The Transformation of the Urban Form in Vientiane, Laos: From the Perspective of Politics and Policies

라오스 비엔티안 수도 지역의 도시 형태 변화에 대한 정치 및 정책적 분석

타누선 봉쁘라섯*·이수기**·최창규*** Thanousorn Vongpraseuth* · Sugie Lee** · Chang Gyu Choi***

Abstract

본 연구는 동남아시아에 위치한 라오스 수도인 비엔티안의 도시 형태 변화 특성을 정치 및 정책적 관점으로 분석하기 위하여 수행되었다. 급속한 경제 성장과 도시의 외연적 확장을 경험하고 있는 비엔티안 지역은 1975년 라오스의 독립을 기점으로 도시 성장의 양상이 급변 하였다. 독립이후 독자적인 공산주의 국가로서 라오스는 새로운 경제 체계를 확립하고 성장과 발전을 위한 정책을 지속적으로 추구하고 있다. 본 연구는 비엔티안의 도시개발과 관련된 정책, 법령, 기록, 통계등 활용가능한 모든 자료를 수집하고 조사하여 도시형태 변화를 분석 하였다. 그 결과 4가지의주요한 특징을 확인할 수 있었다. 첫째, 라오 왕국 이래 계획도시의 형태를 도심 지역 내에 고대의 벽체를 통해 확인할 수 있었다. 둘째, 1975년 이후 10여 년간의 전환기를 거쳐서 1990년대 이후에 도시의 급격한 성장이 시작되었다. 셋째, 중심지와 교외지역의 불균형 성장이 진행되었으며,이러한 불균형 성장은 기반시설의 선별적 투자와 밀접한 관련이 있는 것으로 나타났다. 넷째, 비엔티안 수도의 도시개발은 중앙 집권적인 정치체제와 라오스 정부의 경제 개발 정책에 의하여 진행 되었다. 이상의 연구 결과는 향후 비엔티안 지역에 대한 계획과 개발 그리고 성장관리를 위한 기초적인 정보로서 활용될 수 있을 것으로 판단된다.

키 워 드 ■라오스, 정치, 공공정책, 도시형태, 도시성장, 비엔티안

Keywords ■ Laos, Politics, Public Policy, Urban From, Urban Growth, Vientiane City

I . Introduction

Lao People's Democratic Republic (Lao PDR) or Laos is located in Southeast Asia and shares its borders with five other countries: China to the north, Cambodia to the south, Vietnam to the east, and Thailand and Myanmar to the west. Laos has experienced various regimes.

The earliest Lao people were groups that settled along the riverside and dispersed outward in rings of communities (Vilavong, 1964). In the long history of Laos and its capital of Vientiane, it has been well known for its unique culture and land, proudly combining a rich tradition and the beauty of nature. Laos has passed through various significant periods,

^{*} Ph. D. candidate, Department of Urban Planning, Hanyang University; Professor, National University of Laos. (main author, loyh.arch@gmail.com)

^{**} Associate Professor, Department of Urban Planning, Hanyang University. (sugielee@hanyang.ac.kr)

^{***} Professor, Graduate School of Urban Studies, Hanyang University. (corresponding author, cgchoi@hanyang.ac.kr)

from a kingdom empire to colonial and independent eras. The transformation of Vientiane Capital is a very interesting tale that indicates the changes that transpired over the years in the country's economic-mechanism industrial revolution, government patterns, policies, political norm, population growth, and urban physical form. Beginning with the 7th National Socio-Economic Development Plan (NSEDP), a key development policy of the Lao government (MPI, 2006) has been focused on promoting various paths of growth to drive the highest GDP growth rate in each fiscal year. The plan is to graduate Laos from the least developed country (LDC) status by 2020.

The national policy mainly focuses on economic promotion. As shown in Table 1, agricultural growth has decreased since 1990, and the industry and service sectors achieved higher growth rates. The economic growth by sector is implied in the direction of economic growth through a shift from the agriculture sector to the industry and service sectors (MPI, 2010 and 2012). Moreover, supporting elements such as basic infrastructure and other facility installations were brought into the nation's

development policies, which directly affected growth pattern of urban forms. On the other hand, the transformation of the urban form is also considered a significant and holistic instrument that can be used to describe the concentration of the population, as well as the economic, natural, cultural, political, and social structures in the cities. The transformation of the urban form and spatial organization can explain the significant value of city life such as the history of human settlement and the life quality changes of the Lao inhabitants from the period of the protectorate of various colonies to the present time. The question addressed in this paper is how the urban form has transformed and grown under the conditions of the NSEDP and under the strong power of the centralized political system.

