

Sustainable land use – Key point for sustainability approaching progress in the development of Hanoi

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ABSTRACT: Hanoi, the capital of the Socialist Republic of Vietnam, is one of the oldest cities in Southeast Asia with a mighty historic of revolutionary struggle.

At present, with a day by day innovating, more and more graceful, Hanoi has become the symbol of peace and friendship. In harmony with this tendency of development, the infrastructures of Hanoi, including electricity, water supply, transportation and housing are also being developed. The aspect of environmental protection is also paid attention in these activities, especially in the suburbs of the city. However, within this development, the city is now facing with many problems including serious pressure of land use. The conflicts in land use, irrational planning of land use will become more and graver. Traffic jams and housing are the two really stinging issues that need a thorough upgrade. The sustainability of Hanoi city therefore requires a harmonic resolution for development of land use.

Herein, the proposed avenues for further research include “36 streets”-ancient urban and other new modern area (four districts: Long Bien, Hoang Mai, Cau Giay and Thanh Xuan). The paper stresses on the necessary of an integrated research on using ground space in ancient area and carrying out “green belt plan” and the creation of sustainable spatial model for the new districts above, in order to ensure a sustainable future for the development of Hanoi, the city that plays a very important role to the development of the national socio-economic system.

Keywords: land use, green belt, sustainable spatial model

Hanoi, the capital of the Socialist Republic of Vietnam, is one of the oldest cities in Southeast Asia with a mighty historic of revolutionary struggle.

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In this document, I was not ambitious to find out the thorough solution for all above issues. I only tried to suggest an approaching method which pays attention on environmental harmonious in order to reach the sustainability for the development of Hanoi.

The researched objects in this case are the old and the new residential areas in Hanoi.

1. Different residential area typology in Hanoi

According to opinion of Associated professor. Doctor. Architect. Nguyen To Lang in his report, based on the forming period and the spatial structure, it is possible to separate these residential area typologies in to 5 categories as follows:

- The ancient quarter
- The French quarter
- The urban villages
- The neighbourhoods constructed in the subsidized economic period.
- Housing area constructed after the “Doi moi” economy.

Corresponding with the approaching orientation of the document, we should join those 5 categories into 2 groups, based on their Geographic position, as follows:

- Group 1: The ancient quarter and the French quarter – with concentrated spatial structure.
- Group 2: The urban villages, the neighbourhoods constructed in the subsidized economic period and the housing area constructed after the “Doi moi” economy – with dispersed spatial structure.

2. General points of view about sustainable development in Hanoi

Many definitions about sustainable development have been mentioned. After all, it is possibly to understand sustainable development is the balance of elements during their development progress. These elements are included: Political, economic, cultural, social and environment.

In the sector of Planning and Architecture, the balance of these elements was manifested in four aspects below:

- Ecologic environmental sustainability.
- Urban sustainable development
- Works sustainability
- Sustainable in Urban and Rural economy

In the reality of Hanoi today, ecologic environmental sustainability and urban sustainable development are the two seriously inadequate problems caused some consequences, as follows:

- Reducing pre-urban land since spontaneous development expanding from inside to outside.
- Excessive construction density
- Environmental pollution

Corresponding with these challenges, it is necessary to find out some solutions.

3. Sustainable approaching orientation for the improvement of these residential area

As mentioned above, there are two groups of residential area. Based on the geographic position, spatial structure, the value system of historical, physical and spiritual, we have specific solution for each group.

Group 1: The ancient quarter and the French quarter

With concentrated spatial structure, long-standing cultural and historical value creates the unique characters for these areas.

Due to the social development and the population increasing, urban complexion is being changed. Confusion urban development, disorientation, characterless and environment imbalance.

The solution included two aspects: (i) improve the immanent urban conditions, (ii) Create a surrounding belt to prevent the urban itself from inside and outside spontaneous expansion.

Firstly, with the intention of improving the immanent urban conditions, it is necessary to pay attention in Environmental and infrastructure improvement, selectively promoting cultural and spiritual values.

