



City profile

The new Hanoi: Opportunities and challenges for future urban development

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ARTICLE INFO

Keywords:

Urban planning
Sustainable development
Hanoi metropolitan area
Vietnam

ABSTRACT

Hanoi is the political capital of Vietnam but still ranks second in importance after Ho Chi Minh City, the economic hub of the country. Nonetheless, due to its ancient history, location and political choices, Hanoi, after resisting urban modernity for a long time, now seeks to expand and has achieved international metropolitan status. The Millennium anniversary of Hanoi (2010) was a further step in the endogenous development of the metropolitan area. Combined with economic globalization since the Doi Moi national policy in 1986 and the current trend of competition between world cities, which is particularly fierce in South-East and Pacific Asia, it has led to some remarkable transformations of the city and in town planning. All activity sectors, population groups and newly developed areas of Hanoi have been vastly reshaped by these metropolitan trends, and by planning processes, funding and management decisions. The scale and diversity of issues highlight the city's ambition to expand, with a metropolitan area covering more than 3300 km², and to manage its urban transition and conflicting developments, notably the conversion of agricultural land, the implementation of more sustainable and participatory urban planning, the ability to attract sufficient foreign and domestic investment to drive urban growth, and, more generally, to open the country to globalization. Many objectives that seem at first sight to be irreconcilable.

1. Introduction

More than twelve years after publication of the previous city profile by Van Horen (2005), the shift “from rigid, top-down Soviet-style Master Planning to a more flexible Strategic Planning and urban management approach (Van Horen, 2005: 161; Quang & Kammeier, 2002) has been confirmed by a stronger neoliberal approach to urban planning driven by foreign and national investments that challenge the sustainable development of the sprawling metropolis of Hanoi. The aim of this paper is to examine recent urban development trends in Hanoi, one of the cities most impacted by new modes of regulation. The economic vitality commonly observed in developing cities in the non-western world was strengthened by the Millennium Year celebrations (2010), which acted as an additional lever for the decisions that have affected the capital city of Vietnam over the last ten years. Rather than focusing on the heritage and historical growth of the city (Logan, 2000), the purpose of this paper is to examine the socio-spatial fabric of the new Hanoi.

The local appropriation of the global metropolitan model through the circulation of ideas and references (McCann & Ward, 2012) is shaping the city, and current reforms and plans bring with them a

number of challenges for the sustainable urban development of the city. This discussion is based on field surveys and interviews carried out between 2012 and 2017, and on secondary sources.

First, we examine recent changes to the perimeter of Hanoi and the planning strategies laid down in the Master Plan for 2030–2050, implemented since 2010 and already thrown into question (Bertaud, 2011). We review a number of initiatives taken by the Hanoi planning authorities to transform Hanoi into “a vibrant metropolitan area in the global cities competition” (appx. 1, interview 1). Finally, we discuss the further challenges faced by Hanoi metropolitan area resulting from the tensions between sustainable development goals and current development trends.

2. Changes in urban form and planning policies in the last decade

2.1. A radical extension of Hanoi Capital Region

Hanoi is located in northern Vietnam's Red River delta nearly 90 km from the coast. The construction of new Hanoi is more than simply spatial expansion (Smith & Scarpaci, 2001); it is a city-region in a space strongly defined by water (Fig. 1). In 2008, by the Prime Minister's

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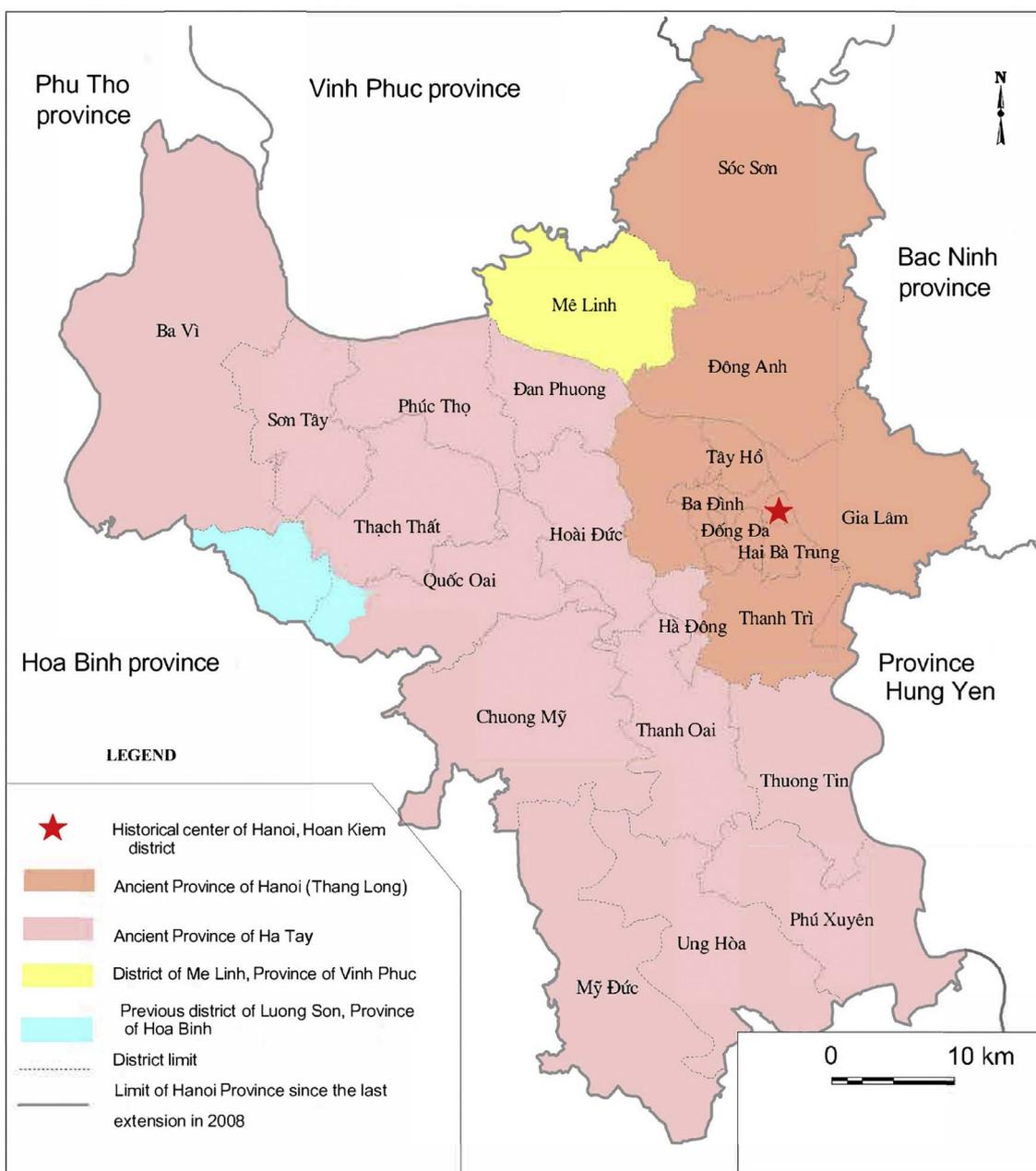


