



INFLUENCE OF THE URBANIZATION PROCESS ON THE SOCIO-ECONOMIC DEVELOPMENT OF THAI NGUYEN CITY IN THE PERIOD OF 2012 – 2024

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Abstract:

After Doi Moi, urbanization in Vietnam has taken place strongly in large cities, creating the effect of promoting this process to spread widely across provinces, regions and the whole country. Thai Nguyen City - the capital of Thai Nguyen province, the picture of urbanization has prospered, the urban economy has developed, road infrastructure, electricity and water, educational facilities, healthcare, environmental sanitation upgraded and renovated. However, the city is also facing challenges in the urbanization process, such as employment, housing, air and noise pollution, and urban management planning has not kept up with reality progress, not meeting the trend. Starting from the above theoretical and practical issues, proposing solutions to promote urbanization and development of Thai Nguyen city is urgent, meeting the goal of sustainable and prosperous urban development.

Keywords: influence, urbanization, development, socio-economic, Thai Nguyen city

1. Introduction

1.1 Statement of the Problem

Urbanization is a complex and regular process of transformation and movement. It is also a process of urban expansion in terms of economy, society, culture and space. In recent years, the process of industrialization, modernization and urbanization in Vietnam has been taking place at an increasingly rapid pace, which has positively changed the face of Vietnamese urban areas. However, the negative side of the urbanization process is also posing many problems that need to be solved, such as the problem of creating jobs for farmers who have lost their land, compensation methods when clearing land, migration

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methods, and population dispersion are becoming increasingly complicated. Without a specific strategy, we will encounter many obstacles and difficulties in the process of solving these problems.

Thai Nguyen is a province in the Northern Midlands and Mountains region of Vietnam. In addition, Thai Nguyen is also one of the provinces in the Capital region (since 2016), and is also the growth pole in the North of Hanoi Capital with a natural area of 3,521.9 km² (40th/63 provinces and cities nationwide). In addition, with a favorable geographical location, being the gateway for economic and social exchange between the Northern Midlands and Mountains with the Red River Delta as well as the whole country, not only does Thai Nguyen province attract domestic and foreign investors, but also the cities under the province have attracted the attention of economists. Thai Nguyen city is a class I urban area under the province, a political, economic, cultural center. The urbanization process has changed the population distribution and occupational structure, shifted the land use structure and economic structure, developed infrastructure, and improved people's lives. The urbanization process has created many significant leaps for Thai Nguyen city, stimulating and creating opportunities for people to be more active and creative in searching and choosing methods and forms of organizing production and business, striving to become rich legitimately. The issue of urbanization, as well as the impact of urbanization on the socio-economic development and people's lives in Thai Nguyen city, has been of interest to scientists.

Based on the theoretical issues as well as the importance of the above issue, along with the desire to contribute to the development of the locality where they live, work and study, the group of authors decided to carry out research on "*influence of the urbanization process on the socio-economic development of Thai Nguyen city, Thai Nguyen province*".

2. Overview of documents and development of research hypotheses

Urbanization began a long time ago; the first urban areas appeared in the world around 3000 - 1000 BC in Egypt and India. Therefore, in the 20th century, people realized the importance and gradually researched urbanization. Research on urbanization is also a field of interest and is developing rapidly. Researchers on that issue are still working day and night to better understand the urbanization process as well as the impact of urbanization on the environment, society and the economy. In addition, researchers have been using a number of methods, such as social network analysis, simulation, and big data, in urbanization research.

Researchers have also been concerned about the impact of urbanization on the environment, climate change, discrimination, housing shortage and urban security. Research on effective solutions to minimize the negative impact of urbanization on the living environment, such as green urban development, renewable energy and public transport. In the 19th century, researchers began to collect data on urban population and analyzed urbanization trends. Some pioneering works in this field include "Urbanization in India" by Pranati Datta (2006) [1]; "Urbanization and Globalization" by Fu-chen Lo

and Yue-man Yeung (1998) [2] analyzing the relationship between urbanization and globalization, UNESCO for the 1998 World Culture Report; The report “World Cities Report 2022” by UN-Habitat (2022) [3] and “A data mining approach to Thailand urbanization index development” by Vichit Lorchirachoonkul, Jirawan Jitthavech and Duangpen Teerawanviwatp (2012) [4]. That shows that urbanization is always an urgent issue and is of interest to many researchers around the world, and there are still objective views to provide necessary solutions for the urbanization process that is taking place strongly in countries around the world.

