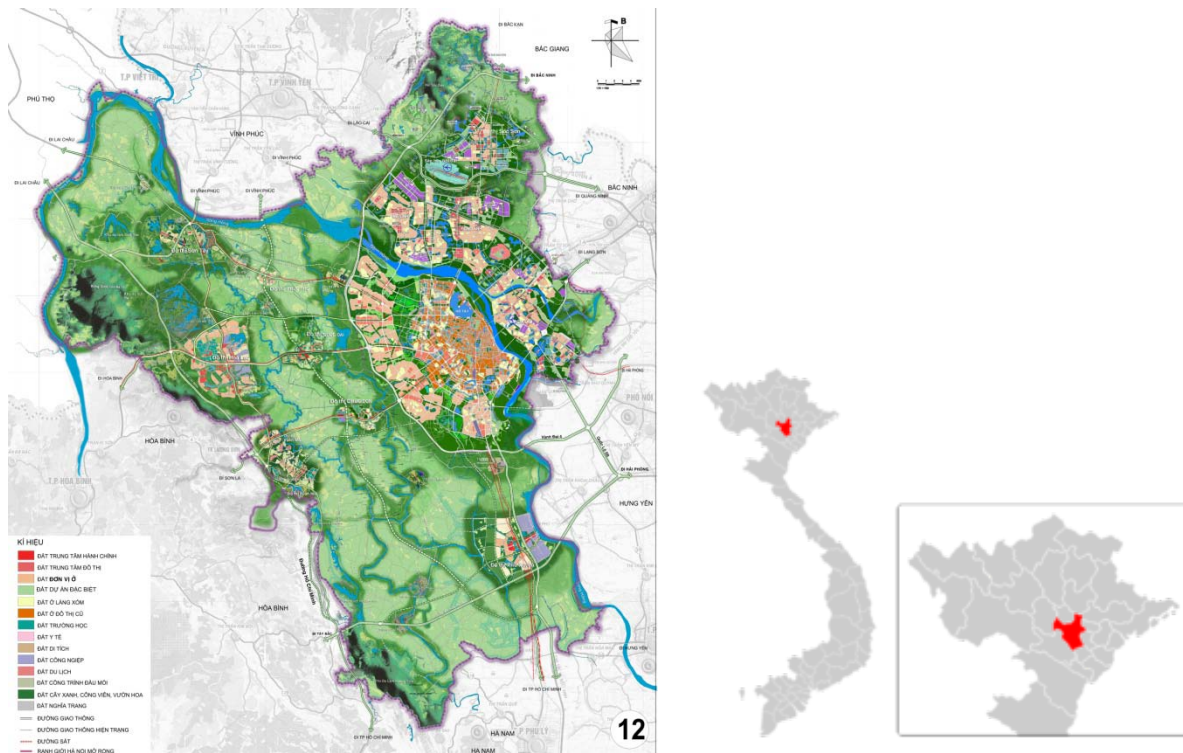


Figure 16: Hanoi with new administrative boundary in 2010

Due to the high rapidly development of urbanization transformation from Hanoi city to around local provinces and vice versa, the need of expanding transport system, the demand of connection for education, culture, economy exchange, job opportunity, all provinces located in Hanoi capital region grew spontaneously by the impact from Hanoi capital and have been being a role as orbit provinces supporting for Hanoi province development since 1990s. There were a lot of created industrial areas and from new small towns to medium and large cities that support to Hanoi capital. However, until 2000, there was the first study and research agenda held and organized by Ministry of Construction for the planning of Hanoi Capital Region. The administrative boundary shape of this region was announced in the decree 118/2003/QD-TTg by Vietnamese Prime Minister in 2003 and Hanoi capital region was created legally following this decree. In 2008, the legal basis and premise for the development planning of the whole region approved and accepted by the decree 490/QD-TTg that emphasized and indicated the need of suitable plan for Hanoi Capital Region to 2030 and vision to 2050.

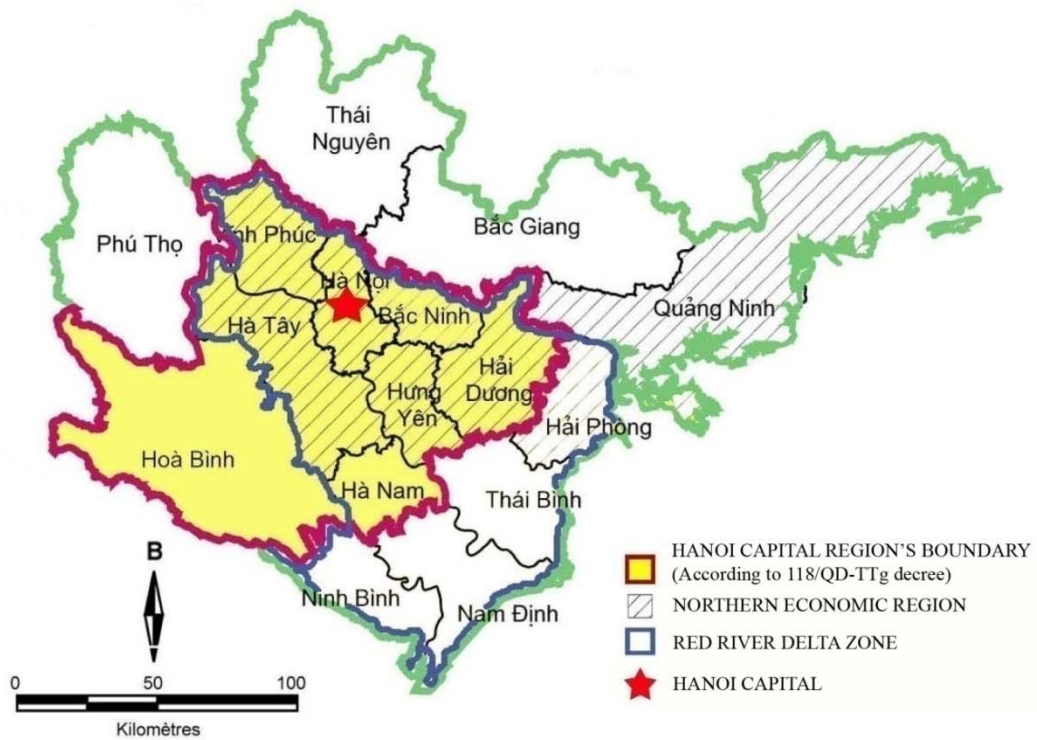
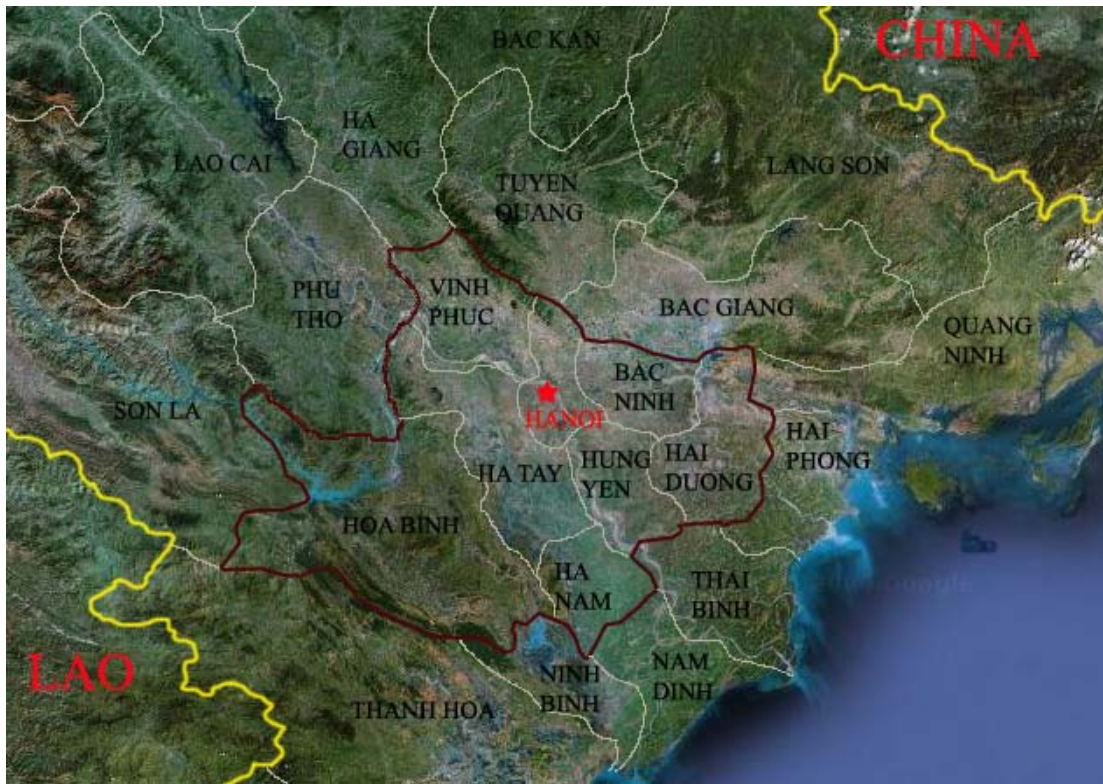


Figure 17: Administrative boundary of Hanoi Capital Region

2.1.2. The role of Hanoi capital region

HCR is considered as one of most strategic region that has a great influence not only with the development in Vietnam northern region, Red river delta zone but also with nation. Moreover, the rapidly increasing rate of urbanisation, especially, in Hanoi capital, has made HRC become as a strategic key in international competition lever such as South China area and other countries in APEC (Asia Pacific Economic Cooperation).

According to 118/2003/QD-TTg, Hanoi Capital Region (HRC) includes Hanoi and 7 around provinces, namely Ha Tay, Bac Ninh, Vinh Phuc, Hai Duong, Hung Yen, Hoa Binh, with total 13.436 square kilometers (equally to 4,06% Vietnamese square). In 2006, HRC population was 12.462 million (Vietnamese statistic data), among them was 3,261 million urban population. Figure 18 illustrates the visual comparing of area and population of HCR and others region in South East Asia, namely The South East Delta region in Vietnam, Bangkok Capital region in Thailand, Manila Capital region in Philippines and Yangon Region in Myanmar. As can be seen that Hanoi capital region has a quite large area, high population but average inhabitant density in comparing with other regions

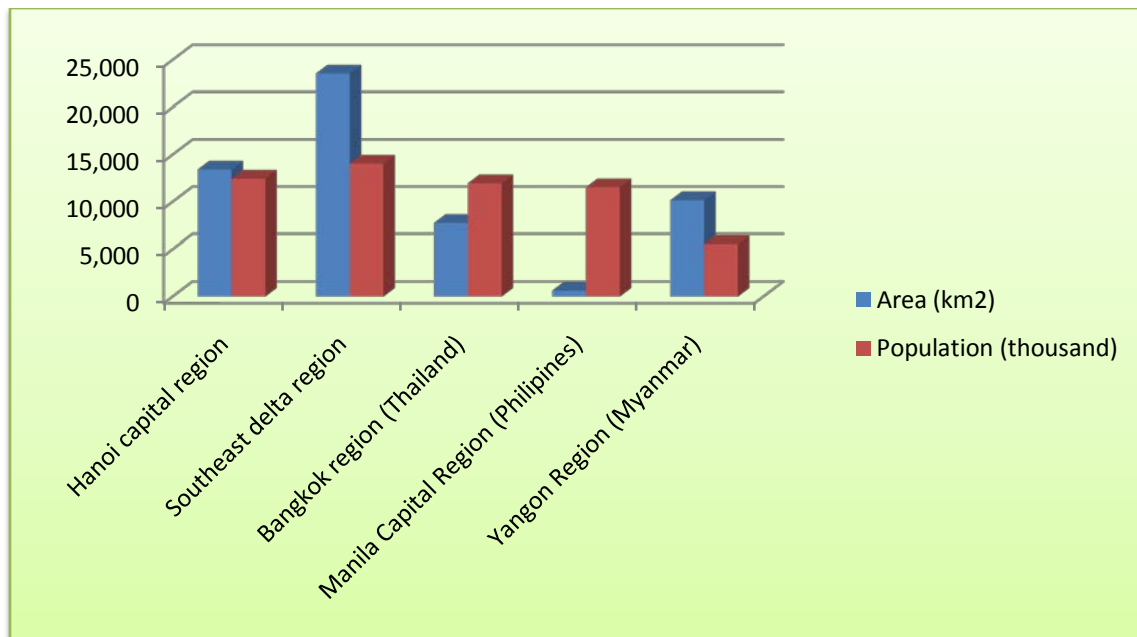


Figure 18: Comparing area and population of HCR and other regions in South East Asia

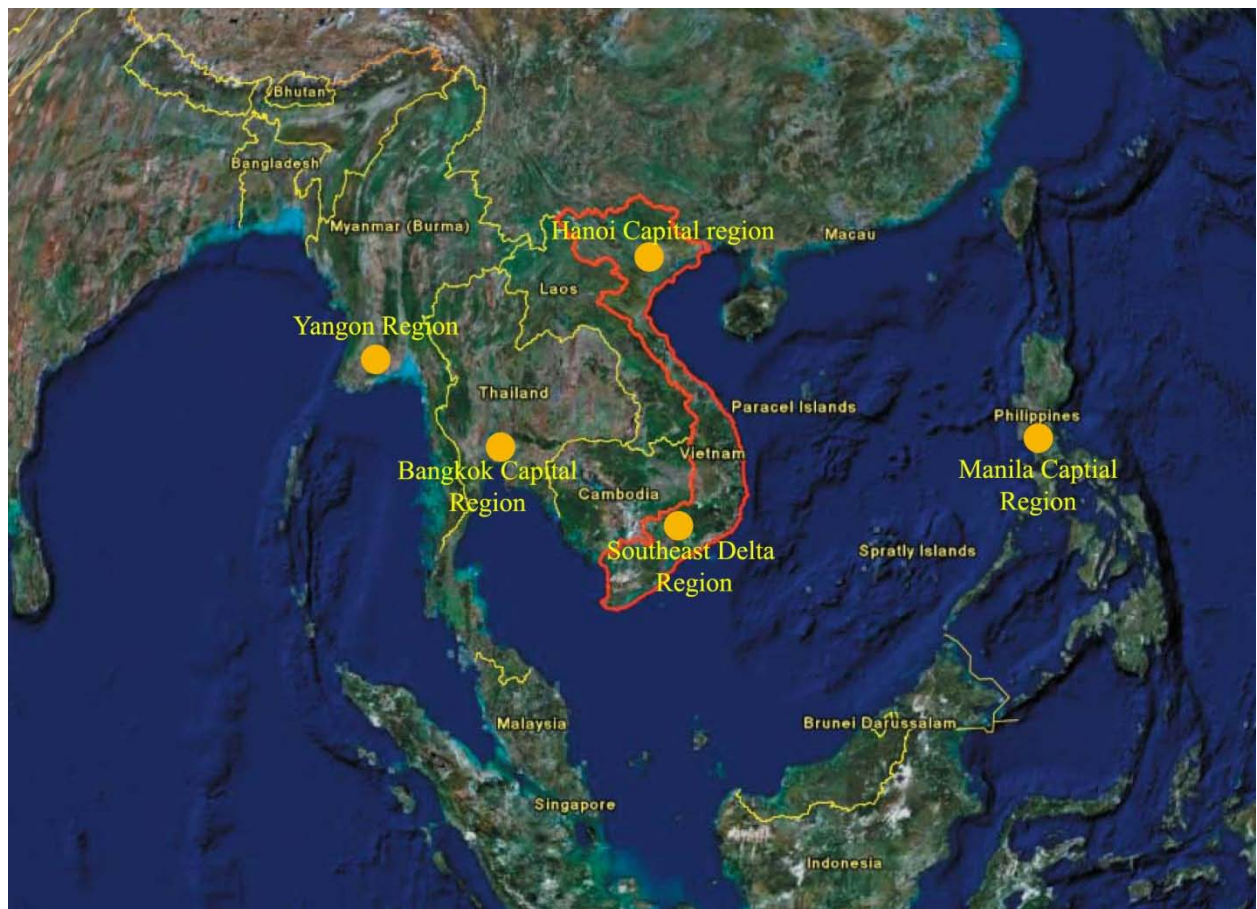
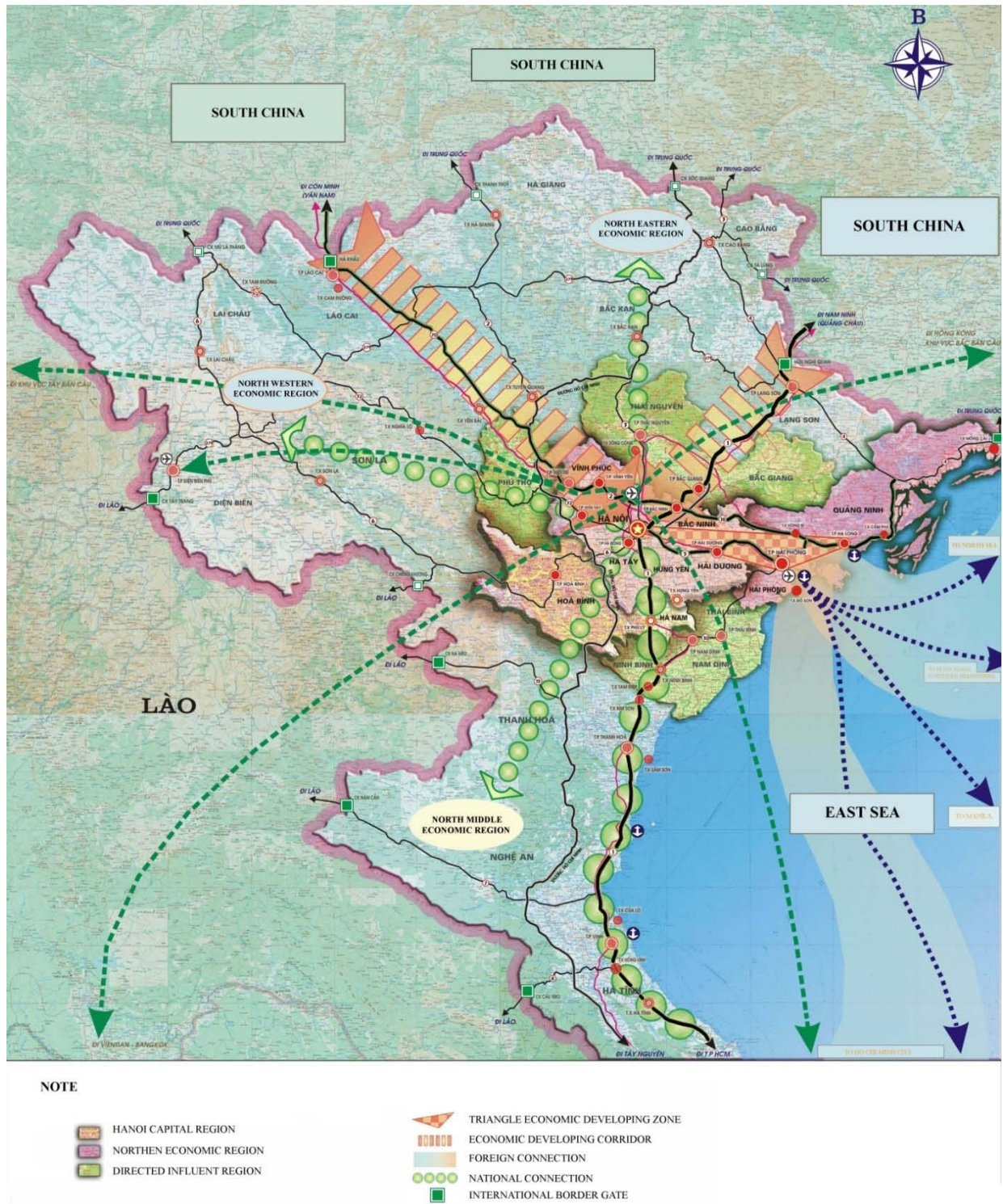


Figure 19: Vietnam and Hanoi capital region in South East Asia

In Vietnam north region, HRC obviously has an important role as a leader, locomotive or even as a catalyst for the social as well as economic development with neighbour provinces. As can be seen in figure 20, the influential range impact of HRC can cover with radius 100-150 kilometres, including 8 other provinces: there are Hai Phong and Quang Ninh on the east side that are two important sea port provinces of Vietnam Northern region; there are Thai Nguyen, Bac Giang and Phu Tho on the north direction as 3 main industrial provinces; and 3 provinces left are included in Red river delta zone, namely Nam Dinh, Thai Binh, Ninh Binh. In vice versa, those neighbour provinces also have a mutual effect with the forecast of the development of HRC (see figure 20).

In recent years, as the increasing of globalization effect, each country has to adapt, reorganize, renovate as well as improve, enhance its competitiveness, co-operation and mutual

relationship with others, thus Vietnam is also not an exception. Located in South East Asia, Vietnam is contributing significantly to the development and prosperity of this zone (see figure 20). The renovation process since 1980s has brought to Vietnam new face and a driving force to become of the highest rate developing country in region (as mentioned in IMF statistic, the developing rate of Vietnam GDP in 2007 and 2008 were 7% and 8% respectively). The economic developing rate of Vietnam is mainly based on huge and continuous export goods. Therefore, the South East Asia region, APEC (Asia Pacific Economic Cooperation) zone and South China area are all have an important role with the growth, wealthy and modernization in Vietnam. By joining WTO (World Trade Organization), Vietnam has a strategic position in expanding, synthesizing and diversifying commercial actions in global aspect. Thus, as a locomotive and economic leader of North Vietnam region, HCR knows its responsibility and duty in increasing and stimulating the competitive capacity of whole Vietnam economy as well as international cooperation. Especially, in recent decades, HCR is a creating of strong economic relationship with South China area, (there are 2 economic corridors with South China, the first is Con Minh – Lao Cai – Hanoi – Hai Phong – Quang Ninh, and the second is Nam Ninh – Lang Son – Hanoi – Hai Phong – Quang Ninh), and the bow shaped economic of East Sea (as can be seen in figure 20).



(Source: regional economic relation – Ministry of construction, www.moc.gov.vn)

Figure 20: Regional Economic Relationship of Hanoi Capital Region

2.1.3. Recent master plans in Hanoi province and Hanoi capital region

Due to the important role of Hanoi capital province and Hanoi capital region, there is always a need of suitable comprehensive planning tools in order to ensure the province and regional development logically and rationally. Unfortunately, till now there is no deliberated master plan or regional planning for Hanoi Capital Region, except some master plans for Hanoi capital province. As mentioned in part 2.1.1, in 2008, the legal basis and premise for the development planning of the whole region approved and accepted by the decree 490/QD-TTg from Vietnamese Prime Minister that emphasized the need of suitable plan for Hanoi Capital Region to 2025 and vision to 2050, this decree also indicated some forecast as well as the general main tasks, targets, visions for regional growth based on the trend of economic development, industrialization and urbanization process in the whole province in recent years. Then the master plan making for regional spatial development was organized and researched by Vietnamese Ministry of Construction with the corporation with other ministries and other institutions, experts, however this planning is still *incomplete*. In contrast, there were several master plans for Hanoi capital since 1970s. Thus although there is no master plan for Hanoi capital, this part will describe briefly some master plans for Hanoi capital city in recent decades that can help to understand the development of urbanization process in Hanoi in order to illustrate the dynamic of creating Hanoi Capital Region (because all provinces located in Hanoi capital region grew spontaneously by the impact from Hanoi capital and have been being a role as orbit provinces supporting for Hanoi province development).

The documents, data and images of main recent master plan of Hanoi in this part are given by Architecture and Planning Department of Ministry of Construction.

Recent master plans of Hanoi city

- ***General plan for Hanoi province from 1960 – 1964:***

Planner & partner: Hanoi planning department and expert team from Soviet Union (headed by architect I.Anphiorov)

Main targets: making a master plan for Hanoi development in order to improve urban space for 1 million inhabitants with 2000 km² land area.

Scale: in 1960, Hanoi province had total 586.13 km² and 913,428 inhabitants (37 km² and 436,820 inhabitants in 4 inner districts; 549 km² and 449,608 inhabitants in 4 suburban districts)

Description: Based on the previous core city area, the master plan intended to expand Hanoi city mainly follow the South and West direction of Red River. The city would be in a shape of blades of a fan with main ring roads. It also intended to develop Gia Lam and Dong Anh area located in the north of Red River as orbit towns for Hanoi city. (see figure 21)

Problems and disadvantages: At this time, the master plan mainly focused on housing increasing, not mentioned on other social, economic, infrastructure, demographic factors etc. that could have a great impact on the development of city for future. Another reason that caused the stop of this master plan was due to the civil war in this period that made the government had to consider about another master plan which was more suitable for defence capacity of Hanoi capital province.

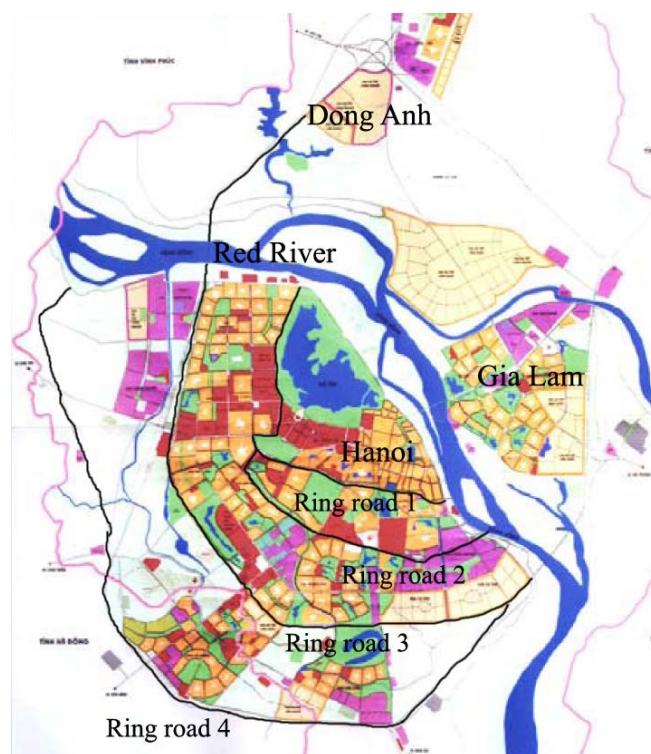


Figure 21: Hanoi planning in 1964

- ***General plan for Hanoi province from 1968 – 1974:***

Planner & partner: made by Architect Ministry and Hanoi Planning Institution.

Main targets: At this time, when the civil war became aggressively, Hanoi city was at extremely dangerous situation by the fierce of US air force, therefore the idea of dispersion Hanoi city by connecting with around province was considered. Thus, the new master plan was made in order to build the *dual Hanoi capital cities* following the defence reason.

Scale: Limiting the number inhabitant in old Hanoi city with only 400,000 inhabitants, while building another Hanoi city that had capacity in containing 600,000 inhabitants.

Description: this master plan intended to develop Hanoi as dual-pole by building a main highway connecting Hanoi and Vinh Phuc province, the new Hanoi city would be build in there. This new Hanoi city now becomes Vinh Yen city (see figure 22). The structure of new Hanoi city at this time was build based on the advantage of geography and terrain of Vinh Yen for defence reason. For example, it is located close to national forest and mountain on the west.

Problems and disadvantages: The master plan of dual city of Hanoi was considered and developed as temporary solution following government determination for defence reason, thus it was not suitable and match with a role of a capital as well as other urban context factor. In fact, this master plan had not been applied in reality due to the political conflict and the thread of war with China at this time (because China is on the north of Hanoi and Vietnam). Thus the government finally stopped this master plan in 1974 also by defence reason.

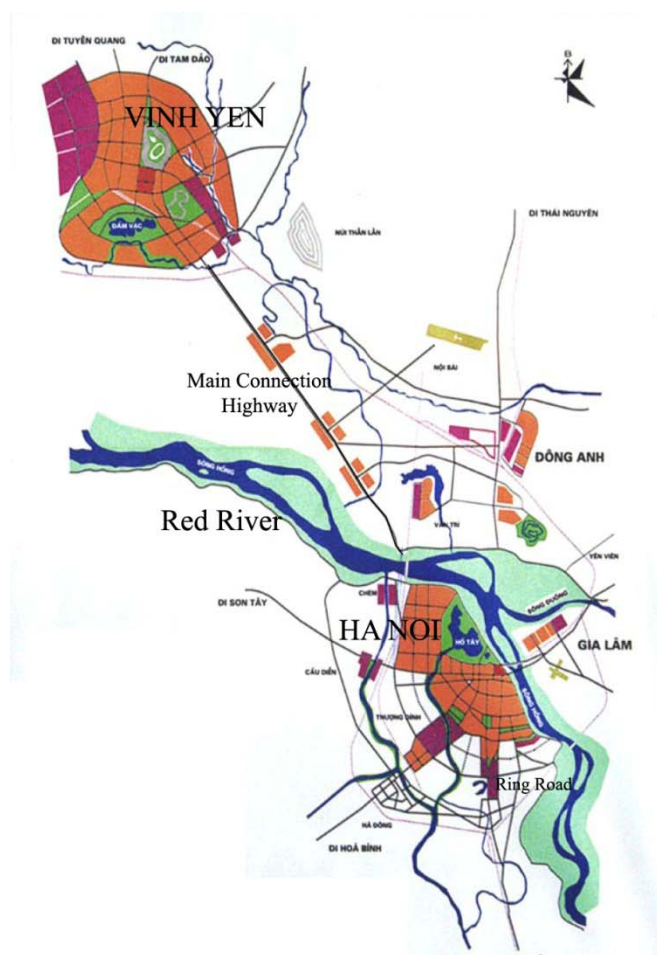


Figure 22: The dual Hanoi city of master plan in 1968 – 1974

- ***General plan for Hanoi province in 1981:***

Planner & partner: researched and planned by Construction Ministry and experts from Leningrad Planning Institution from Soviet Union. This master plan was approved by Prime Minister in 24-4-1982.

