

## Article

# Urbanization and Post-Acquisition Livelihood in a Peri-Urban Context in Vietnam: A Geographical Comparison between Hanoi, Danang, and Vinh City

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**Abstract:** The process of transitioning from a rural to an urban setting and from an agricultural to an industrial economy is referred to as urbanization, a complex socioeconomic process. Peri-urbanization is very common in Vietnam, and urban centers are expanding into rural areas. However, there is frequently insufficient infrastructure to support such development. As a result of the restricted availability of land, urbanization frequently necessitates the acquisition of agricultural property by the state in order to encourage development. In this study, we compare land acquisition and compensation policies with post-acquisition livelihoods in Vietnam across urban strata. The study sites are urban regions of Hanoi, Danang, and Vinh. We collected qualitative and quantitative data via 370 questionnaires and 30 interviews. Our results indicate that policy implementation was lower in larger cities, but the post-acquisition employment of affected households followed the opposite trend. In all three locations, most households used compensation money to repay debt, repair or purchase assets such as homes and personal modes of transportation, and invest in future generations. After acquisition, Danang experienced a decline in their quality of life, as measured by their savings and their level of perceived comfort, whereas the other two cities saw an increase. Only Hanoi reported a higher level of post-acquisition life satisfaction. Post-acquisition livelihood is influenced in some way by each of the five variables that make up the sustainable livelihood model: natural, human, physical, social, and financial capital.

**Keywords:** resilience; industrialization; peri-urban; sustainable development; Vietnam



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## 1. Introduction

The urban system provides the “skeleton” for the development of a country [1,2]. Developed nations typically have extensive metropolitan networks that frequently display great variations in population, size, and the organizational structure of their physical space. The advancement of science and technology, in addition to the progression of society, has made urban development easier and mitigated the impact of a great deal of the city’s unfavorable characteristics [3]. These technological advances also connect urban and rural locations, which leads to new contacts, the sharing of resources, and the social division of labor [4]. However, the development and movement of society have a significant impact on the urban system. Depending on the specific conditions in a developing country, urban centers may face sustainable development challenges, such as migration from rural to urban areas and social justice issues [5,6].

The ability to establish, preserve, and improve one’s means of living while also contributing to the means of life of future generations is what is meant by the term “sustainable livelihood” [7]. The work of Robert Chambers in the 1980s served as the impetus for the development of sustainable livelihood thinking, which was then expanded upon by other academics in the 1990s [8]. Traditional approaches to reducing poverty are regarded

as insufficient since they only focus on certain components of the problem, such as low income, while ignoring other, more important factors, such as vulnerability and social exclusion. The goal of the notion of sustainable livelihood is to break away from traditional approaches and definitions of poverty [9]. However, definitions of sustainable livelihoods are frequently unclear and inconsistent [10]. Researchers are aware of the necessity of taking into consideration a wide variety of aspects and processes associated with the improvement or limitation of the sustainable living conditions of impoverished and vulnerable individuals [11,12]. It has been suggested that a model for development, i.e., a sustainable livelihood framework, may be created. This model would study and describe significant elements that affect the livelihoods of individuals living in poverty [13].

The effects of land acquisition on people's ability to make a living in Vietnam have been the subject of several studies [14–17]. However, they have concentrated on a single site without making any comparisons between different localities. This study investigates the effects of urbanization processes on sustainable livelihoods in Vietnam by comparing household post-acquisition livelihoods in three cities. We aim to answer the following research questions, comparing the results among three localities:

- What are the key differences in the way that land acquisition and compensation policies are put into practice?
- How does land acquisition affect livelihood, employment, and income?
- How much compensation do families receive, and how do they use land acquisition compensation money?
- How does the quality of life alter with the purchase of something in the context of the framework for a sustainable livelihood?

In the next section of this article, we review the characteristics and forms of urban division in Vietnam. We describe our methodology, including the study area, design, and data collection. The collected data are analyzed, and results are presented to highlight the feasibility of this study. Finally, we conclude by answering our research questions.

## 2. Literature Review of Urban Characteristics and Division in Vietnam

### 2.1. Urban Characteristics

Urbanization is a term that is used to describe the complex socioeconomic processes that are involved in the transitions from rural to urban living and from agricultural to industrial economies [18]. Urbanization is a term that is used to describe these processes. The natural growth or decline of a region's population is another significant factor that plays a role in urbanization. There is a significant natural increase as well as demographic strain on peri-urban areas in Vietnam. This shift is also occurring in other developing countries throughout the world. It can be seen in the ways that the economy, society, and geography interact with one another.