In Vietnam, according to documents from the Vietnam Institute of History, the first urban area in Vietnam also appeared quite late, and the study of urbanization also took place later from many different perspectives in both theory and practice. Currently, Vietnam is a developing country; along with that, industrialization and urbanization are being promoted. Therefore, studies on urbanization issues that guide the development and progress of the urbanization network are necessary. Among them, the issues that researchers are very concerned about are: population, territorial planning, etc. On the other hand, in recent years, there have only been studies on the urbanization process in Vietnam, but very few studies have specifically mentioned the urbanization process in Thai Nguyen city, Thai Nguyen province. Based on the analysis and study of urbanization issues along with the influence and socio-economic development in Thai Nguyen city, the group of authors proposes a number of measures suitable for the development of this city.

The article studies and proposes solutions to improve the urbanization process in Thai Nguyen city, Thai Nguyen province, from the perspective of socio-economic geography. The author uses secondary data, exploited from data, articles, statistics of Thai Nguyen Provincial Statistics Office and reference documents related to the research problem.

3. Research methods and research results

Based on the collected data, the author processed the data by tabulating, comparing, contrasting, and constructing appropriate data tables. The author used a combination of research methods, such as data processing and analysis methods; descriptive statistics methods. Based on the collected documents related to the urbanization process, provided an objective and scientific analysis and evaluation of solutions to improve the urbanization process in Thai Nguyen city, Thai Nguyen province.

3.1 Overview of the study area

As a province in the Northern Midlands and Mountains region, Thai Nguyen has coordinates from 20°20'N to 22°25'N, 105°25'E to 106°16'E; bordering Bac Kan to the North, Lang Son and Bac Giang to the East, Hanoi to the South and Tuyen Quang and Vinh Phuc to the West. The natural area of Thai Nguyen province is 352,664 ha, the smallest area compared to the provinces in the Northern Midlands and Mountains region

(accounting for 1.06% of the country's area, ranking 14/14 provinces in the region, except Quang Ninh province), including 9 administrative units: Thai Nguyen city, Song Cong city, Pho Yen city and 06 districts of Dong Hy, Phu Binh, Dai Tu, Phu Luong, Dinh Hoa and Vo Nhai, including 10 towns, 30 wards and 140 communes. Thai Nguyen province is divided into 2 sub-regions: the northern sub-region (5 districts of Dong Hy, Dai Tu, Phu Luong, Dinh Hoa and Vo Nhai) and the southern sub-region (Thai Nguyen city, Song Cong city, Pho Yen city and Phu Binh district).

3.2 Current situation of urbanization in Thai Nguyen city

3.2.1 From the past to 2012

On October 14, 2002, Thai Nguyen city was recognized as a type II urban area under the province according to Decision No. 135/2002/QĐ-TTg of the Prime Minister. According to Decree No. 84/2008/ND-CP dated July 31, 2008 of the Government on adjusting administrative boundaries and expanding the boundaries of Thai Nguyen city, two communes Dong Bam and Cao Ngan of Dong Hy district were transferred to Thai Nguyen city. Thai Nguyen city has 28 administrative units (including 18 wards and 10 communes) with a total area of 189.7 km², the total urban population is 330,707 people, of which the permanent population is 279,710 people (in 2009). After 8 years of being recognized as a type 2 urban area, Thai Nguyen city has really transformed itself and achieved many important achievements in all fields. On September 1, 2010, Thai Nguyen city was recognized as a type 1 urban area under the province according to Decision No. 1645/QĐ-TTg of the Prime Minister. In 2011, the Government signed a decision to establish Tich Luong ward on the basis of Tich Luong commune, increasing the total number of wards of Thai Nguyen city to 19 wards and 9 communes.

3.2.2 Period 2012 - 2024

In 2017, Thai Nguyen city was a type I urban area, development projects were fully implemented, such as the Project of Complex of Trade Promotion Fair Center for Construction Industry, combined with a high-class residential area Picensa Plaza Thai Nguyen; Ho Xuong Rong Urban Area of Thai Nguyen city. On October 5, 2017, Thai Nguyen City was recognized by the Prime Minister for completing the task of building new rural areas, and was awarded the Third Class Labor Medal by the President for its outstanding achievements in the emulation movement of the whole country joining hands to build new rural areas, period 2016 - 2020.

