

## Urbanization and Land Use Management Issues in Vinh City, Nghe An Province, Vietnam

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**Abstract:** The study aims to assess the impact of the urbanization process in the period of 2008-2017 in Vinh city, Nghe An province on land management and use. The study uses methods of collecting secondary and primary data, methods of data processing, analyzing and comparison. Vinh city had an urbanization ratio of 68.30%, an urbanization rate of 102.94% in the period 2008-2017. Urbanization had the strongest impact on land prices; land registration, certification; settlement of land disputes; resolve the complaint report; land acquisition. By 2017, the area of agricultural land decreased by 474.66 ha; non-agricultural land area increased 611.23 ha, unused land area decreased by 138.46 ha, compared to 2008. The land price was not equal to the market price; the time and procedures for land registration and grant of land use right certificates were still long; the settlement of land disputes, complaints and denunciations remains limited; Land acquisition was still behind schedule. In order for the management and use of land to be more complete, it is necessary to implement measures on land prices; land registration, issuance of land use right certificate; settlement of land disputes, complaints and denunciations and solutions to land recovery.

**Key words:** impact; land use; management; urbanization; Vinh

**Jel codes:** Q0, Q1, Q2,Q3, Q4, Q5, R1, R2, R3

### 1. Introduction

Urbanization is an inevitable social development process that has been taking place strongly in many countries, including Vietnam (Hoang Ba Thinh & Doan Thanh Huyen, 2015; Nguyen Huu Doan, 2009; Tran Thi Lan Anh, 2014). Before 1990, the urbanization process in Vietnam was slow, so by 1990 there were only 500 urban areas with an urbanization ratio of about 18% (Dao Duc Huong et al., 2018). From 1993 up to now, the urbanization process has been faster, by June, 2020, there were 833 urban areas with an urbanization ratio of 39.3% (an increase of 0.5% over the same period in 2019). Urbanization has an impact on many aspects of the socio-economy, living environment, economic structure, and land management and use. Urban revenue sources contributed about 70% of the total national budget revenue, economic growth in urban areas reached an average of 10-12%, 1.2-1.5 times higher than the national general average (Bich Ngoc, 2020). Besides the achievements, the

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urbanization process of Vietnam still has some shortcomings that need to be overcome, such as the inadequate development of the urban system between quantity, scale and quality; Many planning projects had unsuitable visions and solutions; Urban infrastructure had not met the needs of the people; Management capacity had not kept pace with development reality; Land management also had many shortcomings (Bich Ngoc, 2020).

Vinh City (Figure 1) is the central city as the political, administrative, socio-economic center of Nghe An and the center of the North Central region (Prime Minister, 2015). Like the whole country, Vinh city is in the process of strong urbanization and especially since 2008, when the city was recognized as a grade I city directly under the province (Prime Minister, 2008). The non-agricultural production, business, and service increased rapidly, so every year the city had contributed about 33.52% of the total budget revenue of Nghe An province; Domestic revenue in 2017 reached 2,327.8 billion VND (Vinh City People's Committee, 2018). Like other urban areas in the process of expansion, the demand for land increased, land acquisition, land allocation, and land lease in particular, and land management in general were complicated, causing an impact to the lives of people whose land is acquired, security and order in the city. The question is how was the urbanization situation of Vinh city in recent years? What is the impact of urbanization on land management and use? What are the positive and negative impacts on land management and use? What solutions are needed to manage and use land more effectively and speed up the urbanization process. To answer these questions, research on urbanization and land use and management in Vinh City, Nghe An Province, Vietnam is necessary and has practical significance.

## **2. Methods**

### **2.1 Study Scope**

Studying the impact of urbanization on land use and management over a period of 10 years (2008-2017) since Vinh City is recognized as a urban type I.

### **2.2 Data Collection Methods**

Collection of secondary data: Secondary data on natural, socio-economic conditions of Vinh city in the period 2008-2017 were collected at the Statistical Office of Vinh city and at the People Committees of wards and communes of Vinh city. Data on land management and use were collected at Department of Natural Resources and Environment, Office of Urban Management, Department of Statistics, Department of Finance, Center for Land Fund Development, Land Registration Office of Nghe An Province and at the People Committees of wards and communes of Vinh city. Theoretical and practical bases related to research were collected from domestic and foreign research results published in scientific articles, books, reports. Data collection through meeting directly with people with information related to the topic, look up information available at the library, on the internet.