Changes in the economic structure by industry and region, as well as shifts in the labor structure according to occupation, expansion, and production concentration, are examples of the types of economic forces that can come into play. Additional economic elements that reflect the urban shift include the development of advanced transportation networks and a rise in agricultural production near urban areas [19]. The migration of people from rural to urban regions, because of urbanization, has resulted in a sizeable rise in the urban population in Vietnam; this rise has resulted in an increase in the urban population from 19% in 1980 to 38% in 2021 [20]. There has also been a significant amount of economic reorganization. The percentage of the gross domestic product (GDP) that was contributed by the agricultural sector fell dramatically from 27.2% to 14.8% between 1995 and 2020 [21], while the percentage contributed by the industrial sector rose from 28.7% to 33.7%. It has also been observed that labor resources are moving away from the agriculture sector and toward the non-agricultural sector. Between the years 2000 and 2020, the percentage of people working in agriculture fell from 65.1% to 34.5%, while the employment rate rose in both industry and services by 16.3% and 14.1%, respectively [21].

The process of urbanization has an effect not only on the population but also on social elements. The population variables that were typical of cities were prevalent throughout the time of the scientific and technological revolution, when people played a vital part in the production force [22,23]. Migration, population distribution, reproduction, and the age–sex structure are all components that fall under this category. There are considerable disparities between rural and urban areas in terms of population indices, such as the fertility coefficient, family size, and age structure [24]. This results in a significant market for easy labor in metropolitan regions, where the populace is less involved in working, which in turn attracts migrants from rural areas to urban settings. Vietnam is experiencing peri-urbanization, which can be defined as the entry of urban features into rural surroundings and the formation of hybrid landscapes with fragmented urban and rural characteristics [25]. Despite this, the construction and development of urban socio-economic infrastructure have not kept pace with urbanization, even though urban regions are expanding into and absorbing rural areas. The loss of land and other means of production for a significant portion of the rural population is a common consequence of rapid peri-urbanization. This circumstance has led to inequality, which has widened the divide between those living in urban areas and those living in rural areas. In order to allow more sustainable growth and urbanization, improving the infrastructure in rural regions should be a priority [26].

Geographical characteristics are another aspect that can influence urbanization. First, a population cluster structure is vital for urbanization [24]. During urbanization, rural, peri-urban population clusters and cities enhance mutual relations, boosting production [27]. The process of urbanization is responsible for the development of the urban infrastructure as well as the changing spatial arrangement of homes. In addition, the way in which a city can develop and the locations in which it can do so are both influenced by the physical characteristics of the surrounding environment, such as climate and geomorphology. Since the terrain in the east of the country is flatter than the mountain ranges in the west, many of Vietnam’s major cities are located in the eastern part of the country.

## 2.2. Urban Division in Vietnam

There are 883 urban areas in Vietnam as of June 2022, and the General Statistics Office has categorized them into six different urban types, based on their position, function, population size and density, socio-economic structure, infrastructure, and percentage of non-agricultural employees [28] (Table 1). Both Ho Chi Minh City and Hanoi, the two major cities in Vietnam, are special urban areas. The remaining cities are divided into five different urban types: Urban Type I ( $n = 22$ ), Urban Type II ( $n = 33$ ), Urban Type III ( $n = 47$ ), Urban Type IV ( $n = 93$ ), and Urban Type V ( $n = 686$ ). This nation has produced an urban master plan with a vision that extends all the way to the year 2050, and this plan will provide conditions that are beneficial for regions and localities to formulate urban development strategies. Despite this, many regions are confronted with difficulties and roadblocks on the path toward sustainable development [29]. These deficiencies include a lack of urban management organizations as well as fragmented building investment [30]. Poor planning and urban management are also included in this category. Inadequate access to investment capital and an excessive movement of people from rural to urban regions are factors that lead to development that is not sustainable [31]. In recent years, in Vietnam, the urban area has increasingly displayed its significance as a driving force, and it is the locomotive of socio-economic growth of regions and of the entire country. There are still challenges being faced in the process of urban development in Vietnam. For instance, the rate of urbanization is high, but the quality is relatively low. There is a high population growth rate in many urban areas, which puts stress on the existing system of public utilities and transportation [32].

**Table 1.** Classification of urban areas in Vietnam.

No	Urban Types	Evaluation Criteria				
		Functions	Population		Non-Agri Employees	
			Size	Density		
1	Special Urban	This national center promotes socioeconomic development.	>5 million people	>3000 people per km <sup>2</sup>	per whole urban > 70%	
2	Urban Type I	Under Central Areas	This national, regional, or provincial center promotes interprovincial or national socioeconomic growth.	>1 million people	>2000 people per km <sup>2</sup>	per whole urban > 65%
		Under Province		>500,000 people		
3	Urban Type II	This is a regional or provincial center that promotes inter-provincial socio-economic development.	>200,000 people	1800 people per km <sup>2</sup>	per whole urban > 65%	
4	Urban Type III	This is a center that supports the province's socioeconomic growth or interprovincial region.	>100,000 people	1400 people per km <sup>2</sup>	per whole urban > 60%	
5	Urban Type IV	This is a provincial or district general or specialized center that promotes socio-economic development.	>50,000 people	1200 people per km <sup>2</sup>	per whole urban > 55%	
6	Urban Type V	This district-level general administrative center promotes socio-economic development of the inter-population cluster.	>4000 people	1000 people per km <sup>2</sup>	per whole urban > 55%	

Source: Resolution No. 1210/2016/UBTVQH13.