Fig. 1. Map of recent perimeter extension of Hanoi. Source: Modified by the authors, plotted by Tran Dinh Du, 2012, based on Master Plan 2030–2050 and various archive documents.

decision to bring Ha Tay Province, Vinh Phuc Province, Me Linh District and four communes of Luong Son District, Hoa Binh Province within Hanoi metropolitan area, effectively tripling its size to 3344 km², with 29 subdivisions, and a population of almost 7 million inhabitants. Hanoi extended its margins, incorporating agricultural and multi-activity villages (Fanchette, 2015; McGee, 1995). The extensive building and infrastructures in the periurban sprawl (Friedmann, 2016; Leaf, 2002) has had serious consequences for water management, notably inadequate drainage networks and increased flooding risks, coming on top of existing dysfunctions such as clogged irrigation channels and unequal access of irrigation water for agriculture (Labbé, 2016; Labbé & Musil, 2014).

New Hanoi, covering Hanoi and six neighboring provinces under its administration (Fig. 2), is predicted to have a surface area of 13,436 km² and a population of 15 million by 2020, raising the question of the governance of this vast territory (Saksena et al., 2014).

Although the top-down approach to urban development of the public authorities is still predominant, they are no longer the only stakeholders involved in the urbanization process. Centralized planning, orchestrated by the Government and managed by the People's Committee, has gradually been replaced by decentralized multi-party planning policies, involving new private or semi-private players.

2.2. Master plan for 2030–2050: aspects of strategic planning

The management trend in urban planning fostered by many cities in the world – San Francisco, Toronto, London, Melbourne (HUPI, 2011: chapter III International experiences, p. 5–138) – is visible in the recent Master Plan of Hanoi demonstrating the vision, values, commitments and specific areas of focus determining how urban and spatial planning strategies will respond to the needs and aspirations of Hanoi residents (HUPI, 2011: chapter II Assessment on existing condition of Hanoi

District	Area	Population		Increase		Density
	(km ²)	(thousands of inhabitants)		(%)	(%)	(pop/km ²)
	2015	2005	2015	2005-15	2015	
CORE URBAN DISRICTS						
Ba Dinh	9.2	217,7	238,6	1.43	25,935	
Cau Giay	12.0	190,7	244,9	1.11	20,408	
Dong Da	9.9	352,6	391,5	1.43	39,545	
Ha Dong	48.3	201,2	258,4	1.35	5,350	
Hai Ba Trung	10.0	290,3	312,9	1,05	31,290	
Hoan Kiem	5.3	153,9	152,1	1.34	28,698	
Hoang Mai	40.3	235,7	356,3	1.58	8,841	
Long Bien	59.9	186,4	259,2	1.71	4,327	
Tay Ho	24.0	112,4	145,7	1.56	6,071	
Thanh Xuan	9.1	208,8	255,8	1.05	28,110	
OUTER DISTRICTS						
Soc son	306.5	260,1	316,6		1,033	
Dong Anh	182.1	280,6	374,9		2,058	
Gia Lam	114.7	210,2	253,8		2,212	
Bac Tu Liem	43.3	260,4	320,4		7,391	
Nam Tu Liem	32.2	-	232,9		7,217	
Thanh Tri	62.9	160,9	221,8		3,525	
Me Linh	142.5		210,6		1,478	
Son Tay	113.5		136,6		1,203	
Ba Vi	424.0		267,3		0,630	
Phuc Tho	117.1		172,5		1,472	
Dan Phuong	77.3		154,3		1,995	
Hoai Duc	82.4		212,1		2,572	
Quoc Oai	147.9		174,2		1,178	
Thach That	184.5		194,1		1,052	
Chuong My	232.4		309,6		1,332	
Thanh Oai	123.8		185,4		1,497	
Thuong Tin	127.3		236,3		1,855	
Phu Xuyen	171.1		187,0		1,093	
Ung Hoa	183.7		191,7		1,043	
My Duc	226.2		183,5		0,811	
Total	3323	3032	7151	-	8.000	

Fig. 2. Administrative divisions and population of the core urban districts.

Source: Adapted from Hanoi Statistical Yearbook, 2013, Socialist Republic of Vietnam — General statistics Office, 2013 and HUPI, 2015.

Source: Adapted from Hanoi Statistical Yearbook, 2013 and HUPI, 2017

Capital, p. 5–138).

Hanoi's urban spatial development is based on the urban cluster model that has shaped many emerging cities in Asia (Choe & Laquian, 2008; Phelps, Bunnell, Miller, & Taylor, 2014). It includes a central core and small and medium satellite urban areas connected by ring roads and radial axes, with connections to the Capital Region and the national road network (JICA et al., 2007); its aim is to meet the present and future economic and urban development needs of Hanoi Capital Region (Fig. 3). "This model creates chances for renovating urban structure from single-pole to multi-pole, ensuring that urban center functions -

such as industry, services, commerce, education - will move to satellite urban areas and create new centers (hyper-city) beyond urban development boundary. The buffer space, connected to agricultural ecological landscape area should preserve natural, cultural and entertainment spaces (rivers and lakes, bio-diversity, existing and craft villages)" (appx. 1, interview 1). The Hanoi People's Committee also seeks to avoid the uncontrolled development experienced by other cities such as Lagos or Mexico City (appx. 1, interview 3).