Collection of primary data: To evaluate the impact of urbanization on land management in Vinh city in the period of 2008-2017, the study was conducted using printed sheets for officers and public employees directly related to land management in Vinh city with 67 questionnaires (Table 1).

According to the 2003 Land Law, state management on land has 13 contents, and according to the 2013 Land Law, state management on land has 15 contents (2 additional contents). Because the study was carried out during the period when both land laws were in effect, the study assessed the impact of urbanization on 15 contents. Since each content has many sub-contents, the questionnaire showed all the sub-contents so that the respondents to choose the 5 contents most affected by the urbanization process with the order from 1 to 5. Content with the most impact is 1 point, the second most impacted content is 2 points. The content with the lowest total score was ranked

first as the content most affected, followed by contents affected by the 2nd, 3rd, 4th, and 5th. Content of the questionnaire contained personal information and the reason for ranking the impact level as selected by the survey respondents to supplement for the basis of analysis and evaluation.

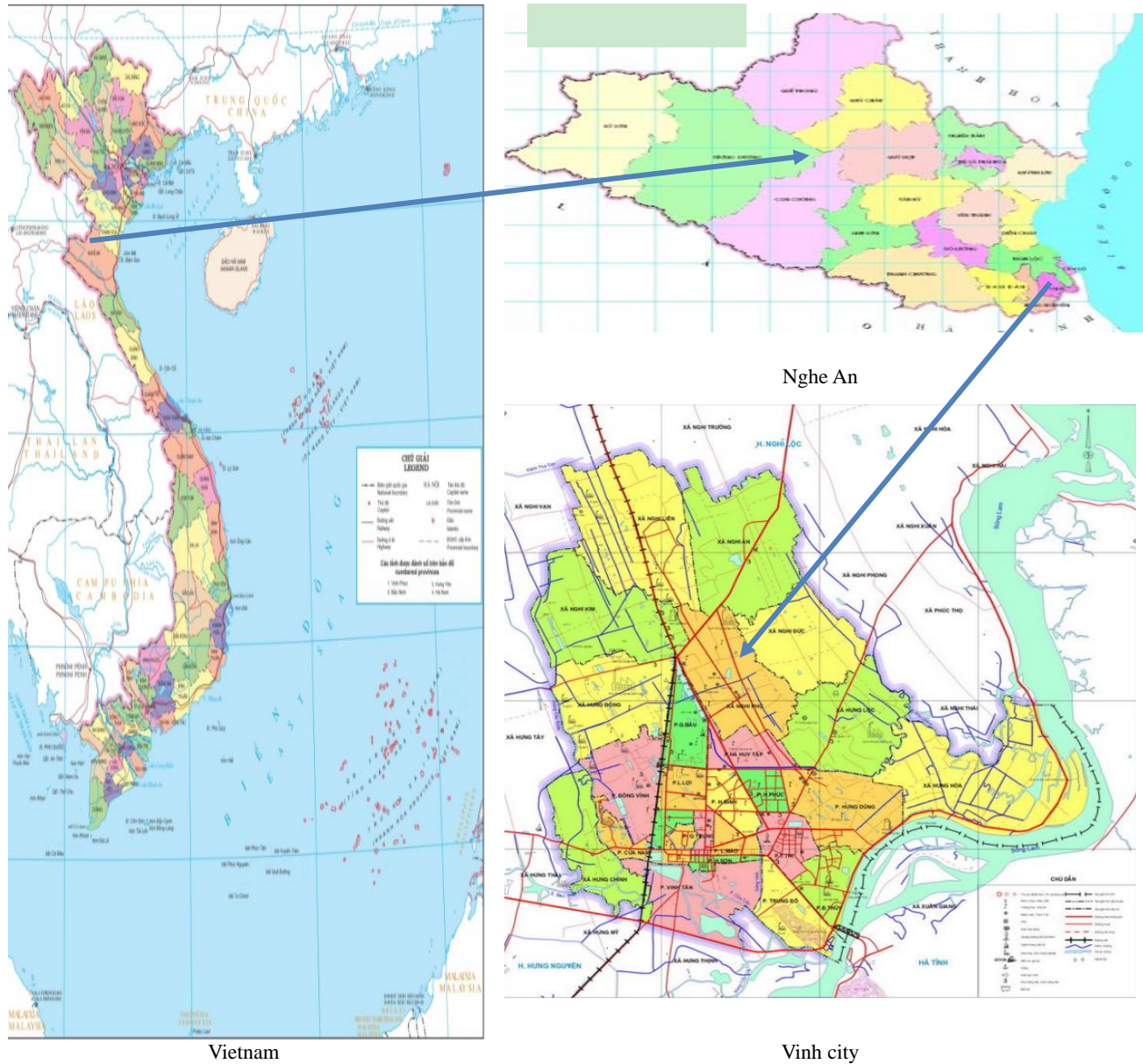


Figure 1 Geographical Location Map of Vinh City, Nghe An Province

### 2.3 The Method of Determining the Ratio and The Speed of Urbanization

The urbanization ratio is determined by the formula (1).

$$\text{TLDTH} = 100 \times \text{DSP}/\text{TDS} \quad (\text{Ministry of Construction, 2009}) \quad (1)$$

Where:

TLDTH: urbanization ratio (%);

DSP: Population of wards in city (people);

TDS: Population of city (people).

Urbanization speed is determined by the formula (2).

$$\text{TDDTH} = ((\text{DSP}_{\text{ht}} - \text{DSP}_{\text{ss}}) / \text{DSP}_{\text{ss}}) \times 100 \text{ (Ministry of Construction, 2009)} \quad (2)$$

Where:

TDDTH: Urbanization speed (%);

$\text{DSP}_{\text{ht}}$ : Current population of wards in city (people);

$\text{DSP}_{\text{ss}}$ : compared year's population of wards in city (people).

**Table 1 Numbers of Investigated Cadres, Officers, and Public Employees**

Work unit	Position	Number
People Committee of Vinh city	Leader	01
People Committee of 25 wards and communes	Leader	25
People Committee of 25 wards and communes	Cadastral official	25
Department of Natural Resources and Environment	Leader	01
Department of Natural Resources and Environment	Officer	05
Land Registration Office of Vinh city	Leader	01
Land Registration Office of Vinh city	Official	03
Center for Land Fund Development of Vinh city	Leader	01
Center for Land Fund Development of Vinh city	Official	05
Total		<b>67</b>

## 2.4 Method of Data Aggregation and Processing

Using Microsoft Office Excel 2013 to aggregate, process collected data.