In many parts of Vietnam, urbanization is transitioning toward “artificial urbanization.”<sup>1</sup> Rural areas are being absorbed by urban areas, but the infrastructure and socioeconomic system have not yet advanced to keep up with the rate of increase. The relationship between urban expansion, domestic food security, and exports in Vietnam is under scrutiny due to this issue [33]. As a result, we assume that “artificial urbanization” should be kept to a minimum and that the state should concentrate on creating high-quality urban areas that promote sustainable growth. In addition, given that Vietnam must boost GDP, attention must be given to enhancing urban areas, judiciously allocating urban population networks by territory, and fostering harmonic relationships between rural and urban areas (even due to the growing population). Sustainability is difficult when we consider the population and population density, which are currently high and unevenly distributed across the nation. Furthermore, Vietnam has had multiple conflicts throughout the 20th century, which has hurt the nation economically more than other developing nations that have had fewer wars. It is possible that Vietnam has a greater need for economic development as a result, and this could lead to the purchase of more of this land.

### 3. Research Areas and Methodology

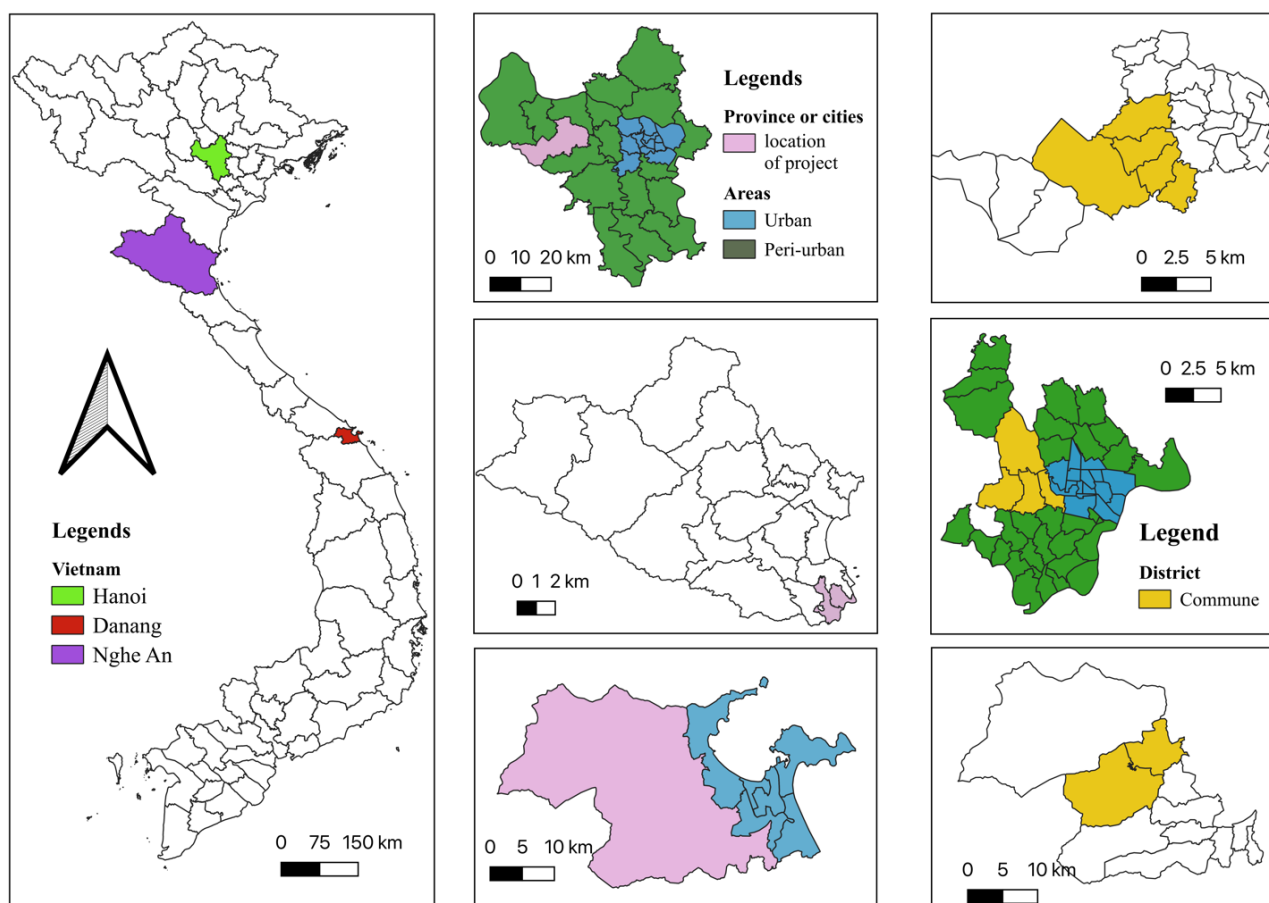
#### 3.1. Research Areas

We performed our research in three places to assess how land acquisition and compensation affect lives in accordance with urban stratification: Hanoi (special urban), Da Nang (Urban Type I, central), and Vinh City (Urban Type I, Nghe An province) (Figure 1).