According to the processes and issues of urban form transformation in the capital city of Laos, it is very important to study the directions and processes of urban growth under the evolution of political power. To understand these incidences, this research traced the transformation of the urban form in the capital city of Vientiane. The development policies of

Table 1. Economic growth by industrial sectors, Laos

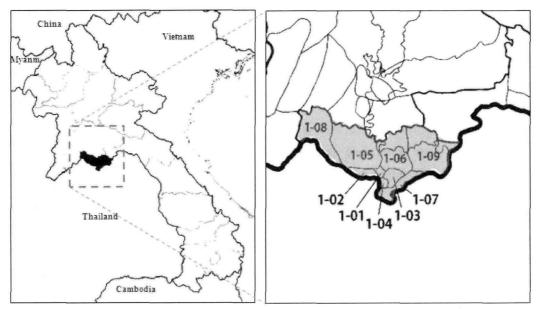
T	GDP share by industrial sector (%)				Annual growth rate (%),
Industrial sector	1990	2000	2005	2012	1990-2012
Agriculture and forestry	61.0	52.0	45.0	26.0	-2.6
Industry	15.0	23.0	29.0	34.0	5.8
Services	24.0	25.0	26.0	40.0	3.0
Total	100.0	100.0	100.0	100.0	-

Source: Ministry of Planning and Investment (MPI), 2012

the Lao government were set as the main causes of the physical changes experienced in the capital city. In addition, socioeconomic and political factors were considered as internal indicators to be explored. Recent data and multidisciplinary documents were collected and reviewed, particularly with regard to the national development policies that were pursued

throughout the history of the urban form. These development policies include the urban growth control policies, housing development policies, poverty reduction policies, and economic development strategies. This paper used mostly secondary data collected from the core ministries and institutes of Laos,

Laos was divided into 17 provincial



District	Code	Population density (person/ km²)		Changes of population
no recita librario di tra		1995	2010	density (%), 1995-2010
Chanthabuly	1-01	2,029	2,706	677 (33%)
Sikhottabong	1-02	530	813	283 (53%)
Xaysetha	1-03	512	766	254 (50%)
Sisattanak	1-04	1,877	2,533	656 (35%)
Naxaithong	1-05	39	59	20 (51%)
Xaythany	1-06	107	200	93 (87%)
Hadxayfong	1-07	252	346	94 (37%)
Sangthong	1-08	27	45	18 (67%)
Mayparkngum	1-09	53	79	27 (51%)

Fig. 1. Location map and population density of Vientiane Capital Source: Messerli et al. (2008) and MPI (2010)

jurisdictions before 2013. Vientiane Capital is an outstanding region where jobs and residents have been concentrated in some districts whereas some other districts have populations (Figure 1). The investment sector has been increasingly concentrated in the capital region. These implications are linked to the growth patterns and the transformation of the urban form in the single-party regime country where political orientation and power is centralized. Therefore, the scope and focus of this study is the inner central parts of Vientiane Capital. The measurements concentrated on the changes in urban form through different time periods alongside the urban and sociocultural activities, politics, and government policies in terms of their development and management processes.

This paper is divided into five main sections. The section on the theories of urban form and growth gives a historical overview of the urban growth and form theories. Section 3 is on the urban development policies and political power in Vientiane Capital. It explains the changes in urban form in Laos and in the special case of Vientiane Capital in terms of the flows of urban development policies and the politics of development. Section 4 is on the urban transformation in Vientiane Capital. This section present the aims processes of the transformation of the urban form in Vientiane Capital through significant time periods and as influenced by political factors. Finally, the conclusions are drawn in the last section.

II. Theories of Urban Form and Growth

Several growth theories have been emerged in the recent decades. "The History of the Urban Form," by Morris (1979), explains the evolution of the urban form from the origins of the urban settlement to the great industrial revolution, consisting of diverse growth conditions in the forms and structures of cities in each era.