## 2.5 Method of Analysis, Comparison, and Assessment

Analyze the advantages and limitations of the urbanization process and its impacts on land management and use. The comparative method was used to compare the urbanization ratio and urbanization rate of Vinh city in the study period, as well as to compare the structural change of each land type under the impact of the urbanization. Evaluate the process of urbanization and the impact of urbanization on land management and use according to criteria such as urbanization ratio, urbanization rate, level of urbanization impact on each land management content, change of land structure, area of land types.

# 3. Results and Discussion

## 3.1 Some Theoretical Issues About Urbanization and Land Management and Use

### 3.1.1 Urbanization

Urbanization is understood in many ways. According to World bank (2011), Urbanization is the change in the size of the urban population and the quality of life of the urban population. According to Nguyen Thi Thoa (2014), urbanization is an economic process that eliminates the historical opposition — the gap between the city and the countryside and leads to unified forms of residence with economic access. In other words, urbanization is the process of centralized non-agricultural functions, in-depth investment and diversification, the universality of the mode of production and the developed urban residence, the development of exchange of human types and urban cultural forms. Urbanization is also understood as the expansion of the urban area calculated as a percentage of the urban population or the urban area over the total population or the area of a region (called the level of urban area

or the rate of increase of 2 factors over time (also known as the rate of urbanization) (Ngo Thuy Quynh, 2016; Pham Ngoc Tru, 2015).

From the above concepts, the most general understanding of nature, urbanization is the increase of the urban population over time and is calculated as a percentage of the urban total population (the population belongs to wards, towns) per total population (the total population of wards, communes and townships) (the so-called urbanization ratio) or the increasing rate of urbanization over time (called the rate of urbanization). The urban population in the process of urbanization can increase naturally and mechanically. Urban natural population growth is the increase in population generated by the birth process. Mechanical population growth is population growth due to the movement of the non-urban population into the urban area. The non-urban population is the population coming from a rural or other area and engaged in off-farm activities (Luu Duc Hai, 2011; Vuong Dien Phuong & Luu Sister Kiet, 2014).