Vietnam's capital, Hanoi, served as the seat of government for most of the country's feudal dynasties. Over 8 million people called Hanoi home in 2019, with 49% of them living in cities. With 2398 persons per km<sup>2</sup>, Hanoi has the second-highest population density in the nation. In Hanoi's metropolitan regions, there are up to 9343 persons per square kilometer. In terms of GDP and GDP per capita, Hanoi is Vietnam's second-largest administrative unit [21].

The main economic hub of Central Vietnam is Danang City. Danang was chosen as “the most livable city in Vietnam,” according to the Bangkok Post [34]. Danang has a population of about 1.1 million, 87.2% of whom live in cities. In Danang, there are 883 persons per square kilometer on average. Hai Chau District has a population density of 8746 people per km<sup>2</sup>, but Thanh Khe District has a density of 19,712 people per km<sup>2</sup>. Between 2010 and 2019,

the economy saw an average yearly GDP growth of 7.9%, while the overall population growth rate climbed by 1.0 to 1.2% annually [35].



**Figure 1.** Geographical locations of research sites.

Nghe An ranks 10th in terms of GDP and is the fourth-largest administrative unit in terms of population. In the North Central region, Vinh is the biggest economic hub. Over 300,000 people call Vinh home, with 68% of them living in urban areas. The population comprises 3230 individuals per square kilometer [21].

### 3.2. Data Collection and Research Design

The “Desk Research” phase of this research was started before the field investigation. To support the research claims and find gaps in earlier land acquisition studies, we conducted a literature review. We identified a knowledge gap regarding how urban growth affects urban dwellers’ lives. The results of this study will give policymakers and managers a scientific foundation for a more thorough understanding of the effects of land expropriation in small cities and Urban Type I regions at the provincial level (Figure 2).

We chose land acquisition projects that have had an impact on the socioeconomic circumstances of each metropolitan area. These chosen projects are distinguished from other projects due to their location, level of investment, and purpose within each research site. Danang Hi-Tech Park (Danang), Hoa Lac Hi-Tech Park (Hanoi), and Vietnam-Singapore Industrial Park (VSIP; Nghe An) were our choices. In order to gather information for our study topics, we then developed survey and interview questions, through which we gathered both qualitative and quantitative data. In each locality, we interviewed (1) land acquisition experts, such as professors and government employees, (2) investors whose factories and businesses are associated with the outstanding project, (3) local government workers in the area where the land is acquired, and (4) households in the project-affected

area that are not on the land recovery list. Despite not having lost their land, members of the fourth group’s members are also impacted by the projects’ land purchase procedure. As a result, these households offer a unique viewpoint on the effects of land expropriation. Table 2 displays some interviews in each region. We used a semi-structured and extensive interviewing method. The authors used numerous prepared questions when speaking with the respondents to acquire information, but they also raised questions as necessary depending on the circumstances of the interview. For the purpose of processing the data in NVivo 12, the qualitative information acquired from these interviews was converted into text.