Following studies by a consortium of planning and design firms, Perkins Eastman (USA), Posco E & C and Jina Architects (Korea), who

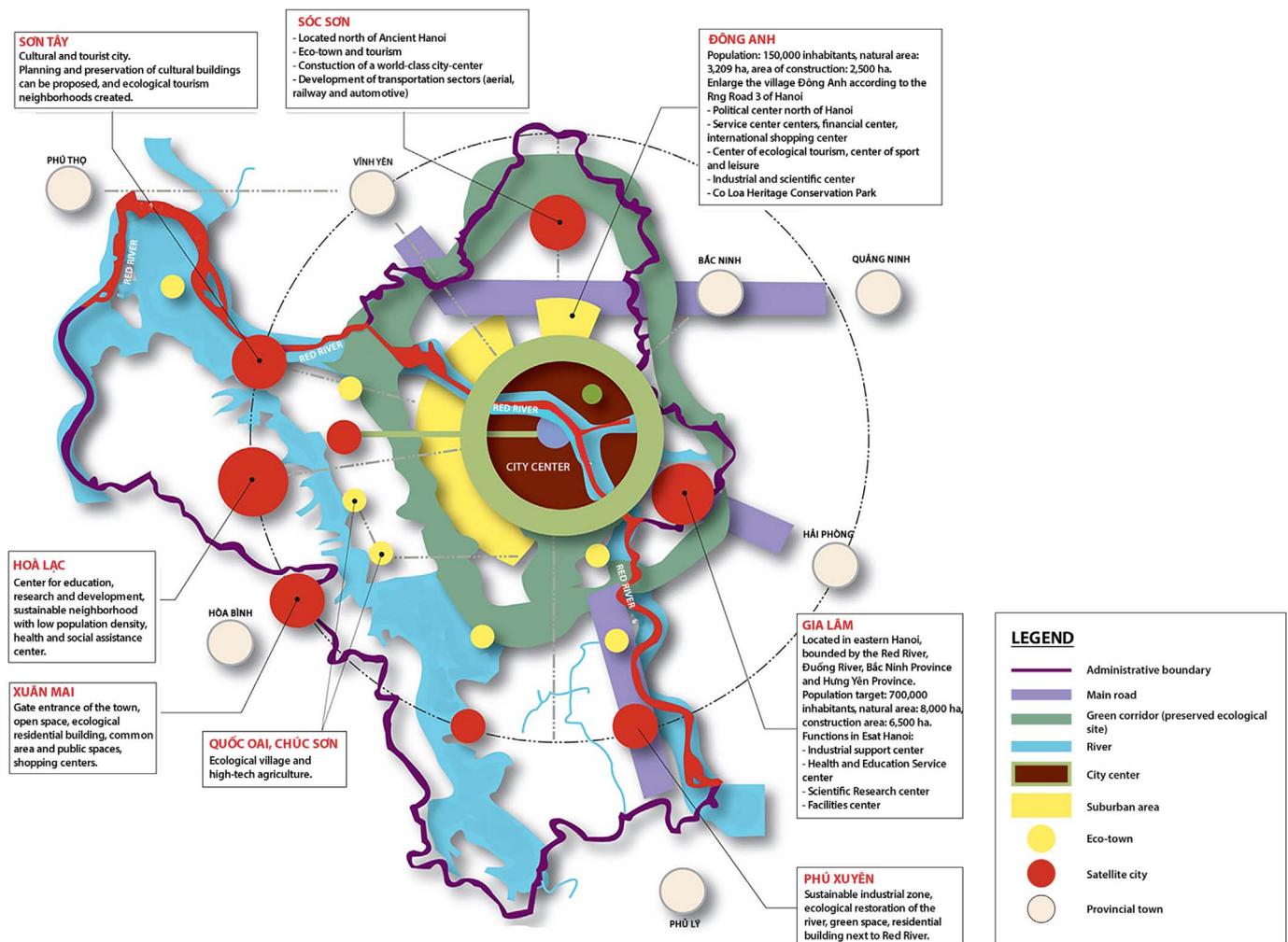


Fig. 3. Functional areas of the Hanoi Capital Construction Master Plan to 2030 and Vision to 2050. Source: HUPI, based on Phan Tran Kieu Trang (2011) and Approved Master Plan (version 2011). Plotted by the Authors.

analyzed the strengths and weaknesses of different development scenarios and their impact on the Capital, a strategy called “Plan C” was selected by the National Assembly. It was then submitted for appraisal to national and international experts and a large number of professional associations including the Vietnam Urban Planning and Development Association, the Vietnam Association of Architects, the Association of Cities of Vietnam, the Vietnam Federation of Civil Engineering Associations, the Vietnam History of Science Association, the Cultural Heritage Association of Vietnam, and the Association of Construction Environment.

The Hanoi Master Plan includes a shoreline park and other recommendations from the Red River Master Plan adopted in 1998. The concept of the plan is to manage and preserve natural, cultural, and architectural heritage (HUPI, 2011; VIAP, 2009). It also aims to reduce the urban heat island effect (Lee, Kubotaa, Iizukab, & Phuong Thi T-T, 2017). It includes:

- Five major satellite cities located at sites beyond Ring Roads 3 and 4, with populations ranging from approximately 130,000 to 600,000: Hoa Lac, Son Tay and Xuan Mai in the west, Phu Xuyen in the south, and Soc Son north of Red River.
- Additional parkways provide direct links from each satellite city to central Hanoi
- Highways and light rail routes connect all major new development areas, although the ground plan and the perimeters of the residential, commercial and educational buildings in Hoa Lac were

defined prior to the development of the networks and infrastructures.