The feature of urbanization is that the population tends to increase. The population is concentrated in big and very big cities; At the same time, to widely develop the urban lifestyle expressed through population, population density, quality of life (Quang Nguyen & Doo-Chul Kim, 2020; Aggrey Daniel Maina Thuo, 2013). Urbanization makes peoples' lives more and more change, the formation and development of many cities geographically close to each other and closely related due to the division of labor has created urban areas (D. Da Mata et al., 2005; Duranton & Puga, 2004). Urbanization leads to an increasing trend in the urban population due to the process of rural-urban migration, changing the correlation between the urban and rural population, increasing the proportion of the urban population in the total population (Park et al., 2011; Vu & Kawashima, 2017). Urbanization represents the level of social development in general, but has specific characteristics for each country. For developed countries, urbanization has taken place in depth, quality of life in cities has been increasingly improved. In developing countries, the rate of urbanization is very high, especially in recent decades, the process of urbanization taking place in a wide range is posing many difficult problems to solve such as land problems, unemployment, poverty, environmental pollution and social evils.

### 3.1.2 Land Management and Use

Land management and use focuses on land and how land is used for production and conservation purposes. Land use and management requires decision making and is determined by the purpose of its use, for example: food production, housing, entertainment, mining ... and is determined by the nature and value of the land. In the past, land use and management focused mainly on agricultural land. Today, land management also faces issues of industrialization, urbanization, conservation, and mining. Land use management is a combination of all the tools and techniques used by the government to manage how land is used and developed including: land use planning, legislation, land use rights, land pricing and real estate information (Nguyen Khac Thai Son, 2007). In the context of this study, land use management is understood as the process of combining all the tools and techniques to ensure the law for the use, exploitation and development of land funds, and the settlement of disputes related to land. The main contents include: promulgating and organizing the implementation of legal documents related to land use; formulation and management of land use plans; allocation and management of the exercise of land use rights; land pricing and real estate information.

## 3.2 Urbanization and Land Use and Management in Vinh City, Nghe An province

### 3.2.1 Overview of Natural, Socio-economic Conditions of Vinh City, Nghe An province

Vinh city, Nghe An province, about 300 km north of Hanoi capital is the political, economic-social,

cultural-educational, physical training — sport center of Nghe An province, and is the center of North Central region in the fields of finance, trade, tourism, science — technology, information technology, high technology industry, health, culture, sports, education-training. Vinh city has 25 administrative units of communes and wards, including 16 wards and 9 communes with the natural area of the whole city from 67.53 km<sup>2</sup> increased to 104.96 km<sup>2</sup> (an increase of 1.6 times since 2008 to 2017), in which the urban area is about 36 km<sup>2</sup>. The population of the city in 2017 was 317,643 people, of which the urban population was 216,965 people (accounting for 68.3% of the total population) and the rural population was 100,678 people (accounting for 31.7%). The production, non-agricultural business and service increased rapidly, so every year the city has contributed about 33.52% of the total budget revenue of Nghe An province; Domestic revenue in 2017 reached 2,327.8 billion VND. The growth rate in 2017, compared to 2016, reached 13.55%, the industrial production value in 2017 reached 12124.12 billion VND (Vinh city Peoples Committee, 2018).

### 3.2.2 Urbanization Characteristics in Vinh City, Nghe An province

Over 200 years of establishment and development (1804-2017), from being a town of Nghe An, an urban area under the monarchy, Vinh became an industrial city, a traffic hub (railway, road, river, sea, air route), a large commercial center and exchange place for many cultural regions in the country and the whole region. The imprint of Vinh city in Nguyen dynasty, Vinh town, Ben Thuy, Truong Thi, Vinh - Ben Thuy city under French rule and also construction works by experts and engineers from the German Democratic Republic (East Germany) left in the years 70-80 of the previous century has been accompanying on the step of integrated development of Vinh city today (Nguyen Quang Hong, 2003). Vinh city has a ratio of urbanization increased nearly 2 times (from 37.21% to 68.30%), rapid urbanization rate (102.94%) in the period 2008-2017 (Table 2). The increase in urban population is mainly mechanical (65.32%), the rest is natural increase (34.68%). Vinh urban space has expanded much more in both axes: East-West and North-South of the City.

**Table 2 Ratio and Rate of Urbanization of Vinh City in the Period of 2008-2017**

Year	City population (people)	Wards' population (people)	Urbanization ratio (%)	Urbanization rate (%)
2008	287319	106913	37.21	102,94
2017	317643	216965	68.30	

(People Committee of Vinh city, 2018).