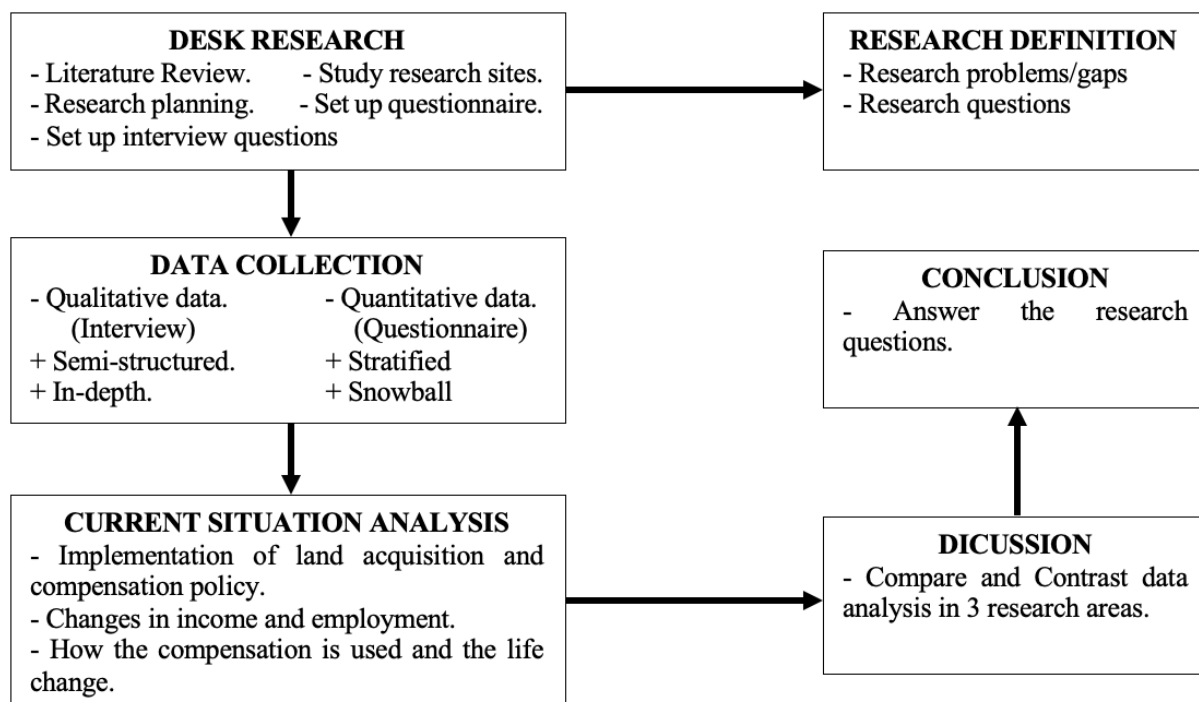


Figure 2. Research design.

Table 2. Interview and questionnaire respondents.

	Questionnaire	Interview			Households (Not on the List of Acquisitions)
		Expert	Investor	Local Authority	
Vinh	170	2	1	2	5
Danang	100	2	1	2	5
Hanoi	100	2	1	2	5
<b>Total</b>	<b>370</b>	<b>6</b>	<b>3</b>	<b>6</b>	<b>15</b>

We encountered some challenges in the field procedure as a result of the sensitive nature of the research issue (land acquisition). Before contacting the families, we needed to obtain approval from the local authorities and confirm the aim of the research. The interview procedure was therefore given priority. We conducted a trial with 10 landless households after finishing the draft questionnaire to assess the questionnaire’s viability. We determined from the pilot results that the study’s questionnaire is structurally sound and serves its intended purpose. In terms of the survey, the projects that were chosen were spread throughout several local communities (albeit within the same district), and these districts are located in peri-urban areas. As a result, we chose the study site based on its

location using the stratification approach. As a result of our extensive household survey and lack of knowledge of each household's precise address, we had to employ the snowball method. We conducted the study in two phases in August 2019 (in Vinh), January 2020 (in Hanoi), and February 2020 (in Danang). The COVID-19 pandemic had not yet spread to this area when the study was undertaken, so its consequences are not mentioned in the findings.

To evaluate the tabulated, reliable quantitative data, we employed SPSS software. NVivo 12 was used to evaluate the interview data. We explain the four main findings of the study based on the qualitative and quantitative data. First, we explain the land acquisition and compensation procedure and review the benefits and drawbacks of the strategy being used by the Vietnamese government. Second, we examine how the land purchase impacts livelihood, particularly in terms of income and employment. Thirdly, we look into how much compensation households received, how it was put to use, and how the purchase of their farmland affected their quality of life. Finally, we examine how the DFID (Department for International Development) sustainable livelihood model has been applied to the change in resources at each of the three research locations.

## 4. Results

### 4.1. Implementation of Land Acquisition and Compensation Policy

When the Vietnamese State acquires land, the harm to land users includes not only the loss of the land but also various direct and indirect effects. According to Vietnam's existing land law, there are three categories for land purchase damages: harm to the land, damage to property, and harm to a business [36]. Losses might happen before, during, or after the healing process, depending on how long it takes. A compensation agreement is in place to guarantee that the affected party is compensated properly and proportionately for all damages resulting from state land acquisition.

We questioned households about whether the compensation agreement was implemented, whether they received full or partial reimbursement, and whether they were happy with the results. Table 3 displays the survey responses organized by location. The Hanoi agreement on land compensation was only used in 2% of cases. In contrast, in Vinh and Danang, land compensation agreements were used in 80% and 81.2% of cases, respectively. Compared to 97.6% of households in Vinh, only 44% and 55% of households in Hanoi and Danang, respectively, received full compensation for land, property, and business damages. Respondents in Hanoi and Danang claimed that, except for paying land fees, they did not receive assistance. Promises from local authorities to allocate "service land" to households were not fulfilled in several cases in Hanoi (17%) and Danang (7%). According to the household surveys, 49% of Hanoi households disapprove of the project; this high percentage is probably due to the absence of compensation agreements. Households in Vinh, on the other hand, have a high level of unanimity about the VSIP projects (85.9%), while some were not happy with the state's pay (47.6%). We can infer from these comparisons that the three localities' approaches to the application of land acquisition and compensation rules varied. These policies were more successfully applied in Vinh, but few households were satisfied with the outcomes in Hanoi.