- The West Lake-Ba Vi axis connecting Ba Vi with the historical Ba Dinh area, bringing together international and national cultural, historical and recreational sites.

However, in reality, none of the Master Plans (1998, 2003, 2008) have yet been implemented. The recent economic boom of the last five years and the heavy investment in development have little to do with policy strategies, raising the question of the reliability of such top-down projects without the institutional means on the ground to enforce them (Boudreau & Labbé, 2011; Fanchette, 2015; Wilson, 2009).

After decades of authoritarian planning, urban and peri-urban area development has been largely privatized, as in other countries of the region, with urban megaprojects and flagship projects carried out by private companies. In fact, the Hanoi Master Plan was conducted by the Japan International Cooperation Agency (JICA, 2007) following conflicting recommendations from Japan, Korea and United States. The Vietnamese Government was given international assistance; one of the end results was the Greater Hanoi Metro Plan, which met considerable opposition, notably from retailing and rental interests.

2.3. Economic industrialization and high-tech clustering

According to PriceWaterhouseCoopers (2009), Hanoi will be one of the fastest growing cities in the world up to 2025, even though the GDP

rate dropped from double to single figures from 2007 to 2017. In 2013, Hanoi contributed 12.6% to GDP and attracted 22% of the investment capital of Vietnam, including FDI. Agriculture, previously a pillar of Hanoi's economy, has sought to adapt, by introducing new high-yield plant varieties and applying modern farming techniques (Fig. 3, Quoc Oai Eco-town). Meanwhile, the non-state economic sector is expanding rapidly, with more than 52,000 currently operating businesses, and probably more, as the informal economy is extremely dynamic in Hanoi. Industrial production in the city has experienced rapid growth since the 1990s, averaging 20% per year during the late 2000s.

In addition to eight existing industrial parks, Hanoi is building five new large-scale industrial parks and 16 small and medium-sized industrial clusters. These new industrial sites are within a radius of 20 to 30 km to city center and are connected to each other and to the city center by an extensive highway network. They concentrate the bulk of high-qualification and industrial jobs. Among the new innovative clusters, Hoa Lac Hi-tech park (HHTP) is one of the first projects of the Vietnamese Government (Leaf, 2015) aiming to develop hi-tech industry and national R & D (Nguyen, 2016). The total area of this project is 15.52 km² with five main functions: Education and Training; Software - R & D - "Silicon Valley"; General service area; Residential and office buildings; Hotels and facilities for experts and workers; Entertainment and sports center. HHTP is located 25 km west of Hanoi, 42 km from Noi Bai Airport and 100 km from Hai Phong. It has good connections with Hanoi via the Thang Long highway. It is also situated next to Hanoi National University, and other academic institutions including FPT University, Columbia University, Vietnam-Japan University, and the French University of Science and Technology have also been active in the park. HHTP was thus expected to become a national research and development center and technology incubator, a training center for highly skilled labor, boosting high tech production and trading with all the facilities (exemption from value-added tax, export and income tax), infrastructure and services of a modern technology city. In reality, this shift toward the knowledge economy and cluster development seems to have been jeopardized by the shutdown of many higher education projects, as local Vietnamese university structures appear to be more attractive to parents and students because of their central location instead of being 40 km from the center without any affordable and reliable commuting system, as is the case with HHTP.

3. Key issues and recent trends of the metropolitan fabric

3.1. Hanoi Metro: a project thwarted by a complex transport situation

Traffic, logistics and congestion are major problems in Hanoi (Minh Quang, 2016). The city has a highway network connecting it to Lang Son, Ho Chi Minh City, Thai Nguyen, Hai Phong, Ha Long and Hoa Binh, as well as connections between the Tay Bac - Highway 5 Hanoi - Ho Chi Minh City - Thang Long Boulevard and Phap Van - Cau Gie highway. Most of the principal roads are already overloaded, only a few years after opening. In January 2015, the CT04 Thang Long highway from Hanoi to Hai Phong was opened, and also a toll bridge over the Red River, connecting the new International Airport terminal Noi Bai, built and financed by the Japanese, to the city center, considerably more convenient than the old and crowded small roads. However, this highway is still deserted because of its cost to users, tourist buses and local family vans notably preferring to use the old road to Along Bay.

Motorbikes and buses are the main means of transport within Hanoi, exerting enormous pressure on the transport infrastructure of the capital. In the last ten years, motorcycles and an increasing number of cars owned by the emerging middle class have overtaken bicycles as the main form of transportation and cause traffic jams in the rush hour. In 2016, there were 5.3 million motorcycles and 560,000 cars in the city, and the number of motorized two-wheelers is expected to increase by 11% a year and cars by 17%. By 2020, there are expected to be nearly seven million motorcycles and one million cars. New electric bikes

(Fig. 5a) are becoming increasingly popular because they can be driven without a license and they are suitable for the narrow streets. "Moto taxis", which used to be one of the favorite modes of transport for people wishing to get about quickly and avoid traffic jams, have been given a new lease of life thanks to new service providers and smart-phone applications such as Uber and Grab. Ferrying people to and from the metro station, home and office provides the drivers with a livelihood while also having an impact on the urban fabric and built environment (Surborg, 2006).

To minimize the negative consequences of traffic on the environment and health, the Government and local authorities officially promote public transport, through a comprehensive transport and communication development plan for 2030 and vision for 2050. Generally, the metro is a response to growing urban congestion in the Global South, for example in Seoul and Singapore, encouraging people to make one trip out of two by public transport (Bertaud, 2011: 19–22). The development of urban public transport fosters economic growth and productivity, increasing the mobility of inhabitants, particularly women and the poorest members of the community, giving them access to health care, education and the job market. At the same time, it reduces urban pollution and thus improves the living conditions of city-dwellers.