From the preliminary stage of human settlement to the beginning of the Neolithic Age, the basic living method of mankind was defined as a wildlife pattern (Mumford, 1961). The main food items were gathered from nature and hunting. Especially, fishing was considered an important food source for daily living (Morris, 1979). Then, communities rose and cities grew and spread through an agricultural revolution (Childe, 1950). In some urban form theories, the origins of the city form and its expansion were influenced by the movement of people, first for food gathering and hunting to procure their daily needs. This movement then paved the way for community formation and for the birth of cities (Soja, 2001). Another viewpoint is that cities emerged from the shift from agriculture to industry as the economic base. As shown in Table 2, Pacione (2009) asserted that the urban growth direction was primarily influenced by the four factors. He also summarized the origins of cities based on diverse theories such as (i) the hydraulic theory, which mainly supports the agricultural revolution; (ii) the economic theory, which supports the condition of increasing the

scale of trading networks as the meaning of urban-society connection; (iii) the military theories, particularly the strategy of people gathering in one place to protect themselves from external threats, and in some senses, leaving an area where a territorial war is raging; (iv) religious theories, which focus on the importance of great-location structures, understood as places ideal for exercising control over and for forming as the core of city power; and (v) the theory of consensus, which deals with the linkage of the social, economic, and political changes resulting from the emergence of cities' structure and living patterns (Pacione, 2009, pp. 38-39).

In recent years, many academic articles has addressed various theories of urban form, urban growth, and transformation factors (Morris, 1979; Smith, 2007; Kropf, 2009). This trend can be traced to the increasing importance of economics and to the growth of populations that run the processes of formulating and implementing government management policies

(Duncan, 1999). The mechanism of urban form and growth relates to both the global economic their associated and building preferences as well as to the significant means of perception of urban space, particularly with different classes and levels in the urban realm (Murat, 2010). The city is a place for the mankind and the interaction between people and their social conditions, which are the main factors shaping city life and patterns (Gehl, 2010). The group of city life was defined as integrated creations through cultural, social, and economic directions in the cities (Levi-Straus. 1955; Moudon, 1997). At the urban stage, the social aspect has become a significant element in urban development and transformation (Kropf, 2009).

Some articles have tried to search for a relationship between urban environmental change and population movements, where the parameters were set from the physical transition of the urban region to subregions. In addition, the population determinants

Table 2. Preconditions of pre-industrial urban growth

Growth factor	Condition		
Population	A certain number of people residing permanently in one place is a basic requirement. The environment, level of technology, and social structure all set limits on the growth of the population.		
Environment	The key influence of the environment, including the topography, climate, social conditions, and natural resources, on early urban growth.		
Technology innovation	To develop the Lao people's agricultural skills, for example, the natural conditions were used to produce power and to prevent the risk of disaster.		
Social structure	The growth of the population and trade demanded a more complex organizational structure, which included political, economic, and social infrastructures, a bureaucracy, and leadership, accompanied by stratification.		

Source: Pacione (2009, p. 38)

individual preferences were considered the indicators of urban transformation and reorganized directions (David, 1971). In sum, the study of urban form and growth can be a key instrument in explaining the three crucial elements: (i) the historical value of cities in the past (history and time); (ii) the characteristics of urban structure based on the physical conditions (spaces and structures); and (iii) the growth of cities at several levels and scales (local and national) and the opportunities for growth in the future (Moudon, 1997).

III. Urban Development Policies and Political Power in Vientiane Capital

The processes of urban development are important indicators of the link between urban growth and the power of policy and political movement. This section captures this in the following two points:

1. Government policies on urban development in Vientiane Capital

The status of an LDC with rapid changes in the policies relating to economics, population, and housing markets are the main factors affecting the size, form, and structure of the cities therein. In the case of LDCs, the urban growth patterns are similar to those of the European and North American cities, where wealth and civilization were the results of urbanization (Shaalan, 2013).

The proportion between built-up areas and

entire urban land areas could explain the changes in the urban form through time periods. According to the common perceptions of urban planning and authorization in Laos, planning has concentrated on the basic urban structures and on all infrastructure patterns, which are believed to be the first priority for urban and rural development processes. In recent years, the Lao government promoted and approved various large development projects, such as electricity supply networks, drainage systems, and other transportation networks. Due to the development strategies being employed in Laos, the physical shapes and the structure Vientiane Capital have been gradually changed by the infrastructure development policy. Concepts such as history, culture, and social life in the central areas have been directly affected by the development approaches employed.