The results of our study imply that the Vietnamese state views the subject of compensation, support, and resettlement from the perspective of the manager rather than from the perspective of the victims. Additionally, people affected by land acquisition can be divided into two main groups, those whose land was acquired and those otherwise affected by the land acquisition process. Land regulations currently solely take the former group into account and ignore the latter group.

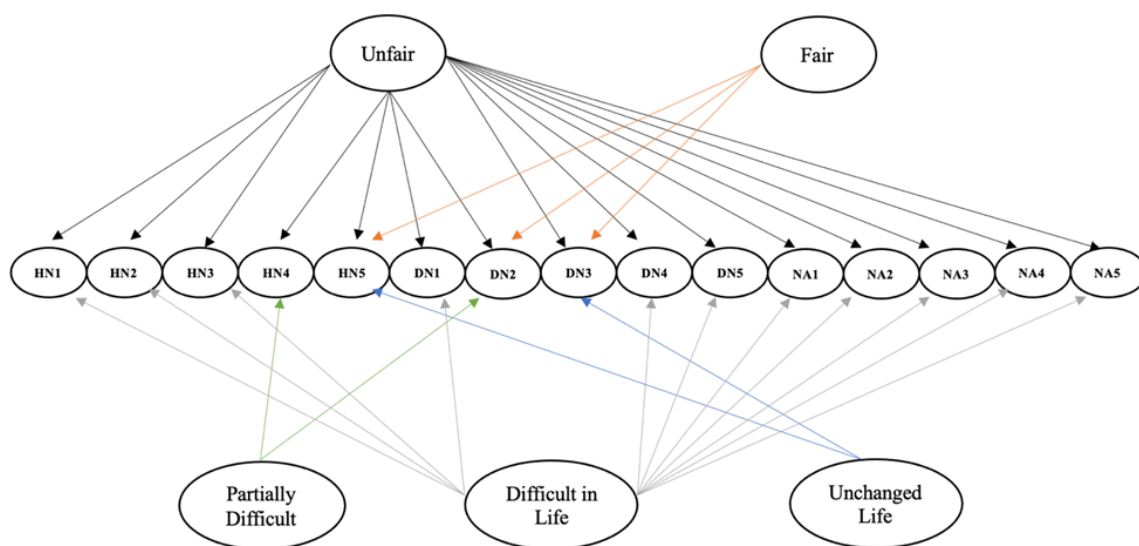
The relationship between the evaluation nodes and case nodes of the enforcement of the land acquisition and compensation policy is shown in Figure 3. The evaluation nodes and case nodes were obtained through the results of interviews of 15 households at the three study sites. In the second quintile, the association between case nodes and their post-acquisition life status is also displayed. The research site (HN: Hanoi; DN: Danang;

NA: Nghe An) and the order in which the case nodes were questioned were used to code the case nodes (e.g., HN1 is the first household interviewed in Hanoi). Additionally, the households described their post-acquisition changes in their life status as “Unchanged Life,” “Partially Difficult Life,” and “Difficult Life.”

**Table 3.** Compensation agreement implementation and household satisfaction.

Categories	Hanoi		Danang		Vinh		
	Freq.	Percent	Freq.	Percent	Freq.	Percent	
Compensation agreement	Yes	2	2.0	80	80.0	138	81.2
	No	96	96.0	20	20.0	30	17.6
	Others	2	2.0	0	0	2	1.2
	<b>Total</b>	<b>100</b>	<b>100.0</b>	<b>100</b>	<b>100.0</b>	<b>170</b>	<b>100.0</b>
Full compensation for damages	Yes	39	39.0	38	38.0	166	97.6
	Nothing	44	44.0	55	55.0	3	1.8
	Not fulfilling promise	17	17.0	7	7.0	1	0.6
	<b>Total</b>	<b>100</b>	<b>100.0</b>	<b>100</b>	<b>100.0</b>	<b>170</b>	<b>100.0</b>
Households' assessment	Opposite	1	1.0	1	1.0	5	2.9
	Disagree	49	49.0	15	15.0	19	11.2
	Agree but dissatisfied	43	43.0	44	44.0	81	47.6
	Satisfied but price discrepancy	4	4.0	20	20.0	35	20.6
	Completely agree	3	3.0	20	20.0	30	17.6
	<b>Total</b>	<b>100</b>	<b>100.0</b>	<b>100</b>	<b>100.0</b>	<b>170</b>	<b>100.0</b>

Source: Household survey, 2019 and 2020.



**Figure 3.** Household responses to policy implementation and post-acquisition livelihood in Hanoi (HN), Danang (DN), and Nghe An (NA). Source: Household interview, 2019 and 2020.