Hanoi means "Inner River". In the development progress of urban Hanoi, water surface not only play an important role in creating urban characters but also effectively contributes in climate regulating and environmental promotion. Hence, it is worthwhile to give back the entire water surface in the ancient quarter and French quarter.

For the two areas, especially the ancient quarter, it is necessary to enhance capacity of circulation and vehicles approach. The solution is open more branch road centripetal or goes through the very high density housing blocks.

The advantages of this solution are:

- Enhance approaching capacity for tourists, widen the services space for the local citizens → increase citizen's income and living standard, promoting traditional occupations.
- Increasing quantity and scale of public space → better natural ventilation → well contributing in living environmental promotion.
- Enhance the approaching capability of vehicles, ensure fire prevention.

It is said that, improvement and balance of living condition and living environment, promotion of immanent strength of a region is a sustainable approaching method. However, It is not simple to maintain these conditions and prevent them from the outside expansion.

Imagining that, every parts of a city, to some extent, are as the same as countries of a region. In the period of globalisation, it is impossible to deny the mutual impacts in the development among countries. However, each country herself always exists an independent development, and one of the obviously consequences is the demand of expansion. To the nations, the national defence and security system and region division territory by borders are the important factors to prevent them from being expanded. To the cities or parts of a city, it is "green belt".

To the inner regions of Hanoi, the maintenance and development of the existing agricultural areas and the establishment of the new ones in order to create a closed ring brings a great effectiveness. Green belt plays an effective role in living environment promotion, urban landscape and urban characters establishment and also as a economical and convenience food supply for the city.

Effectiveness of the "Green belt" far exceeds "the border" because it is not only a simple regional division delimit but also ensure urban order and sustainability for a long term development.

Group 2: The urban villages, the neighbourhoods constructed in the subsidized economic period and the housing area constructed after the "Doi moi" economy.

With disperse spatial structure, the group was distributed to all parts of the city, from the old constructed areas, such as: An Duong, Kim Lien, Trung Tu, Truong Dinh...to new constructed areas, such as: Thai Ha, Thanh Cong... and the latest urban areas in the four districts: Long Bien, Hoang Mai, Cau Giay and Thanh Xuan.

General characteristics of these areas are urban appearance changes very fast and develop in diversified ways. However, in these areas, green space, water surface and landscape were paid less attention. Further more, public spaces are in deficiency and density of construction is too high.

Thus, sustainable improvement solution will be applied for two categories.

The first category is constructed urban areas in which there is not many suitable solutions of improvement. The main objective is to control the construction density, to set highest priorities on using remaining lands for green spaces, water surfaces, public spaces in order to improve living environment, establish landscape and maintain long term development.

The second category is under construction areas, such as new residential blocks, new urban areas...which are in their forming and development progress. With this category, it is possible to apply a strict institution in control construction density, average height and back gap of the building as well as land using priorities for green spaces, water surfaces, public areas...

Hanoi was known by the worldwide as a green city and a city of ponds and lakes. So, it is necessary for the city to be paid more attention about green spaces and landscape, not only for the improvement of living environment but also distribute in the establishment of Hanoi's characters.

Again, "green belt" seems to be very useful for these areas. As mentioned above, the green belt is not only prevent the area itself from being expanded but also plays a very important role in living environment promotion, urban landscape and urban characters establishment and also as a economical and convenience food supply. In this situation, the green belt can be defined based on the administrative boundaries among districts (such as: Long Bien, Hoang Mai, Cau Giay...) or on the boundaries of the urban areas (such as: Dinh Cong - Linh Dam, Van Quan, Thanh Xuan, Nghia Do...)

In summary, within the limit of this document, the author just desire to mention about initially ideas in improvement and development of the different residential area in Hanoi with the tendency of sustainable

development. Obviously, there are many related issues need to be more detail studied.

According to the author's opinion, the given solution which was emphasis on the aspects: improvement of living environment, living standard, give more priorities on promoting urban image (green spaces, water surfaces, public spaces...) and the creation of the green belts at some parts of the city, will be the sustainability approaching tendency for the sustainable development of Hanoi.

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