In the period 2016 - 2022, the economic growth rate of Thai Nguyen City reached 15.75% per year. Urban infrastructure is increasingly invested in synchronously and modernly. Many economic and technical infrastructure projects are invested in by the Central and the province and put into use, creating favorable conditions for regional connectivity and promoting socio-economic development in the city, such as the Viet Bac road, Ben Tuong bridge, and the different-level intersection of Thong Nhat road and Viet Bac road. The city's urban infrastructure is increasingly invested in and built synchronously, and the city's appearance is increasingly spacious and clean, with many

new modern urban and residential areas and synchronous infrastructure. Typically, the Danko City urban area, invested and built by Danko Group Joint Stock Company in Thai Nguyen City, was honored in the category of Urban Area Project with the most beautiful landscape design in Vietnam (2020) and was chosen as the venue for the national final round of Miss World Vietnam 2022. The rapid development of the inner-city traffic system contributes to expanding urban space, and rural traffic is solidified to 100%.

The urbanization rate of the whole city has increased from 36% at the end of 2021 to 41.05% at the end of 2024. In 2024, the city focuses on urban development in a synchronous and modern direction, attracting and developing many commercial centers, hotels, restaurants, and banks. Main roads such as Hoang Van Thu, Luong Ngoc Quyen, Phan Dinh Phung, Hung Vuong, etc. have been repaired and newly built, helping to connect traffic, promote economic development, and create a highlight for the city. More and more urban areas, real estate, high-rise apartments such as Danko, Thai Hung, Ho Xuong Rong, TECCO Elite City, Thai Nguyen Tower, etc., are being invested, built and put into use with modern, green - clean - beautiful criteria, creating a "revolution" in living space for urban residents.

3.3 Influence of urbanization on socio-economic development of Thai Nguyen city

3.3.1 Population and population distribution

Table 1: Average population, urban and rural areas
of Thai Nguyen city in the period 2012 - 2024 (Unit: people)

Year	Average population	Rural area	Urban area
2012	287,623	57,763	229,860
2014	296,000	58,753	237,247
2016	317,030	54,572	262,458
2018	337,052	54,747	282,305
2019	340,403	91,399	249,004
2022	341,707	90,409	264,820
2024	368,793	95,912	272,881

Source: Thai Nguyen Provincial Statistical Yearbooks.

The urban population growth rate and urban population ratio of Thai Nguyen city are quite high and tend to increase. Due to investment policies in urban infrastructure, facilities, employment, education, health care, and society, the proportion of people in urban areas is increasing. The urbanization process of the city is taking place more and more rapidly, and the urbanization level has also improved.

3.3.2 Economic growth and restructuring

Despite many difficulties and challenges, under the leadership of the Provincial Party Committee, the Provincial People's Council, the direction and management of the Thai Nguyen Provincial People's Committee, the efforts of all levels, sectors, the business community and the people, the socio-economic situation of Thai Nguyen city continues

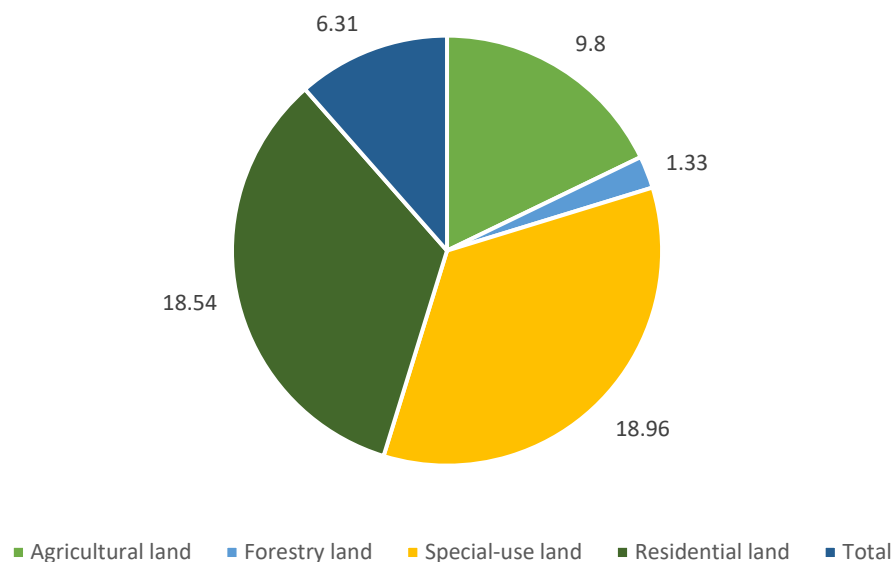
to change positively. The economic growth rate (GRDP) of Thai Nguyen city in the first 9 months of the year is estimated to increase by 4.35% over the same period last year, higher than the national average (estimated increase of 4.24% over the same period).