Inequalities in the policy’s implementation were acknowledged by every household interviewed, but only two in Danang and one in Hanoi gave the plan a “Fair” rating. Among these respondents, DN3 stated, “Households have their land acquired. They lose



their land but receive compensation. My house is not in the area of the land acquisition, so I still do agricultural production normally. Households whose land is acquired and not acquired are affected by environmental pollution, intense sunlight, and dust.”

Many households in the impacted region claimed to have had difficulties, after land expropriation. According to NA3, “The irrigation system is changed; the land is more arid than before, leading to low yield and quality of rice.” HN1 said, “Family life is much more difficult than before. Livestock decreased due to pollution and disease, so they died more.” Those whose means of subsistence do not fully depend on agriculture noted certain challenges; DN2 stated, “My family suffers in part because of the polluted environment. Building a high-tech park prevents my family from growing crops such as fresh vegetables to eat. Economically speaking, it does not affect [my family] much because [we have not been] completely dependent on agriculture.” Alternatively, some households claimed that there were no alterations or were even enhancements following land acquisition. The advantages of the project were mentioned by HN5: “Currently, the family only has difficulty walking on the street because the [high-tech] park [is] not finished yet. However, life [is now] less difficult than before. The high-tech park has many factories that need to recruit large numbers of workers. Children in the family join the high-paying company [and] no longer rely on the field.”

The findings of the interviews showed that the state’s purchase of agricultural property results in economic, environmental, and societal issues. Therefore, the state ought to consider these factors and consult with households prior to the implementation of a project. The state should also choose suitable rice varieties for households that are involved in agricultural production and that help with irrigation issues. Because the environment is affected, compensation for the mental loss should also be taken into consideration.

#### 4.2. Changes in Income and Employment after Land Acquisition

The acquisition of farmland has an impact on the local labor force’s employment rate. After acquisition, the number of employed people in Hanoi remained constant, but it fell in Vinh and Danang by 10.5% and 22.8%, respectively. According to the homes questioned, fewer employed individuals over the age of 35 were present, but more young people were hired as a result of the land purchase.

In terms of income growth compared to before land acquisition, Vinh households saw the largest gain (18.2%), followed by Hanoi families with a 33.3% rise (Table 4). The average household income in Danang fell by 4.6%. This finding suggests that, following the purchase of land, employment may not always be the main factor affecting household income.

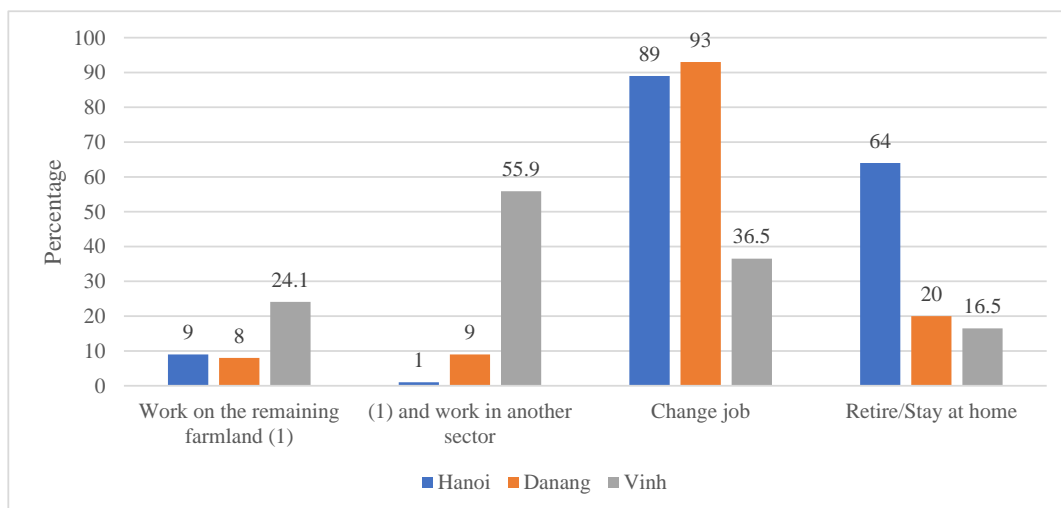
**Table 4.** Income and employment of all surveyed households before and after land acquisition.

		Employment		Income	
		Number (Person)	Percent (%)	Number (USD)	Percent (%)
Hanoi	Before	286	100%	456,378.4	100%
	After	286	100%	608,151.9	133.3%
Danang	Before	256	100%	503,786.6	100%
	After	229	89.5%	485,405.2	96.4%
Vinh	Before	553	100%	853,073.1	100%
	After	427	77.2%	1,008,079.1	118.2%

Source: Household survey, 2019 and 2020.