Vinh city has been implementing many projects to build new urban areas; resettlement area; industrial zones and clusters and public works to create a new face for the city and improve the quality of life of the people. At present, inner Vinh city includes 16 wards, the urban land area is 3,521.66 ha, accounting for 33.55% of the total natural area. Infrastructure system has developed rapidly such as traffic, electricity, water supply and drainage, commerce, post-telecommunications, services, tourism, restaurants, hotels, sports-culture ... With residential land, now the city has a number of old dormitories, over the years these houses have been invested and renovated, so they have partly improved in terms of infrastructure. In addition, the city has also built a number of new urban areas with the appearance of modern urban areas, suitable for architecture and urban landscape.

### 3.2.3 The Impact of Urbanization on Land Management and Use in Vinh City, Nghe An province

#### (1) The Impact of Urbanization on Land Management

The survey results showed that urbanization has the most impact on land prices, land registration, certification, settlement of land disputes, settlement of complaints, denunciations and land acquisition (Table 3).



Land prices were the most affected by urbanization as assessed by 100% of survey respondents because land prices were used for various land-related purposes such as land compensation and land use fees when the State allocates land, leases land, recognizes land use rights, permits change of land use purposes, or when land is leased, or when equitization of enterprises using land, or when implementing other financial obligations on land. If the appropriate land price is accepted by the land user, the management will be favorable.

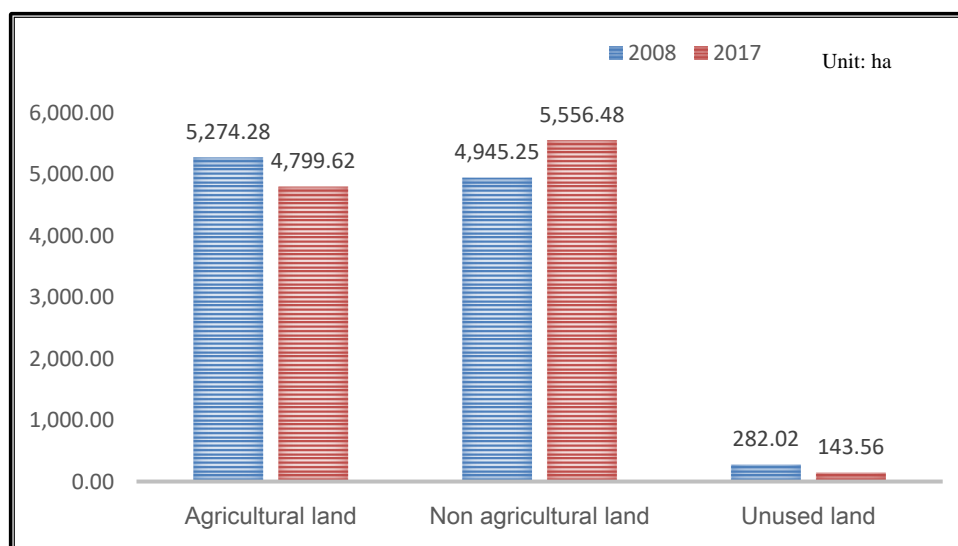
**Table 3 Results of the Assessment of Urbanization Impacts on the Contents of State Management on Land in Vinh City**

Content of state management on land	Total score (points)	Order of impact
Land price	67	1
Land registration, certification	97	2
Settlement of land disputes;	109	3
Resolve the complain and denounce	134	4
Land acquisition	157	5

The content of land registration and certification is affected secondly in the urbanization process because the urbanization rate increases every year, so the demand for land increases, land changes also increase with changes in urbanization, land use purpose, land use area, land use object, land use term. In addition, due to the urbanization process, land prices, especially residential land prices have also increased, so many disputes, complaints, denunciations and resolution of these issues are also a great pressure for State agencies and government officials. In addition, urbanization is always associated with the construction of infrastructure, production facilities, business, commerce, services and housing, so it also affects land acquisition (5th level).

## (2) The Impact of Urbanization on Land Use

In the period 2008 - 2017, due to the rapid urbanization rate after Vinh city was recognized as a class I city in Nghe An province, many new buildings related to land use changed the structure of land groups (Figure 2). The area of agricultural land decreased by 474.66 ha, of which the area for annual crops and perennial crops was the largest. Annual crop land decreased by 220.49 ha, perennial crop land decreased by 258.85 ha due to being converted to residential land, land for construction of non-business works, public works and most of all, to residential land by implementing planning zones, subdivision, sale of land, construction of apartment buildings.