Main targets:

- 5 years after the end of civil war in 1976, the government intended to develop Hanoi capital as a city of locomotive leader for country.

- A war with China at the Northern border impacted the purpose of master plan for Hanoi province. The ideal of dual city in 1974 was rejected; Hanoi was developed as monopoly centre of the South of Red River, and was expanded to the South and West direction.

Scale: reducing the administrative boundary of city by giving back the merged land from Vinh Phuc and Ha Tay provinces (as mentioned in master plan in 1968 - 1974). Total Hanoi area was reduced to 927 km² and the master plan planned for Hanoi province till 2000 with 1.5 – 1.7 million inhabitants in inner city.

Description: According to the master plan in 1981, the inner city would be developed to contain for 1.5 million inhabitants with about 100 km² land area. Hanoi inner city would be expanded to South and West direction. Many new tenement house areas were built at this time to supply for housing demand of increasing city inhabitant. (see figure 24)

Beside the previous city centre located around Hoan Kiem Lake and old streets, the new city centre would be built and located around West Lake as showed in figure 23. The new centre frame was constituted by multi-ring surround West Lake. The first ring was green ring with many parks, green areas. Afterward, it would be the ring, the network of urban area (administrative offices, housing area, hospital, etc.) which was designed centripetally and run along the periphery of West Lake as the blade of fan in shape with different ring road and belt highway. Total inner city land area might be about 100 km².

Problems and disadvantages:

The master plan of Hanoi in 1981 had a quite good planning structure with some advantages such as matching with geography feature (by using West Lake characters and its convenient border path).

However, this master plan still had some problems. For example, it mainly focused on the housing demand to meet with the increasing of inhabitants, but not mentioned or considered carefully with other factors such as the effect of market economy trend or social trend etc. Therefore, this master plan might be fail due to the weak management of city committee that made the quality of projects in new centre very low or lack of budget. The other reasons might be the habit of local people that they preferred to live near old street centre (around Hoan Kiem Lake) and the slow expansion trend to the south direction by city sprawl phenomenon.

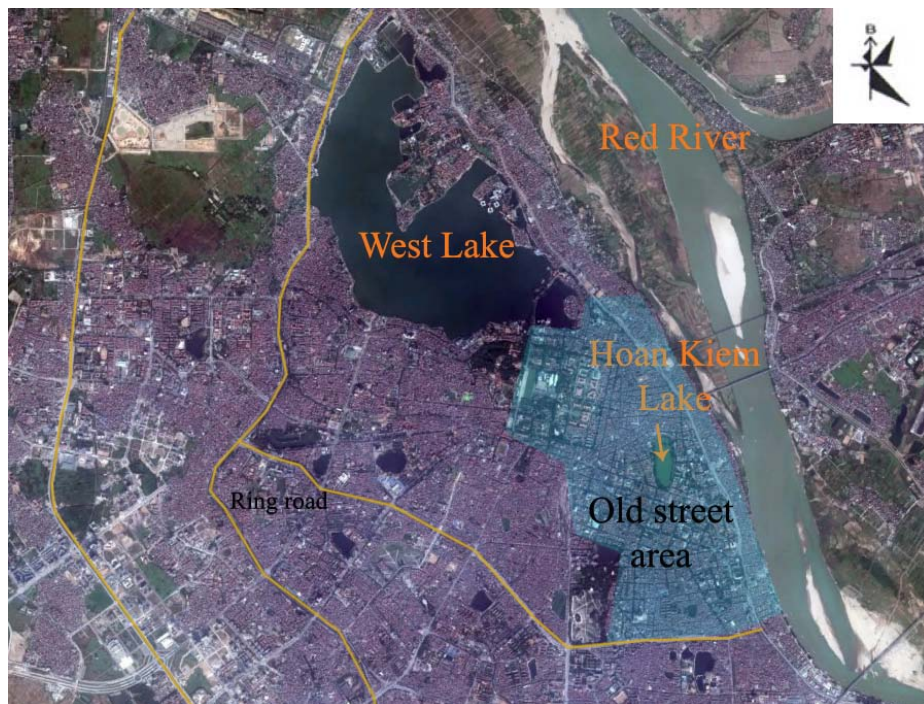
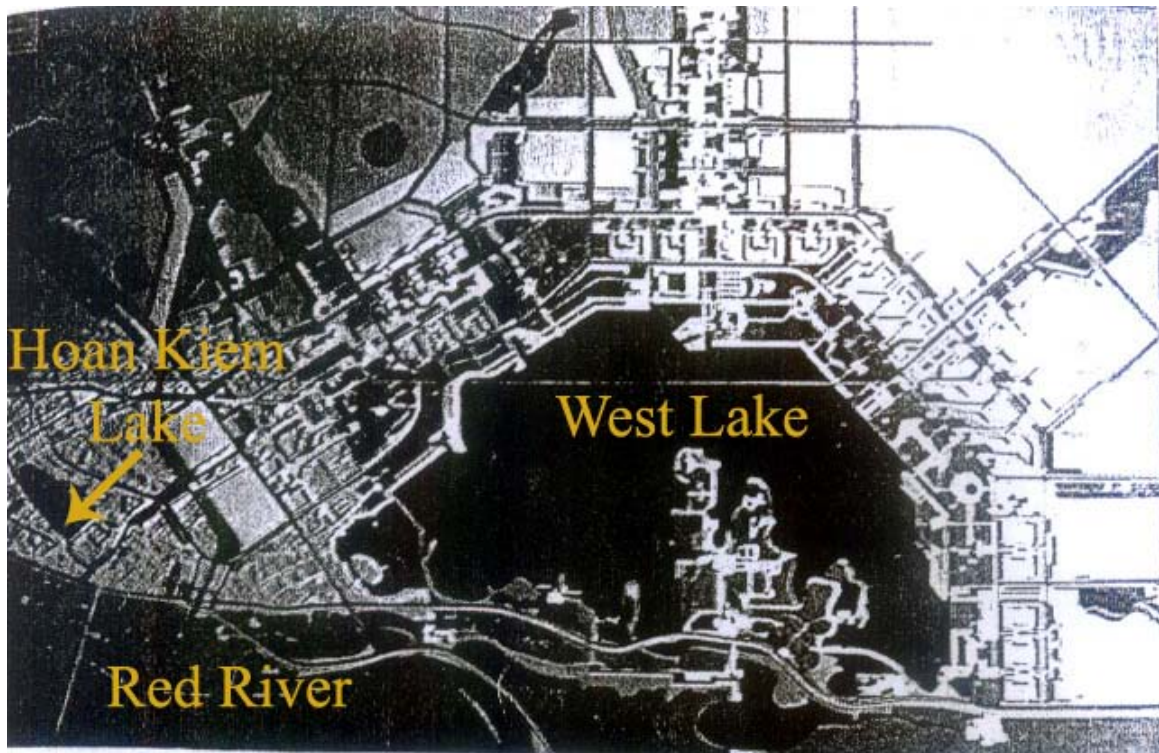


Figure 23: Hanoi general master plan in 1981



Figure 24: Old tenement house build since 80s

- ***General plan for Hanoi province in 1992:***

Planner & partner: researched and planed by Construction Ministry and Hanoi Planning Institution.

Main targets: the need and demand of researching and editing the master plan for Hanoi Capital city in the new period (when the government decided to transform the economy mechanism from subsidized economy to market economy in 1988 that brought about the driving force to the economy that as a result, also created a dynamic transformation with a new face to urban context of Hanoi Capital). Therefore, the new master plan was made in order to improve and transform Hanoi urban space to be corresponding with its role as a capital, a leading city of Vietnam to 2010

Scale: The master plan indicated that Hanoi city would be continuing to the South direction of Red River with the inner population would be: 1.3 – 1.5 million inhabitants in 2000, and about 1.5 - 2 million inhabitants in 2010. The average living land in 2010 would be about 42.7m²/person. The total used land would be about 7,600 – 9,000 ha and the spare land would be about 120 km² area.

Description: Similarly to the master plan in 1982, the master plan in 1992 also intended to develop the inner city structure, network follow as the blade of fan in shape with multi rings of

centripetal urban areas from the city centre to the South direction of Red River. However, the difference was that the master plan in 1992 indicated and reconfirmed the centre of Hanoi was located at Hoan Kiem Lake and its surround old streets area, not at West Lake as in the master plan in 1982 (see figure 25). The urban expansion to West Lake zone would be step by step developed in future. In addition, this master plan also forecasted and indicated the new trend of urban expansion, urban sprawl to the North direction (also the North of Red River) as the impact of huge investment to Capital city that many new urban areas would be created following the creation of new industrial district located in there.

Problems and disadvantages:

The master plan of Hanoi in 1992 had some problems such as:

- The researched scope still focused in the micro lever (only the inner and inner edge area of Hanoi) not in the macro scale (the relation of Hanoi with suburban area, other provinces or region).
- Not estimating or forecasting clearly the social economic development, trend and its impacts in the urbanization process.
- Not attaching with the market economy as well as international master plan experience for a developing city as Hanoi
- Not indicating the relation with some huge strategy project at local such as the international airport Noi Bai located in the North, the main harbour Cai Lan in the East, and other main highways.
- Not consideration carefully on the improvement for urban condition of Hanoi inner area.

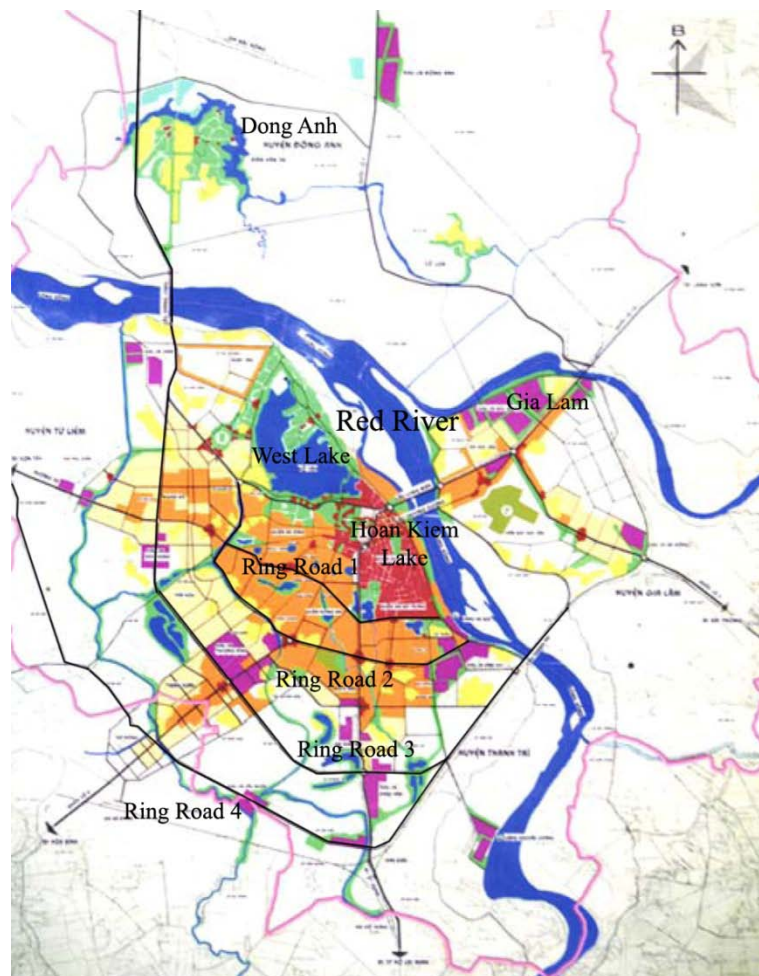


Figure 25: Hanoi general master plan to 2010 in 1992

- **General plan for Hanoi province in 1998:**

Planner & partner: researched and planed by Construction Ministry and Hanoi Planning Institution.

Main targets: In 20/06/1998, the decree 108/1998/QD-TTg was approved by Prime Minister for general master plan of Hanoi to 2010 and 2020 and is considered the most effective master plan till now. The main purpose of this master plan was to determine the special role of Hanoi capital in the general urban developed orientation in Vietnam by enhancing the strong urbanization and modernization process in order to become the political, economic, commercial, cultural, technology capital centre with ensuring national defence.

Scale: The master plan in 1998 forecasted and indicated some norms for Hanoi development as below:

- Used land per person would be increased through time: in inner city would be about 60 m²/inhabitant in 2000, 80 m²/inhabitant in 2010 and 100 m²/inhabitant in 2020 (total used land about 25,000 ha); in suburban area would be about 80 m²/inhabitant in 2000, 100 m²/inhabitant in 2010 and 120 m²/inhabitant in 2020. Transportation land area would be about 25 m²/person, while sport, green area about 18 m²/person, public space about 5 m²/person.

- Total population about 4.5 – 5 million inhabitants (inner city about 2,5 million inhabitants)

Description: This master plan oriented Hanoi development in future (to 2020) both at 2 side banks of the Red River (see figure 26). A new expansion Hanoi city located along 2 side banks of Red River was considered and researched which included both previous Hanoi inner city area and new urban area. The projects of building 8 new bridges crossing Red River to support for the idea of the city at 2 side banks of Red River (this idea was developed follow the successful international experience of Seoul Capital city in Korea). In addition, by orienting the urbanization process to North and mainly to South West direction, about 70 new urban areas were built in order to reduce the high pressure of housing to serve for the rapid increasing of population at this time. These new urban areas would be located along the new main highway that could support for Hanoi expansion.

Moreover, the master plan in 1998 also indicated and oriented the detail planning and edited, improvement plan for each districts, suburban district such as the plan of conservation of old streets area (located surround Hoan Kiem Lake), new urban areas around West Lake which in particular, was continuing the idea of master plan in 1982 and 1992 mentioned above.

Problems and disadvantages:

- The master plan of Hanoi in 1998 proposed a huge mission with numerous projects and planning that might be done within only 20 years (from 2000 to 2020), therefore in reality, till now, it is difficult to achieve or complete this master plan targets because the limited capacity of construction and budget, the weakness of government administrative management etc. that made its objectives impossible to be completed.

- The master plan focused on the city development and land using, while little focused on the living conditions, urban quality, environment effect, or the solution for decreasing the high density of Hanoi inner area.

- There are also other negative problems such as the development of industrial areas in suburban area were scattered and not concentrated, or the perimeter highway system was not completed and its function now is transforming from highway for transport function into highway for urbanization function (see more in part 2.2.4, existing condition of transportation system).

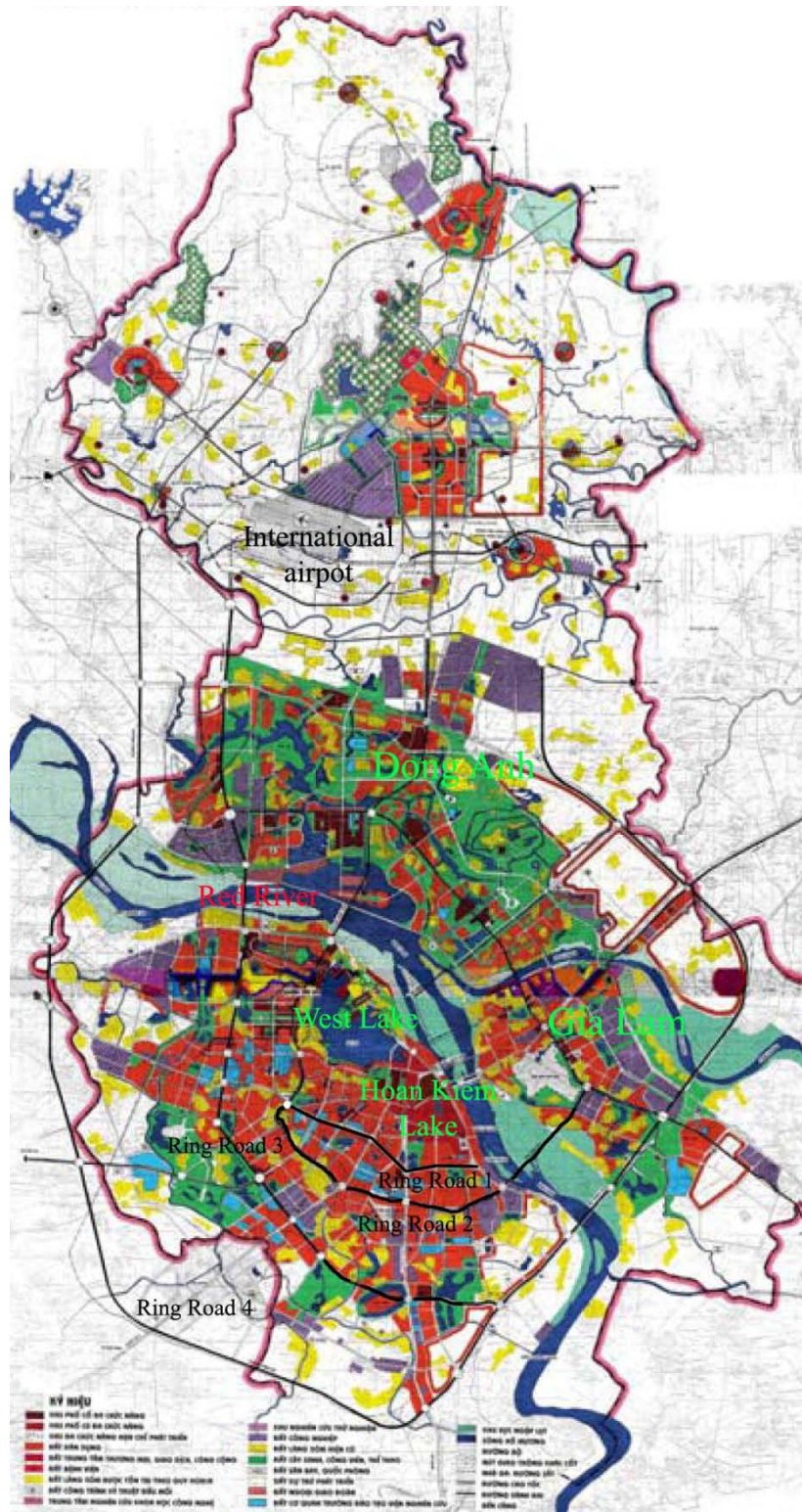


Figure 26: Hanoi's general master plan to 2020 in 1998

- ***General plan for Hanoi province in 2010:***

Hanoi's master plan in 2010: In 2010, a new master plan for Hanoi capital was created by Ministry of Construction with the participation of some planning consultant company and other institutions, experts. The main purpose of this master plan continued the main target of master plan 1998 that is to enhance and improve the role of Hanoi capital in the national general development. Hanoi master plan to 2030 and vision to 2050 indicated that Hanoi will be the modern city with high competition capacity, strong economic environment and high service in order to serve for nation and international level, while keeping the sustainable development for urban context, environment and infrastructure system to ensure the better living conditions for Hanoi citizen that may reach to 10 million inhabitants in 2030 and 14 million inhabitant in 2050, maintaining and preserving the culture and history to make city's characters. In order to achieve these targets, to serve the high rapid of increasing of population with sustainable development, the master plan tend to expand the administrative of Hanoi capital in order to create the expanded core city are combining with 5 orbit urban areas connecting by new highway. The core city and 5 new urban orbit areas were separated by the green corridor which has a function as harmonizing environment area and conservation zone (see figure 27). In addition, the master plan also emphasizes the role waterway transport in Red River with 2 developed criteria: modernization and ecology. The Red River part which crosses the city should be considered as main spatial centre of Hanoi. This master plan was public widely in order to collect the feedback from all related institution, experts and even citizens.

However, till now, the new master plan for Hanoi city to 2030 and vision to 2050 is still in the progress of waiting for the assessment by Vietnam Prime Minister, and can be official approved and applied in 2011. Therefore, I will not analyse the description as well as the advantages and disadvantages of this master plan in this part.

QUY HOẠCH CHUNG XÂY DỰNG THỦ ĐÔ HÀ NỘI ĐẾN NĂM 2030 VÀ TẦM NHÌN ĐẾN 2050
The Hanoi capital construction master plan to 2030 and vision to 2050

ĐỊNH HƯỚNG PHÁT TRIỂN KHÔNG GIAN

Spatial development orientation

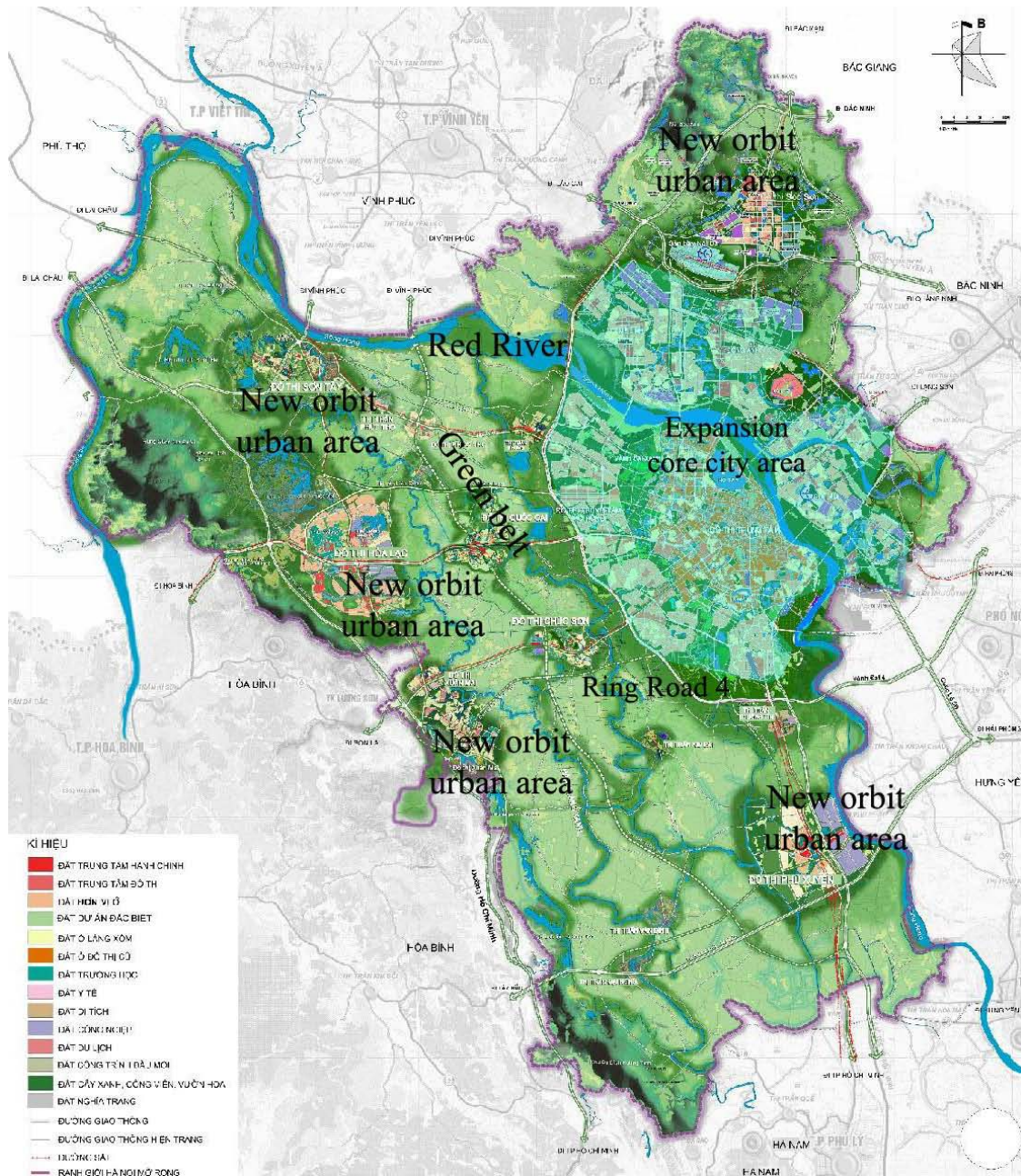


Figure 27: Hanoi master plan to 2030 and vision to 2050 in 2010

2.1.4. Political structure of Hanoi Capital Region's management

As mention in Part 2.1.1, the decree 118/2003/QD-TTg by Vietnamese Prime Minister in 2003 announced the legal foundation of Hanoi Capital Region with its administrative boundary and also created the HCR's Regional Steering Committee of planning and construction investment which has functions and authorities as below:

- Guiding and managing planning and construction investment regional projects within Hanoi Capital Region.
- Assessing and proposing structure, solution for executing process of planning and construction investment in HCR. Planning and investment proposes must be submitted to Prime Minister, the decisions are approved or delegated by Prime Minister.
- Supervising and responding to the implementation of planning and construction investment of related Minister, Branch as well as State Committee of Hanoi and other provinces in HCR in order to make the decision in solving region problems.
- Organizing workshops, meetings in order to cooperate with related institutions, organizations, experts in nation and international to research and study comprehensive planning tools and investment management method for Hanoi Capital Region's development.

This Region Steering Committee's board members represent for Vietnam government and other related Ministries, provinces:

- Committee director: Vietnam Government Deputy Prime Minister
- Committee vice director: Minister of Construction and Minister of Transport of Vietnam.
- Other Committee members:
 - Deputy Minister of Planning and Investment
 - Deputy Minister of Finance
 - Deputy Minister of Defense
 - Deputy Minister of Industry and Trade
 - Deputy Minister of Natural Resource and Environment
 - Deputy Minister of Agriculture and Rural development

- Deputy director of Vietnam government office
- Deputy Director of State Committee of each province of Hanoi Capital Region (Hanoi, Ha Tay, Hoa Binh, Bac Ninh, Vinh Phuc, Hung Yen, Ha Nam, Hai Duong)

The Regional Steering Committee meeting is organized 1 time per year to revise regional development situation and to find solution to deal with problems. In order to help for the more effective function of the Committee and the regional management of Deputy Prime Minister, the decree 118/2003/QD-TTg also approved the creation of Regional Steering Office with Deputy Minister of Construction as a Director of this office. Therefore, Ministry of Construction also has a responsibility to propose and cooperate in the process of making and developing region planning. The structure of Regional Steering Committee can be showed as below:

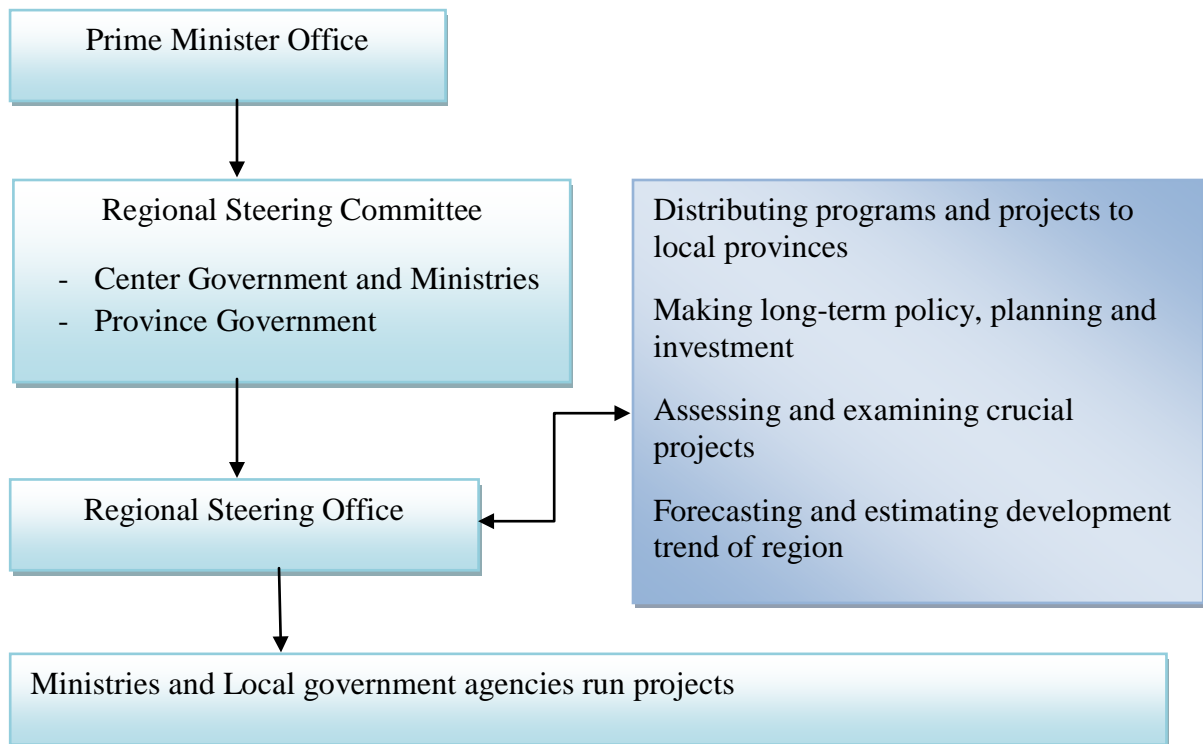


Figure 28: Political structure of regional management

2.1.5. Regional inadequate issues and the need, call of suitable strategic planning for regional development

Since 1986, the first year of applying renovation policy of Vietnam government in economic development by changing from subsidized economy to market economy with communist orientation, Hanoi in particular and Hanoi Capital Region in general has had a significant sharp jump. Economic and social, political structure has a positive in change, the rate of industrial GDP increases rapidly, whereas the rate of service field holds a high ratio in total GDP, the pace of economy and social quality improvement is high and stable, the investment hoard from inside and outside is much more accumulated, the competitive ability is enhancing.