Taking this line, Nguyen Tan Dung, the Prime Minister of Vietnam, approved an overall transport development plan for Hanoi in July 2008, including a metro system. This project is being carried out by the Hanoi Metropolitan Rail Transport Project Board (Hanoi People's Committee - MRB, 2017). According to the Master Plan for Hanoi to 2030, vision to 2050 (approved in Decision No. 1259/QĐ-TTg dated 26/7/2011), the urban rail network will have eight lines with a total length of about 318 km. The Government requested the Ministry of Transport and the Hanoi City People's Committee to implement the construction of four sections (Fig. 4); Line 2A and Line 3 are expected to be operational in 2018 and 2020 respectively. Field observations reveal uniformity of the appearance of the stations, the only building material being raw grey concrete, and there is very little inter-connectivity between platforms and other transportation nodes.

It is expected that the rapid transit system (Fig. 5a & b) will increase the number of people using public transport as well as contributing to regional economic development and improving the urban environment by reducing traffic congestion and air pollution (Tuyet Le, 2012). Public buses run on many routes, with cheap tickets that can be purchased directly on the bus, and loyalty cards. Pedestrian bridges and safe underpasses should also facilitate the daily flow of people. Nevertheless, limitations are already undermining the benefits of this policy, including poor connections between "soft" modes of transport (pedestrian paths, public buses). Moreover, continuous urban growth jeopardizes the metro project; work on several lines has already stopped due to financial and technical problems. Finally, lack of coherence and vision in the transport policy calls into question its ability to solve mobility problems; issues that are frequently raised include the lack of control of use of bus lanes, poor traffic control at traffic lights and crossroads, which benefit the police more than the safety of the citizen, and pollution.

3.2. Housing provision vs housing sustainability

Hanoi, like the economic center Ho Chi Minh City, is now engaged in high-rise development and is experiencing a construction boom, and the local land and real estate market has grown rapidly since the mid-1990s (Nguyen, van der Krabben, Spencer, & Truong, 2017; Trinh & Parenteau, 1991). The urban development of Hanoi is largely based on urban models (good practices and urban forms) imported from other Asian nations such as Indonesia, Japan, South Korea and Singapore (Anwar & Nguyen, 2011). The involvement of private developers with short-term imperatives has changed the Government's approach to the construction of housing for low-income families. The cityscape has

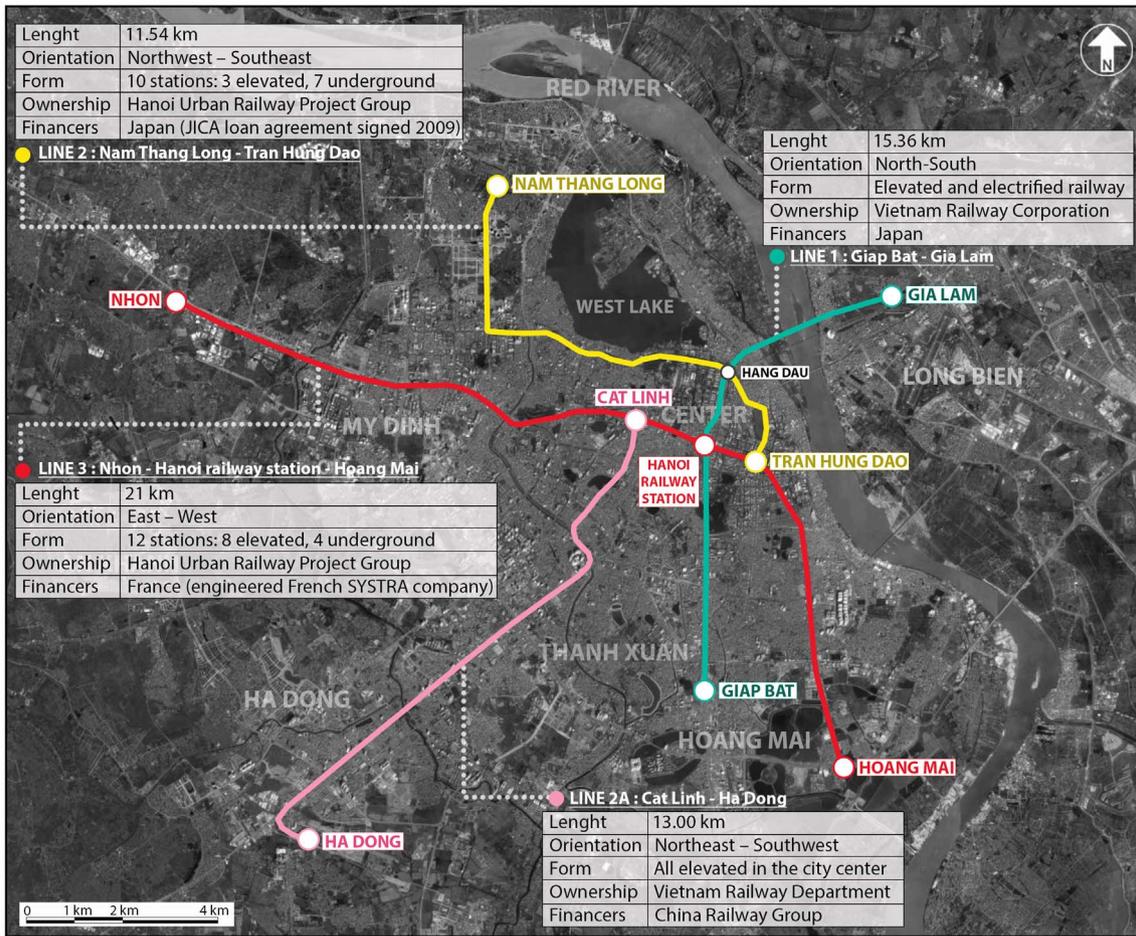


Fig. 4. Hanoi Metro: first completed sections. Source: Hanoi Capital construction Master Plan to 2030 and vision to 2050 by Decision 1259/QĐ-TTg.

changed dramatically, with the construction of skyscrapers in new urban areas outside the old city, most notably in the western part of the city, in Tu Lie, Cau Giay and Thanh Xuan districts. Almost 20 skyscrapers have been built in Hanoi during the past 7 years, with 10 more under construction, which should be completed by the end of this decade. EMPORIS (2017) placed Hanoi in the list of “world cities” (Kam Ng & Hills, 2003) with skyscrapers over 100 m, as it has the two tallest buildings in Vietnam (Fig. 6): Keangnam Landmark72 and Residential Tower (336 m, just below Kuala Lumpur’s Petronas Twin Towers) and Hanoi Lotte Center (272 m).