The government policies are considered the major driver of growth in the urban areas (Molotch, 1976). Since 1995, Lao people from the rural areas have migrated to the main urban areas, such as Vientiane Capital as well as Borikhamxay, Xayabouury, and Xiengkhuang provinces. Vientiane Capital eventually came to have the largest percentage of migrants (Phouxay and Tollefsen, 2010). Based on the policy of urban development in Vientiane Capital, the basic infrastructure development projects have been the top priority in terms of the support funds for long-term development and restoration. According to the available censuses from the National Statistic Center of

Year	Village	Canton	District	Population (person)
1896	222	21	N/A	23,300
1960	N/A	12	4	N/A
2003	496	N/A	9	650,600
2005	499	N/A	9	698,318
2010	499	N/A	9	725,684

Source: Population Census, Laos (MPI, 2005 and 2010).

Note: Laos was divided into five administrative levels: Province > District > Canton > Village > Unit.

Laos (NSCL), due growth to the and concentration of the population in the central areas (MPI, 2005), the Lao government is continuously endeavoring to solve the problems associated with rapid population growth by expanding the size of the city using basic infrastructure enlargement processes. For instance, in 1896, there were only 222 registered villages within Vientiane Capital. The development policies of the central government have been applied continuously, and the result was the increase in the number of village units in the inner urban areas of Vientiane Capital, with a total of 499 villages in 2010. The population growth magnitude also showed a nearly 31-fold increase from 1896 to 2010 (see Table 3). This shows the phenomenon of urban growth direction from the power of centralized governance in Vientiane Capital.

The community units, on a village scale, have been considered for centralization. Therefore, regulative criteria were established to set a standard for villages in urban areas, such as the following: (i) the village must lie in the municipal vicinity where the district or provincial authorities are located, where there are more than 600 residents or more than 100

households; (ii) there is a road available for motor vehicles to gain access to the village; (iii) a majority of the households in the village are electrified; (iv) there is a tap water supply for a majority of the households; and (v) there is a market in the village (MPI, 2005). The Lao regime appears as the centralized form, with an own-style communist ideology. The management system has been driven by the centralized political base. Particularly in high-level decision making, the consensuses among the inhabitants and the government have been considered the highest priority, called "democracy." The regular Lao inhabitants have the right to live and settle anywhere in the country and they have the right to use land and enter into land transactions, given by the as government. In addition, compensation is given to land owners when their properties are ruined or damaged by the government's development projects. Therefore, urban forms have been extended by small and large scale private land owners.

In recent years, the Lao government developed a comprehensive urban development policy, with comprehensive planning guidelines to support urban growth that provide solutions

for the environmental impacts of the developments. Such policies and guidelines were adapted by the municipal bodies in community development projects. The main strategy is the approach of encouraging communities collaborate in the planning and implementation of processes. The private sectors are also encouraged to take part in the land and infrastructure development projects. The Plan for Vientiane Capital Development Framework (PVCDF) was established in 1989, and it consisted of detailed zoning and planning regulations (ADB, 2010). For more than 30 years, from 1975 (a significant year for the Lao people, called "Laos Independence Year"), the Lao government has formulated and implemented very strong policies to achieve the goal of poverty reduction and to elevate the country's status as a developing country by 2020 (MPI, 2010). The Lao government is holding onto the strategy that promotes urban growth with sustainable goals.

In 2007, the 6Ss policy for development and environmental protection was discussed in the national meeting of the party organization in Vientiane Capital. The crucial contents of the minutes of the meeting were stated, which included the recognition that developing a plan to achieve economic growth is very important in setting up the 6Ss policy, which covers the (i) "silvery city"; (ii) "sanitary city"; (iii) "safe city"; (iv) "seductress city"; (v) "succulent green city"; and (vi) "snugness city" (ALACE, 2007). This policy is a tool for promoting and implementing balanced growth, environmental

protection, social stability, and economic growth. It is also based on the 7th NSEDP objectives and priorities, and the Lao government is currently finalizing a framework for accelerating the achievement of the millennium development goals (MDGs) to assist in the implementation of NSEDP by integrating diverse interventions related to the MDGs. The six priority areas are (i) expanding the basic infrastructure for MDG achievement; (ii) sustainable practices for environmental sustainability and for improving food security; (iii) access to basic education and gender equity; (iv) equal rights for women in terms of socio-political participation and empowerment; (v) social protection and community participation to improve the health conditions; and (vi) improving the sanitation and safe water supply for rural and small town areas (World Bank, 2010a, 2010b).