However, beside the high rate of development, there are still many inadequate and insufficient issues, for example:

- Many main constructions, projects that are created by local demand and developed solely but without any framework, or not match with orientation guidelines and developing trend as well as overview vision of whole region. Some projects were proposed some years ago and but now are inadequate and suspended leading to many abandon areas. Or the new urban areas without planning are emerging and developing along the main highway. These un-deliberated consideration and researching construction undermines urban landscape and the outcome now is lead to the extremely fragmentation of spatial urban context.
- The negative impacts of running follow the demand of improving and attracting construction investment without deliberated consideration leads to a negative image in shape of Hanoi region. For example, at the main gates and ways leading into Hanoi city with a lot of industrial areas, factories that emerges a “bottle neck” circumstance.
- In addition, the threat of pollution and environment degrading in recent years raise an alarm for government tier’s management for finding the effective policy in order to preserve natural resource and protect environment as well as ecology balance in whole region, especially in urban core city and in industrial districts.
- The infrastructure system including technique infrastructure (such as transport system, water supply and drainage, power supply etc.) and social infrastructure (such

as market, school, hospital etc.), the quality and diversity of service industry are still very low, unbalance, insufficient and fragmented. These systems are not synchronous and mutually connected because spatial construction is still based on short term and local demand, developed separately thus not match with the overall long term planning of whole region. As a result, the province connection is very low and not appropriate with the rate of regional development, lead to the overload of some urban area (especially Hanoi city).

In considering of these ineffective and fragmented spatial constructions and infrastructure systems above, some reasons are now certificated, mainly:

- Firstly, there is lack of the connection and cooperation of inter-politic, inter-administrative structure management of different ministries and regional government for HCR. The Region Steering Committee, however, has only 1 meeting per year to make general decisions for region development. While the development of region in recent year is very fast and are more and more complex with many new problems emerging that need immediate solution. Moreover, as mention in part 2.1.3, there are still no official and comprehensive general planning to guide or provide orientation for regional, province urban development. Therefore, the Committee cannot manage all the ton of regional issues and its decisions in some cases were late or not match in time with the reality situation. Thus, province governments still have to respond mostly for local development and their urban problems that lead to the fragmentation of urban spatial context.
- Secondly, many investment projects were proposed inactively for the demand of local province and approved in case of no strategic planning for the spatial development of whole region. Some approved projects also hint an irresponsibility or even corruption of state leaders, or lack of sufficient and effective management tools due to the absence of comprehensive framework activity orientation.
- Thirdly, there is still no precise forecast, lack of technical approach and deliberated evaluation, researching and investigation for the urban development issues of region such as the growth of population, the trend of spatial developing of urban context

(such as the function of new urban areas, the demand of expanding transportation system, the requirement of infrastructure and service for the new urban growing etc.) that leads to the big gap between reality and land regulation research.

As a result, there is an obvious need and call of science, suitable planning for the development of HRC in future to match with some missions below:

- Studying and selecting the main crucial targets for the spatial development of HCR
- Evaluating the real overview of existed condition, the advantage source and disadvantage issues of regional growth
- Evaluating and forecasting the cap of scale for regional development: population, labour and urbanization trend.
- Proposing developing orientation planning for urban zone system as well as rural region with effective use of land planning, urban space and main spatial development direction
- Considering deliberately for the horizontal regional construction of infrastructure system and environmental protection, improvement issues.
- Creating and framing the regional institutional activity and management

In consequence, as my view presented in this thesis, in studying about modern strategic spatial planning with its characters and advantaged methodology, its capacity of how and what in change for urban context development, I consider that strategic spatial planning is one of the most appropriated planning in coping with the uncertain direction of spatial developing and in applying for HRC arising to achieve greater national and international invisibility for its locates.

2.2. Real status and existing conditions of urban context of Hanoi capital region

New strategic planning ‘creates’ a future environment, but all decisions are made in the present...This ‘created future’ has to be placed within a specific and changing local and global-context (economic, social, political, cultural and power), place, time... It takes a critical view of the environment in terms of determining strengths and weaknesses in the context of opportunities and threats...It analyses problems, external trends, forces and resources available”. Therefore,

the first and very important main task before making strategic planning decision for city-region is that the planners have to scanning the environment (strengths and weakness, opportunities and threat, challenges) conditions and external trend, forces and resources available of this place. In this thesis, this part will mainly focus on the analyzing of existing conditions of Hanoi capital region which can influent and can be used for strategic spatial development planning for its region future vision. Figure 29 shows in detail the whole status quo of HCR's spatial diversity in term of terrain and land type using, urban, rural and forest are as well as industrial zone, and main highway (*source: Architecture and Urban planning Institution, Ministry of Construction, 2008*).

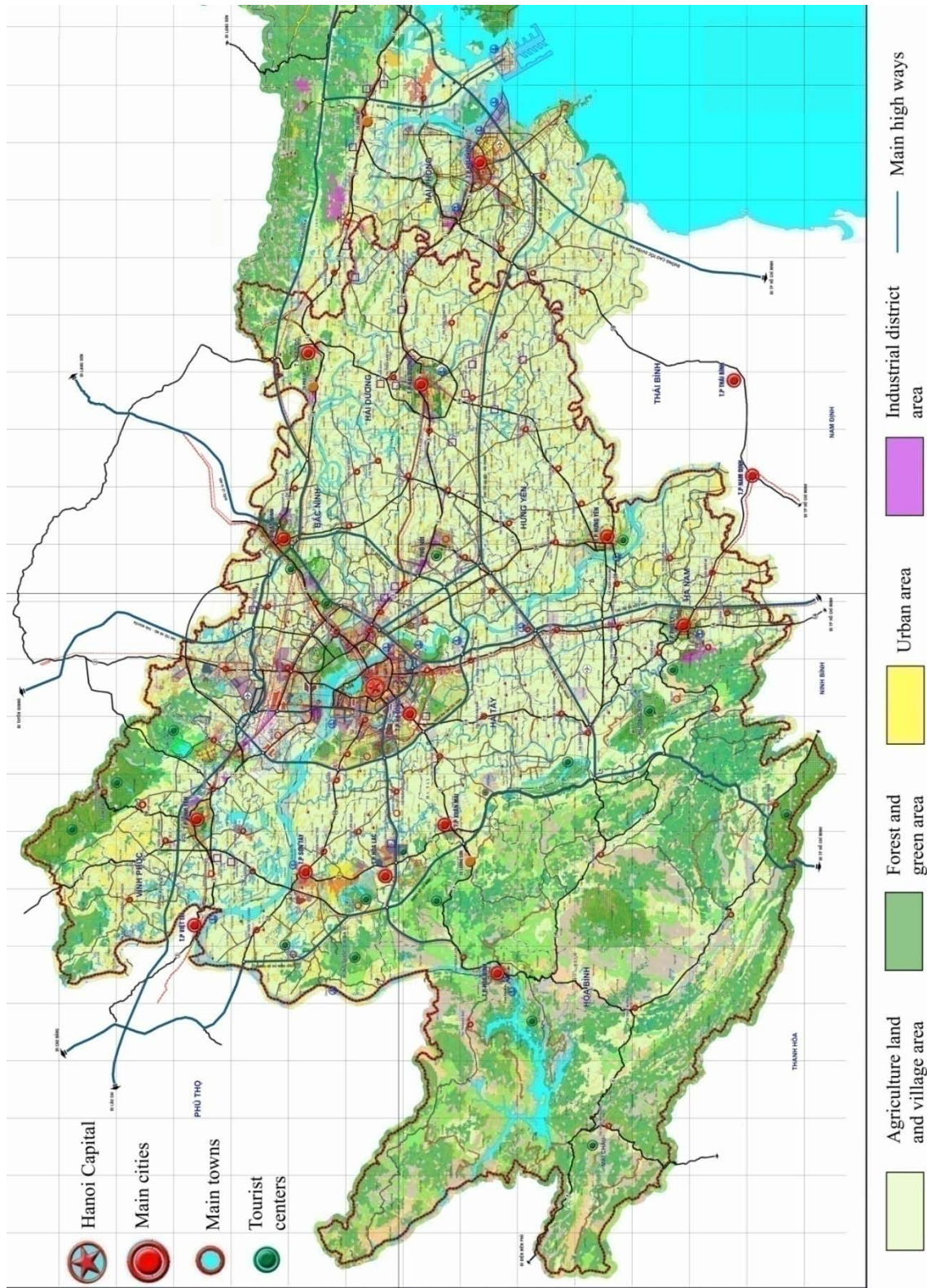


Figure 29: Maps of status quo of Hanoi capital region's context

2.2.1. Researching area and targets of Hanoi capital regional's spatial planning

According to Albrechts, there are 2 dimensions of spatial planning: *the carrying capacity and the quality*. The first is about the capacity of space to absorb, now and in the future, human activities without crossing the boundaries of spatial functioning. Capacity is linked to a place, a situation and sometimes to time. Therefore, for the first dimension, in this thesis, it will analyze some the condition of physical and natural conditions of region as well as the conditions of urbanization and economy activities within this region. The second dimension is about that spatial quality has everything to do with the valuation of the space. Spatial quality is not only determined by the characteristics and the capacity of the space in se. The valuation of the space is also determined by the involvement of those who evaluate and live within it (residents, target group, community, etc.). Thus, the second dimension will be analyzed based on the existing liveable conditions such as infrastructure, transport system and environment condition in this region.

The main target of HCR's strategic spatial planning is to pursuit the sustainable of spatial development lied at the basis social-economical development and environmental protection for not only the growing of Hanoi capital province but also for the whole comprehensive improving of neighbour provinces within HCR. That kind of target will be used as a legal premise, foundation for future regulated administrative management of region spatial construction and master planning, projects in each province, city within region.

2.2.2. Physical and natural conditions

This part will summary the physical and natural conditions such as square area, territorial topography, river system etc. that effect the overall land use regulation, and spatial structure of HCR.

Hanoi capital region includes 8 provinces: Hanoi, Ha Tay, Bac Ninh, Vinh Phuc, Hai Duong, Hung Yen, Hoa Binh (see more in figure 17). The total natural square area is 13373 km² with 3 main types of terrain (see figure 30):

- The delta region has 640.566 hectare in square (47,9 % of total natural square area) with 2 main types: The low delta zone starts from Hanoi to the East direction through Hai Duong province and South region direction through Ha Nam, Hung Yen provinces. The altitude of this zone varies from 3 to 5 metre with numerous intersectional canals, rivers and ponds, lakes where there is the high density of population and a main concentrated area of rice-field of HRC. The high delta zone stretch from Hanoi through Bac Ninh, Vinh Phuc provinces to the North region with the altitude from 8 to 15 metres. Almost of all big cities and main economy, industry as well as agriculture activities are located in this region.
- The mountain region has 584.969 hectare in square (about 43.9 % of total natural square area) with 2 main types: the high mountain zone with the altitude varies from 600-1200 metres that makes the transport system is very limited and difficulty movement; the valley terrain zone is mainly located in Hoa Binh province wrapped by many high mountain chains.
- The midland region has a small ratio of square area with only 122.840 hectare in square (9.1 % of total natural square area) that scattered in Bac Ninh, Ha Tay, Hoa Binh. In this zone, there are many hills and low sloped delta areas. The altitude varies from 15-50 metres.

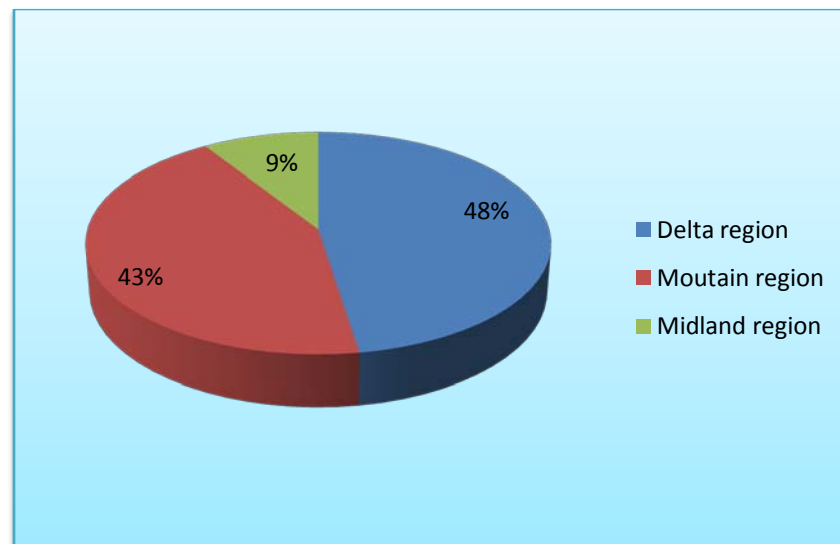


Figure 30: The proportion of 3 main terrains

In addition, in general, if consider the development history of most large cities in the world, it can be seen that almost all of them were located and developed near or beside the bank of large river system. With more than 1000 years of development history, Hanoi is not an exception. In HCR, there is a very complex river system and numerous lakes, pond, canal with 4 main large river systems, namely Red River, Da River, Thai Binh River and Day River. These river systems bring and supply a plentiful and unlimited surface water resource for agriculture, industrial and civic activities. Moreover, beside this, there is also a huge underground water reserve that can supply for civic activities. For example, now most of drinking water supply in Hanoi capital comes from underground water resource.

As a result, by dividing into 3 main types of terrain topography and the 4 main river systems, above, it can be seen that spatial distribution in HRC is basically suitable to terrain topography with 2 types of environment: the delta river zone located in the East and South region which concentrates high density of population and agriculture, industrial production; the mountain and hill zone located in West and North region covered by jungle in different lever and type (conservation forest and special productive forest that served for forestry industry, see more in table 1) and are still affected by human activities. In HCR, it also should be noticed that there are 3 national forests (Ba Vi forest in Ha Tay province, Tam Dao in Vinh Phuc province and Cuc Phuong forest in Hoa Binh province), 4 natural conservation areas (Thuong Tien, Pa Co, Phu Canh in Hoa Binh province, Pia Oac in Hung Yen) and 3 cultural - historical – environmental areas (Con Son – Kiep Bac in Hai Duong province, Huong Son in Ha Tay province and numerous lake islands in Hoa Binh province). Most of them are located in the mountain and hill zone.

Table 1 below shows the amount and percentage of different type of land use purposes. It can be seen the trend that the ratio of agriculture land use has been reducing through time (from 42,94 % in 2000 to 37,82 % in 2006) that reflexes the fact of transformation from agriculture economy to industrial economy in HCR. While the amount of forestry and living land use have been increasing that give the positive news of the effectiveness of forest conservation in recent years in this region. The increase amount of living land use also shows the hint of urbanization process is growing.

Type	In 2000 (km ²)	In 2003 (km ²)	In 2006 (km ²)
Total natural land square	13.375,08	13.375,08	13.436
1. Agriculture land square area	5.743	5.697,03	5.082
% comparing with total	42,94	42,71	37,82
2. Forestry land square area	2.666	2.764,95	3.157
% comparing with total	19,93	20,67	23,50
3. Living land square area	632	643	810,2
% comparing with total	4,73	4,81	6,03
4. Special land square area	1727	1.773	1.284,9
% comparing with total	12,91	13,26	9,56
5. Abandon and river land square area	2.607,08	2.481,32	3.101,9
% comparing with total	19,49	18,55	23,09

(Source: National statistic 2000, 2003, 2006)

Table 1.Land use assumption in Hanoi capital region

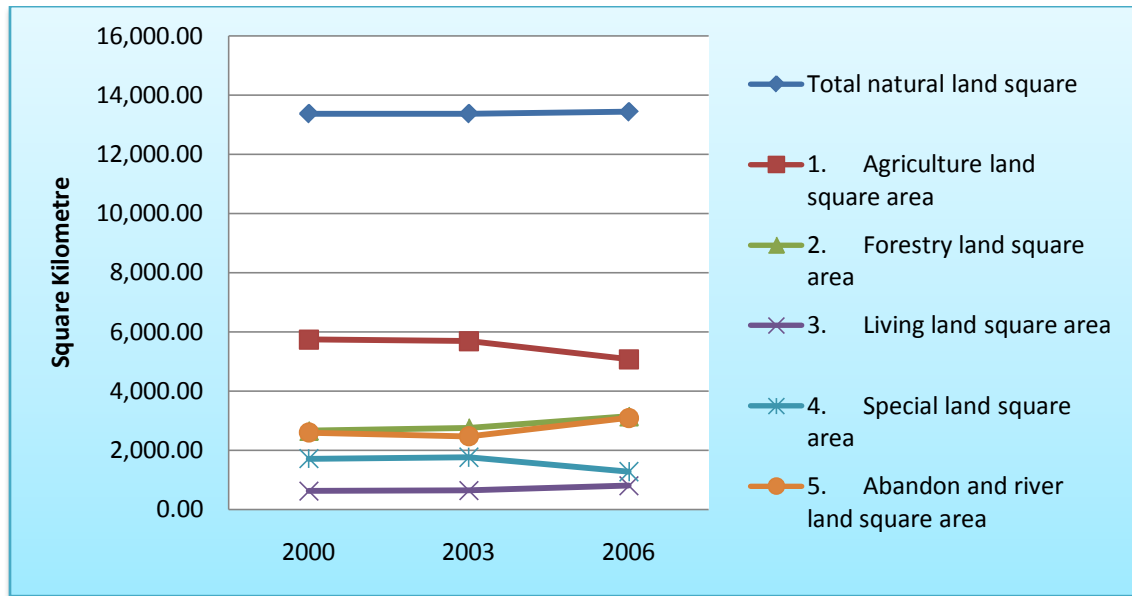


Figure 31: Each type of land use in Hanoi capital region

In conclusion, Hanoi capital region has a diversity of terrain topography, from low delta zone to high delta, from the mid land to valley zone. With the advantages brought from the convenience of the river systems and mild climate that is not too hot in the summer and not too cold in the winter, the delta zone that divided by the complex river system (large river and small river, canal, lake etc.) is the suitable place of popular concentration and the main important economic centre of Vietnam North region. However, beside the advantages, there are also a lot of negative issues. For example, the river system that is sourced from the west north and north zone with narrow and bendy river-bed, thus when flow through the river-basin can cause the flood disaster. Storm and flooding, especially in the summer with numerous of heavy rains and high flow, are the main problems of this region, including HCR.

2.2.3. Existing conditions of population, urbanization process and economy

I. Population and urbanization process in HCR

By analyzing the population and urbanization process of the region, it can help to classify the real situation, the scale of region in order to understand the carrying capacity of region. This evaluation is based on 3 criteria (following regional typology established by OECD)

1. Population and population density, especially rural communities density
2. The percentage of population living in rural communities
3. The size of urban area, urbanization process

Population and population density, the percentage of population living in rural communities

The natural total population in Hanoi capital region in 2006, including 8 provinces, was 12,462 million. The urban population was 3,261 million, equally to 26,17% of total (see more in table 2). In table 3, it shows the detail of population situation in each province in HCR, including urban population and its ratio. It can be seen that in HRC, except Hanoi capital that had the very high urban population (65.33%), almost of all provinces were still have a low percentage of urban population, and could be considered as predominant rural (comparing with the second criteria of OECD that predominantly rural (rural or predominant rural), if more than 50% of its population lives in rural communities). That reflects the fact that HRC region in particular, and Vietnam in general is still in the process of transformation from agriculture country to industrial and modern country. While the very high concentration in Hanoi capital means the situation of unbalance development within whole HRC that is the unequal between Hanoi with other provinces, and the matter of spatial fragmentation.

Type	1995	2000	2004	2005	2006
Total	10818	11514	12.167	12.319	12.462
- Urban population	1873	2495	3.101	3.206	3.261
- Rural population	8945	9019	9.065	9.113	9.201

(Source: national statistic 2007)

Table 2: The fluctuation of population structure in of HRC from 1995 to 2006

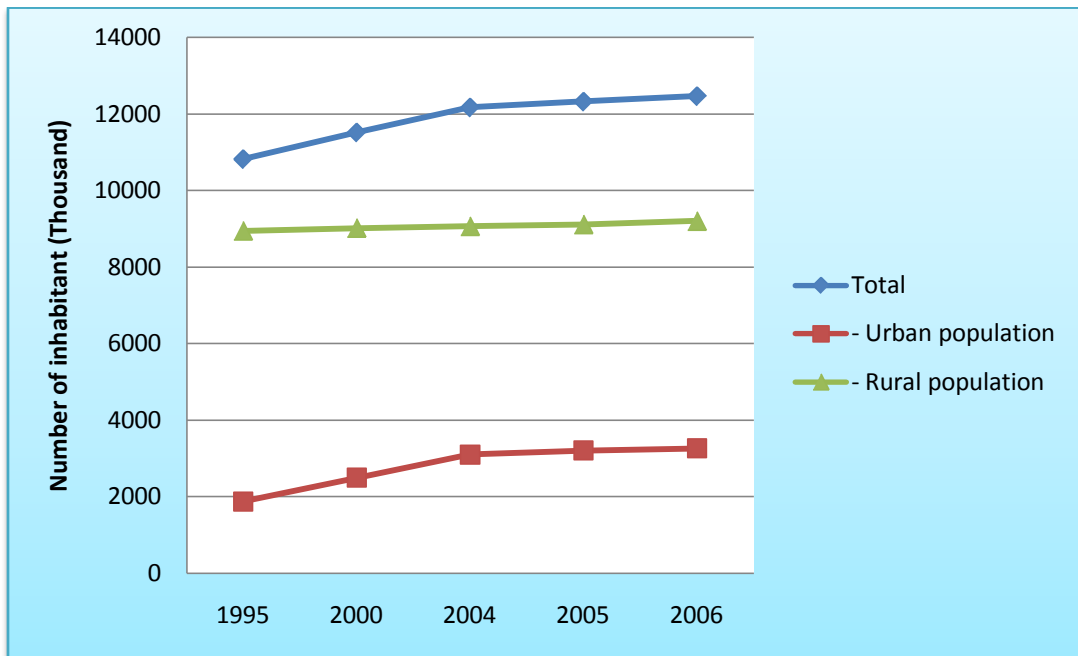
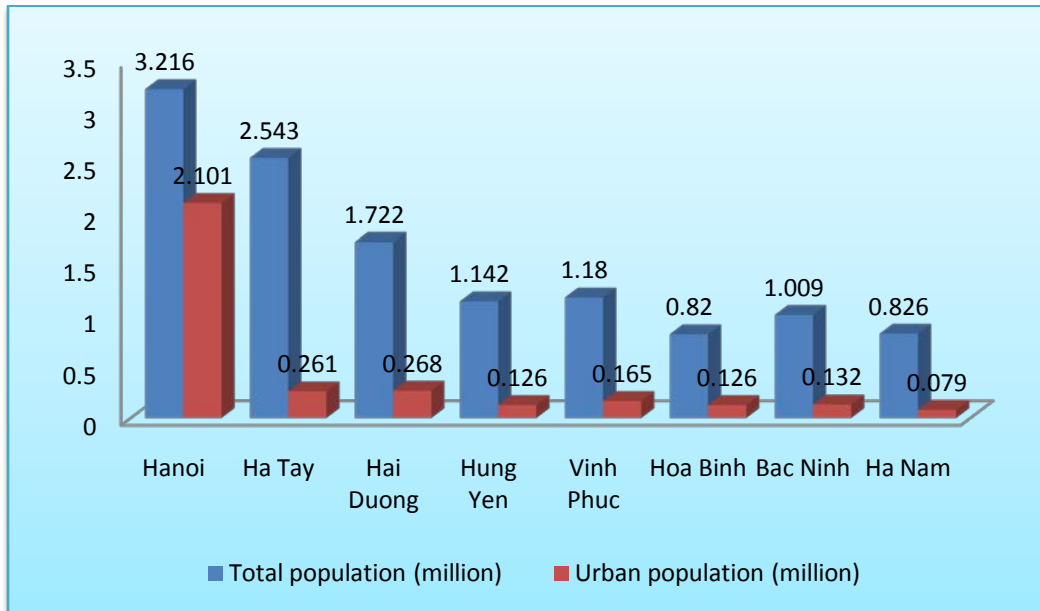


Figure 32: Number of urban and rural population in HCR from 1995 to 2006



(Source: national statistic 2005)

Table 3: Population and urban population in each province of HRC (2005)

HRC is the second largest region in Vietnam, after South-East delta region in South area (see figure 18 and 19 in part 2.1.2), where 8 provinces studied also have the high rate of population density with (about 927 inhabitants/km²) and Hanoi has the highest density rate (about 3489 inhabitants/km²). The density of each provinces in this region is quite high because if comparing with the the first criterion identifies rural communities according to population density from OECD: “A community is defined as rural if its population densities below 150 inhabitants per square kilometer (500 inhabitants for Japan to account for the fact that its national population density exceeds 300 inhabitants per square kilometer)”. The diversity of population density can be divided into 3 main areas (also can be seen in Figure 33):

The high density zone with the concentration of population is located in centre of Red river delta zone, including Ha Noi, Bac Ninh and Hung Yen provinces. The population density in this area varies from 1.200 to 3.500 inhabitants / km², especially in Hanoi.

The medium density zone includes other province that also located in Red river delta zone, namely Vinh Phuc, Ha Tay, Ha Nam and Hai Duong. The population density in this area varies from 800 to 1200 inhabitant / km².

The low density zone is located mainly in Hoa Binh province which is surrounded by medium mountain and hill. The population density in this area varies from 170 to 800 inhabitant / km².

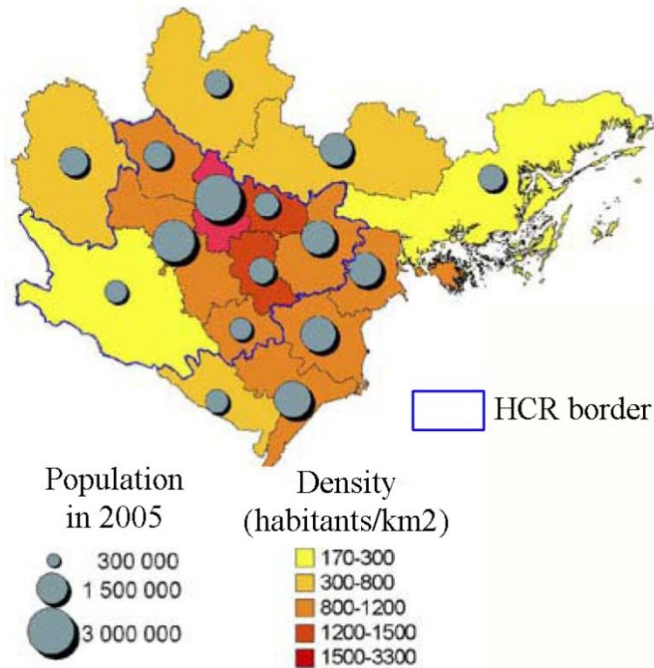


Figure 33: Map of population and density of some provinces in Vietnam North region

Another issue that should be considered in relation with population of one region is that the growing pace of population per year. In HCR, about the growing of population, it can be estimated follow 2 issues:

Natural growing: Following the data of national statistic that in 2003, all provinces in region also had a quite high rate of natural growing (about 0,94 – 1,26 % per year). The most population increasing provinces was Hanoi (from 1,17 to 1,26% per year). The gap between fertility and dead rate in Hanoi was very large due to the better living condition and service quality. The lowest natural growing rate of population was Hai Duong province (about 0.94 – 0.97 % per year).

The trend of population movement: It is obviously that population movement trend is also an important issue that should be research and study deliberately in order to estimate the population situation in the region from now to future. The overview of population movement can be divided into 2 factors: inside province, region movement (from rural area to city area) and outside movement (from region to other and vice versa). The data is used to evaluate the trend based on the statistic of “National population and housing research” in 1999 that can reflect accurately the trend of population movement for the 5 year period from 1994 – 1999. The period from 1999 till now is unfortunately no any data for this work and also for temporary working labour (who work at both rural and city depended on job opportunity); however the situation and movement structure are still at the same tendency.

In general, in 1999, there was negative (-) popular movement in HCR that was the number of loss inhabitant (683,569 inhabitants) was over 1.4 times than the number of gained inhabitant (479.645 inhabitants). There was only one Hanoi province that had the positive popular movement (the number of gained inhabitant is 140.000, over 3 times than loss inhabitant) that address the pressure of congestion and over-density in Hanoi capital city. All other provinces had a negative (-) popular movement, the highest loss inhabitant was Hai Duong province.

In recent years, the trend of period 1994 – 1999 is still being with the same trend. This circumstance could be an awareness of land use regulation pressure. Inside regional popular movement, there was not only the popular movement from rural to urban area but also from small city, town to large city, especially to Hanoi (see more detail in figure 34). In addition, in recent years, the high industrial – economic development in other province also attracts the popular moving from other region. Beside this, there is also the popular movement from HRC to outside at other regions, such as to Ho Chi Minh City, the largest city in Vietnam in South East region. It could conclude that the relation between urbanization and popular movement is obviously clear and logic. The more the urbanization process is, the more the attraction of inhabitant gains, and vice versa.