Furthermore, over 700 real estate projects were granted permits in the last Master Plan (2008–2011), mainly at the western edges of the city (DiGregorio, 2011) and southern suburbs of Hanoi, including Gia Lam’s “Vincom village” (Fig. 7a). Noteworthy new urbanized zones include the luxurious Manor (Fig. 7b), Ecopark, Ciputra and Times City, located in the districts of Tay Ho Westlake, Truc Bach and Ba Dinh. There are a number of gated communities, with names that evoke people’s expectations for modernity or meet a desire for a clean nature often artificial. They often refer to what the land used to be like, for example, “Riverside”, “Riverview”, “ParkCity”, “ParkHill”, “Green



Fig. 5. a & b Improving an inadequate transport system. Captions: (a) New market for e-bikes in Hanoi, (b) Construction of Hanoi Metro Line 2A. Source: Authors, 2015 and 2016.



Fig. 6. Tallest skyscraper in Hanoi.
Source: Authors, 2015.



Fig. 7. New residential areas and rapid densification.
Caption: (a) Vincom village: a green village in Gia Lam satellite city; (b) The Manor central park: high-rise buildings in Tu Liem district.
Source: Authors, 2014–2016.

Apartments”, “Mandarin Garden” or “WaterMark”. The construction of these new urban districts on agricultural land (Thapa & Murayama, 2016) has radically changed the architecture of the surrounding villages and disrupted water and communication networks (Fanchette, 2015). Moreover, the new zones often turn their backs on existing villages, with no connection between them, as at Tay Ho Westlake and Ciputra International City. These new neighborhoods are being developed between the 3rd and 4th districts and along main roads, such as Splendor, located beside the Lang Hoa Lac highway. The villas and semi-detached houses - oriented on the basis of traditional Phong Thuy (Vietnamese Feng Shui) - contrast with old apartments in collective Khu Đô Thi Moi and from the typical three- to five-storey “tube” houses. Similarly, the new zones are often developed next to the village cemetery, leading to land disputes with the villagers (Kerkvliet, 2005). Another challenge is to prevent these new zones from becoming

dormitory towns, as they lack local identity in terms of architecture and lifestyle, are isolated from urban communities and have few economic activities (Do, 2013).

The new housing areas studied by Luan Duy (2014) and Gough and Tran (2009) offer new housing opportunities for the emerging middle-class and might help rebalance the densities between the center and fringes of the city. But they put considerable pressure on agricultural land and peripheral villages (Fanchette, 2015). Many other issues arise as a result of latent market imperfections, lack of investment, poor management and corruption (Embassy of Denmark et al., 2011). Land acquisition and changes in land use also lead to conflicts over the compensation paid to farmers (appx. 1, interview 2).



Fig. 8. Traditional market (a), shopping center (b) and mall (c).
Source: Authors, Fieldwork 2012–2015–2017.

3.3. Commercial places: (r)evolution and new public spaces

With rapid economic growth, extremely high population density and Hanoi's aim of becoming a “global city” (Roy & Ong, 2011), a large number of shopping centers and megamalls have been built. Vincom Royal City Megamall (Fig. 7c), located on Nguyen Trai Pho approximately 6 km from Hoan Kiem Lake, is the largest underground mall in Asia, with 230,000 m² of fashion and beauty shops, trendy restaurants, multiplex cinema, a waterpark, skating rink, and fitness clubs. Many vacant spaces are used as children's playgrounds to attract parents as consumers rather than simply onlookers. In fact, “beyond iconic new urban projects and glittering business districts, the everyday city production still takes place in the interior of their specific urban pattern, namely their alleyway neighbourhoods” (Gibert, 2016), as shown in Figs. 8a and b.

3.4. Green and blue corridors: utopia or urban marketing?

According to the Master Plan (2011), two types of space, with different population densities and functions, theoretically adapted to natural constraints, are envisaged within the future metropolis. The first is a very densely populated and urbanized space, and the second is a green belt whose purpose is primarily agricultural or environmental

(HUPI, 2015). In order to establish sustainable development and to take into account the constraints imposed by its deltaic location with a strong flooding risk, the strategic spatial Master Plan of Hanoi includes the creation of a Green Corridor to the west of the previous urban core. It also includes a “blue corridor”, corresponding to the valleys of the Day and Tich Rivers, which can take the overflow of the Red River in the event of floods. In fact, Hanoi's Green Corridor “is a classic feature of metropolitan-scale urban scale. The master-plan includes a large green belt that protects productive farmland, flood management areas, natural areas, craft and trade villages, and historic relics. In addition, there are green corridors that are intended to function as green buffer zones” (Soderstrom, 2014: 105).

There is concern that metropolitan land dynamics will jeopardize the Green Corridor following reversible political choices and the rapidly expanding urban economy. This corridor is further compromised in that urban projects already exist, such as “the Ngọc Hoa Industrial Zone in Chuong My District, that of Dai Nghia (30 ha) in the very vulnerable settlements of My Duc or that of Thanh My Xuan Son under construction in the flood zone of the Tich River in the district of Son Tay” (Fanchette, 2015: 106). Finally, the Green Corridor, and the development of green spaces in general, are elements of a larger set of market-oriented measures, intended to be urban marketing. The creation of a Green Corridor, or even of a green belt comprising residential areas or “natural” public spaces, is insufficient to ensure the transition to strong or permanent sustainability. Finally, the creation of high-speed roads through this area, including the Thang Long highway to the future satellite city of Hoa Lac, or the one linking Hanoi to the Noi Bai international airport, may lead to spontaneous urbanization along these routes, causing unwanted issues beyond the control of urban planners (Ngh, 2008).