The land use planning policy is a significant instrument for controlling the growth and preventing the phenomenon of the chaotic conditions of Laos' urban areas. Since the onset of new development in Laos, especially in Vientiane Capital, the Lao government has focused on land management and urban planning laws. which were significantly legislated by the Laos National Assembly (LNA). Other laws, decrees, and regulations have also been legislated to address various other facets of development of Laos (see Table 4).

Vientiane Capital is the most attractive place in Laos for residing and investment for both the Laotian working class and foreigners. The capital's environment is an important factor in

Table 4. States of urban planning and land management in Laos

	Law	Issuing authority	Year
	Local Administration of the Lao PDR Law	National Assembly	2003
Laws	Land Law of Laos	National Assembly	2003
	Urban Planning Law	National Assembly	1999
	Environmental Protection Law	National Assembly	1999
	National Road Law	National Assembly	1999
	Decree	Issuing authority	Year
	Notification of Land Survey and Land Titling	Prime Minister's Office	2007
	Agreement on the Establishment of the Land Development and Services State Enterprise	Prime Minister's Office	2006
Decrees and	Decree on the Implementation of the Law on Land	Prime Minister's Office	2005
	Decree on the Compensation and Resettlement of People Affected by Development Projects	Prime Minister's Office	2005
Agreements	Decree on the Establishment of National Land Management Agency	Prime Minister's Office	2004
	Vientiane Urban Development and Administration Authority	Prime Minister's Office	2000
	Decree on the Implementation and Activities of MCTPC*	Prime Minister's Office	1999
	Decree on the Establishment of VUDAAs	Prime Minister's Office	1997
Regulations	Regulation	Issuing authority	Year
	Urban Planning Regulations	MCTPC (now MPWT)	2007
	Regulations for Implementing the Decree on the Compensation and Resettlement of People Affected by Development Projects	Prime Minister's Office	2005
	Ministerial Order on Construction Management	MCTPC (now MPWT)	2005

Source: Ministry of Public Works and Transport (MPWT), Laos (2010).

Note: *MCTPC stands for "Ministry of Communication, Transport, Post, and Construction"

affecting both investment and development. This trend, however, will bring about chaos in the realm of the city's social norms and physical environment. Lately, the Lao government has been using laws and regulations to boost growth and to solve the problems associated with unplanned development. The structures of institutions and

organizations are based on a top-down system, which decentralizes the power to the local authorities. In reality, the power of the local authorities was negatively affected by the flows of the market force, which can be explained by lax zoning controls and lax implementation of the existing housing construction regulations. Some

Country	Urban population* (%)	Urbanization rate** (%)
China	50.6	2.85
Japan	91.3	0.57
South Korea	83.2	0.71
Thailand	34.1	1.60
Vietnam	31.0	3.03
Cambodia	20.0	2.13

Table 5. Urbanization rates and urban populations of the Asian countries and Laos in 2011

Source: www.CIA.gov (2011), *Urban population is the percentage of population living in urban areas, **Rate of urbanization is the percentage of urban population growth rate minus the total population growth rate.

34.3

phenomena associated with urban structure transformation have been revealed to be the outcomes of the inefficient implementation of the pertinent regulations and new policies for development.

Politics and urban concentration in Vientiane Capital

With an estimated per-capita income of USD 320 in 2003, Laos was the poorest and least developed country in East Asia. Its social indicators are among the worst in the region and are close to the average for Sub-Saharan Africa. Laos had a 23% urban population, with an urban growth rate of about 4.8%, in 2005 2005). According to the Intelligence Agency's (CIA) website, it had a 34.3% urban population and 4.4% urbanization rate in 2011 (see Table 5). These figures indicate a more than 10% urban population growth from 2005 to 2011. In addition. Laos's rate of urbanization as of 2011 was higher than those of China, South Korea,

Thailand, Vietnam, and Cambodia. Within Laos, Vientiane Capital had the largest urban population of the country's 17 provinces.

4.41

Laos' smaller towns have annual growth rates of up to 4.3% but only 60% had adequate water supply and had 30% solid waste management (see Table 6). These small towns have a critical administrative functions such as serving as provincial and local capitals, and suffer from the problems associated with serving as economic links between the rural and urban areas. The economic links between the national and international markets are the elements and include important central transport depots and agricultural processing locations. Nevertheless, there is very little infrastructure investment: piped water is scarce; sanitation has an only 50% developed status; roads are largely unpaved; and solid waste is vastly uncollected. This leaves silt on roads, garbage blocking the drains, which cause flooding and the spread of disease (UNGA, 2001).