**Figure 2 Changes in area of land groups in the Period 2008-2017**

The area of non-agricultural land in 2017 was 5556.48 ha, an increase of 611.23 ha compared to 2008 due to the change of land use purposes, mainly from agricultural land and partly from unused land. The non-agricultural area increased mainly from industrial parks, land for infrastructure development, and rural residential land. Urban residential land increased by 221.95 hectares, rural residential land increased 213.65 hectares compared to 2008, serving the needs of living land of wards and communes in the city and at the same time increasing due to land statistics and inventory to each land parcel when applying new technology (Table 4).

**Table 4 Land Fluctuations in Vinh City, 2008-2017**

No.	Land use purpose	Code	Year 2008 Area (ha)	Year 2017 Area (ha)	Change
Total natural land area			10,501.55	10,499.96	- 1.59
1	Agricultural land	NNP	5,274.28	4,799.62	- 474.66
1.1	Agricultural production land	SXN	4,674.98	4,195.63	- 479.36
1.1.1	Annual crops land	CHN	3,333.28	3,112.79	- 220.49
1.1.2	Perennial crop land	CLN	1,341.70	1,082.85	- 258.85
1.2	Forest land	LNP	109.14	108.91	- 0.23
1.2.1	Protection forest land	RPH	109.14	108.91	- 0.23
1.3	Aquaculture land	NTS	478.87	391.51	- 87.36
1.4	Other agricultural land	NKH	11.29	103.87	92.58
2	Non-agricultural land	PNN	4,945.25	5,556.48	611.23
2.1	Residential land	OTC	1,409.00	1,844.60	435.6
2.1.1	Rural residential land	ONT	524.00	737.65	213.65
2.1.2	Urban residential land	ODT	885.00	1,106.95	221.95
2.2	Specialized land	CDG	2,785.42	2,919.5	134.08
2.2.1	Land for headquarter. career works	TSC	55.18	44.43	- 10.75
2.2.2	National defence land	CQP	210.68	278.31	67.63
2.2.3	Security land	CAN	21.42	25.45	4.03
2.2.4	Non-agricultural production land	CSK	549.26	469.84	- 79.42
2.2.5	Public purpose land	CCC	1,948.87	1,759.85	- 189.02
2.3	Religion land	TTN	11.26	16.48	5.22
2.4	Cemetery	NTD	157.62	148.51	- 9.11
2.5	River and water surface	SMN	581.66	627.38	45.72
2.6	Other non-agricultural land	PNK	0.29	0.29	0
3	Unused land	CSD	282.02	143.56	- 138.46

(People Committee of Vinh city, 2018).

The unused land area in 2017 was 143.56 ha, a decrease of 138.46 ha compared to 2008 due to being used for other uses such as specialized water surface land and other annual crop land.

### (3) Limitations and Reasons

In addition to the positive impacts of urbanization in the city, there are still negative impacts on land management, especially with respect to the five contents indicated above. As follows:

Land price used for calculating compensation for land when the State recovers land for defense and security purposes; Because the national and public interests in many projects are still lower than the market price of land, the people whose land is acquired do not agree, make complaints and lawsuits causing confidentiality, order, security and society. In particular, land prices as a basis for calculating financial obligations that economic organizations have to perform are lower than market land prices, resulting in a loss of budget revenues in the city and Nghe An province (People's Committee of Nghe An province, 2018). The main reasons that the land price



bracket issued by the Government is not consistent with the market land price, information on land prices is insufficient, not updated, does not reflect the actual land price transaction, land valuers have limited force. In addition, the auction of land use rights to determine land prices upon land allocation and land lease also has limitations and shortcomings.

Although the rate of issuing land use right certificates is high, administrative procedures have been reformed, but the processing time is still long, people have not done administrative procedures online, so it is very time-consuming, effort, travel expenses. Registration procedures for changes are cumbersome and not well controlled, underground transactions are still many, and the issuance of certificates of home ownership associated with urban land is complicated.

Settlement of land disputes and complaints and denunciations about land still has many backlogs, failing to meet the needs of the people due to the large number of cases, land-related documents of many cases are not full enough, not updated, inaccurate, human resources to deal with lack of cases, legal understanding of a part of the people and limited awareness of law observance.