To complete the strategic vision of sustainable development, the Mayor of Hanoi, Nguyen The Thao, who took office in 2015, plans to plant a million trees in five years to replace those that were cut down prior to the construction of highways, railway stations and elevated metro lines. Nearly 300,000 trees have been planted within the last two years. He also supports the public policy to restore and renaturalize the lakes, (Fig. 9) which addresses several issues at the same time: flood management (lakes and rivers), ensuring a reliable water supply, urban renewal and enhancement of the city. Following a break with the previous Chairman and Members of Hanoi People's Committee, one can wonder whether the actions undertaken by the Mayor will continue beyond his mandate.

The decentralized cooperation branch of the Paris Urban Agency, in accordance with the Master Plan 2030–2050 (Fig. 3), has proposed transforming the agricultural plain, extending west of Hanoi to Mount Ba Vi, into the first natural regional park in Vietnam. “This territory, which was covered in speculative real estate projects, before the province of Hanoi absorbed it in 2008 and put things in order, remains very fragile, especially as the State develops to the west, several projects of satellite cities, eco-cities and other major road projects” (IMV – PADDI, 2014; Perrin and IAU d'IdF, 2016). An agro-tourism project includes restoration of the architectural heritage of craft villages and the development of handicraft production. The peaks of the Ba Vi mountain range play an important role in fairy tales and legends and are seen by Hanoi residents as sacred, but the official authorities only seem to recognize the importance of the Hmong people living there as a tourist attraction.

4. Internationalizing Hanoi and new spatial amenities for sustainable development

4.1. Progressive adoption of international quality standards

Vietnam has adopted many quality standards for sustainable development (e.g. Kyoto protocol, Agenda 21, ISO 9000 and ISO 14000 certification and norms) with negotiations before and during

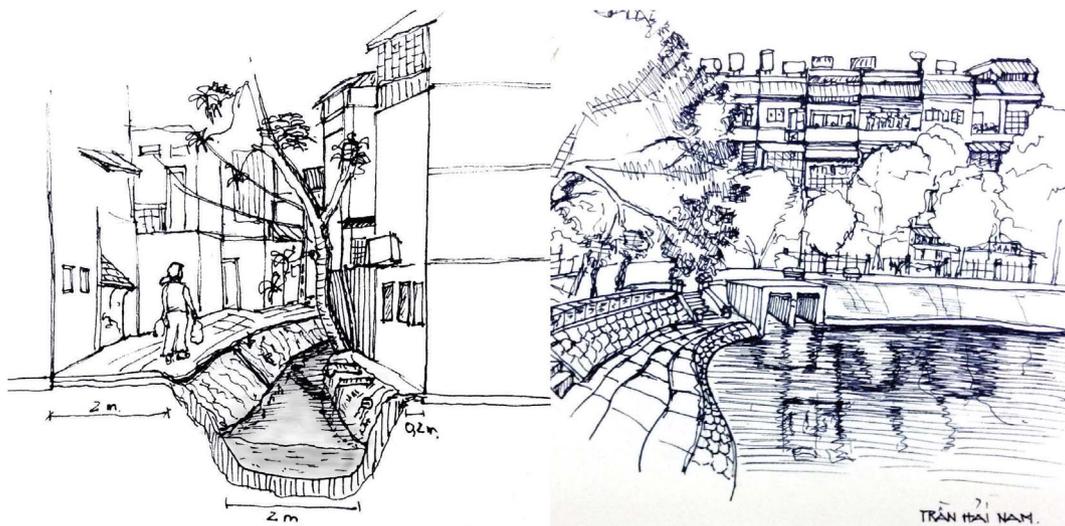


Fig. 9. Developing a water sensitive urban design.

Captions: (a) Water in the street (To Lich River, Thuy Khue), (b) Flood risk management (Thanh Cong Lake).

Source: Sketches by Hai Nam Tran, 2014 (unpublished artwork).



Fig. 10. Branding the city by green buildings.

Caption: Zero energy building, Green One United Nations House, Hanoi.

Source: Photo by the authors, 2015.

implementation. These ecolabels mainly help to improve the general quality of the construction and infrastructure sectors, not only in the new urban zones but also in the traditional affordable housing sector (Bertaud, 2011: 35). As the capital of Vietnam for almost a thousand years, Hanoi is considered one of the main knowledge and innovation centers of Vietnam (Soderstrom, 2014). As a member of the Asian Network of Major Cities 21 and the C40 Cities Climate Leadership Group, Hanoi local authorities have stated their aim “to become the world’s greenest city and the world’s first sustainable city” (appx. 1, interview 4).

Hanoi People’s Committee is seeking to extend the notion of sustainability to economic, environmental, social and cultural sectors. For instance, the city hosted the “Green building and urban planning for sustainable cities” symposium in 2014, organized by the Vietnamese government, the Belgian Embassy and the European Chamber of Commerce. It also hosted the recent 7th High Level Seminar on Environmentally Sustainable Cities in Vietnam, organized by UN-Habitat (2016). Experts and consultancy agencies also help promote best green practices, in line with the emerging south-east Asian megacities of Shanghai, Hong Kong and Singapore, in order to create a diversified, modern, attractive image, encouraging transit-oriented development with compact city (Zhu, 2012), mixed-use communities in peripheral urban areas linked to the city center by the metro. This approach plays a strong role in placing the Hanoi Capital metropolitan area within the globalization context.

Buildings play an enormous role in the consumption of resources. In addition, there is a large environmental cost in supplying the energy for air-conditioning, and that cost is borne by the country and not just the community. New Hanoi metropolitan area exists, but the transformations are probably easier on paper than in reality. Moreover, the efficiency of environmental amenities will depend on the scale of operation and the ability of the authorities to put sustainable standards into practice and generalize them to the whole city and various neighborhoods. While concern for energy transition and zero-emission buildings is publicly expressed, it tends to be more about green washing than actual reduction of CO₂ emissions. Following an initiative of the World Bank Group, the Asian Institute of Technology and international development partners, and with initial funding from Australia, a Vietnam Learning Centre on Environmental and Social Sustainability has been set up to foster knowledge exchange and capacity building related to environmental and social safeguards and standards in Vietnam. Norway was among a number of countries that financed construction of the eco-friendly Green One UN House in 2015, home to 16 UN organizations in Vietnam and that provides a model for green buildings in Vietnam (Fig. 10).