GRDP growth rate reached 7.5%; industrial and handicraft production value growth rate reached 8.5%; export value reached 8%; budget revenue in the area reached 19,515 billion VND; GRDP per capita reached 123 million VND/year.

3.3.3 Changes in land use structure

The urbanization process not only affects the reduction of the land area of each household but also makes the land fluctuation situation of households more active. The land fluctuation situation of surveyed households includes buying, selling, renting, leasing, lending land of farming households and the repossession of agricultural land by the State.

Figure 1: Land use structure by land type in Thai Nguyen city
(as of December 31, 2024) (Unit: %)



Source: Thai Nguyen Provincial Statistical Yearbook 2024

3.3.2 Promoting livelihood transformation

People's livelihood choices are closely related to environmental factors (natural and social), with interactions, receptions, and exchanges with other communities. That reality always leads to changes and adaptations to livelihoods for survival and development. Urbanization prompts people to transform their livelihoods; many people have changed their livelihoods from agriculture to industry or services. The Thai Hai tourist area, Thai Nguyen province, is a successful case of community tourism, creating positive changes in the economy, culture, and society, and moving towards poverty reduction for local communities.

4. Orientation and solutions for urban development of Thai Nguyen city to 2030

4.1 Development orientation

4.1.1 Urban development model and structure

Development in a chain of concentrated, multi-center urban areas in the inner city and satellite urban areas of the district center. Development of green urban areas and water surfaces, with compressed urban space, interwoven with water surfaces and green landscape strips.

Structure of traffic axes:

- Vertical axes: expressway route Hanoi - Thai Nguyen - Bac Kan - Cao Bang. Inland waterway axis, Thai Nguyen and Thuan Thanh wards. Backbone axis: Thai Nguyen city is a traffic hub with 3 national highways passing through including: National Highway 3 (going to Hanoi to the South, going to Bac Kan to the North), National Highway 37 (going to Tuyen Quang to the West, going to Bac Giang to the East), National Highway 1B (going to Lang Son).
- Horizontal axes: Cach Mang Thang Tam Street (the longest road in the city connecting the central area with the Gang Thiep industrial center).

Structure of green landscape areas, agricultural areas and open spaces:

- The green landscape conservation system includes Tan Cuong tea hills, Ghenh Che lake,
- Thematic parks include Nui Coc Lake cultural and sports park route, Tan Cuong tea cultural space,
- Open spaces include the Cong river, the Dat Dang waterfall, the Kem stream, canals, lakes in urban areas and areas with the ability to allow flooding. The agricultural area includes the area interwoven between urban areas in the inner city and the large area in the west of the city.

4.1.2 Development space

- Urban development area in the inner city: Urban development area in the inner city has an area of 222.93 km². in which Thai Nguyen City is a type I urban area, development projects have been and are being implemented synchronously, creating positive effects on the urban architecture such as Project of the Construction Industry Trade Promotion Fair Center Complex combined with the high-end residential area Pienza Plaza Thai Nguyen; Urban Area of Xuong Rong Lake, Thai Nguyen City.
- Suburban urban development area: Suburban urban development area includes the wards: Cam Gia, Chua Hang, Dong Bam, Gia Sang, Huong Son, Phan Dinh Phung, Phu Xa, Quan Trieu, Quang Vinh, Tan Lap, Tan Long, Tan Thanh, Tan Thinh, Thinh Dan, Tich Luong, Trung Thanh. These urban areas function as district centers, small-scale industry and services, and satellite urban areas for the central urban area

4.1.3 Urban infrastructure

Infrastructure contributes to the success of agricultural production. The State needs to invest in developing the commune and ward traffic system, internal roads, and hardening the drainage canals to create favorable conditions for agricultural production development. The State needs to allocate land, develop detailed plans, and have investment incentive policies to develop the system of industrial clusters, craft villages, and small and medium-sized industrial zones.

Rainwater drainage: The system selects a separate rainwater drainage system. The basin follows the small basins along the canal system. The riverbank protection corridor must comply with the regulations on water management.

For toxic industrial waste, it is necessary to separate it from normal industrial waste and treat it according to specific requirements appropriate to each type of waste.