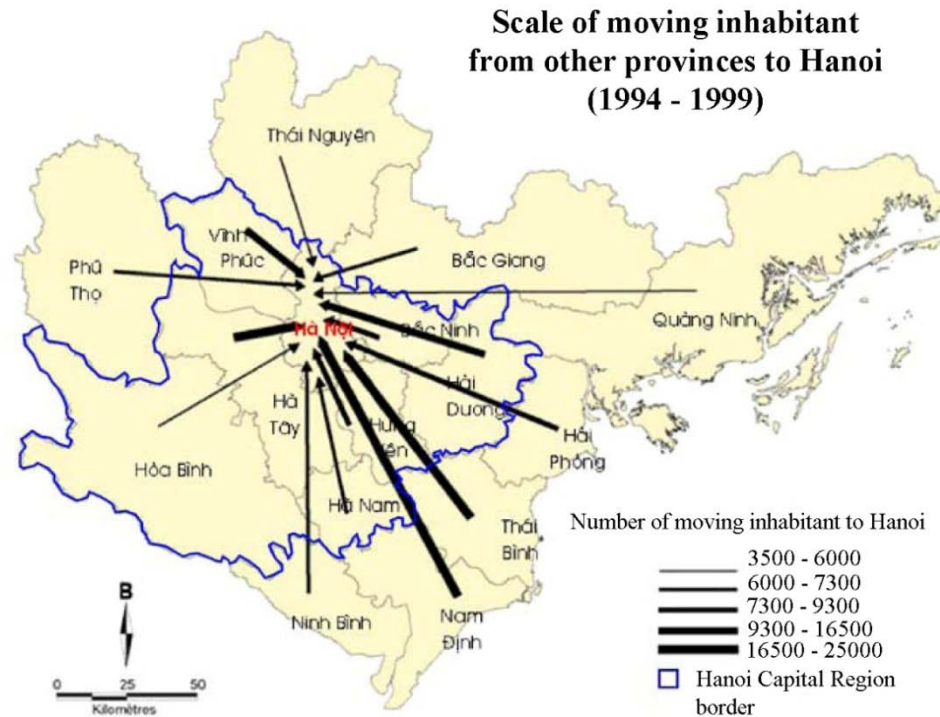


Figure 34: Scale of moving inhabitant from other provinces to Hanoi (1994 – 1999)

The size of urban area, urbanization process in Hanoi capital region

As mentioned above, Hanoi capital region, including 8 provinces, has a high concentration of population (more than 12 million inhabitants). According to table 2, the ratio of urban population in this region in 1995, 2004, 2005, and 2006 is 17.32%, 25.49%, 26.02%, 26.17 % respectively. The transformation of urbanization process in region is still very low, the ratio of urban population is still lower than the average national ratio (26,17 % comparing with 27,12 %); and most of urban population concentrate in Hanoi city. This circumstance makes the high pressure on controlling land use and popular management not only in Hanoi but also in other urban areas.

Urban population growing: In region, there is only Hanoi that has the high urbanization ratio (the ratio of urban population is 65.33%), whereas all of other provinces have the ratio of rural population more than 75% (the ratio of urban population normally about from 9 – 16 %). This reality raises an awareness of the fact that there is lack of urban zone in region, especially large urban zone or big city. However, in recent year, with the high horizontal industrial

development in whole region, there is significant change in urbanization process. The number of urban population as well as the urbanization process has been improving in other provinces such as Hai Duong, Vinh Phuc, Bac Ninh, Hung Yen. New industrial economic zones create job opportunity that attracts the huge labour resource from agriculture. Moreover, the advantage of huge available land resource, the improvement of transportation, infrastructure system and the providing of high quality of service are changing the face of urban area and stimulate the urbanization process in those provinces.

Urban network: Generally, there is a strong growing of urban area in recent years, that is the result of the industrialization, modernization process in whole nation. Many new modern urban zones are emerging, especially housing built by civilian. The urban housing area is increasing rapidly per year (about 1,3 – 1,8 million square metre per year). That makes the urban zone is expanding quickly. The urban network is about 84 urban zones of urban in the whole region including (see more in figure 35, 36):

- 1 special urban city (Hanoi capital) that has a role of political, economical, culture, science and technology centre of not only region but also nation. There is about 3,216 million inhabitants in Hanoi, with 2,101 million living in inner urban city.
- 6 level III urban cities, namely Hai Duong, Vinh Yen, Bac Ninh, Ha Dong, Son Tay, Hoa Binh located in Hai Duong, Vinh Phuc, Bac Ninh, Ha Tay, Hoa Binh province respectively, have a role of administrative, economic, science and technology centre of their provinces (see more detail of urban city lever classified by Vietnam government in appendix). Among of them, Hai Duong city is known as a one of the urban centre in North region, whereas Son Tay is considered as tourism city and as economic centre in North West of Ha Tay province.
- 3 level IV urban cities, namely Hung Yen, Phu Ly, Phuc Yen located in Hung Yen, Ha Nam, Vinh Phuc respectively.
- 74 level V urban towns (6 in Hanoi, 6 in Vinh Phuc, 14 in Ha Tay, 7 in Bac Ninh, 15 in Hai Duong, 9 in Hung Yen, 6 in Hanam and 12 in Hoa Binh) has a role of administrative, economic, science and technology centre of suburban districts in their provinces.

Overall, although there is high growing and expanding of urban network, the development of urban area is still spontaneous, fragmentary, lack of comprehensive planning. Infrastructure as well as transportation system is improved in recent year, however still very in low condition and not enough to serve for living demand of citizen.



Figure 35: Distribution HCR's urban context

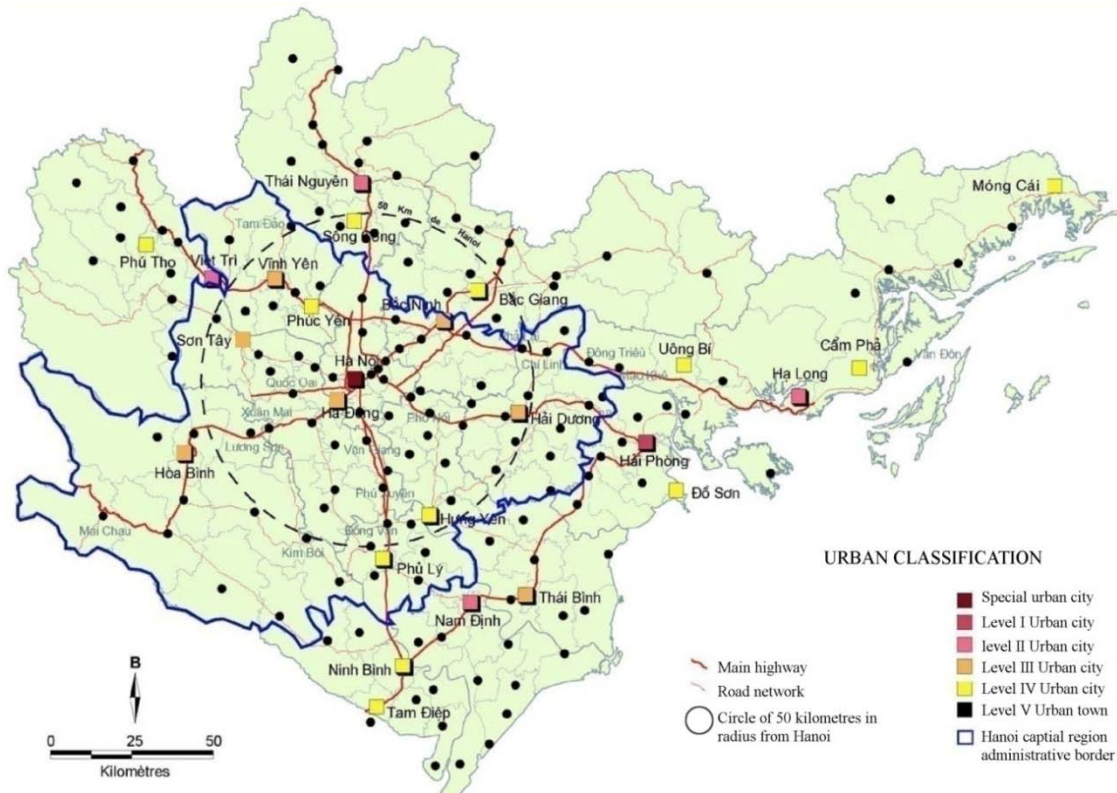


Figure 36: Map of existing urban network

In conclusion: In general, the urbanization process in HCR is still low and not equal to its capacity. Almost of all urban areas is not much attractive and lack of urban economic dynamic, lack of commercial, culture service and infrastructure, especially those provinces located in the West side of Hanoi (Hoa Binh, Ha Tay province). As a result, there is clearly the negative trend of popular movement, except Hanoi. It can be seen the unbalance of urbanization process between Hanoi city and the rests. While Hanoi capital city has a very high urban population and extremely density (65,33%), the ratio of urban population in other provinces only vary from 9% - 16%. In addition, the trend of inhabitant moving into Hanoi is rapidly increasing year per year. This circumstance makes the pressure on regional land use regulation, the difficulty in managing and control popular moving to decentralize the high concentration in Hanoi due to the fact that Hanoi urban capacity is over load and cannot serve the demand of citizen. Moreover, it also causes the urban spatial fragmentation issue in whole region. And in vice versa, the urban spatial fragmentation stimulates the trend of high concentration in Hanoi.

II. Existing conditions of Economy

The history development of each civilization and each country witnesses the fact that obviously regions are actors of growth and have an impact on how their national economy performs. When natural and human resources tend to be concentrated, regions' abilities to exploit local factors, mobilise resources and create linkages varies, raising the issue of development capacity. The impact of concentration on national economic growth can be felt, with growth often driven by a few regions within a country. For example, in 2005, according to the document of OCED "Regions at a Glance": "38% of the total output of the OECD member countries was generated by only 10% of their regions. Geography, economic opportunities and wider availability of services have reinforced the concentration of population and production, as has migration from rural to urban areas...". Moreover, the concentration of economic activities occurs due to the benefit of agglomeration. There is the fact that the relative growth of these urban regions is related to their ability to attract businesses and people. People tend to move to places where job opportunities are plentiful and firms tend to locate in large markets (of labor and goods) where economies of scale can be achieved.

However, it can be seen that there is a need of more geographically balanced development within region that tends to reduce possible costs of concentration (like congestion, quality of the environment, sufficient supply of services and labor force, etc.) and may help in increasing the economic growth of the entire country by spurring demand. Therefore, to make the suitable strategic spatial planning for region, the analyzing the existing conditions, the advantages and disadvantages of economic factors and activities cannot be ignored and must be study deliberately.

Hanoi Capital Region has an important role in the development of North region in particular and of national scale in general. In recent years, it has had a great jump in economic growth about 9.5 – 15% per year (11.28% in 2004, 12.19% in 2005). This success has changed the face of society and civil living life, especially urban life quality. The economy structure is transforming from predominant agriculture economy to industrial and commercial economy. The face of urban context also has a deep change with many new projects, new modern urban area emerging in the suburban area and in the expanding of core urban city. Those projects are

created to serve the demand of city development at the high pressure of reducing congestion and population density. Whereas there are also many new industrial zones have been growing by the investment from not only local and national companies but also from foreign enterprise.

Therefore, this part will analyze about the main economic activities in region in term of spatial development. This is about the contribution of GDP (gross domestic production) of region in crossing over years to compare and to measure of the value of the production activity (goods and services) of whole region or of each economic activities field. And then there is about the existing conditions of commercial and service, mainly about tourism condition that is considered as one of advantage field in region. Afterward, agriculture economy and rural development are the next issue that should be research carefully because in general, HCR is still as predominant rural region. The last issue will give the overview about the reality development of industrial economy and industrialization process that is considered as one of the main trend for region and national development.

1. GDP contribution of region

According to national statistic document, in 1995, the contribution of GDP of HCR was about 13,162% of whole national GDP. 10 years later, in 2004, HCR's GDP was 108.262,87 billion Vietnam Dong, was 15,18% of national GDP, and was 138.768,81 billion Vietnam Dong, about 16.54% in 2005. There is obviously the high pace of economic development in recent years. In period 2001 – 2003, the rate of economic development of HCR was 10,91%, comparing with 7.08% of national economic development, whereas in the period 2003-2005, this was 13,12%. Among this in 2003-2005, the pace of growing of GDP contribution of each economic fields (industry, agriculture and forestry, service) were 15,52%, 4,85, and 10,09% respectively (see more in table 4).

Unit: %

Name	Economic development pace		
	1996 – 2000	2001 – 2005	1996 - 2005
Whole nation	6.95	7.08	7.00
HCR's GDP:	10.59	10.91	10.71
- Industrial GDP	16.19	15.52	15.94
- Agriculture and forestry GDP	5.19	4.85	5.06
- Service GDP	10.06	10.09	10.07

(Source: National statistic)

Table 4: The pace of GDP increase of each type economic activity in HCR

In consideration of GDP contribution of each province in HCR, there is a gap of GDP per resident between each zone in region. In 2005, the highest GDP per resident was in Hanoi (about 1510 USD/year), while the lowest GDP was in Hoa Binh (about only 261 USD/year). Other provinces that also had a high GDP per resident were Vinh Phuc, Bac Ninh, Hung Yen and Hai Duong. The high GDP in those provinces which all were located in the crucial economic zone also had the decisive role of industrial and service activities. One of the main reasons for the high GDP of those provinces is that they are located closely to Hanoi and have the convenient transport system in land with Hanoi, huge land available resource with low price that can attract investment of economic activities from Hanoi and from other provinces in North region. While other provinces that had the low GDP (below 400USD/year) were those that were in the development process but still mainly depended on rural economy such as Hoa Binh and Ha Nam provinces. Figure 37 shows in detail of GDP contribution of each province in HCR. It can be seen that nearly a half of region GDP was contributed by Hanoi (46,9%), thus indicates the high concentration of economic activities in Hanoi capital, and raises the question about how to reduce the gap of economic development between Hanoi and other provinces?

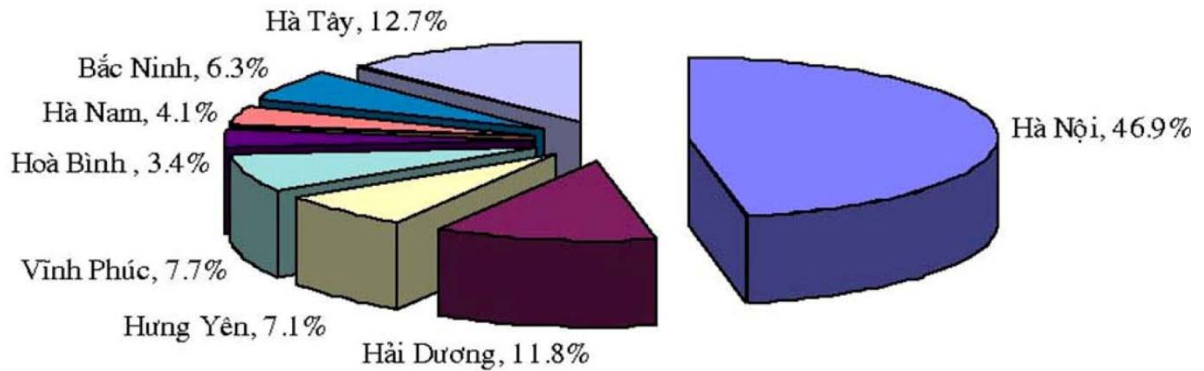


Figure 37: GDP contribution of each province in Hanoi capital region

In addition, in consideration of the distribution of GDP by economic fields, it can be said that in recent years, there is a transformation of economic structure that the economy is in step by step changing from main agriculture to industrialization and modernization. This, in vice versa, improves the quality and effectiveness of economic activities. The ratio of each main economic field has been having a great transformation:

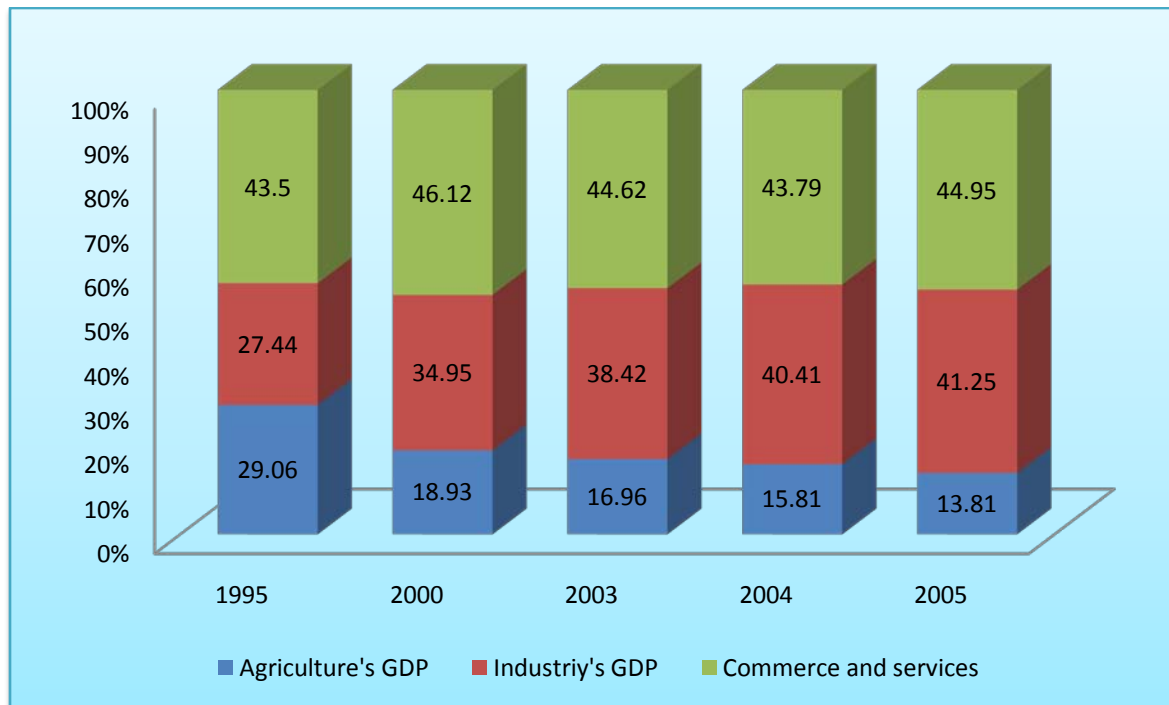


Table 5: Proportion of each economic activity's GDP contribution

2. Region's commerce and service activities - the role of tourism

In recent decades, there is a creation of commerce, service and tourism system. In 2005, total GDP of this economic field activities contributed 62.370,35 billion Vietnam dong (equal to 4 billion USD, follow the exchange rate at this time), and was about 44,95% of total region GDP. Hanoi is the centre of commerce and service at national and international scale, whereas other province urban city such as Ha Dong, Hoa Binh, Hai Duong, Bac Ninh, Vinh Yen, Phu Ly, Hung Yen and Son Tay town have the role of commercial, service at province and regional scale. The pace of development of this economic field is about 11% per year. In overall, Hanoi capital and other local urban city have various advantage conditions and potentials to develop and improve the quality of commercial and service activities to attract more not only local, nation but also foreign investors and customers.

This part will not analyze deeply about the this economic field activities, however, in term of studying about spatial development of region, there is a need to research deliberately of one of the main factor of regional service, namely tourism, because of its influence, and its crucial role for the orientation of spatial diversity within region.

Tourism

Located at the strategic geography position, with the core Hanoi capital city, the tourism economy in HCR has had a big jump in development. By improving the infrastructure, transportation system, creating numerous types of tour activities, creating many new projects which synchronize modern service with the value of native natural, culture characters, there is a rapid increasing of number of customers in recent years to travel and visit HCR (growing about 19,62% per year, considered as highest rate in Vietnam). The ratio of HCR's tourism in total national tourism market share is about over 20% and this proportion is still growing year per year.

Foreign customers: Hanoi capital region, one of two main tourism centers in Vietnam, with its long history, culture development is always an attractive target with foreign tourist. The increasing pace of foreign customers from 1998 till now is about 16,97% per year, even at the time of South East Asia's economic crisis in 1998. There is now emerging of numerous national

and international tourist areas such as resorts, ecological tours, national forest, and culture point etc... to serve the demand of foreign customers. For example:

- In Vinh Phuc, there is culture tourist zone Co Me, Den Dam temple, convalescent tourist area Phat Tich.

- In Ha Tay, there is national forest Ba Vi, and tourist areas Dong Mo, Huong Son, Quan Son that are located in Suoi Hai spring.

- In Hai Duong, there is golf field Chi Linh, Mat Son lake, tourist areas Con Son – Kiep Bac, Luc Dau Giang, relic zone Phoenix.

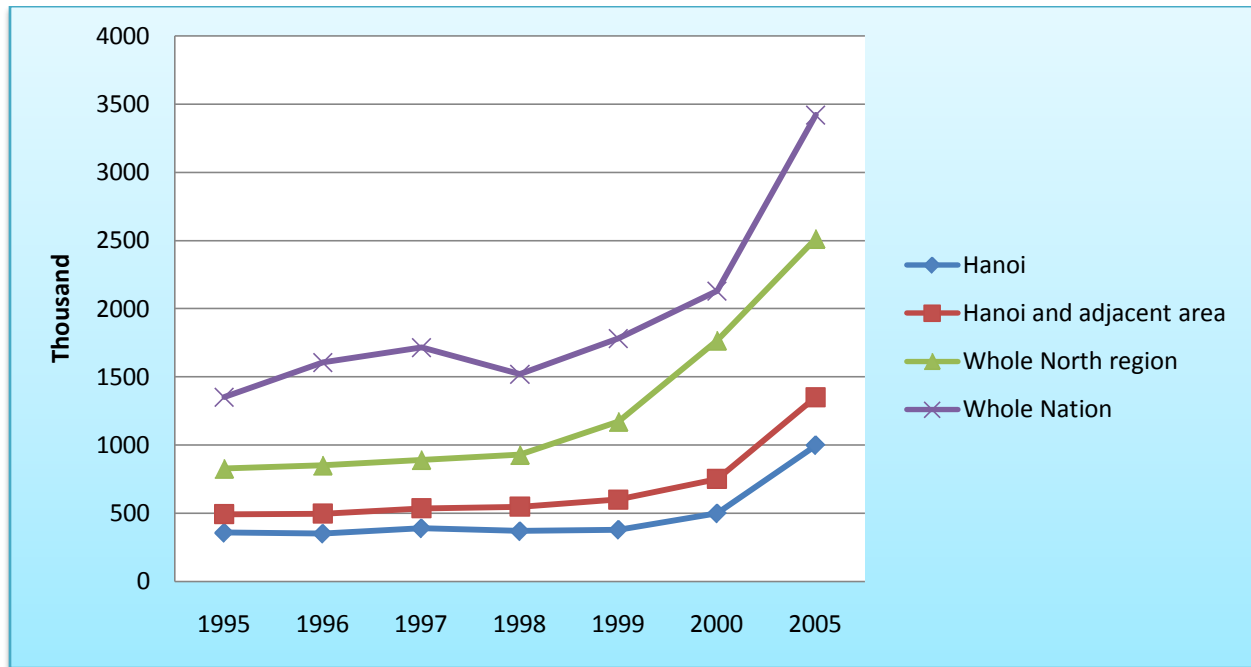
- In Hoa Binh, there is Hoa Binh lake with the hydroelectric power plant, mineral spring tourist area Kim Boi.

- In Hung Yen, there are tourist areas Pho Hien, Hai Thuong Lan Ong, Ham Tu – Bai Say – Da Hoa – Da Trach.

- In Ha Nam, there is biological tourist lake Tam Truc and Five Cave Mountain

- In Hanoi, there is ancient castle Co Loa, the first university in Vietnam Van Mieu – Quoc Tu Giam built 1000 years ago, Hoan Kiem Lake and numerous culture, tourist points.

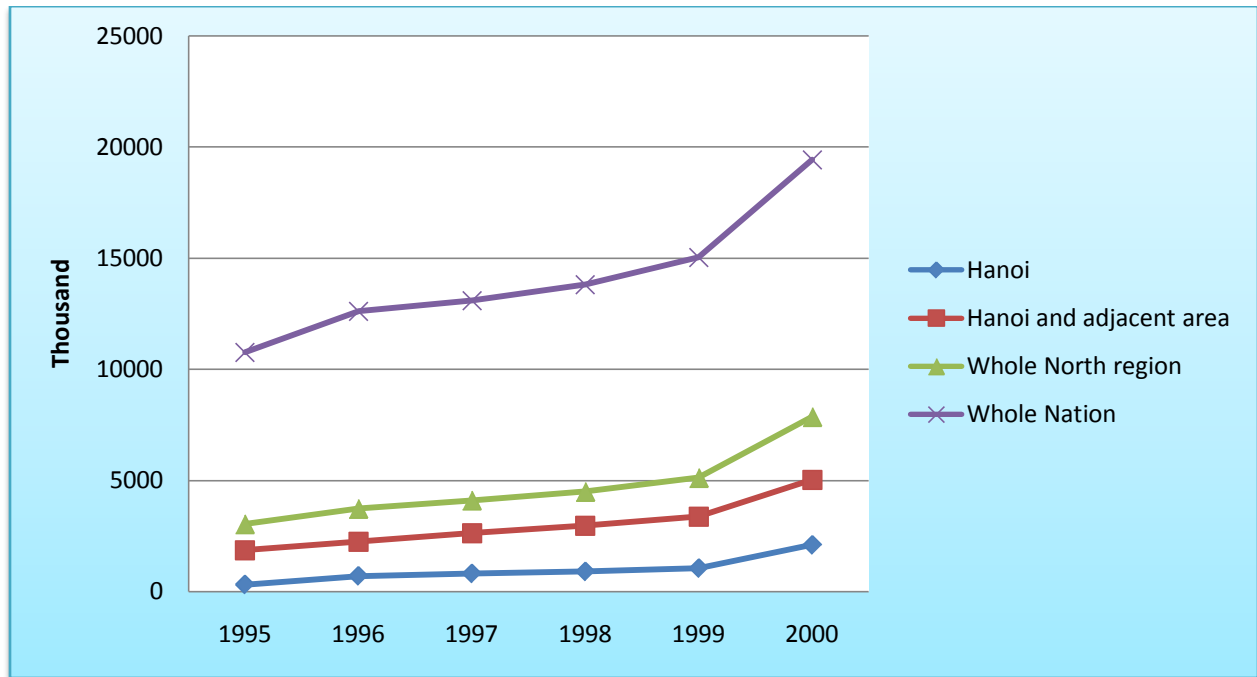
In general, foreign travelers mainly concentrate and visit Hanoi capital, the proportion of Hanoi foreign customers is about 68,47% of total regional foreign customers, and about 29,4% in comparing with whole nation. Therefore, it is obviously that HCR has an important role for the development of international tourism in Vietnam.



(Source: National statistic)

Figure 38: International tourist customer from 1995 – 2005

Domestic customer: HCR is not only an attractive target of foreign customers but also national customers. The average domestic tourist customers are about 20.67% total whole national customers (see more in figure 39). Among those provinces in HCR, Hanoi's tourist customer proportion is 32,36%, Ha Tay is 28,68%, and the rest is 39,05%. Hanoi capital, core urban city of region has the highest pace of domestic tourist customer growing: 46,5% per year and contribute to most of regional tourism GDP (average 79%). Ninh Binh, Vinh Phuc and Ha Tay are also provinces that have a high speed of growing domestic travel customers (about 11% in the period from 1995 to 2000).



(Source: National statistic)

Figure 39: Domestic tourist customer from 1995 – 2000

Tourism GDP: As HCR is considered as one of main tourist centre of Vietnam, the development pace of revenue in recent 10 years is about 20,2% per year. In tourism structure, Hanoi tourism contributes mainly to whole regional tourism revenue, with average rate about 79%. For example, in 2000, the number of customers visiting Hanoi was double in comparing with 1999 that caused the revenue of Hanoi tourism increased 2 times, contributed to 84,2% of total regional tourism GDP. However, the proportion of tourism GDP in contribution to total region GDP was still low, only 1,9% in comparing with 26,92% of industry and 31,56% of agriculture – forestry aquatic product.

Tourism facilities: In 2004, total basic temporary accommodation for traveler was 350 in Hanoi and 950 in region, equal to 5,9% and 16% of whole nation respectively. Total rest room was about 12.431 rooms in Hanoi, and 20.768 rooms in HCR, equal to 10% and 17% of whole nation. There were 59 four and five star hotels, equal to 18% of whole nation. Almost all of them were located in Hanoi.

In conclusion, Hanoi capital region has a special potential of tourism due to the long history of culture and development through numerous feudal dynasties and colonization period at

modern history (from 18th to 20th century). Especially, Hanoi, Bac Ninh, Ha Tay have the most density of history relics in country. Beside this, with the diversified types of terrain topology, numerous hills, high mountains, primary forests, lakes and complex spring, river network, HCR also has a great potential and attractive of biological tourism. In addition, there are also many villages with traditional esoteric handicraft that attach and store with the history development of Red river delta zone. That village also can be an attractive place for developing culture village tourism. For example, there is very well-known Bat Trang village with the profession of making pottery or Dong Ho village with its special Dong Ho folk woodcut painting (can search more information on Wikipedia). However, in overall, there is still lack of deliberately consideration and research as well as investment in tourism in region. Foreign investment in tourism is still fragmented and only focuses on Hanoi, whereas in other provinces, the infrastructure and service quality for tourism is low and is not considered carefully.



Figure 40: Bat Trang village, a village of traditional professional pottery making



Figure 41: Rat's wedding: a popular example of Dong Ho folk woodcut painting

2. Region's agriculture economy and the development of rural area

The distribution of agriculture land

Red river delta zone is the second largest agriculture, forestry area in Vietnam, after the Cuu Long River delta zone in South east region. The square area of agriculture, forestry land is mostly concentrated in semi-hill region, and descends at those provinces located in the centre of delta zone (Hung Yen, Ha Noi, Bac Ninh). In addition, it should be noticed that forestry land is concentrated in semi - hill – mountain region (including Hoa Binh provinces), while agriculture land with high quality of soil in delta zone is located mostly in all river-delta zone (Ha Tay, Ha Nam, Hung Yen, Hai Duong, Bac Ninh provinces).