In addition to international donors and investors from New Zealand, Finland, Australia, private Vietnamese interests (Green Tech Hanoi) and architects’ associations (FuturArc) are also working toward green architectural solutions to overcome the urban heat island effect that is common in large sub-tropical cities. However, reducing energy

consumption is not the main concern of most Hanoi inhabitants, who are more interested in improving the interior, furnished environment, demonstrating that, as elsewhere, they are no longer living at subsistence level. Vietnam is finding it difficult to meet its increasing energy needs; as both victim (flooding on livelihood, heavy downpours) and contributor of climate change (Toan, Kien, Bao Giang, Van Minh, & Wright, 2014), it finds itself in a contradictory situation.

4.2. Well-being of metropolitan inhabitants: planning strategies and user practices

Since the 1960s, many international urban designers and consultants (e.g. gehlpeople.com) have observed that healthy streets make for better enjoyment of the city and increase the livability of global cities (Sanders, Zuidgeest, & Geurs, 2015). Thus, the indicators of wellbeing have become an instrument and an argument to justify many urban projects that transform public spaces and private uses (organic food, sport, cool environment, etc.). Taking exercise in the street in the early morning or late afternoon (e.g. yoga, fitness, running, walking, playing Ha Cau) is strongly embedded in the habits of Hanoi residents. To overcome the noise, and visual and air pollution (Hai, Oanh, & Nguyen, 2013), some specific urban planning strategies have been implemented to encourage the wellbeing, health and longevity of residents (Geertman, 2010). Many changes in Hanoi; for example, small groups of men and women on bicycles wearing sports clothes and helmets riding along the flyover on the outskirts of Hanoi; the return of lake fishing; weightlifting and body-building in the street. Traditional sports and leisure activities like badminton can be seen with major international brands of sports equipment (shoes, clothes, rackets), and some streets specialize in wellbeing practices (Ba Trieu, Nguyen Thai Hoc). More recently, in 2016, Hanoi People's Committee organized car-free pedestrian areas in the main streets around Hoan Kiem Lake every weekend, and created a new recreational space for cultural, leisure and sports activities (Fig. 11).

New transnational Westernized habits, such as eating ice-creams, French fries with ketchup and hanging out in casual clothes with friends, can be seen alongside the local tradition of street food, tea and coffee culture on Vietnamese stools, progressively reshaping the definition and use of public spaces (Fig. 12). Some lounge bars and restaurants with European names (Mediterraneo, La Place, Paris delights...) have even opened in the ancient colonial quarter, contributing to the transformation of the central heritage area. At the same time, food quality, bio-vegetables, organic rice and meat have become increasingly popular for everyone, not only the youngest generation. In Hanoi, new collective action and farmers' organizations have been set up to respond to the concern of 85% of Hanoi residents with the question of food safety (Wang, Moustier, Loc, Nguyen, & Pham Thi, 2012). Economic growth and transnational habits have also led to

problems of obesity and related problems among young people (e.g. cardio-vascular disorders, diabetes) (Nguyen, 2015).

Finally, safety and security issues have also become increasingly important for Hanoi residents wishing to improve their standard of living. For instance, street advertisements show parents waiting for traffic lights to turn green or shepherding their children across the street on the pedestrian crossing, reflecting a desire for a walkable, car-free city (Minh Quang, 2016); this can be seen in Hanoi with a number of successful pilot projects.

5. Conclusion

This updated profile of Hanoi focuses on urban development, critical issues and recent strategies for sustainable development (Scarwell, Leducq, & Dinh, 2015). In fact, Hanoi capital city's Master Plan needs to address numerous issues including demographic explosion, transportation and traffic congestion, land management, uncontrolled urban development, housing, flooding risks, rapidly changing economy and new innovation centers, public spaces and food quality. Strategic spatial planning is based around the idea of a Green corridor covering 60% of the area, leaving 40% for urbanization. This is designed to ensure the sustainable development of a city whose population is expected to reach 10 million by 2030. Moreover, real efforts are being made to transform the city and in order to enhance its international image as a global city.

If the urban planning of the socialist state is still present in people's minds, in reality, it appears that no Master Plan, even after the Doi Moi period, has been carried out; the recent economic boom of the last five years and the heavy investment in urban development have little to do with political strategies. As described above, there are considerable economic, social, environmental and political challenges facing the sustainable future of this sprawling metropolis. The transformation of Hanoi into a modern megacity is well and truly under way, but the decisions being made are often informal and spontaneous.

The People's Committee remains the major decisional actor, although private companies and international organizations from all over the world (Europe, North America and South-East Asia) have a major influence on the urban planning process and policies. Citizens and collective actions are also having an increasing impact on planning strategies. Careful, comprehensive and realistic planning of further urban expansion is important to meet the multiple and complex issues facing Hanoi. Researchers and practitioners should thus pay particular attention to all the strategic spatial planning approaches to development in order to gain insight into Hanoi's transition to sustainable urban development.



Fig. 11. Recreational spaces and renaturing the “city of lakes”.

Caption: Fishing and walking at Ho Sen Tay Ho (left); Sports at Hoan Kiem Lake (right).

Source: Photo by authors, 2016–2017.



Fig. 12. Transition in “street food” — from Vietnamese to western style.
Source: Photo by authors, Hoan Kiem District, 2015.

Acknowledgments

We would like to thank Professor Le Quan, Rector of Hanoi Architectural University and the reviewers for their valuable comments and editorial assistance.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <http://dx.doi.org/10.1016/j.cities.2017.08.003>.

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