4.2 Solutions to improve the urbanization process of Thai Nguyen City

4.2.1 Urban planning

Thai Nguyen City needs to continue to review, adjust, supplement and complete the plans. It is necessary to implement a general plan for urban construction with a 1/500 scale map to specifically identify urban functional areas, economic and technical indicators such as construction density, building height, road system construction elevation and other urban infrastructure. In existing residential areas, it is necessary to implement detailed plans of 1/2000 to determine the road boundaries of all roads and construction elevations. In urban centers and main roads, it is necessary to implement urban design projects to create aesthetics, order, modernity, etc., of the planned architectural spaces.

4.2.2 Accelerating the industrialization process

Developing industry at a fast pace, with quality and efficiency, continues to gradually improve the city's industrial position in the industry of the Northern Midlands and Mountains region and the whole country, creating the premise to build and gradually develop a number of industries with high technology content and high added value. Focus on investing and developing a number of key industries: agricultural and aquatic product processing, cement, steel, mechanical products, equipment, electronic components, software products, high-grade construction materials, new materials, biotechnology, textiles, footwear; create conditions to encourage industries to produce export goods, high-quality consumer goods, and supporting industries to increase the rate of product localization. Restore traditional craft villages to operate effectively, form rural industrial clusters and points associated with service development and agricultural and rural development. Strengthen cooperation and association, promote the application of advanced technologies, commodity standards, apply quality management systems, and environmental management to increase production efficiency, penetrate and expand markets, and actively protect the ecological environment.

4.2.3 Developing urban infrastructure

Concentrating resources to increase investment scale and efficiency, promoting improvement of the investment and business environment; having incentive mechanisms and policies to encourage economic sectors to invest in important projects of the city, focusing on strongly attracting foreign investment capital. Having solutions to improve the efficiency of resource use, such as enhancing the efficiency of construction investment management, using concentrated investment capital, in accordance with planning and plans, preventing loss and waste in investment; improving the capacity of management agencies, organizations and individuals participating in investment implementation, along with strengthening inspection, supervision and handling of responsibilities.

4.2.4 Improving human resource quality, promoting vocational training

The city needs to have a mechanism to train high-quality human resources at home and abroad. The model of the Project "Improving the quality of cadres at all levels from the province to the grassroots, especially leaders, managers, key cadres at all levels with sufficient capacity, prestige, meeting the requirements of tasks in the new situation" needs to be evaluated, learned from and replicated. In addition, the city needs a mechanism to treat, use and retain high-quality human resources; create a premise to attract talented people from outside to Thai Nguyen city to live and work. The city develops a network of vocational training facilities in line with the economic restructuring strategy, industrialization strategy, paying special attention to vocational training activities for workers in urbanized areas, farmers whose land has been recovered for socio-economic development projects and urban development; minimizing support for training and career conversion for farmers in cash.

4.2.5 Strengthening environmental protection towards development and protection

Economic development combined with environmental protection towards sustainable development is one of the policies that many localities are implementing, including Thai Nguyen city, such as building mechanisms and policies to encourage, support capital and tax incentives for establishments applying clean production technology...; investing in waste treatment projects, including a number of modern waste treatment facilities such as: Wastewater and exhaust gas treatment system of Yen Binh Industrial Park; medical waste treatment technology of Thai Nguyen Central General Hospital; non-composting technology, Saibon technology to treat livestock waste; testing and replicating the mini incinerator model to reduce landfill land fund for waste treatment in scattered residential areas.

5. Conclusion

It can be said that urbanization is a multifaceted socio-economic, demographic and geographical process, taking place on the basis of forms of social division of labor according to the territory formed in history. Urbanization is inseparable from the

expansion and development of urban space and the transformation of urban land use structure. The article focused on analyzing the current situation and impact of the urbanization process on the socio-economic development of Thai Nguyen city and solutions to improve the local urbanization process. That is to focus on the economy, education and health. Basic solutions such as strengthening economic development, boosting production, increasing investment attraction and business development, diversifying industry structure to contribute to creating more jobs for workers. Among them, some important solutions such as perfecting economic development guidelines and policies, improving economic development level, raising people's awareness and determination for production development. To achieve the highest efficiency, it is necessary to synchronize solutions to achieve the goal of improving and enhancing the urbanization process in the context of economic and market fluctuations and in the integration trend.

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Conflict of Interest Statement

The authors declare no conflicts of interest.

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