In 2003, the total square area of agriculture land of HCR was about 569.703 hectare, whereas in 2006, there was only remain 508.200 hectare, equally to approximately 5,4% of total nation agriculture square area and about 37.82% of total natural region land square. Thus, it can be seen that the agriculture land square was descending about 20.500 hectare per year, and this trend is still continuing. However, although HCR has a quite very high total agriculture square area, the average agriculture square land per resident in whole region was only 407.8 m²/ inhabitant and was much lower in comparing with whole nation data (1.118 m²/ inhabitant), especially with Cuu Long River delta zone data (1.500 m²/ inhabitant). Figure 42 shows the estimated land square

area and proportion of both agriculture and forestry land of each province within region and some other provinces also located in Vietnam North region in 2003.

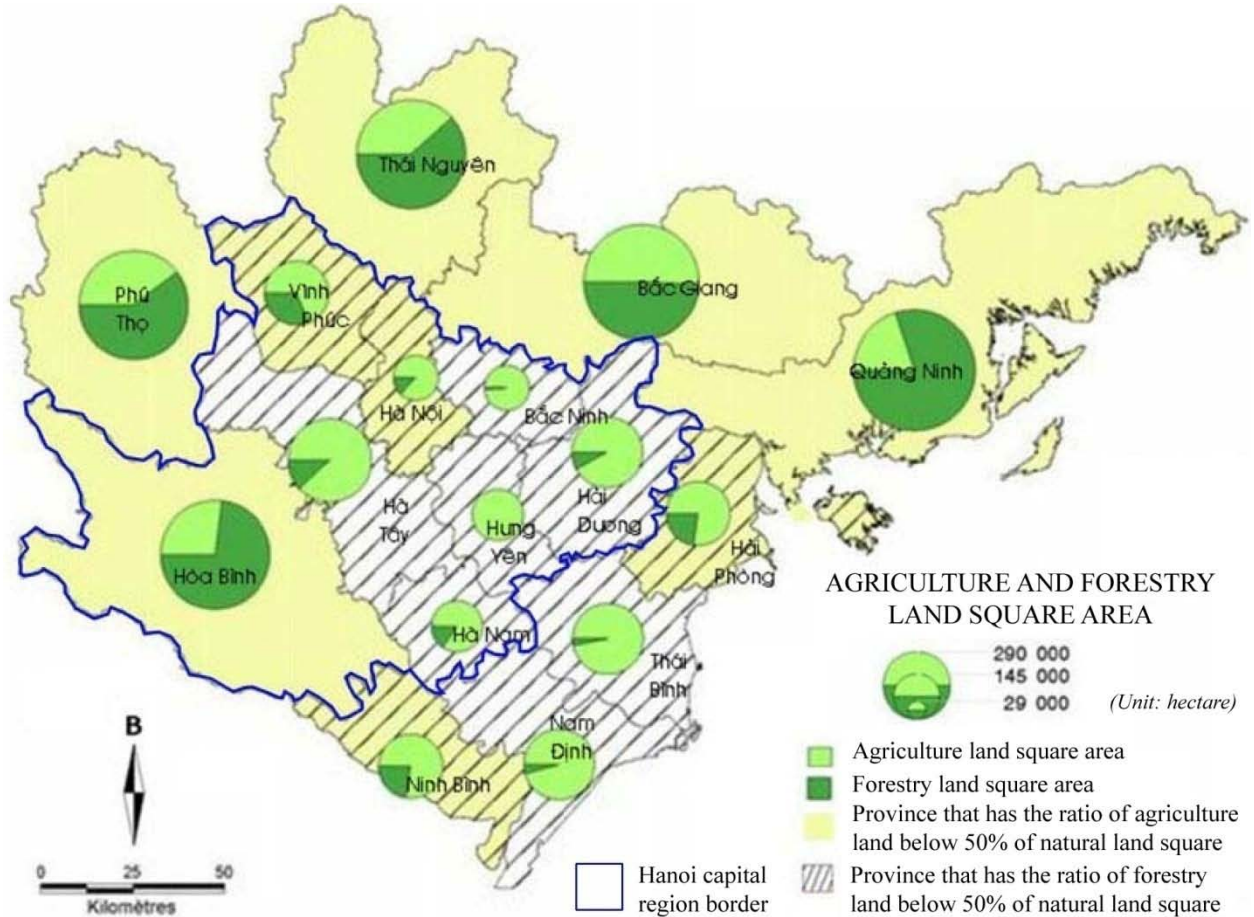


Figure 42: HCR's Agriculture and Forestry land square area in 2003

Value of agriculture production

As can be seen in figure 15, the highest production area includes provinces located in delta zone, namely Ha Tay, Hai Duong and Hung Yen. In 2005, the value of agriculture of region was about 28.728,24 billion Vietnam dong (approximately 1.6 billion USD), and the 3 highest province proportion are 23,1%, 19,12%, 15,6% respectively. There is the fact that agriculture economic structure has been changing. The proportion of cultivation is reducing, while the proportion of livestock is increasing year per year. For example, in 1995, the ratio of cultivation GDP was about 71,30% and the ratio of livestock was only 27,5% of total agriculture GDP;

whereas in 2005, the proportion of cultivation reduced to 59,57%, and the proportion of livestock grew to 37,71%. In general, although HCR's agriculture GDP only contributes small proportion of regional GDP structure, HCR's agriculture economic activities has a great role in food supply for not only local urban area but also for international export. In recent years, in operating follow market mechanism regulation based on household economic nuclear, there is diversifying and creating of concentrated professional agriculture zone:

- High quality rice producing zone, located in Red River delta zone, has a cultivation square area about 300.000 hectares
- Vegetable producing zone, located in Hanoi suburban area and Ha Tay, Hai Duong, Vinh Phuc provinces (there is now 3000 hectares of special vegetable producing zone)
- Fruit farm zone: for example, there is longan fruit farm with 7.000,0 hectares in Hung Yen, many litchi fruit farms in Thanh Ha, Chi Linh rural district (in Hai Duong province) etc.
- Ornamental plant and flower farm, located in Hanoi suburban area, Me Linh (in Vinh Phuc province), Van Giang (Hung Yen province)
- Numerous livestock farms (poultry, pig, milch cow etc.) that are distributed in whole region.

In overall, there are a formation of more than 800 farms – fields in different types (cultivation, livestock, forestry etc.) and general service for agriculture activities. In addition, Vietnam has a long history of agriculture country, therefore now there exists of many large rural villages and strong rural communities (about 9.2 million farmers, equal to 73,83% total regional population) with high concentration (about 16.000 inhabitant per rural square kilometers). Even in many urban, especially small urban areas, there is still a mix between urban lifestyle and agriculture producing. However, in recent years, HCR's agriculture economy is in front of risk circumstance of rapidly descending land use regulation because of the explosion of industrialization and urbanization process, even in provinces that have advantaged and developed agriculture activities. Moreover, because of high concentration of rural communities, there is the fact that the redundancy of rural labor force (because the reality time of agriculture work requires only 74-78% time stock per year) makes the high pressure on job distribution and popular moving trend, especially to large city such as Hanoi capital.

3. Region's industrial development and existing industrial spatial distribution

Region's industrial development

HCR has a great potential for industrial development in comparing with other Vietnam's region. Although the natural land square is only nearly 1 million hectares, equal to 2,74% total national natural land square, HCR has a agglomerated concentration of high skill employees with more than 36,9% labor resource who has education quality at least bachelor or college degree. In addition, HCR's has 6 provinces that is also located in the North economic key region, and is especially considered and chosen by Vietnam government in investing and building as one of the main important national industrial zone centre.

In general, all provinces in region have basis foundation of industrial economy activities following the trend of national industrialization – modernization process. Total HCR's industrial GDP in 2005 was about 57.235,65 billion Vietnam dong (approximately 3,5 billion USD), equal to 41.25% of total regional GDP. The rate of industrial GDP growing is 12 – 15% per year. Obviously, Hanoi capital province has a highest industrial GDP contribution (21% of total national) and has a role of locomotive leader for whole regional industrial development. Other provinces that also have high industrial GDP contribution are Ha Tay, Hai Duong and Bac Ninh, Vinh Phuc. Those provinces also have the high pace of industrial developing (Hai Duong 20-30%, Vinh Phuc 22-25% per year) due to the advantage of geography that they are located closely to Hanoi. While provinces that have low industrial development are Ha Nam and Hoa Binh.

In consideration of investment and management type, in the period from 1995 – 2003, the proportion of value of industrial production related with foreign investment increased strongly (from 19,4% in 1995 to 40,18% in 2003) and this trend is still continuing till now. However, national and local industrial activities dominated the number of factories and industrial labor (about 93% total number of regional industrial labor, among them 70% from private activities, 23% from state activities), while industrial economic activities created by foreign investment only had 7% labor. (see more detail in table 6).

	Number of industrial bases	Proportion (%)	Number of industrial labor	Proportion (%)
Total HCR's industry	180174	100	719753	100
Local economic activities	179953	99.88	668861	92.93
- State	350	0.19	164490	23
- Private	179603	99.68	504371	70
Foreign economic activities	221	0.12	50892	7.0

(Source: Province statistic)

Table 6: Number of industrial bases and labor in whole region

According to table 7, it can be seen that the number of private industrial bases is extremely much more other types. This reason is that in region, as also mentioned in part of Tourism, there are numerous traditional handicraft villages that active and exist follow household economy or small industrial activities. For example, only Ha Tay province has more than 400 traditional handicraft villages. Therefore, improving and developing those villages can be considered as positive solution to create more job opportunities for reducing the redundant of rural labor force, enhancing tourism, culture, and even urbanization process.

Industrial spatial distribution

The main character of industrial investment in Vietnam is small and middle project, the scale of project investment is about 4-5 million USD, and normally 1 – 1.5 hectare industrial land square. In the end of 2005, there were about 26 industrial districts that were approved by Vietnamese president and were in executing process in whole HCR with total land square about 4300 hectare. Among them, there were 14 industrial districts that were filled approximately 75% square are and 12 industrial districts that were filled almost 50% land square. According to Prime Minister of industrial and trade ministry, to fully fill all industrial districts land square, there is a need of at least 1000 projects with total investment budget about 4-5 billion USD. And with the

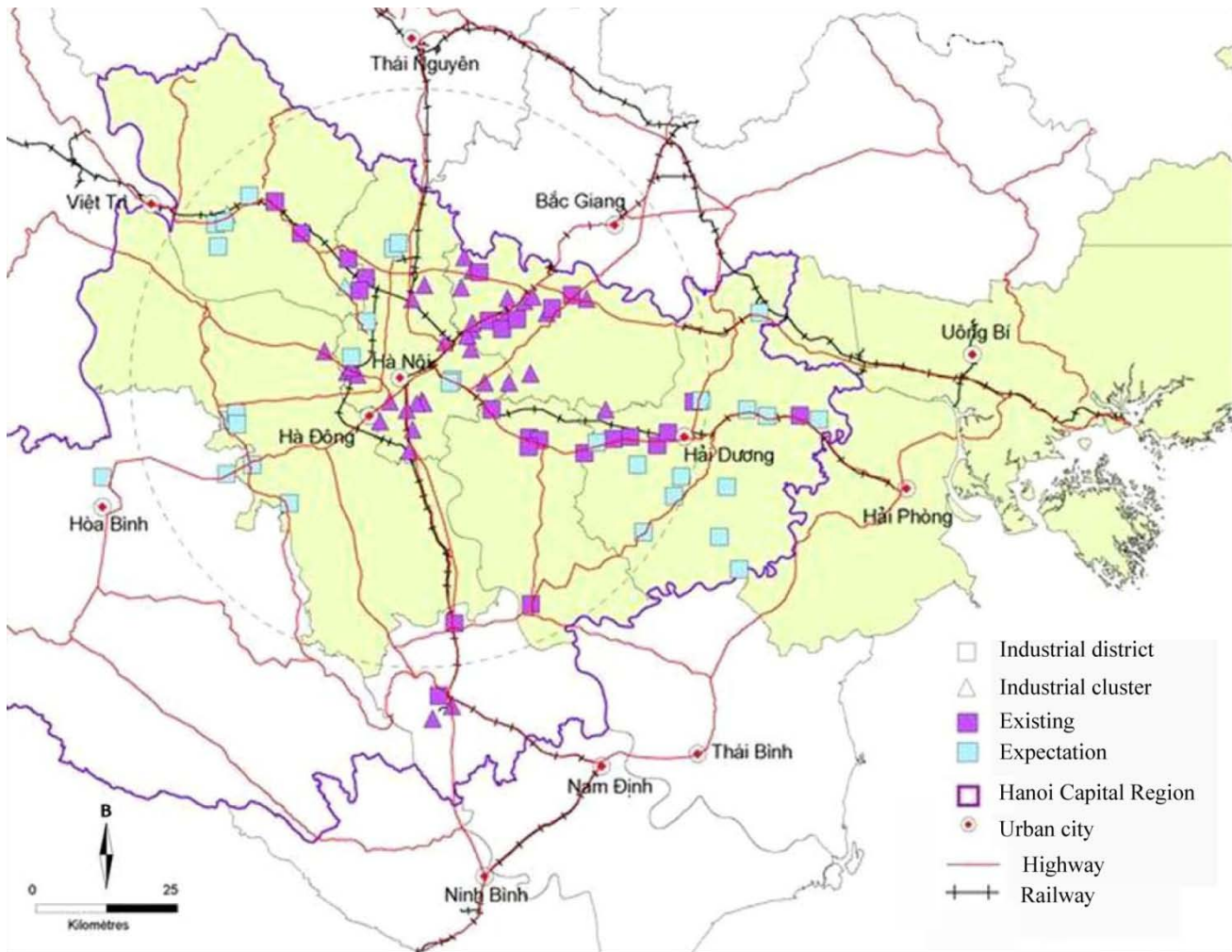
capacity of attractive investment activities of HCR in recent years, it requires around 20 years to finish.

Another character of industrial district in HCR is that almost of all of them are located along the main national high way (as showed in figure 43). Those districts can be divided into 2 main types:

Those industrial districts that are in executing and processing are located closely to Hanoi and in the East or North side of Hanoi (Bac Ninh, Hung Yen, Hai Duong provinces). In addition, many new industrial districts that are in consideration process and will be created in near future are located in Hai Duong province and emerge in attaching with new national high way 5. In recent years, there is an emerging of concentrated industrial corporation group in these districts.

Other industrial districts that is located in the West direction of Hanoi. However, those provinces are located in West direction of Hanoi have fewer advantage and convenient conditions of developing industrial district than Hanoi and other provinces in East side. There is no industrial group or corporation. For example, Ha Tay is one province that although has high concentration of developed industrial handicraft villages, it does not have any industrial group. That issue raises a question about how to link and corporate those industrial villages with Industrial Corporation group in those West side provinces.

Moreover, beside those industrial districts above, there are also thousand of industrial clusters, points in small and medium scale, and numerous industrial handicraft villages that distributed in whole region in order to exploit the investment of all type of economic factors.



(Source: IMV French research team, 2005)

Figure 43: Distribution of industrial districts in region

However, beside the efficient and effective development of industrial districts, there is still many inadequate issues such as the spatial distribution of those districts is not suitable and without deliberated research, especially industrial zone located closely to Hanoi or based on large transport axis. There is no surrounding road in district that leads to congestion and “bottle neck” circumstance, especially in the main point of highway to Hanoi. Many industrial districts, clusters is created spontaneously by the demand or requirement of province in particular, but without careful study and research planning in whole region. Many other negative externalities also should be considered such as the issue of accommodation land for employee, administration management that can have negative effect and influence on environment, land use regulation,

natural landscape, urban context etc. In addition, the capacity of attractive investment in those districts is still limited due to the high expensive input investment, low income of local resident that limits the market capacity and thus can reduce regional attractive investment. Each industrial district needs at least 5-7 years to construct its infrastructure, facility because of the slow of ground clearance. Moreover, there is a fact that many industrial projects are created but without research carefully the demand of market or have no crucial production, strategic development for production that can lead to the situation of descending of some industries (such as mechanics, chemistry) that can lead to the abandon of factory or suspended project circumstance.

2.2.4 Existing conditions of infrastructure system – transportation network

Beside other physical, technical infrastructure system such as water supply and drainage systems, power supply etc. that serve and have a great influence in the developing of region, transportation network has a fundamental special role to play in achieving the regional goals relating to social progress, economic development and sustainable development.

The improving of transport network can provide the skeletal framework for future development of the whole region if serves effectively and conveniently. By connecting all the main centres of social and economic activities, major transport hubs, the improving of accessible capacity can generally enhance and stimulus the rate of development as well as the expanding of urbanization, modernization process. In addition, improving transport network's quality, flexibility and convenience will provide quick and reliable journey time, facilitate trading. Therefore efficient transport network, that can corporate with convenient public transport system if possible, can not only stimulus a balanced spread of future growth in small cities, towns, and new urban areas across the Region that can decrease the high density in Hanoi, and erase the congestion or bottle neck circumstance in main ways to large city, but also can bring the economic clustering according to the idea of sustainable development. Moreover, advanced transport system can help to reduce the negative environment impact, scattered landscape and transport accident.

As a result, this part will emphasise on analyse the existed conditions of transport system in region in order to provide the fundament logical tool and momentum for making strategic spatial

planning for whole region. Other physical infrastructure systems will not be mentioned due to the limited volume of this thesis and those less influence on making spatial planning. Figure 44 shows in detail the overall conditions and status quo of transportation system in region. (*Source: Ministry of transport, mt.gov.vn, Vietnam Institute Architecture, Urban and Rual planning vienkientruc.kientrucvietnam.org.vn*)

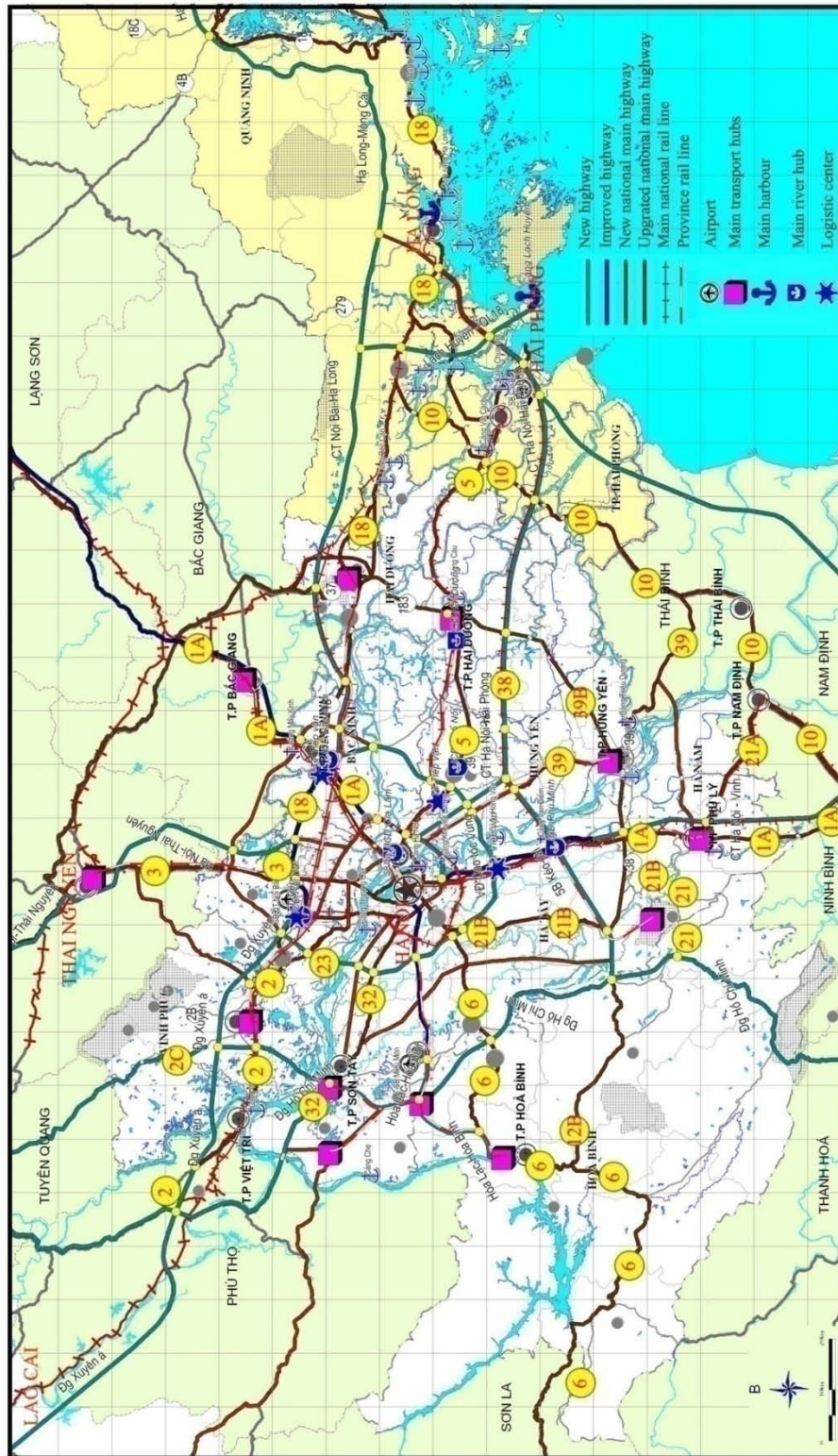


Figure 44: Status quo of transportation system in Hanoi capital region

Road traffic system

The road traffic network in recent years has been improved significantly that is quite reasonable and widespread in whole region. The total length of road traffic is 6,950.7 kilometer; the proportion of main highway is 15.04% (about 1,045.4 kilometer) (see more in table).

Type	Quantity	Unit
Total length of road traffic network	6,950.7	Km
▪ Main highway	1,045.4	Km
▪ Province suburban road	2,246.8	Km
▪ Municipality road	3,658.6	Km
Density of main highway	0.082	Km/Km ²
Density of highway + suburban road	0.22	Km/Km ²
Average density of road traffic network	0.51	Km/Km ²
Average length per inhabitant	0.55	Km/1000 inhabitants

(Source: Ministry of transportation)

Table 7: Status quo of road traffic system in HCR

Main highway: Main highway network has a function as a corridor connecting Hanoi core city with other main transport hubs in other provinces (normally in cities, towns). The main highway's quality is especially concerned and is being improved in recent years in order to ensure the flowing of regional and national artery. The average width of highway is about 9 – 11 meters. In the gateway into Hanoi city, its width can be from 23 – 30 meters, whereas the width crossing other provinces is about 5.5 – 6 meters. Some highways have an important role for regional development, namely (see in figure 44):

- Number 1A northern main highway: Stretching from Hanoi to Northern provinces such as Bac Ninh, Bac Giang, Lang Son province (there is national border gate with China in Lang Son). This axis corridor has an important in exchange trading, correlation with South China region.

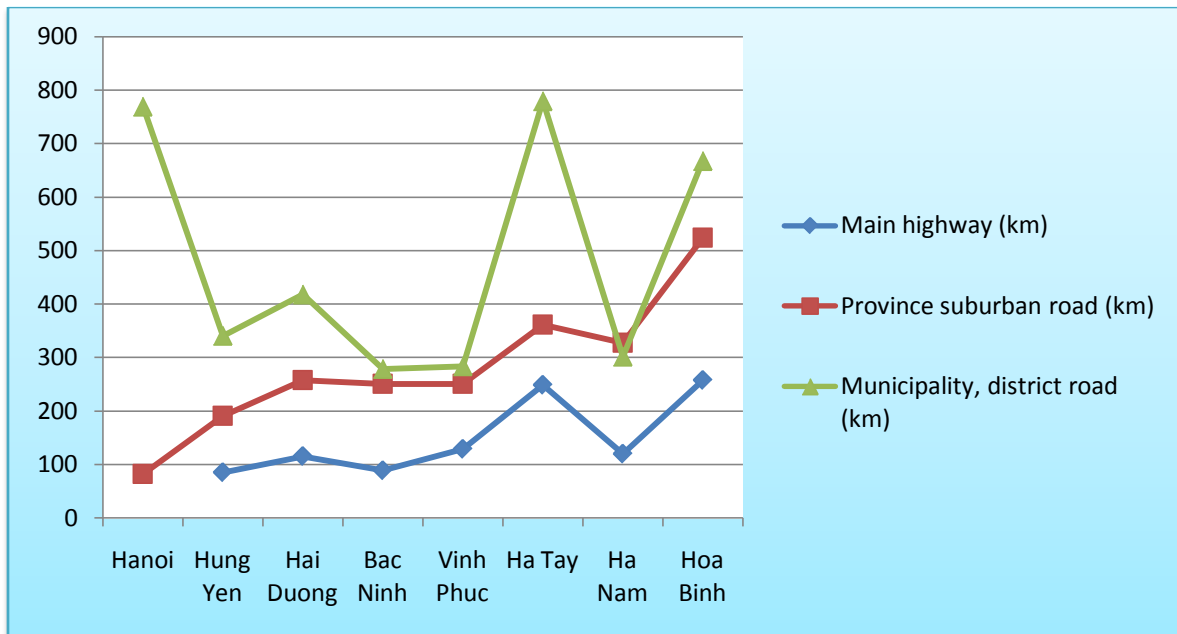
- Number 1A southern main highway: Connecting Hanoi to Ho Chi Minh City, core city located in South East Delta region, that cross Ha Tay, Ha Nam province (main transport hub in Phu Ly city – Ha Nam).
- Number 5 eastern main Highway: This corridor is very important that connect Hanoi to Hai Phong – a port city with largest harbor in North Region. This highway also crosses Hai Duong city and many others new urban area, towns and industrial district.
- Number 6 western main Highway: It starts from Hanoi, across Ha Dong, Xuan Mai, Luong Son (main urban areas in Ha Tay province) to Hoa Binh city (Hoa Binh province), and continues lead to the biggest dam in Son La – Lai Chau province.
- Number 32 western main Highway: connecting Hanoi to Son Tay city (Ha Tay province) that is considered as main western gateway to Hanoi).
- Number 2 main Highway: starting from Phu Lo (Hanoi) to Vinh Yen city (Vinh Phuc province), and Viet Tri city (Vinh Phuc province).
- Number 3 main Highway: Connectin Hanoi to industrial city Thai Nguyen (Thai Nguyen province), and to Cao Bang
- Number 18 main Highway: Starting from Bac Ninh city (Bac Ninh province) to Sao Do city (Hai Duong province), and stretch to Cai Lan main habor and tourist – industrial city Ha Long (Quang Ninh province)

Beside this, there are also many other highways that has a role as provincial, local highway as a belt, corridor transport network connecting core cities with other main urban areas, industrial district and main transport hubs in order to enhance the urban access capacity such as: the new Lang – Hoa Lac highway connecting Hanoi with urban area, industrial district chain in western direction, the North Thang Long – Noi Bai connect Hanoi with international airport Noi Bai.

In consideration of the diversity of urban context, there is the fact that most new urban area, citizen or industrial districts are located and stick to the main highway, especially in number 5 eastern, 1A northern highway that create a *highway urbanization progress* (see figure 47). Figure 45 shows the number of each type of road traffic system in each province within HCR.

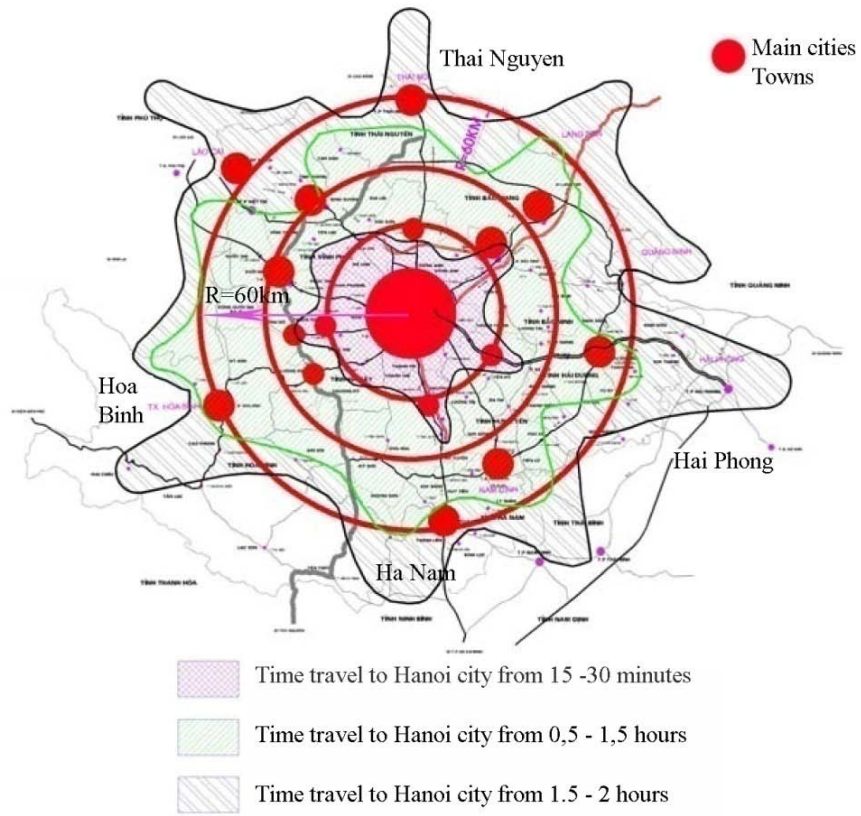
In conclusion, the road traffic system in HCR, in general, has a most important role in enhancing the accessible capacity of region and has been significantly improved its' quality and

volume in order to stimulus regional development. However, there is still some such as there is only improvement road quality in area near Hanoi, whereas in other province, the quality of road traffic system still very low and is not enough to serve the local demand of freight and commute. In addition, in recent years, with the high development of economic, social activities, the rapid increasing of different type and volume of transport vehicles, especially in highway urban zone (such as in number 1, 3, 5 Highway) that leads to the overload of the road system.