Land acquisition in many projects is still behind schedule due to inadequate land prices for calculating compensation for land, determining conditions, subjects, and areas to be compensated and supported are facing difficulties. Due to insufficient or inaccurate information on the land user, land type, land area and boundary. The time for land acquisition to be assigned to investors in many projects is short while the human resources for implementing land acquisition procedures are lacking in both quantity and quality.

### **3.3 Some Solutions to Strengthening Land Management and Use**

In order for the management and use of land in Vinh city to be more complete under the impact of the urbanization process, it is necessary to implement some solutions to overcome the above mentioned limitations.

#### **3.3.1 Solution to Land Price**

In order for the land price to be equal to the market price, the regulations on land pricing need to be changed. Specifically, the land price in the land price bracket issued by the Government every 5 years indicates the reference land price when localities decide on a specific land price. Land valuation must be carried out by independent land pricing organizations through bidding. The Bidding Council must be prestigious experts in both professional ethics and ethics. In addition, land valuers must also meet higher professional qualifications. Land prices used as a basis for determining transacted land prices should be publicized on the internet every day, and financial obligations when land transactions are made between land users and land users are calculated according to the land price. Land prices stated in the contracts so that people do not declare tax lower than the prescribed land prices and the State can grasp the real land prices so that there is an accurate basis when determining land prices. In order for the auction-winning land price to properly reflect the supply and demand of the land market, to limit possible negatives, it is necessary to organize an online land auction, keeping secret information on quantity and identity of auction participants. and announce the auction results automatically as soon as the bid ends.

#### **3.3.2 Solution to Land Registration, Land Use Right Certificate**

Shorten the time for processing applications for land certificates and land registration at the same time applying information technology, perfecting the land database, linking relevant agencies to land users. can file with the least amount of documents attached to reduce time, effort and travel costs while limiting the possibility of negative effects when performing direct procedures at state agencies. At the same time, it is necessary to check the payroll, the need to solve the work to have a plan to foster qualifications and increase or decrease the processing

in the departments accordingly.

### 3.3.3 Solution to Settling Disputes, Complaints and Denunciations About Land

In order to limit land disputes, complaints and denunciations, it is necessary to complete the land registration, issue the land use right certificate, and completely settle backlogged dossiers in the certification of land use rights. Strengthen the propaganda and dissemination of the land law on the mass media, at cultural houses of neighborhoods so that land users know and abide by the exercise of their rights and obligations. In addition, it is also necessary to ensure sufficient personnel to resolve disputes, complaints and denunciations to be resolved on time and in accordance with the provisions of law.

### 3.3.4 Solution to Land Acquisition

In order to recover land smoothly and hand over land to land users on schedule, it is necessary to have a feasible land recovery plan, ensuring sufficient time, human resources and finance to pay compensation, support, construction of resettlement areas. At the same time, well perform the task of identifying the subjects to be compensated, supported and resettled on the basis of completing the land registration, issuing land use right certificates and determining the land prices for compensation according to the principle of ensuring equal to the market land price, at the same time allowing people, when disagreeing with the land price to be compensated, can hire an independent land valuation organization to re-determine the land price to submit to state agencies for review, or take action to court.

## 4. Conclusion

Vinh city is in the process of urbanization with an urbanization ratio of 68.30% and an urbanization rate of 102.94% in the period 2008-2017. The process of urbanization has the strongest impact on the five contents of state management on land (land price; land registration, certification, settlement of land disputes, settlement of complaints and denunciations; land acquisition). Under the impact of urbanization, the area of agricultural land decreased by 474.66 ha, of which the area for annual crops and perennial crop land accounted for the largest percentage. By 2017, the area of non-agricultural land increased 611.23 hectares, the unused land area decreased by 138.46 hectares compared to 2008 due to being used for other purposes. Land management still has major limitations such as land prices used for different purposes not equal to the market price of land; the time and procedures for land registration and grant of use right certificates are still long, time consuming, and travel costs; settlement of land disputes, complaints and denunciations about land still has many outstanding cases, not yet meeting the people's requirements; Land acquisition in many projects is still behind schedule. In order for the management and use of land in Vinh city to be more complete under the impact of urbanization, it is necessary to implement land price measures; land registration, issuance of land use right certificate; settlement of land disputes, complaints and denunciations and solutions to land recovery.

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