Land use and management policy is also a

Laos

Table 6. Urbar	infrastructure and	service deve	lopment target	s for 2005
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Region	Water supply	Sanitation	Solid waste	
Vientiane	95%	75% improved on-site systems; 50% serviced	90% of households and 100% of commercial units	
Regional centers	90%	75% improved on-site systems; 50% serviced	90% of households and 100% of commercial units	
Other Provincial capitals	80%	50% improved on-site systems; 50% serviced	50% of households and 100% of commercial units	
Small towns	60%	50% improved on-site systems; 50% serviced	30% of households and 100% of commercial units	

Source: Country report on the implementation of the Habitat agenda (UNGA, 2001)

key issue in Vientiane Capital. The demand for land in urban areas is increasing, and the urban boundaries are not clearly defined. The urban areas expand rapidly, with unbalanced growth patterns. The land markets have been individually driven by small and large private businesses. The operating systems are not efficient, effective, or stable. There are many illegal land developments because it is hard to register and develop land due to the lack of clear property rights.

To address these limitations in realizing efficient urban management in the increasingly urbanized society, the Lao government launched a decentralization program in 1995. This program has been implemented only in Vientiane Capital and four other large provinces. Vientiane Capital recorded a concentrated population growth of about 134 person/km² in 1995. The density of the population around the inner area with in a 5km radius was 3,475 person/km² in 1995 and 3,790 person/km² in 2005 (see Table 7), with an annual growth rate of only 0.91%. In contrast, within 5–10km and farther than 10km from the central area, the annual growth rate shows a higher

percentage. These figures indicate that Vientiane Capital is rapidly growing and that such growth is rapidly spreading to the suburban areas, with more scattered patterns.

IV. Urban transformation in Vientiane Capital

In general, the transformation of cities was defined implicitly through the power of politics, development policies, and economic movements (Lynch, 1972). There are two major factors that influenced Vientiane Capital's development plan. The first factor is the intention of the Lao urban planning authorities and political powers to transform the city into a modern capital city with a transition from a socialism to the free-market system. The second factor is a development policy that stresses traditional and historical values, and supports the sense of national identity (Colin, 2001). To explain the growth and transformation of Vientiane Capital's urban form, two significant time periods(pre-or post 1975) based on Laos' independence should be considered.

Distance from CBD (km)		Population densi	Annual growth	
	Area (km²)	1995	2005	rate (%) 1995-2005
5	49.6	3,475	3,790	0.91
5-10	154.2	539	837	5.54
>10	3,716.2	72	101	3.94
Total	3,920.0	134	176	3.20

Table 7. Population density by distance from the CBD in Vientiane Capital

Source: Urban Research Institute (2010)

1. Pre-1975 era, the transformation and organization of Vientiane Capital

The management process of Vientiane Capital in the early days had complicated obstacles. Before the colonial era, the urban management process was understood from the viewpoint of community structure and social organization, which was controlled by the power of group norms and the trust within the community in the region.

This paper looks at the Vientiane urban structure and organization from three main periods before 1975: (i) from the 14th century, prior to the establishment of the Lane Xang kingdom in present-day Laos; (ii) from the 14th century to 1830, referred to as the period of the cancelation of the traditional Lao regime structure by Siam; and (iii) from the colonial era to the significant era of independence in 1975

In the ancient era, the kings and builders were clearly involved in the urban planning stage. Several cities were "planned" settlements, but most ancient cities are classified as "unplanned" cities in the literature on historical urbanism. In recent decades, many scholars assumed a

simplistic scheme in which cities with a clear grid layout are classified as "planned" whereas those that lack the grid form are considered "unplanned" (Smith, 2007). The system of kingly power was used in Laos from the 14th to 19th centuries (Vilavong, 2001), where the management and organization of the city were dominated by centralized power, represented by the king. An important point is that there was only one main core region, and regions outside this area were called "sub domains" or "sub cities". Another important point is that there was a taxation system, which had been clearly defined since the

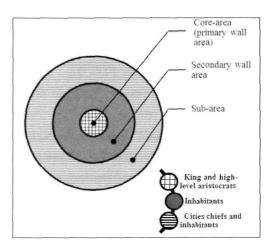


Fig. 2. Urban form of Vientiane Capital in 14th century.