(Source: Ministry of Transport, 2005)

Figure 45: Road traffic system in Hanoi capital region



(Source: Ministry of Transport, 2005)

Figure 46: Estimated time travel from Hanoi to other provinces in HCR



Figure 47: Urbanization progress along high way

Railway system

Beside road traffic system, the improvement of railway system is also considered as a key for regional development. However, there is the fact that railway system of Hanoi capital region in particular and of whole nation in general is still limited with low quality, lack of diversity and not match with the rapid economic development demand. One of main reason is that the railway system in Vietnam is still use the low technology with the rail line's width 1.0 metre, whereas most of railway systems in the world now use the modern technology with rail line's width 1.435 meters. That limited technology impact the speed of train and thus curb the development and convenience of railway system (as showed in table 8 about the main railway routes and these average speed of train)

N°	Route	Quantity (customer/year)	Level	Rail line's width (meter)	Limited speed (km/hour)
1	Hanoi – HCM city	976,250	B	1.0	25 - 40
2	Hanoi – Thai Nguyen	403,690	C	1.0 – 1.435	25 - 40
3	Thai Nguyen – Ha Long		C	1.0 – 1.435	35
4	Hanoi – Lang Son	210,240	C	1.0 – 1.435	25 - 40
5	Hanoi – Hai Phong	445,300	B	1.0	30 - 60
6	Hanoi – Lao Cai	403,960	C	1.0	25 - 30

Table 8: National railway system in Hanoi capital region

Total length of railway system in HCR is about 350 kilometres with the average density about 0.045 km/km². The railway network is quite diversity that cross almost of all main hubs in cities, towns in provinces. Hanoi station is the largest station in region with about 14.4 hectare area located in city centre and is considered as the main gateway that most of all national main railway routes start from here, namely:

- Hanoi – Ho Chi Minh City route: with the length 1,726 kilometres that connects 2 main and largest cities in Vietnam that has an important economic, political role for national development.
- Hanoi – Hai Phong route: running along with the number 5 Highway that link Hanoi with main sea harbour city Hai Phong and East North zone (about 102 kilometres)
- Hanoi – Thai Nguyen route: running parallel with the number 3 Highway, connecting Hanoi with industrial city Thai Nguyen where locates the largest iron and steel industry are in Vietnam.
- Hanoi – Lang Son: running parallel with the number 1 Highway, connecting Hanoi with Lang Son – the international border gate with South China region (about 148 kilometres)
- Hanoi – Lao Cai: connecting Hanoi with West North provinces and South China (about 283 kilometres)

The railway and road traffic system have a mutual correlation and have an important role in ensuring the smooth flowing of freight and commute transport within urban cluster zone. Almost of all main rail line routes run parallel with main highways. The main hubs of road traffic also are close to rail stations to make more conveniently travel for customers. However, there are still a lot of problems of railway system such as ineffective management, organization rail line routes, low quality and service, lack of diversity and not much convenient for customers, the need of huge budget to improve or upgrade the old technology that make the development of railways is still limited. In addition, some rail lines crossing resident areas, urban zone, especially in Hanoi and Hai Duong city, dividing those cities into 2 areas, bring the negative impact on liveable environment, urban landscape and transport organization for community in there.

Waterway system

In general, waterway system is mainly used for freight purpose, only few waterway routes are exploited for tourist activities. As mentioned in part 2.2.2. Physical and natural conditions, there are 3 main large river system crossing region: Red River, Da River and Lo River system.

The Red River system brings the great convenience for freight transportation for economic Northern region, including Hanoi capital region, especially with economic triangle between Hanoi and 2 other port cities Hai Phong and Quang Ninh. There are 3 main sections:

- From river mouth in Hai Phong, Quang Ninh to Hanoi: with advance river-bed, stable stream-flow in all year round gives the best convenient conditions for waterway freight transport, is suitable for large barge with carrying capacity 500-600 tons, river cargo ship with carrying capacity 200-300 tons, sea cargo ship with carrying capacity 400 – 600 tons.
- From Hanoi River port to Viet Tri port (in Phu Tho province) with 75.5 kilometres in length, suitable for cargo ship and barge with carrying capacity 300 – 500 tons
- From Viet Tri port to West North region, Yen Bai port (about 116.5 kilometres in length) and Lao Cai (about 286.5 kilometres in length): the river-bed is narrow and unstable flow, therefore this section is only suitable for cargo ship activities with carrying capacity 100-200 tons, and even <100 tons.

The Da River system gives the waterway transport from Viet Tri to Hoa Binh (about 69.0 kilometres), allowing cargo ship with carrying capacity about 200-300 tons.

Waterway transport in Lo River system starts from Viet Tri port to Tuyen Quang (about 105 kilometres in length) with not convenient river-bed and flowing, allowing only cargo ship and barge with carrying capacity 100 – 200 tons.

In general, Hanoi capital region is located mainly in Red River system that achieves great advanced waterway system, especially for freight transport demand, thus should be enhanced in order to stimulus trading activities and economic development. However, there are some limited conditions to exploit and maximize the transport capacity of Red River system such as:

Red river-bed is still in natural condition, not deep enough and not improved to serve for high demand of trans-provinces transportation, especially with large cargo ship activities.

The exploitation capacity is not high and is constrained in flood and dry season.

Harbour and ports system in region is still in low condition, underdeveloped technology and not invested or upgrade appropriately that limits its attractive capacity in trading.

Airway system

Hanoi capital region has only one international Noi Bai airport but is one of largest and most important airports in Vietnam. Located closely to Hanoi (40 kilometres in North direction) and having convenient connection with Hanoi by Thang Long – Noi Bai highway and other provinces such as Vinh Phuc, Thai Nguyen province by number 2,3 highway, Noi Bai international airport has total area about 230 hectare, with approximately 4 million passenger annually. However, considered as one of the main accessibility of Hanoi gateway and of region through airway, Noi Bai airport is still in limited size and capacity volume to serve with the rapidly high demand of exchange goods, transportation of region. Thus, there is the need of improving and expanding Noi Bai airport to match with the pace of economic, urban development, to enhance the competitiveness of region in international level.

In conclusion

Hanoi capital region has a quite diversified and completed transport system with different type of traffic types, adequate transport network that can serve to the demand of region in recent year. Beside the limited of waterway transport by its dependency on terrain typology, of airway transport by short distance between provinces in region, road traffic system and railway system have to play a key role in order to be crucial transport system as a strong catalyst for regional development. However, the low quality and fundamental infrastructure system of these types of traffic, the limited of state budget, the growth with non framework actions curb the development of regional transport. For example, railway system has the rail line network and low technology train locomotive with more than 40 years old that is outdate and not suitable with the more and more transport demand in region. Many highways were built with non precise forecast of around new urban growth and the increasing of traffics that leads to congestion circumstance and other negative environment effects. Therefore, there is a need and call of strategic framework actions for the improving and developing regional transport system in order to match with whole regional strategic plans, to link up the modes of transport, to connect all main transport hubs and local area accessibly, to use and manage the limited state investment budget efficiently and effectively, to exploit and maximize its capacity, and to involve the participation of local municipalities, institutions and private actors.

2.2.4 Existing condition of regional environment

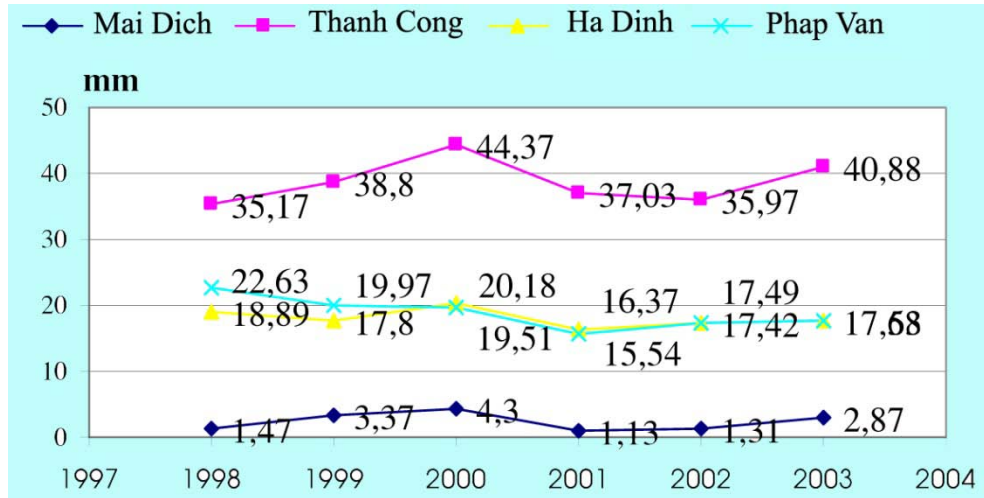
The concentration of economic activity occurs due to the benefit of agglomeration, however, has a double-edge effect that also brings negative externalities such as congestion, environment degradation with low quality or inadequate supply of services. The spatial development strategy places a strong emphasis on the sensible use of resources and care for the whole environment in order to achieve sustainable development in future. According to warning from Ministry of Natural resource and environment, Hanoi capital region is one of four hottest point that have high risk of polluted, degraded environmental conditions, especially urban and industrial environment. Therefore, this part will focus on analyse the negative impacts of urbanization process and economic development activities on environment status that can help to indicate the real status of environmental condition and to find the solution to deal with its problems.

Pressure on environment due to urbanization process

The rapid development of urbanization process in recent decades has created significantly impacts on environment status, natural resource and ecological balance:

- The development of urban zone without framework actions and comprehensive research, effective management, and suitable technology approach leads the over-exploiting and over-consumption of land resource for the expanding of urban space and new emerging urban zones. The area of urban green land, water surface area is decreasing that leads to the loss of urban lung area, and therefore run to the unbalance of temperature and moisture of urban environment and ecology.
- The agriculture land use resource also is affected by the urbanization process that threat the food supplying capacity in region and the living conditions of suburban residents.
- The high demand of water supply for resident liveable conditions, for service and product activities downgrades the quality and volume of water supply resource which is now over-exploited. For example, considering water supply for Hanoi capital city, although there is a plentiful of surface water resource, water supply for city mostly come from underground water source because the quality of surface water source is not good enough while lack of budget and limited technology approach in order to exploit and produce water supply from surface water resource. Thus the pressure of exploiting underground water source to serve for the more and more demand of huge population also brings the threat of land depression (see figure 48). Another pressure also comes from the overload of drainage infrastructure system in which many drainage sections was built since 1940s. The flooding circumstances happen frequently in many urban areas, especially in rain season, due to the limited drainage system capacity that can be a source of diseases and affect the sanitation quality of community.
- The lack of policy instruments in controlling moving inhabitant from rural area, small cities to developed urban zone such as Ha Noi, Hai Duong cities, the high development of urbanization bring the pressure on infrastructure system which is overloaded and outdate and cannot serve to the demand for living conditions of high density population. High concentration brings other negative externalities such as the pressure on the treatment of enormous waste volume from citizen, the emerging of slum areas with low sanitation status that in vice versa,

affect and stimulate the urban pollution grade, and the ecology unbalance and become disease sources.



(Source: Ministry of Natural resource and environment)

Figure 48: Land depression at underground water exploiting points in Hanoi capital



Figure 49: Waste on lake's surface



Figure 50: Slum area in city



Figure 51: Rubbish dumping ground in Hung Yen and Bac Ninh province

- Another threat of environment pressure should be mentioned is the pollution from urban traffic activities. Lack of effective policy instrument to restrict and limit the private traffic now takes into account the negative outcome. Air, noise and dust pollution affect every district in urban zones, especially in Hanoi city which has high density of traffics while the inside city road network is usually very narrow and hard to improve, upgrade their quality. The situation in suburban area is not less serious. The highway urbanization process has produced negative externality as multi-hour congestion on the gates of main highways leading into core city, the bottle neck circumstance. According to Ministry of Resource and environment, the ratio of CO gas released from transport means is about 40% total CO gas.

Pressure on environment due to industrialization process

Beside the rapid development of urbanization process, industrialization process also marks a significant impression with rocketed increasing in recent years. However, strong industrialization process means releasing huge amount of its by-products including poison gas, polluted water and solid waste.

Many factories, manufactories that were located in suburban region before now are located in high density of urban zones that raise the high risk of health care for community. Whereas, treating industrial water waste and hospital solid waste are really a big challenge of region in recent years. There is need of strict and strong strategic policy in order to remove these inner city factories to outside suburban area.

In addition, there is a fact that almost of all manufactories in region is still not have a completed waste treatment system. Waste water is released and expel together with other types of waste water without careful treatment that can poison the closed water source and ground. Moreover, most factories have no report of environmental effect of their producing activities. In 2003, there was a decree 64/2003/QD-TTg approved by Vietnam Prime Minister that emphasised on management of industrial activities, and measures with thorough punishment to which factories or industrial districts considering pollute environment seriously. However, till now the execution of this decree is still very slowly and not effective. Thus, although there is not seriously polluted environment situation in regional industrial districts, the increasing of industrial waste will bring a great pressure and risk on regional resource and environment status in future if there are not effective and urgent policy instruments to control and manage industrial activities.

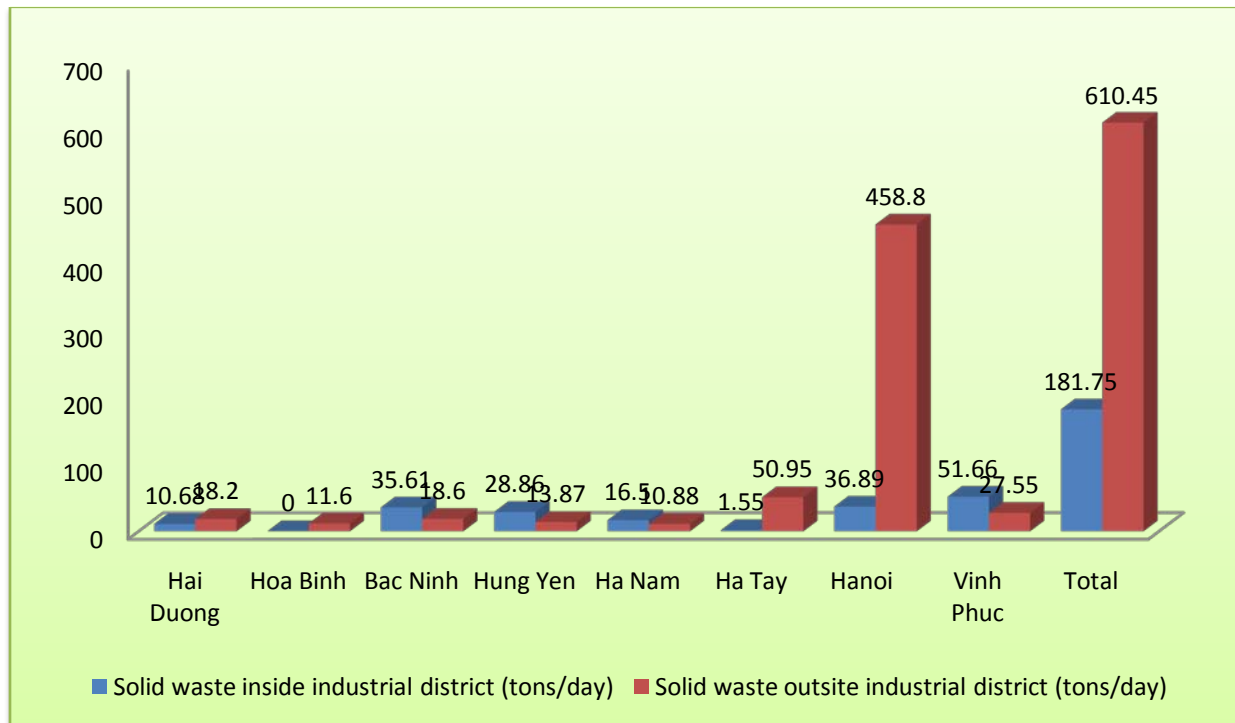


Table 9: Solid waste in each province

Pressure on environment due to rural development

Hanoi capital region is still considered as predominant rural region, and the ratio of economic agriculture activities is quite high (see part 2.2.3: Region's agriculture economy and the development of rural area). However, the quality of sanitation in rural area is very low. Except areas located near large urban city, almost of all rural areas still use water supply from wells or natural surface aquifer. According to Ministry of Agriculture and Rural development (*agroviet.gov.vn*), only 30 – 40 % rural inhabitant is provided drinking water. In addition, waste treatment in rural area is also very low in almost of all rural resident areas that affect directly to rural communities' health.

Abuse of using pesticide and fertilizer in farming is increasing the threat on environmental condition and ecological system that can not only pollute rural soil, water source but also poison community's health. For example, the concentration of pesticide in some agriculture products is about 150 – 600 times more over than the standard quality allowance. In 2002, the consumption of inorganic fertilizer, organize fertilizer and plant pesticide in Hai Duong province was 846.372 tons/year, 261,426 tons/year and 477 tons/year respectively that raise the alarm of controlling agriculture product quality and protecting consumer healthy safe from government.

In rural region, it cannot ignore the role of traditional professional villages by its characters. These villages have been attached with the long history development of agriculture in delta region by their economic activities coming mostly from esoteric handicraft work. In recent years, due to the development of urbanization and industrialization process, the rapid growth of economic commercial activities, traditional professional villages are being revived both of their scale and quantities. However, their economic activities is still in small scale as household economics, with low technology production, no suitable waste treatment method and tools and lack of knowledge on environment conservation that affect a serious impact on rural environment and ecology conditions. For example, waste from traditional village, especially water waste, is released directly into river, canal system that degrades the quality of water resource and creates a partial and long term impact on regional sustainable development (see figure).According to Ministry of Agriculture and Rural development, about 54% of total solid waste of national tradition village is from Ha Tay, Bac Ninh and Hanoi provinces.



Figure 52: Waste releasing from traditional village

2.3 Prediction, targets and visions of Hanoi capital regional development

Scanning existing conditions in different aspects that mainly affect the regional spatial diversity helps us to catch an overview of regional status quo and its development trend in future. Therefore, this part will focus on main predictions of regional growth based on analysis of conditions in previous part in order to stress the main targets and possible regional visions of strategic spatial plans in short term to 2020 and in long term image to 2050.

2.3.1 The premise for regional development

Hanoi Capital Region has an important impact and influence on the development of Northern region and whole nation, with Hanoi capital has a role as a national heart, headquarter of politics, economy, culture, technology and science, education and national, international correlation activities (see more in part 2.1.2: The role of Hanoi capital region). In general, Hanoi Capital Region has advantaged premises for future development as below:

- Consideration as a main economic region with a mix of diversified types of economic activities, HCR has a role as a main center of commercial, service, tourist, industrial and agriculture economic activities of North region. The economic development of HCR can influent and create great impact spreading on other provinces located in Northern region directly.

- Hanoi Capital Region is a main gateway in North region, nation and even at international level as a most important transport hub of all type of traffics (road traffic, railway, waterway and airway)
- Hanoi Capital Region is a biggest education, training centre providing high-skill and high-qualification labour force for economic modernization process.
- With favourable climate condition, huge high quality soil resource and plentiful surface water resource provided by a complex large river system, Hanoi Capital Region has the advantage and convenient conditions to develop its agriculture economy in large scale. A plentiful water resource also gives a basis condition for the concentration of huge population, agglomerative industrial, service activities that are the premise for regional prosperity.
- Hanoi Capital Region also has a role as tourist centre of nation, with Hanoi province city; it inherits high density of culture-history monuments, points and numerous ecology areas. Thus, it has a great potential to develop economic tourism (see more in part 2.2.3: Regional's commerce and service activities - Tourism)

2.3.2 Possible prediction of the regional development

In order to make the strategic plan for region to 2020 and vision to 2050, it should be addressed the forecast of regional growth of some main factors analyzed in part 2.2 followed two dimensions of spatial planning: carrying capacity and quality. The statistic data and number in this part is taken from different Vietnam Ministries (Ministry of Construction, Ministry of Industrial and Trade, Ministry of Agriculture and Rural development)

Prediction of land use in region

The total natural land area of Hanoi capital is about 1,343,600 hectare, the prediction of land consumption of urbanization, industrialization and ruralisation process to 2020 and 2050 can be showed as below:

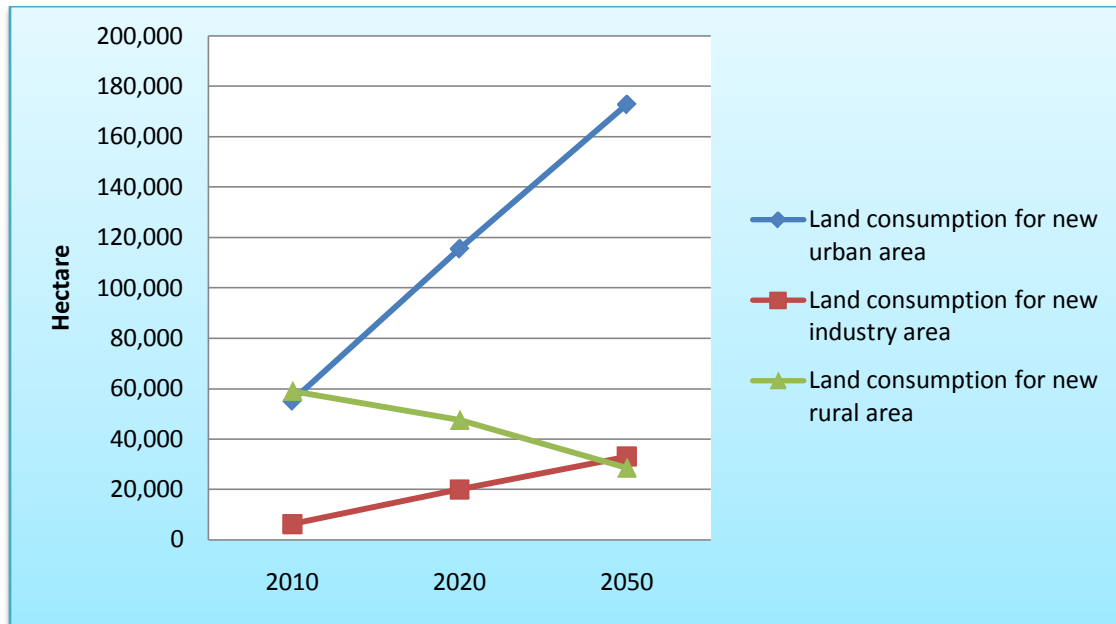


Figure 53: Forecast of land consumption of each type of social activities

Prediction of population, urban population

In 2006, the total population of Hanoi capital was about 12.462 million, urban population was 3.26 million. Till 2020 and 2050, according to Ministry of Construction, there will be about 31 new urban areas emerging. The prediction of population and urban population growth till 2020 and 2050 can be show as below: (*Unit: million inhabitants*)

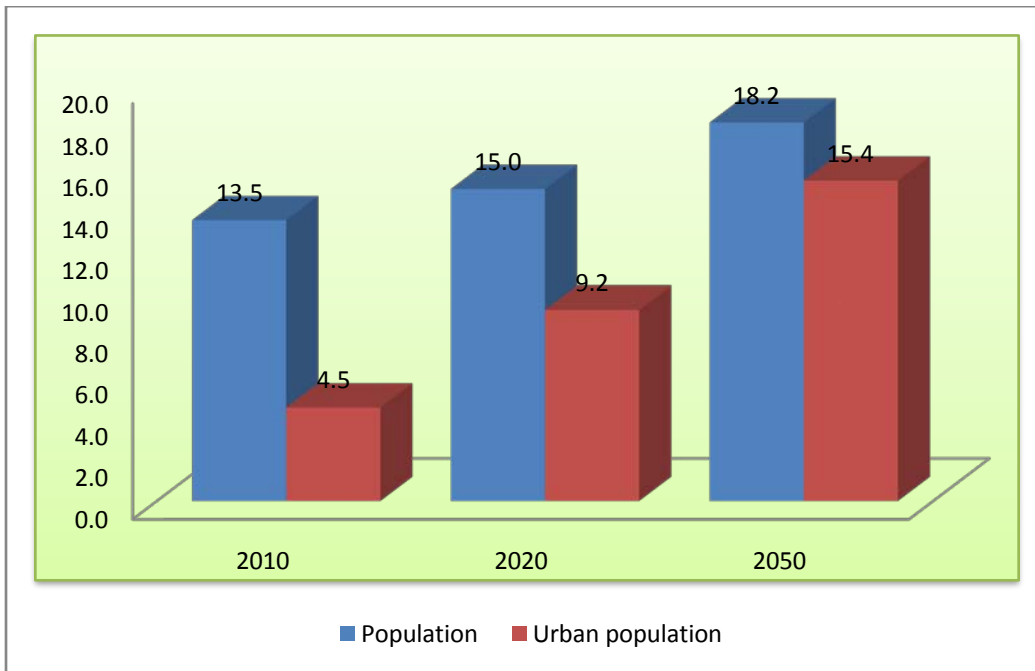


Table 10 : Forecast of regional population and urban population growth

Prediction of labour force:

The number of total labour force in 2006 was 6.815 million employees; the number of employee working in each type of economic activities can be predicted as in chart below:

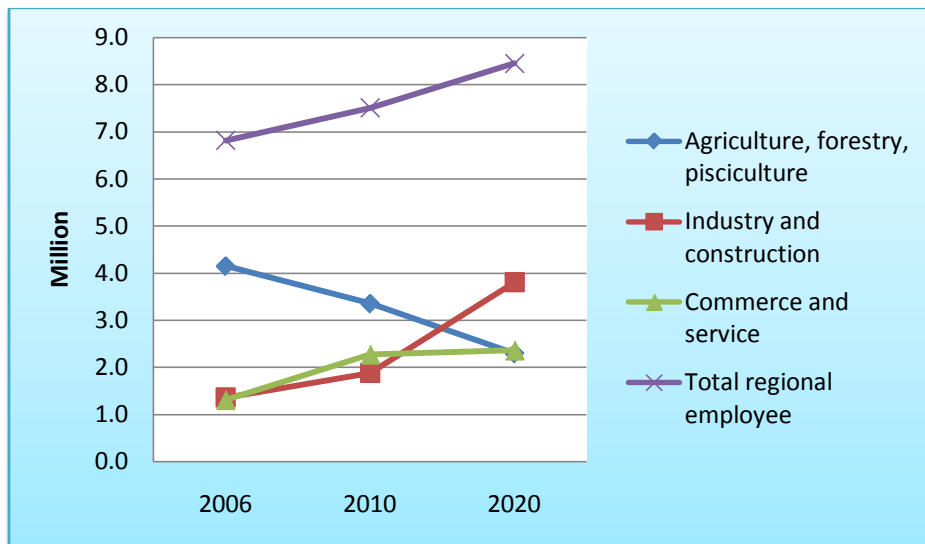


Figure 54: Forecast of regional employee rolling in each type of economic sector

Prediction of economic structure:

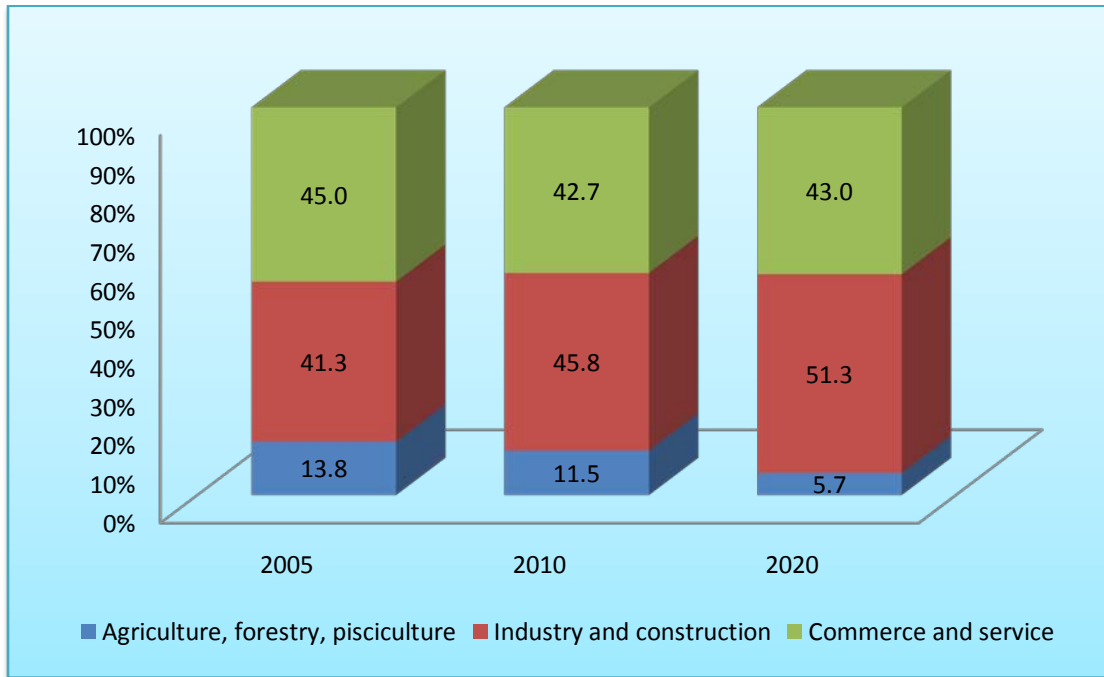


Table 11 : Forecast of GDP contribution's proportion of each type of economic sector

Prediction of tourist customer:

Unit: million

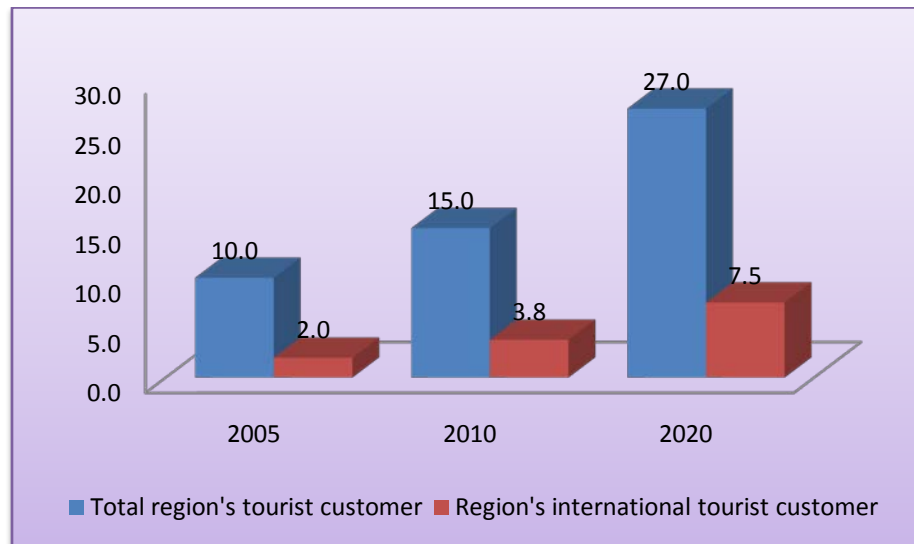


Table 12: Forecast of region's tourist customer

Chapter 3

Proposal and orientation for Hanoi Capital Region

by using strategic planning

Based on methodology of strategic spatial planning with its characters and main issues in chapter 1 and analytical data of existing conditions and predictable growth of region to 2020 and 2050, this part mainly emphasises and focuses on giving possible solutions as well as strategic framework actions, orientation for regional development in future in order to create an regional innovative functions and visions following the crucial term “**sustainable development**”

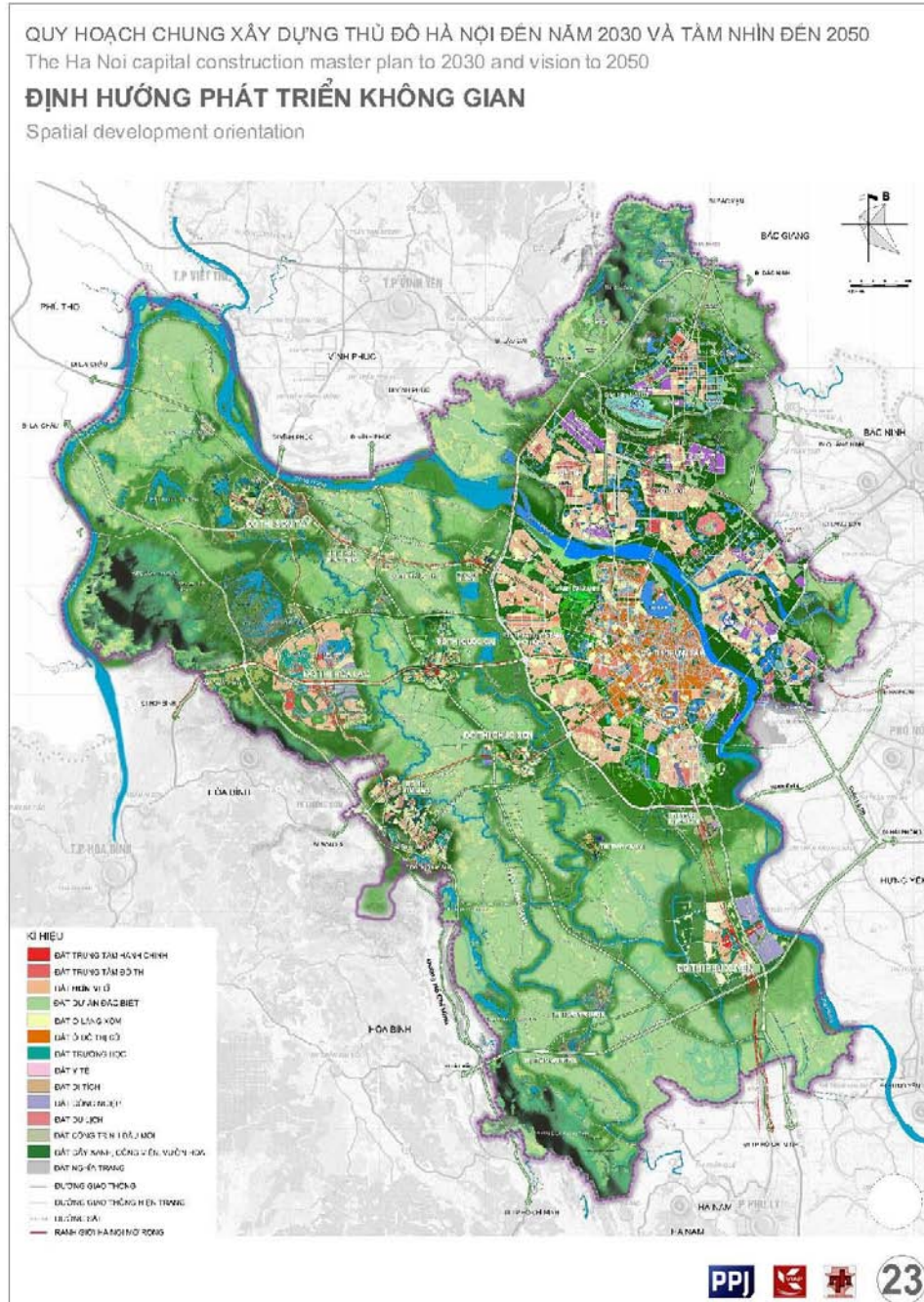
3.1 Strategic targets for Hanoi Capital Region

In considering the role of Hanoi Capital region in North region particularly and in national lever as well as international lever generally, the main targets of region development are:

1. *Promoting the role of Hanoi capital and its development as the locomotive province:* this target is to develop Hanoi capital as a modern, strong competitive city not only in Vietnam but also in East Asia area:

To achieve this target, my proposer is to use, improve and capitalise on the inheritance of Hanoi capital advantage conditions and asset as the main political, economic, cultural centre. Promoting Hanoi capital’s role and development to become a strong core city central of region that may illustrate the image of “mono-centric region”, Paris mono-centric region with core Paris capital city is an example. Hanoi capital with its rapid urbanization and modernization process, agglomeration of different type of urban entity activities as a locomotive province will support, stimulate and enhance with a great impact, influence on the development of other provinces and large cities in region as locomotive province. Therefore, there is need of strategic frameworks and planning for Hanoi core city development in order to strengthen its capacity and competitiveness, to qualify its urban context and liveable condition, to expand its urban area to serve the high population concentration etc. Actually, there is now a master plan for Hanoi development to 2030 and vision to 2050 organized and made by Ministry of Construction combining with participation of other Vietnamese Ministries, Institutions and experts (see figure

). This master plan is completed and in the process of appraising its practicability by government and will be approved by Vietnam Prime Minister in 2011. Therefore, this is not important to argue on the planning for Hanoi capital city in this part.



(Source: Ministry of Construction, 2010)

Figure 55: New master plan for Hanoi capital city in 2010

2. Maximizing and promoting all regional potential in order to achieve the balance development, social coherence and reinforce whole regional competitiveness: Redeveloping and developing the spatial condition of urban network system following the process of “concentrated de-concentration” that aims to strengthen, concentrate the agglomeration of urban entities activities to stimulus economic opportunities in other provinces and to de-concentrate to reduce the gap between Hanoi and other provinces, and decrease the extreme pressure, overload by high density in Hanoi capital that, in vice versa, will strengthen regional competitiveness and coherence.

To achieve this target, there is a need of redefining and determining the *main economic functions* of each province in general spatial development orientation to match with regional growth. In my opinion, Hanoi capital region can be divided into 3 main primary partitions: Hanoi expanded core city zone (as mentioned in target 1), Hanoi’s vicinity zone and counterweight polycentric, orbit zone.

- Hanoi expanded core city zone will cover Hanoi core city now and its expanding area that will have selective types of economic activities, high technology and high skill service as well as main politic, commercial, scientific and research, educational, tourist and cultural centre. It also should consider the strong and effective policy to control and limit the number of population, population density and private traffic as well as citizen moving inside core area to reduce, ignore the situation of overload of Hanoi capacity.

- Hanoi’s vicinity zone can be defined as the area inside the range of 25 – 30 kilometres from core city. It has a role to support for the development core city and determine the perimeter for Hanoi core city or limit its urban expanding area. This area has a main function as **a green belt** that harmonizes climate and balance ecology system, providing large green areas, protects Hanoi from flooding in rain season; it also has a function as *fresh food, vegetable supply source* for the high demand of inhabitant concentration in core city. In making master plans for this zone development should consider different factors that characterize its distinctiveness, for example: the need of determining clearly the area of agriculture and green area in this zone, enhancing the development of traditional professional villages, ecology tourism activities. Urban area in this zone can be developed as small town, independence urban areas that have a function as orbit towns supporting and sharing the population movement flows for core city. Industrial activities

in this zone must be selected with high technology, no negative environment effect and requiring less land consumption.

- Counterweight polycentric, orbit zone is area in the range of 30 – 80 kilometres from core city. This zone develops base on the development of large cities which considered as a new core cities in their province and region. These new core cities and their province will have a role as both new counterweight poles and orbit cities for Hanoi capital. It can be divided into 3 main territorial partitions based on their terrain typology, urban context and main economic function:

- ✓ West polycentric counterweight, orbit area: this area is located in West direction from Hanoi, including Hoa Binh and Ha Tay province. With its semi-mountain terrain geography, location of many historical relics, national forests (national Ba Vi forest in Ha Tay province, national Cuc Phuong forest in Hoa Binh), beautiful natural landscape with numerous springs, lakes, primeval forests systems, western area have a great advance potentials for encouraging different type of tourism (ecology tourism, resorts, convalescent areas etc.). Therefore, one of the development orientations for this area is to enhance and improve the quality of tourist centres and their activities that will attract great attention of both huge national and international tourist customers. This area also can be considered as strategic area for developing new national high technology industrial district with no environmental impact (new urban area Hoa Lac, Xuan Mai) as another main function of Western area. Core cities in this area are Hoa Binh city (Hoa Binh province) and Son Tay city (Ha Tay province).

- ✓ East, South Eastern polycentric counterweigh, orbit area: this area includes 3 provinces Ha Nam, Hung Yen, Hai Phong. There maybe two main functions for this area. Firstly, located in Red river delta, this area obviously has a great potential to with advance conditions such as high soil quality, plentiful of surface water source for developing agriculture in large scale, especially in South area with economic triangle by 3 core cities: Hung Yen, Dong Van, Phu Ly city. Secondly, this area also a connected area between Hanoi and main sea harbour in North Region, therefore, this area have an opportunity to develop large scale of industrial activities, combine with service in order to connect Hanoi city with sea gateways. For example, national number 5 highway connect Hanoi – Hai Duong – port city Hai Phong to create an economic axis as industry-service-urban corridor with numerous new industrial district and urban areas. There is a need of more concern and investment to develop Hai Duong city as a new

core city centre in region. A suggestion is to merge Hai Phong city into Hanoi capital region in future in order to strengthen economic development of region.

✓ North, North Eastern polycentric counterweigh, orbit area: this area includes 2 province In this area there is emerging of numerous industrial districts and urban areas which attach along with some main national highways: national highway number 1A from Hanoi to Bac Ninh – Lang Son – South China, highway number 3 from Hanoi to industrial city Thai Nguyen, highway number 2 connect Hanoi to Vinh Yen city, and highway number 18 connecting Vinh Yen, Bac Ninh, Hanoi to make an important economic corridor Con Minh. Therefore the main function of this area is to enhance and develop a cluster of industrial districts, including both light and heavy industrial activities. Two main core cities of this area is Vinh Yen city and Bac Ninh city.

To achieve this target, to divide Hanoi capital region into several main function zones, it should also address *the role of transportation network*. The strategic transport network will give a fundamental role to play in achieving the regional targets that relate to economic development, connect all counterweight, orbit cities, main centre of economic, industrial and social, urban activities within region. That, therefore, enhancing the transport system by expanding its network based on skeleton transport corridors in different type of transport (road traffic, railway system, waterway and airway), improving and upgrading the quality, convenience of transport system is a key tool in order to ensure regional coherence and competitiveness by the development of each province in particular and region in general.

The strategic spatial target can be illustrated as figure 56 and 57 below:

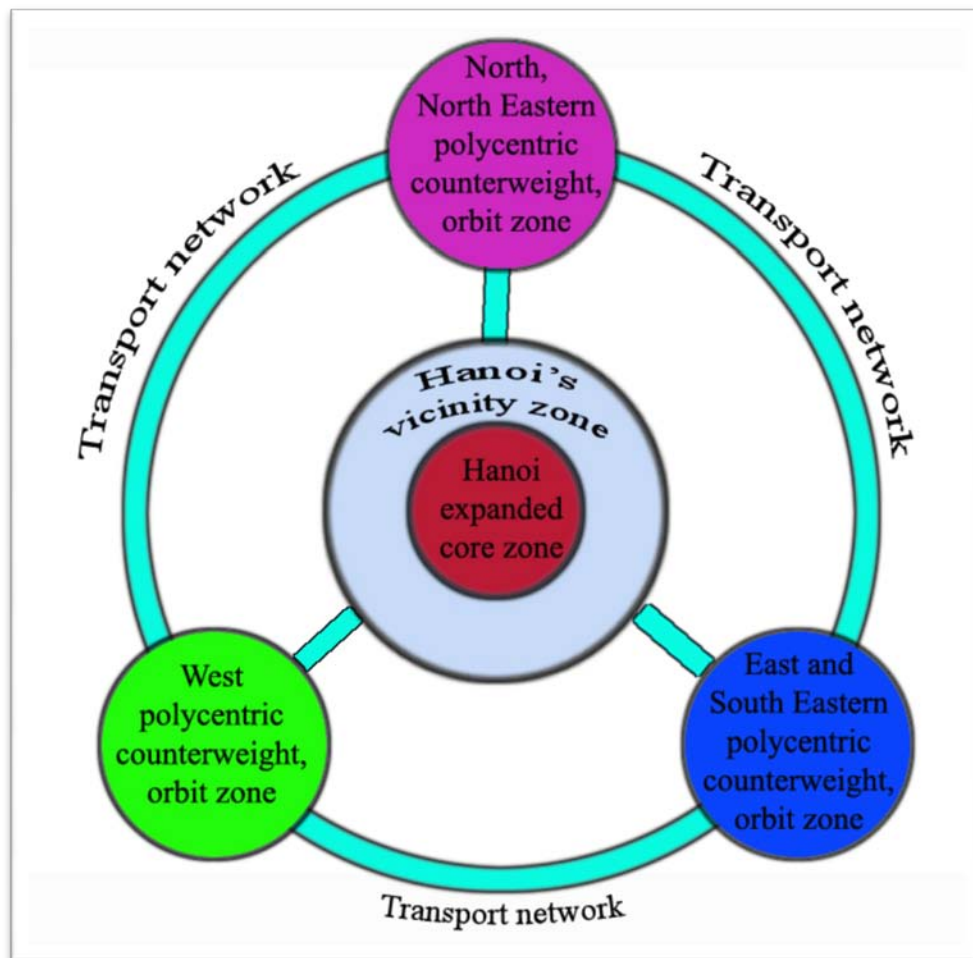


Figure 56: Three main strategic primary zones

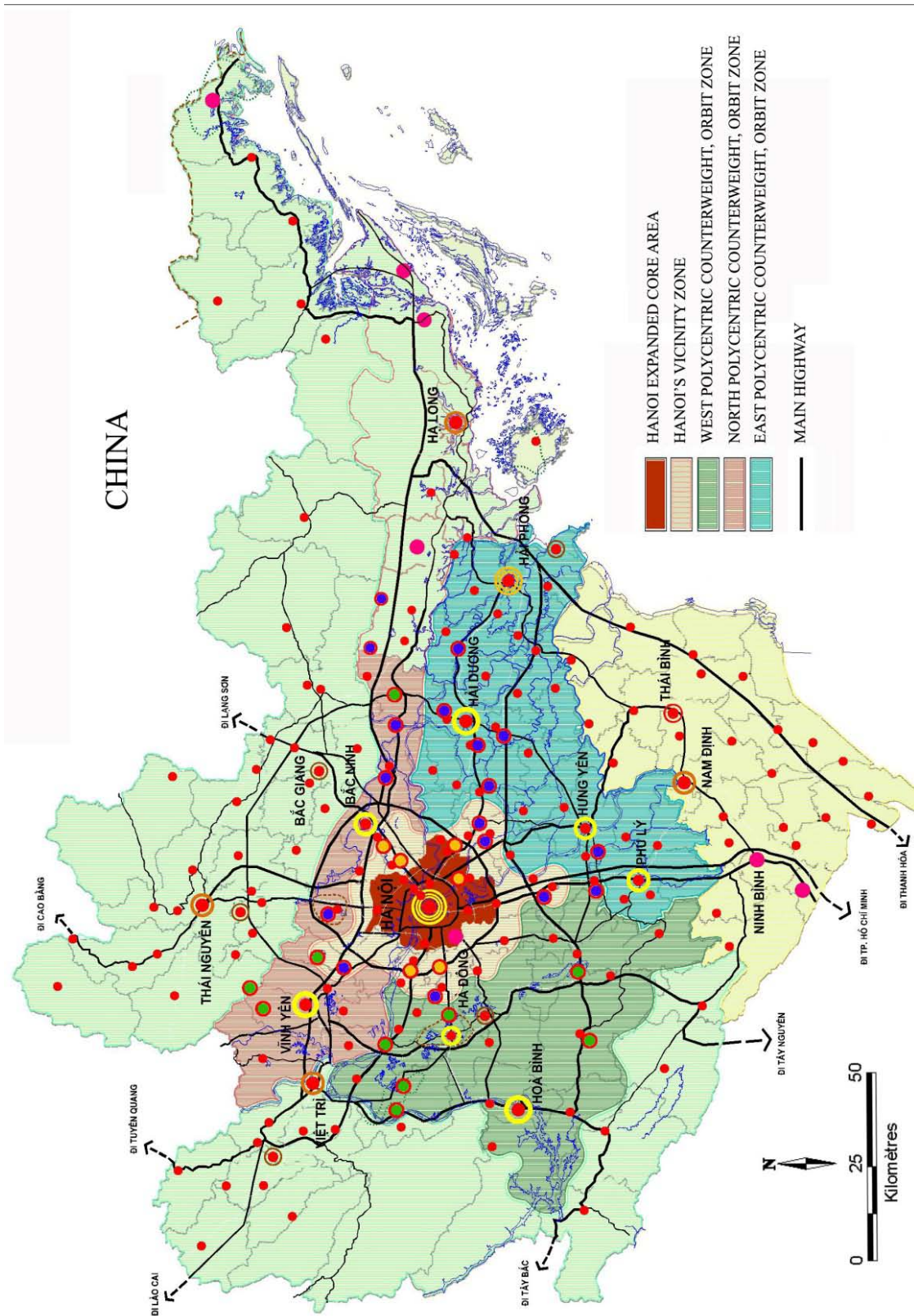


Figure 57: Three main strategic primary zones

3. ***Encouraging sustainable patterns of development:*** Strategic spatial planning for Hanoi Capital region must be build based on principles that serve to achieve the regional sustainable development for both short term and long term development. These principles must reflect the real social practical example and existing conditions in order to match with match with regional planning. In the case of Vietnam still being developing country, guiding principles for achieving regional sustainable development can be addressed as below:

High liveable conditions: The high quality of liveable conditions both in urban and rural area will have an important role in attracting investment for HCR development in future. High quality of living standard such as cleaning and healthy living environment with diversity of green areas, convenient service and transport system (especially public transport), advanced both social infrastructure (school, hospital, park, public space system etc.) and physical infrastructure system (water supply, drainage, power, telecommunication system) will play a key role to achieve region sustainable development that will keep inhabitant in region and attract from other region. Thus, high liveable condition is not focus on the rate of social development but emphasises on the convenience, easy accessing to social, physical service and the quality of living standard of community. Improving the quality and suitable distribution of infrastructure system plays a key role to reach high liveable conditions for community.

Diversification: The diversified economic, service sector will create job opportunities for community and increase the regional balance development. Diversified economic sector with its adaptive, innovative and flexible characters enhances and ensures regional competitiveness in the globalization era. Strong economy is considered as the premise for the survival and development of concentrative population, urban cluster, and agglomerative economic activities. Diversified living conditions provide suitable liveable environment for different type of community because some prefer to live in urban area while others favour rural life.

High competitive capacity: Competitiveness is one of main factor to ensure the stable of market, enterprise activities, and state management in order to promote and maximize regional development. High skill and quality employees, investor normally chose high competitive capacity region for their activities. Re-determining the function of each economic sectors and their professionalization in scale and quality is a key role to achieve regional high competitive capacity. Then, strong competitiveness economy will create more social products and improve the living standard for community.

Urban network coherence: The developing and emerging of new urban areas without spatial framework planning has brought several inadequate and negative problems. Therefore, to ensure the sustainable development of region, the comprehensive strategic spatial planning of re-organizing and re-framing urban network for Hanoi Capital Region is needed and urgent. Suitable land use organization for different type of urban project activities combining with transport network strategy will increase the efficiency, effect and convenience for goods trading and exchange, population commuting. Framing and locating main new urban centres in the main transport hubs, points are the crucial strategy for this target.

Enhancing accessibility: An effective, convenient and flexible transport system including road traffic, railway, waterway, airway is a basic premise and fundamental for a competitive and prosperous region. In the rapid expanding of existed urban and emerging of new urban areas, the correlation between cities, urban areas is increasing with more and more mutual dependence. Thus, a high quality, well-organized transport system and its network will provide more opportunities in sharing benefit that increase regional coherence and balance development in whole region. Congestion, environment impact by traffic, transport accidents, lack of public transport systems to serve for community demand, high concentration of private traffic etc. are negative externalities of low, ineffective transport system and weak transport policies. Therefore, to enhance regional accessibility, on the one side, there is a need of strategic projects, plans to improve the quality and convenience of transport network with different kind of traffic in order to upgrade accessibility generally that will stimulate a balanced spread of future growth in urban areas crossing region. On the other side, researching effective policies, decrees to reduce private traffic number, creating strong public transport system will change the travel culture of community and reduce negative environment impact. Case studies in Hong Kong and Singapore are excellence example of organizing convenient public transport system and limiting private traffic.

Protection and conservation of natural environment, resource and bio-ecology diversity: One of the main crucial principles to achieve regional sustainable development is to protect and preserve the natural environment, resources and bio-ecology diversity system. Natural landscape, ecological system, environmental balance of region can be extremely threatened by the spreading and expanding of forest exploitation, land using consumption for different purpose (construction, agriculture activities etc.). For example, flooding disaster that has happened frequently in recent

decades is the negative outcome of the over-exploiting forest. Therefore, how to protect environment and natural resource is the main issue for regional sustainable development. In addition, sustainable development also requires effective policy tools to manage and control environment pollution, especially pollution by urban activities and industrial producing and to deal with solving waste issue. This principle emphasises on method of protecting and preserving natural environment and ecological system that maintains region's bio-ecology diversity. Natural green zones obviously contribute to the high quality of living standard of community both in urban and rural area. Moreover, they also attract people visiting and enhance regional tourism potential.

Learning and innovation: Innovation, creativeness, knowledge, investment on human resource are considered as main factor that impact directly on regional development. As the increasing of globalization effect, investment on human resource plays as a key principle to enhance regional potential and development in future. Innovating, adapting with social change requires a huge source of high-skill and professional labour force. Therefore, this principle aims to emphasise on the need of building a strong force of employee class with both its high quality and number. Spreading education system in whole region, creating various type of high training centre, investing on the quality of teaching in university etc are approach method to achieve this target. An innovative, creative society where everyone can have opportunity to get high education and knowledge, skill will provide a high quality of labour force and can be easy to achieve sustainable development.

Regional partnership: regional as well as social development always is an uncertain entity. Government's policies, decrees sometime conflict with the community's benefit and private actors or sometime decided lately and not match with reality. Therefore, building a strong, coherent and mutual relationship between government, regional state, provinces with institutions, communities and private stake sector is needed in order to ensure the correct development orientation for whole region that ensure sustainable development because regional growth must bring the benefit not only to one entity but to every stake holder, citizen. Building strong agendas, public decisions in order to listen, receive trust, feedbacks, comments, contribution and participation from private sector, citizen is needed to achieve this principle.

3.2 Regional strategic vision to 2030 and to 2050

Hanoi Capital Region's vision to 2030 and 2050 is created based on 3 main strategic targets for regional development as above. In general, Hanoi Capital in 2050 will be a strong, competitive economy with different type of economic sector in Vietnam and in international level; will be a flexible and active developing region with high urban quality, convenient environment for investment, a region with healthy life, harmonized natural environment, ecology balance. Moreover, HCR also has a role as most important centre of political, economy, culture, science and technology, education-training, tourism in Vietnam.

The spatial development strategy to make HCR's vision can be articulated through six core strategic themes that illustrate the future spatial development of the Region as showed in figure 58 below:

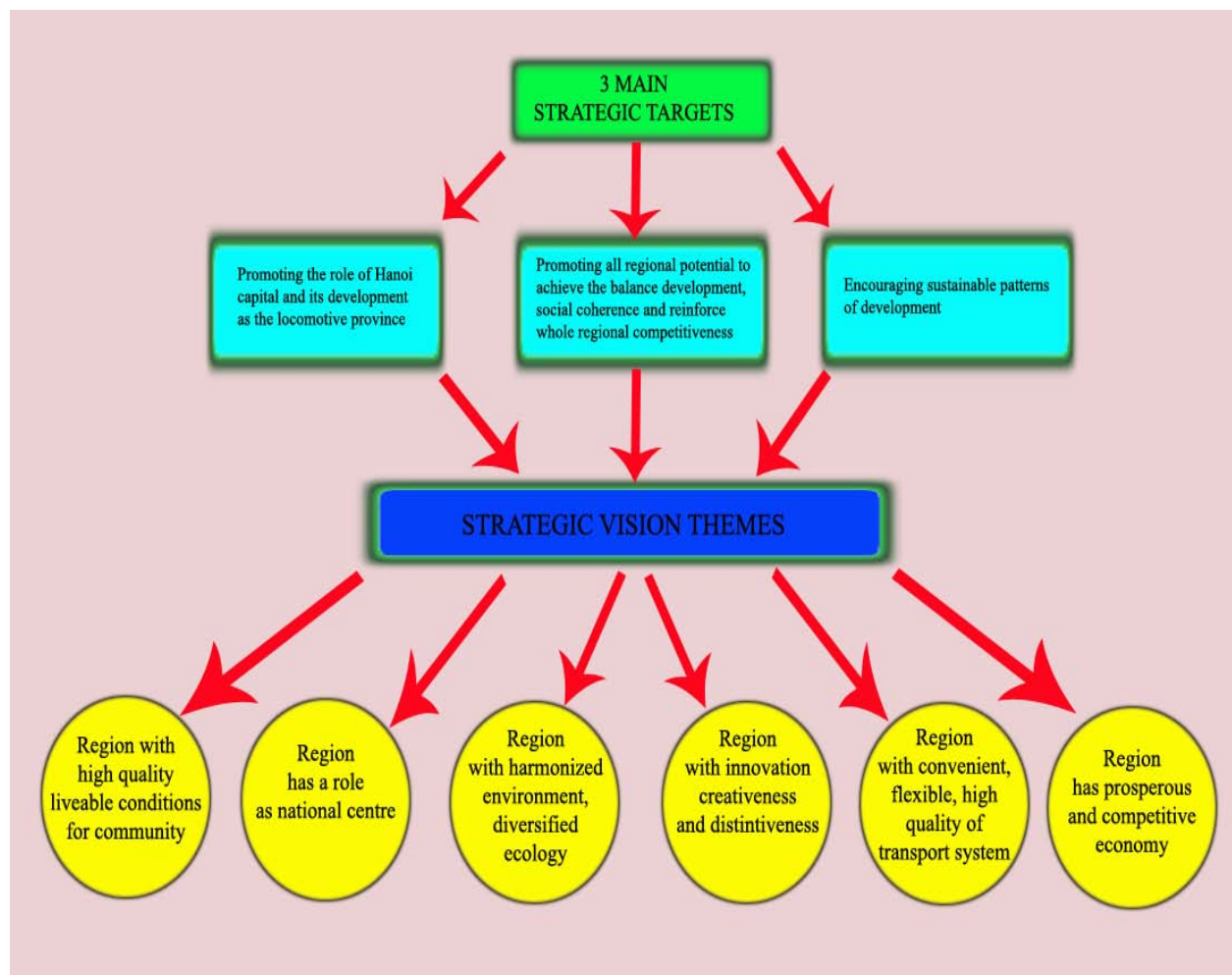


Figure 58: Strategic vision themes for Hanoi Capital Region

3.3 Proposal for Regional governance management model

In order to ensure the application process of strategic planning in Hanoi Capital Region for its development, one issue must be considered and researched carefully is about the typology of governed management in region. As mention in part 2.1.5 (Regional inadequate issues...), there are some problems, namely:

- There is no real government authority at regional lever in Vietnamese political tier. In the horizontal distribution of political structure, the province government has a political power directly after national government. Therefore, in reality, without a real government authority, the setting up and developing of region cannot work effectively because there is no one responding for regional issues. As a result, with still no strategic spatial planning which brings orientation for province growth, the urban context within region is developing as some experts describe “spontaneous development” meaning developing without framework actions.