Source: Drawn by authors based on Vilavong (1964 and 2003) and Sayarath (2005)

kingdom era. The inhabitants paid taxes to support the power of the empire as the king. Based on these facts, the structure of Vientiane could be simulated as a system of centralized control with decentralized city structure. The land use patterns were based on class levels, which are illustrated in Figure 2.

Vientiane Capital became the center of authority in 1560. The year 1640 signaled the start of one of the civilized eras, when the top-level aristocrats

Table 8. Transformation of the urban form of Vientiane Capital

Period	Original map*	Urban form**	Explanation
1895	THE STATE OF THE S	A TOTAL STATES	Without a master plan, a simple structure plan was drawn by M. Le Bovec
1959	Table 1 Annual Control of the Contro		Master plan and defining zones of Vientiane by BCEOM consultant company
1971			Map of main organizations and institutes in Vientiane defined by the National Geographic Department
2002	Ithan Recearch Institute (2010) and Savarath (The master plan, which was planned by the Urban Research Institute (URI)

Source: *Urban Research Institute (2010) and Sayarath (2005); **Drawn by the authors.

moved to the core city and left the city where they resided. For this reason, the cities grew without centralized authorities. With regard to the management and authority in Vientiane during this period, it was revealed that the central power was divided into two levels: the federal and local levels. The local level consisted of three sub levels: the village, canton, and district levels.

In 1829, when Siam took control of Vientiane, the structure of the city was a combination of two main cities: Vientiane and Champasack. Siam restructured the city management system using a multi-core theory. which separated management organization into four parts under the highest level of the Siamese kingdom (Osborne, 2002). Based on the consensus agreement between France and Siam, the existing land on the left side of Mekong River was placed under the control of the French authorities, and the right side belonged to Siam. Evidence of territorial war-city walls used by the city to defend itself from external aggressors—was supported by the discovery of an inner ring and an outer ring. From the era of the French protectorate, Vientiane Capital was managed and designated as the central authority in 1945. In this era, the form of the city was defined similarly as the elements of the "City Beautiful Movement" by Daniel Burnham in 1901 with the intention of introducing beautification, monuments, and social control to the city. During the French colonial period in the 1950s, the structure and image of the city was created in core areas by the Western builders.

The growth history and the evolution of urban societies have been found from the development

direction of transport arteries (Hals, 1929). Therefore, the changes in the roads' structures are discussed in this paper (see Table 8). The earlier structure of the city was found in the 1895 Vientiane map, showing a pattern from the shoreline of the Mekong River bank and spreading inwardly, without clear planning. It was found that in 1959, Vientiane Capital had a high growth rate, with zonal planning ideas.

2. Post-1975 era, the transformation and organization of Vientiane Capital

After independence in 1975, Laos has been a politically stable country with a centralized, one-party system led by the President, Prime Minister, and Politburo Party. In an effort to spur the country's development, the Lao government has undertaken several policy measures that have had mixed impacts on the country's urban development. One effort has been to resettle villages to lowland areas that are closer to public services. This policy, however, has put a strain on the communities as the resettled people struggled to adapt to new contexts and environments with respect to their means of livelihood.

There have been efforts to eliminate slash-and-burn upland cultivation with the aim of achieving sustainable agriculture and preserving the country's natural resources as well as making room for the future production lands.

Since the development facets in 1986, the command and control economic system was

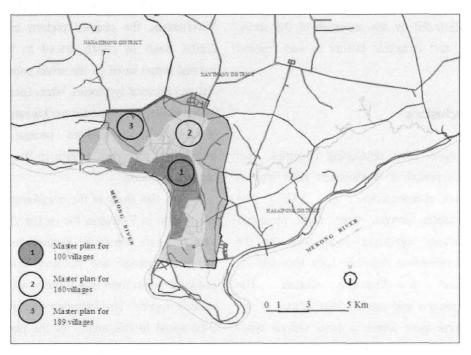


Fig. 3. Map of urban expansion of Vientiane Capital, 1994-1999 Source: Redrawn by the authors based on Urban Research Institute (2010) Note: Master plan of 100 villages in 1994, 160 villages in 1995, and 189 villages in 1999.