- The Region Steering Committee, however, has only 1 meeting per year to make general decisions for region development. While the development of region in recent year is very fast and are more and more complex with many new problems emerging that need immediate solution. Therefore, this Committee has no real power in regional decision, and each province has to decide by itself for main issues.

Therefore, there is a need of building an adequate government management structure for region development in order to ensure the effectiveness for a long term and sustainable development of region. Building an appropriate regional government structure is not an easy mission and need a comprehensive researching as well as long time to build the most effective structure. This part will propose 2 regional government model from other regional experience that are considered suitable for regional development in long term in Vietnam, namely Regional Development Agencies and Region Council models

Regional Development Agency

Regional Development Agency (RDA) is used and applied widely in the world in order to manage the regional development which related with big core city or capital city and many

others provinces, municipalities. RGA for Metro Manila capital region and Singapore are an example of RGA in South East Asia region. RGA has responsibility for regional development in main issues as figure 59 below:

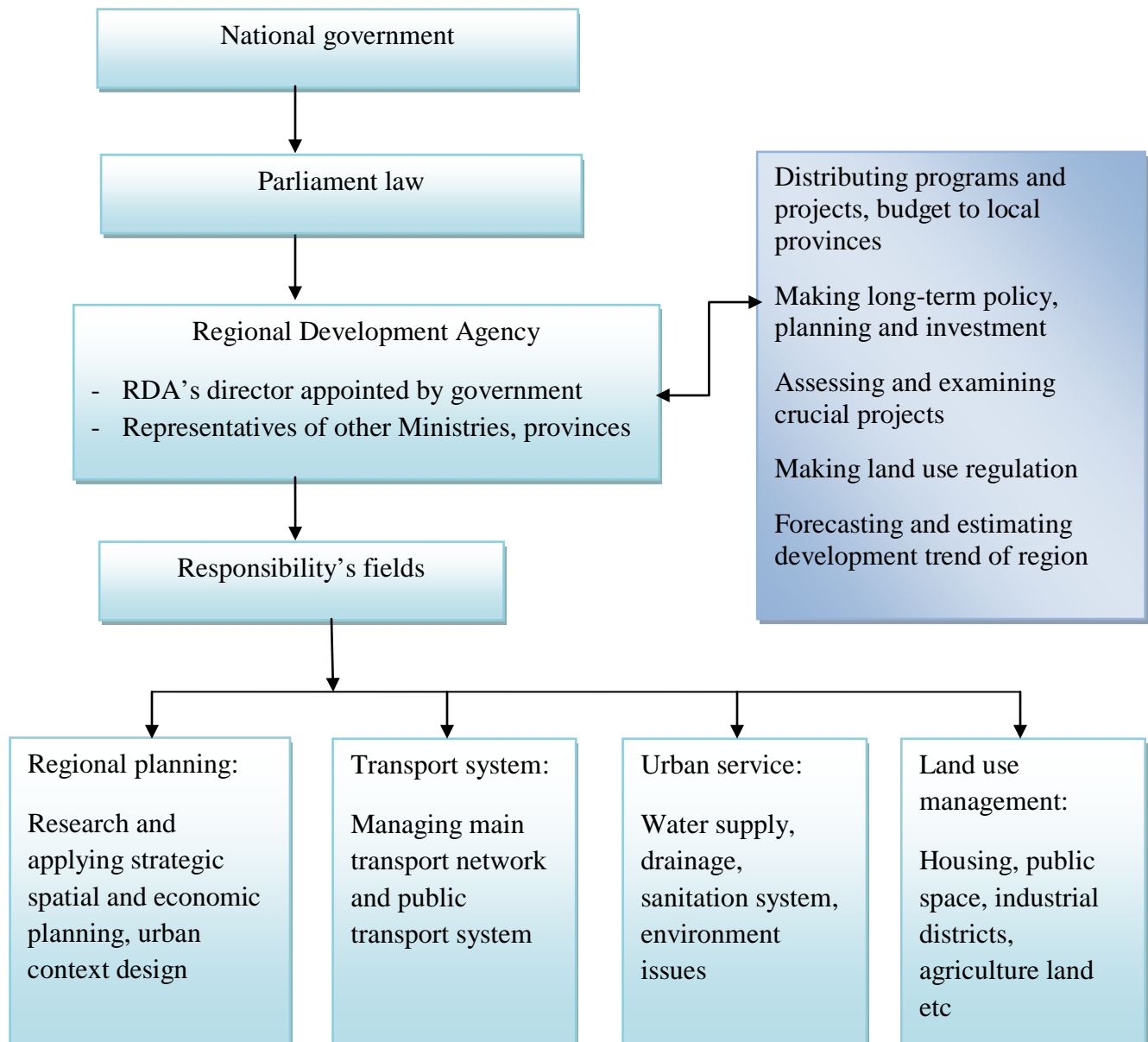


Figure 59: Structure of Regional Development Agency model

RDA's advantage:

- RDA model is not a supplemental government authority level between nation government and province government, municipalities. Actually, it is a planning agency which executes and manages project in region, despite it has the same functions as one local government. Thus it is suitable for the case of Hanoi Capital Region because there is no regional government authority in Vietnam political tier.

- RDA model is flexible and can give the most effective solution directly to regional projects, especially for region which requires huge investment and building in infrastructure, transport system, housing and urban, industrial services for long term development.

The establishment of RDA requires for 3 – 5 year for its legality and for dividing its function, power boundary with local province.

Regional Council

Regional Council model is established by the corporation between the representative of national, province government and institutions, experts, enterprises. Regional Council has a role and responsibility of making strategic plan, implementing main project as well as finding investment opportunity, economic corporation for region. The model is applying successfully in Australia, New Zealand and some ASEAN countries such as Philippines and Thailand. The structure of Regional Council is showed as in figure

As from the successful experience from other countries, Regional Council model is suitable in promoting and encouraging economic activities, improving infrastructure, transport system in long term. This model also ensures the benefit parity, democracy for different economic fields as well as living conditions, environment in particular, and for regional development in general.

However, it only works effectively with the regional market with strong private economic activities and well-corporation between public and private sector. Therefore, in the case of Vietnam general and in Hanoi Capital Region which the state economic sector is dominated and the private sector is still weak. In addition, this model is also ineffective in solving recent problems because of the weak corporation between provinces and other political tier in region.

Thus, this model should be applied in suitable time when there is a strong political, social, economic cohesion in future 60.

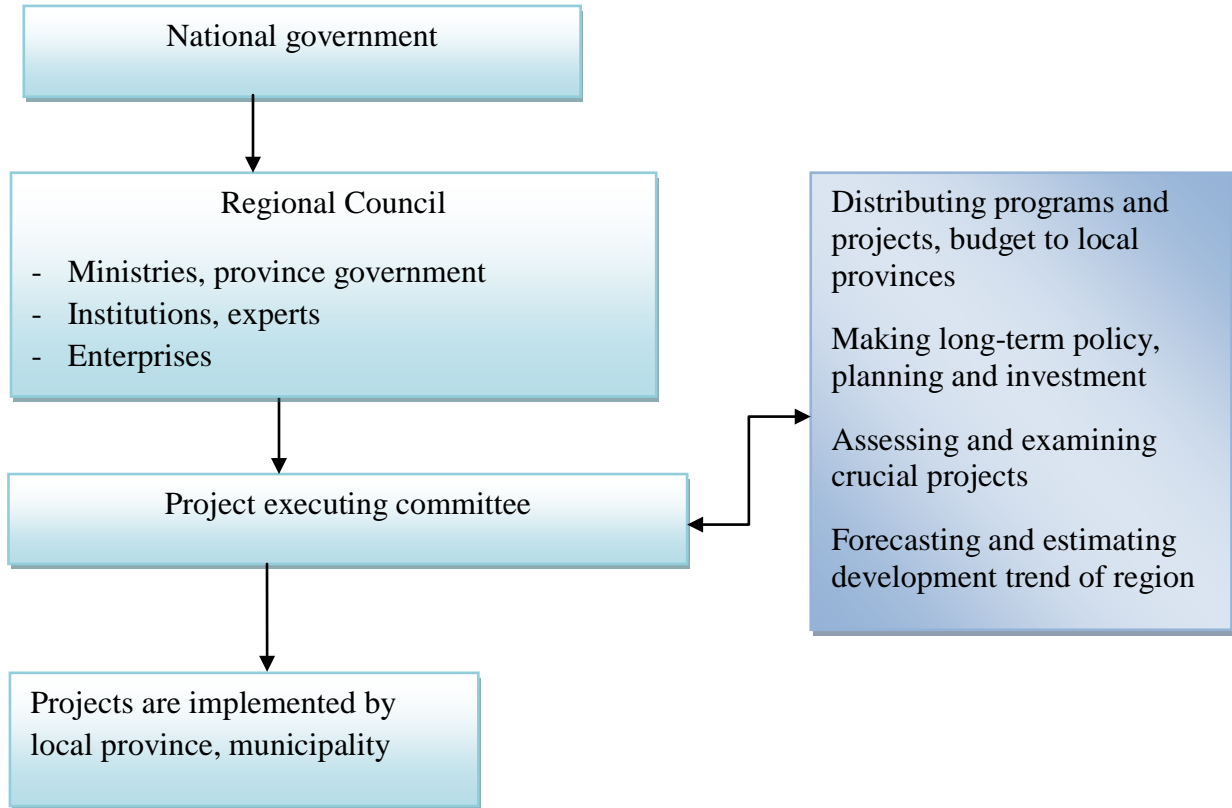


Figure 60: Structure of Regional Development Agency model

Proposal

My proposal for Hanoi Capital Region in the field of political management is the 3 phases combing the current Regional Steering Committee and 2 regional management models above:

Phase 1: Improving the Regional Steering Committee's effectiveness in order to solve the recent problems of region, researching suitable strategic spatial planning for region development which will be the basis factors, oriented action for the establishment of Regional Development Agency in phase 2. The first phase also gives the needed time for studying Regional Development Agency function, role and power boundary.

Phase 2: Creating the Regional Development Agency with its role, function, responsibility as mentioned above. RDA's framework actions will be guided by the orientations of strategic planning researched in phase 1 in order to ensure and achieve the sustainable development for whole region.

Phase 3: When region has better political link between all provinces, improved social cohesion, strong corporation between public and private economic sector, the model of Region Council will be applied at the suitable time to enhance the best development for region in general.

The model with 3 phases can be showed as below:

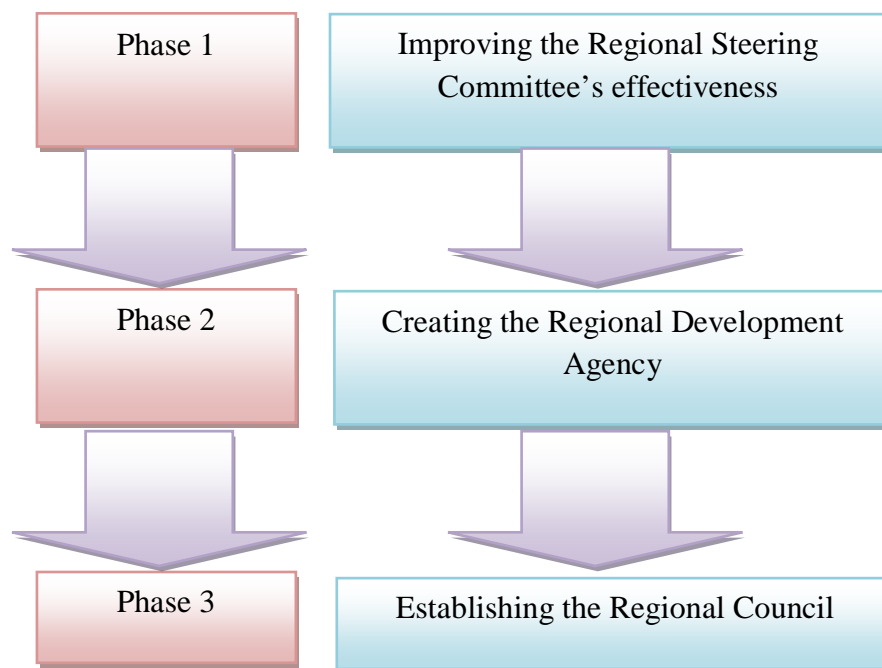


Figure 61: 3 phases of Regional governed management

Conclusion

In recent decades, Vietnam is being on the way to recover from the end of war since 1976 and to transform from a dominated agriculture economic country into an industrial and modern economic country. Hanoi Capital Region, a new emerged region in North Vietnam since 90s, is considered as a strategic locomotive actor of national growth, a key leader of national competitiveness at international lever. Under the impact of modernization, urbanization and globalization process, city and region must be managed effectively to adapt with the rapid development trend and to balance the growing complexity issues of economic, social as well as environmental norms not only at present but also in the future generations that is in order to achieve the terms “sustainable development”.

Spatial planning focusing on spatial relations allows an effective way of integrating different agenda such as social, politic, economic, cultural and environmental agendas which have a crucial impact in local activities and territorial vision development. It is obvious that the growing complexity of social, urban issues can lead to the uncertainty or even the disorder, unexpected results in spatial planning activities. Traditional planning, also known as traditional land-use regulation planning, is not suitable in dealing with these issues completely and effectively, especially at the large scale lever such as regional planning, and as a result is no more applied widely at macro level of planning. Strategic spatial planning with its on-going process and framing activities of stakeholders *to help achieve shared concern about spatial change* has approached as a new effective and efficient urban planning to cope with complex, dramatic change of urban and social issues in the developing process and to achieve the goals of sustainability. As understanding the characters of what and how strategic spatial planning is, planners in strategic spatial making can play as 3 main roles: political, managerial and expertise role with several tasks: scanning the environment; identification and gathering of major stakeholders; creating a long-term vision and strategies; designing the plan-making structures, the development of content, images and decision framework; generating ways of mutual understanding, agreement and organization mobilizing; preparing decisions (short- and long term action and implementation); monitoring and feedback. In addition, by using the four-track

approach described by Louis Albrechts, planners can analyse the principles of strategic planning process and apply in reality practice at the possible macrostructure.

In researching and studying the suitable strategic spatial planning for Hanoi Capital region, scanning the social, urban, environmental conditions of region is the first important task. Investigation in chapter 2 indicates and identifies the main problems of regional contexts:

- Firstly, there is lack of the connection and low cooperation of inter-politic, inter-administrative structure management of different ministries and regional government. The Region Steering Committee does not have enough power and cannot supervise, manage and control all the issues of region. Moreover, there are still no official and comprehensive general planning to guide or provide orientation for regional, province urban development. Thus, province governments still have to respond mostly for their local development and their urban problems that lead to the fragmentation of urban spatial context.

- As a result of weak management of centre state, with the rapidly high increasing of construction under the impact of urbanization process, many main constructions, projects and industrial districts are created by local demand without any framework, or not match with orientation guidelines, spatial planning and developing trend as well as overview vision of whole region. These un-deliberated consideration and researching constructions undermine urban landscape and the outcome now is lead to the extremely fragmentation of spatial urban context.

- Another outcome is also the threat of serious pollution and environment degrading in recent years that raises a great alarm for government management to find the effective policy in order to preserve natural resource and protect environment, living conditions as well as ecology balance in whole region, especially in urban core city and in spread industrial districts.

- The infrastructure system including technique infrastructure (such as transport system, water supply and drainage, power supply etc.) and social infrastructure (such as market, school, hospital etc.), the quality and diversity of service industry are still very low, unbalance, insufficient and fragmented. For example, Hanoi Capital Region is almost totally dependent on a roads based transport system, many new highways are built but the road system is still at low quality and not enough to serve for the more and more local, region demand of goods freighting citizen moving. While other type of transports such as railway, waterway, and airway are not

explored, invested as well as used efficiently. As a result, the province connection ability is very low and not appropriate with the rate of regional development, and as a result may lead to the overload of some urban area (especially at Hanoi city).

▪ Finally, there is still no precise forecast, lack of technical approach and deliberated evaluation, researching and investigation for the urban development issues of region such as the growth of population, the trend of migration, the trend of spatial developing of urbanization process, the trend of market economic movement that leads to the big gap between reality and land regulation research. Thus, each province cannot identify its main function in the overall development of region, and leads to the fragmentation of developing in the whole region by allowing spreading investment.

In my opinion, applying the ideas, methodology and practice of strategic spatial planning is considered as an opportunity worth attempting approach in order to solve and deal with the main problems of Hanoi Capital Region as well as to make the general frame activities, solutions to get a better growing in future to achieve sustainability goals. I suggest 2 main proposals that should be done simultaneously to create the vision for Hanoi Capital Region till 2030 and 2050

1. Creating a strategic vision for region to 2030 and 2050:

Creating a strategic vision requires a strategic framework action, orientation and main targets for region development at now and in future. The case study of spatial development strategy for regional growth in Northern Ireland brings an idea, a great experience and a model of balanced and sustainable development of territory of region. Inspired by this case study in Northern Ireland, I propose 3 main fundamental targets for Hanoi Capital Region in order to achieve sustainable developments, namely:

- *Promoting the role of Hanoi Capital Province and its development as the locomotive leader province*: this target is based follow the orientation guideline of government that identify the special role of Hanoi Capital province as the brain province of country in general and as the centre province of region in particular. Strengthening Hanoi province's potential and capacity also can stimulate the development of whole region.
- *Maximizing and promoting all regional potential in order to achieve the balance development, social coherence and reinforce whole regional competitiveness*: this target

aims to reduce the gap between Hanoi and other provinces, to decrease the extreme pressure, overload of high density in Hanoi province, and as a result to strengthen regional coherence. It stimulates other provinces' economic opportunities by identifying and determining their main economic functions of each province to match with regional growth. To be divided into 3 main primary partitions:, namely: Hanoi expanded core city zone, Hanoi's vicinity zone and counterweight polycentric, orbit zones, this target also helps to reduce the fragmentation of spatial development of urban context in the whole region.

- *Encouraging sustainable patterns of development*: this target aims to build principles that serve to achieve regional sustainability in both short and long term development. These principles are: high liveable conditions, diversifications, high competitive capacity, urban network coherence, enhancing accessibility, protection and conservation of natural environment, learning and innovation, regional partnership. These principles reflect and match with existing conditions of regional planning in Vietnam.

Based on three main targets, the vision for Hanoi Capital Region in 2030 and 2050 can be articulated as 6 core strategic spatial vision themes as below:

- A region with high quality, liveable condition for community
- Region has a role as national centre
- Region with harmonized environment, diversified ecology
- Region with innovation, creativeness and distinctiveness
- Region with convenient, flexible and high quality of transport system
- Region has prosperous and competitive economy

2. Building an effective regional governance management model

As learning from some experience of unsuccessful planning from the past by the weakness of governed management, and the fact of no real government authority at regional lever in managing the process of regional development, parallel with the framework of creating the strategic vision for region, my second proposal is to create an effective and adequate governance management structure. Building an appropriated regional government structure is not easy and need a comprehensive researching as well as a long time tentative execution.

In recent years, the enforcing and emphasizing of the role of private participation in Hanoi Capital Province and Hanoi Capital Region is a sign of governance management change in order to attract and mobilize all of social and economic resource of both public and private sector to get the mutual corporation in dealing with regional problems as well as development process. Planning activities now is considered not only as the determination of state but also as the corporation and management of all region resources. For example, many infrastructure projects are created by the coordination of state and private following the financial management model (PPP – public private partnership). Another example, the master plan of Hanoi Capital Province in 2010 with the vision to 2030 and 2050 created by Ministry of Construction published widely is still not approved by Prime Minister due to the negative feedback and comments from social, economic associations, involved experts in different science institutions, from NGO or private organizations, and even from the contribution of citizens in numerous agendas. Thus, with the collecting selected feedback of different type of stake holders, this master plan is being revised and edited to ensure more suitable and effective, efficient outcome.

Therefore, firstly, we should improve the capacity and power of governed management of Regional Steering Committee in order to solve current regional problems in development and the short term planning. In future, 2 types of improved models for regional governance management, namely Regional Development Agency and Region Council with their advantages, can be considered and applied adequately depending on the deliberated research of status quo of social cohesion, the corporation between public and private economic sector as well as other stake holder involvement, the political link between all provinces and governance tiers etc. The process of 3 phases of applying regional governance management for Hanoi Capital Region can bring more suitable efficiency and effectiveness in making framework activities for regional development followed the idea of strategic spatial development.

Building strategic spatial guidelines in detail for Hanoi Capital Region requires a huge works with comprehensive, careful research and investigation as well as the incorporation of different government ministries, institutions or private sectors that cannot be analysed and presented within the limited contain of a sole thesis. My ideal is study the methodology and possible practice of strategic spatial method for region planning in order to achieve the term of

sustainable development to get the better shape in future. And by mainly focusing on scanning, researching the status quo of natural, social and urban contexts, I also try to raise the existed and emerged problems of planning and management execution in region as the basic premises to propose tentative solutions, main targets and principal tasks followed the ideal of strategic spatial planning for Hanoi Capital Region development.

End

Reference

- [1] Albrechts, L. (2004) :”Strategic spatial planning re-examined”, in *Environment and Planning B: Planning and Design*, vol. 31, pages 743 – 758
- [2] Albrechts, L. (2006), “Is the ‘new’ strategic planning suited to coping with issues of globalization?”, in *Which future?* proceeding of University of Dortmund’s international conference, September 2006
- [3] Albrechts, L., (December 2001), “Key Phases: Planners’ role in strategic spatial planning”, University of Leuven
- [4] Albrechts, L. (2006), “Shift in Strategic Spatial Planning? Some evidence from European and Australia”, in *Environment and Planning A*, volume 38, pages 1149 – 1170
- [5] Albrechts, L. (2005), “Creativity as a drive for change”, *Planning Theory*, Vol. 4, pages 247–269, 2005, SAGE Publications (London, Thousand Oaks, CA and New Delhi), available at <http://plt.sagepub.com/cgi/content/abstract/4/3/247>
- [6] Albrechts, L. (2005), “Reconstructing Decision Making: Planning versus Politics”, *Planning Theory*, Vol. 2, pages 249–268, 2003, SAGE Publications (London, Thousand Oaks, CA and New Delhi), available at <http://plt.sagepub.com/cgi/content/abstract/2/3/249>
- [7] Albrechts, L., Healey, P. and Kunzmann, K. (2003), “Strategic Spatial Planning and Regional Governance in European”, in *APA Journal*, Vol.69, No.2, pages 113 – 129
- [8] Albrechts, L. (April 2010), “The Strategic plan for Flanders”
- [9] Balducci, A., “Constructing (spatial) strategy in complex environment”, available at [http://www.laboratoriorapu.it/UPD/Download/CI09_09.06.15_Pasqui/Balducci_Constructing%20\(spatial\)%20strategies%20in%20complex%20environments.pdf](http://www.laboratoriorapu.it/UPD/Download/CI09_09.06.15_Pasqui/Balducci_Constructing%20(spatial)%20strategies%20in%20complex%20environments.pdf)
- [10] Balducci, A., “The strategic project for the Province of Milan “Milano Città di Città” an exploratory spatial strategy”, *Lecture 5, Accademia di Architettura di Mendrisio*, Politecnico di Milano.
- [11] Balducci A., “Constructing spatial strategies: defining a method”, *Lecture 7, Accademia di Architettura di Mendrisio*, Politecnico di Milano
- [12] *Bản đồ liên hệ vùng*, [maps], Architect and Planning Department, Ministry of Construction

- [13] *Bản đồ hệ thống đô thị*, 2010, [maps], Architect and Planning Department, Ministry of Construction
- [14] *Bản đồ diện tích đất nông nghiệp và lâm nghiệp*, 2003, [maps], Ministry of Agriculture and Rural Development
- [15] *Bản đồ vị trí các khu, cụm công nghiệp trong vùng*, 2005, [maps], IMV French research team
- [16] *Bản đồ dịch cư chuyển đi giai đoạn 1994 – 1999*, 2005, [maps], IMV French research team
- [17] *Bản đồ hiện trạng giao thông*, 2008, [maps], Ministry of transport
- [18] *Bản đồ quy hoạch Hà Nội qua các thời kì* [maps], Architect and Planning Department, Ministry of Construction
- [19] *Bản đồ hành chính vùng thủ đô Hà Nội* [maps], 2003, Architect and Planning Department, Ministry of Construction
- [20] Bryson, J., and Roering, W. (1987), “Applying Private-Sector Strategic Planning in the Public Sector”, in APA Journal
- [21] Christensen, K. (1985), “Coping with Uncertainty in Planning”, Bibliography, Facolta di Architettura, Politecnico di Milano
- [22] Google Earth, *Hanoi*, 2010 [photographs].
- [23] Google Image, *Bat Trang village*, 2010 [photographs].
- [24] Google Image, *Highway*, 2010, [photographs].
- [25] Google Image, *Waste on lake’s surface*, 2010, [photographs].
- [26] Google Image, *Slum area in Hanoi city*, 2010, [photographs].
- [27] Google Image, *Rubbish dumping ground in Hung Yen and Bac Ninh*, 2010, [photographs].
- [28] Google Image, *waste releasing from traditional village*, 2010, [photographs].
- [29] Healey, P. (2009), “In Search of the “Strategic” in Spatial strategy making”, in Planning Theory & Practice, Vol.10, No.4, 439 – 457
- [30] Huynh, D., H., former General Secretary of Vietnam Urban development and Planning Institution, *General reviews of master plans of Hanoi Capital from since 1960* (2006), Architect and Planning Department, Ministry of Construction
- [31] “*Infrastructure Strategy, Cross-sectoral issues*”, 2006, The World Bank in Vietnam,

[32] Kaufman, J., and Jacob, H. (1987), “A Public Planning Perspective on Strategic Planning”, in APA Journal

[33] Lindblom, C.E (1975), *Chapter 2, The Sociology of Planning: Thought and Social Interaction*, in Bornstein, M. (ed), *Economic Planning East and West*, Cambridge Mass.: Ballinger

[34] *Mức độ lún mặt đất tại các khu vực khai thác nước ngầm ở Hà Nội*, 2006, [data], Ministry of Natural Resource and Environment

[35] *Nghị quyết của bộ Chính trị về phương hướng phát triển của thủ đô Hanoi trong thời kì 2001 – 2010*, 2000, Decree 15NQ/TW, Hanoi, Ministry of Politic

[36] OECD, *Milan, Italy*, OECD Territorial Reviews, 2006

[37] OECD, *OECD Region at a Glance*, 2009

[38] *Quyết định của Thủ tướng Chính phủ về việc thành lập ban chỉ đạo và đầu tư xây dựng vùng Thủ đô Hanoi*, 2003, Decree 118/2003/QĐ-TTg, Hanoi, The Prime Minister of Government

[39] *Quyết định của Thủ tướng Chính phủ về việc quy hoạch xây dựng vùng thủ đô Hanoi đến năm 2020 và tầm nhìn đến năm 2050*, 2008, Decree 490/QĐ-TTg (2008), Hanoi, The Prime Minister of Government.

[40] *Quyết định của Thủ tướng Chính phủ về việc phê duyệt điều chỉnh Quy hoạch chung Thủ đô Hanoi đến năm 2020*, 1998, Decree 108/1998/QĐ-TTg, Hanoi, The Prime Minister of Government

[41] *Quyết định của Thủ tướng Chính phủ về phương hướng chủ yếu phát triển kinh tế - xã hội Vùng kinh tế trọng điểm Bắc Bộ đến 2010 và tầm nhìn đến 2020*, 1998, Decree 145/1998/QĐ-TTg, Hanoi, The Prime Minister of Government

[42] *Quyết định của Thủ tướng Chính phủ về việc phê duyệt định hướng phát triển đô thị Vietnam đến năm 2020*, 1998, Decree 10/1998/QĐ-TTg, Hanoi, The Prime Minister of Government

[43] *Quyết định của Thủ tướng Chính phủ về việc phân loại đô thị*, 2009, Decree 42/2009/QĐ-TTg, The Prime Minister of Government

[44] *Quyết định của Thủ tướng Chính phủ về việc phê duyệt quy hoạch tổng thể kinh tế - xã hội vùng đồng bằng sông Hồng thời kỳ 1996 – 2010*, Decree 677/1997/QĐ-TTg, general economic, The Prime Minister of Government

[45] Sassen, S. (2000), “Cities in a World Economy”

[46] “Shaping out future”, *Regional Development Strategy for Northern Ireland 2025*, Department for Regional Development of Northern Ireland, available at http://www.drdni.gov.uk/index/regional_planning.htm, 2007.

[47] *Sơ đồ đánh giá thời gian đi lại trong vùng*, 2008, [illustration], Ministry of transport

[48] *Statistical Yearbook of Vietnam*, 2009, General Statistics Office, Ministry of Planning and Investment

[49] *The Capital Hanoi construction Master plan to 2030 and vision to 2050*, 2010, PPJ – VIAP – HUPI, Ministry of Construction