changed to an economic-mechanism system. In this period, the master plan of Vientiane Capital was launched under the name "Schéma Directeur et d'Aménagement Urbain de Vientiane" and was supported by the United Nations Center for Housing and Human Settlement (UNCHS or UN-Habitat). It focused on three main factors: (i) demographic trends (including population forecasts and their implications for land consumption in the capital area); (ii) socioeconomic trends (covering employ- ment, income, housing, and migration); and (iii) physical growth trends in (covering the evolution the city spatial-development patterns, the land market, roads and bulk infrastructure, and public facilities) (Rabe et al., 2007). By 1994. Vientiane's master plan, which was designated by the World Heritage Office (WHO), had included about 100 villages in its goal of managing and controlling the growth and dispersion of urban areas. In 1995, government faced a problem related with rapid growth of population increase in 160 villages on the new master plan. It had only been four years when the number of villages increased to 189 in 1999 and the master plan was required to cover more specific central areas (Figure 3). Through the matching of an old map and the new structure of the urban form from 1895 to 2002 (Table 8), it was noted that both the

centralized growth and dispersed growth had been influenced by the structure of the social, political, and economic factors in each related period.

V. Conclusions

Like many other developing countries, Laos entered a period of development right after it obtained independence in 1975. The transformation process from each presented period shows significant implications for the urban development stages in Laos, especially in of Vientiane The the case Capital. transformations and spatial organizations of the urban form were found to have various types through two main dimensions: (i) public policies (political power) of the government; and (ii) the self-development process (private needs) of the inhabitants who prefer to improve their living quality through the new trends of economic, social, and cultural changes.

According to a comparison of various theories and historical facts and data gathered for Vientiane Capital, there is some evidence from the earliest stage of growth of the urban forms before 1975. This period has been named "colonial eras" and the urban form transformation was revealed through the conditions of war, referred to herein as the military theories. Several wars erupted in the capital city that ruined countless places and urban structures. This paper could not address with certainty that religious theories could explain the formation of Vientiane city since the era of civilized empires. Laos has adopted and

followed Buddhism since the era of king Fa Ngum. Nevertheless, the planned pattern of Vientiane Capital could be clearly traced to the French colonial period based on the urban patterns, forms, and architectural typologies. When Laos gained its independence, the economic mechanism and policy of country's development became the key instruments for urban growth in the urban and organization form.

In sum, this study of the transformation of the urban form in Vientiane, the capital city of Laos, indicated some significant implications for urban planning, strategic and statutory planning, and historical urban form in a country with a unique political regime. The following four implications were found in this study: (i) the planned-form city can be traced to the era of the Lao kingdom, which showed some evidence of an ancient wall structure and social organization in inner-city areas. In addition, from the French and American colonial eras, the urban form was clearly apparent in the development of buildings, places, and road structures; (ii) a decade after Laos gained its independence in 1975, urban development and economic functions were adjusted by the centralized power. In other words, the form and movement of urban development in Vientiane Capital has been driven by the central political power since the 1990s, as shown by the many important laws, decrees, and regulations of urban and land use planning; (iii) without a concrete implementation of a comprehensive plan, the infrastructure development priorities will be the key factors of illegal migration and village settlement patterns. These development types

gradually introducing unbalanced growth between the central areas and suburban areas, in scattered forms; and (iv) the development plans have been dominated by the political perspectives as the top-down policies rather than the bottom-up approaches, showing that political power is a crucial factor affecting the changes in the urban forms and structures in both the local and national scales with regard to Vientiane Capital.

This paper could traces the urban transformation of Vientiane Capital which was mainly driven by politics and political powers with public policies. These powers and policies were significant instruments for contemporary urban planning in Vientiane Capital. However, in order to achieve the goal of the appropriate urban development in the next era, the necessary condition in planning should be collaboration among diverse stakeholders such as political power elites, experts, and residents in Vientiane Capital region.

Note 6. "Urban population" is defined as the percentage of the total population living in urban areas (www.cia.gov).

Note 7. "CIA website" is the Central Intelligence Agency website, which was founded in 1947. The common socioeconomic and demographic data provided in this paper were taken therefrom.

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Note 1. "Vientiane Capital" was used rather than only "Vientiane" because there are "Vientiane Capital" and "Vientiane Province" in Laos.

Note 2. Canton is an administrative level in Laos, that is higher than the village level.

Note 3. A district is an administrative region, which is below the province level.

Note 4. King Fa Ngum was the king of the Lan Xang kingdom (kingdom of Laos) in 1353 (Vilavong, 1964).

Note 5. "Urbanization rate" is the increase in the proportion of the urban population over a given period of time, calculated as the urban population growth rate minus the total population growth rate. The positive value of urbanization rate defines the faster growth rate than the total population (www.cia.gov).

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