After land recovery, differences in employment types were also noted amongst the three cities (Figure 4). Ninety percent of the agricultural land in Danang was purchased, compared to approximately 50% in Hanoi and Vinh (this figure is the percentage of households whose agricultural land was acquired). The proportion of workers who changed occupations, which represented 93% of surveyed workers in Danang, 89% in Hanoi, and

36.5% in Vinh, indicated this. Depending on the urban level, the number of households with workers who chose to retire or remain at home significantly decreased after land acquisition. Even though the remaining farmland in Vinh and Hanoi was similar, almost workers in Vinh families either continued agricultural production or changed jobs, as opposed to Hanoi, where 64% of homes had employees who retired or quit working. Additionally, it appeared that the land purchase would encourage households in Hanoi to switch from farming to non-farm employment. Workers in Hanoi have increasingly moved towards the inner city in pursuit of money from off-farm occupations rather than clinging to that last bit of arable land.



**Figure 4.** Employment changes after land acquisition. Source: Household survey, 2019 and 2020.

#### 4.3. Use of Compensation Money and Life Changes after Land Acquisition

We examined the many ways that households used their settlement money. Assets and investments were the two main areas for the usage of compensation money (Table 5). Most households in all three regions claimed to have used compensation money for housing repairs. More than 80% of households in Danang repaired or built new houses, as did 57% in Hanoi and 44.1% in Vinh. The second most common use was debt repayment, which was reported in 24% and 30.6% of surveyed households in Danang and Vinh, respectively. Motorbike purchases were also common, representing 20% of households in Danang and 14% in Hanoi. A household may use a motorcycle as a mode of transportation to commute or as a means of earning money by operating a motorcycle taxi, so purchasing a motorcycle may also be viewed as an investment.

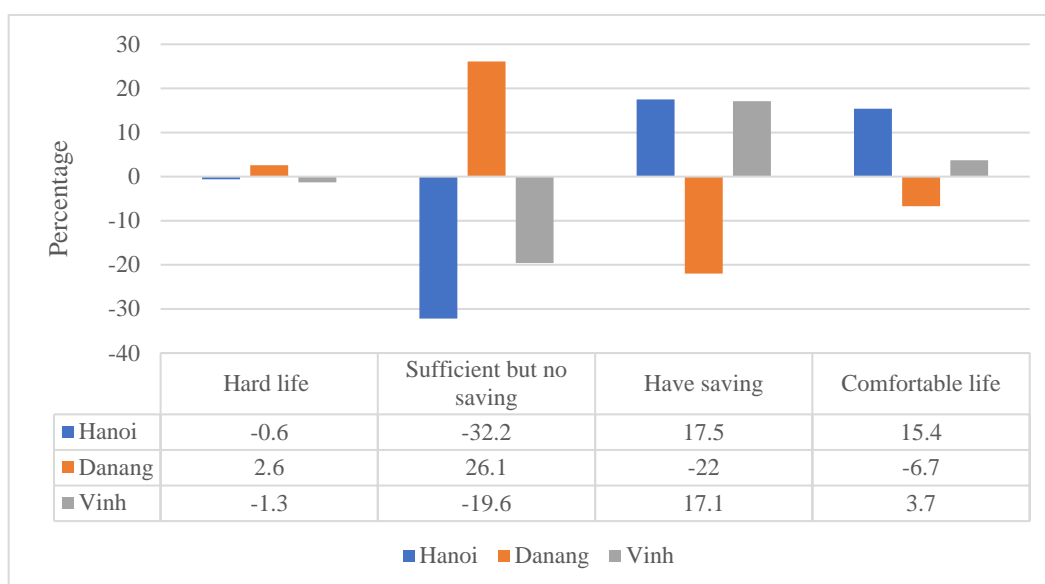
**Table 5.** The percentage of households who reported using land acquisition compensation money for the following spending and investment categories.

	Categories	Hanoi (%)	Danang (%)	Vinh (%)
I. Assets	House repairs	57	81	44.1
	Motorbike	14	20	8.2
	Dept repayment	8	24	30.6
II. Investments	Grocery store	3	15	7.1
	Agri-machines	0	1	0%
	Flat for rent	0	1	0.6
	Depositing all money for interest	1	10	12.4
	Deposit remaining money	10	34	14.1
	Invest for children	35	21	51.8

Source: Household survey, 2019 and 2020.

Many households decided to invest their compensation funds, as they had already lost their investment in agricultural land. Supporting future generations was a top priority, and 51.8%, 35%, and 21% of households in Vinh, Hanoi, and Danang, respectively, reported investing compensation money for children. In Hanoi and Danang, households invested the money for the children’s education, whereas in Vinh, families share a portion of the compensation with their children. Most households choose to store their residual compensation funds in the bank for annual interest because they invest little in business ideas. We may conclude, based on our evaluation of compensation money use (Table 5) along with income and employment results (Table 4), that these uses have an impact on post-land-acquisition income. It also explains why, despite having a lower unemployment rate than Vinh, households in Danang earn less than those in Vinh and Hanoi since they spend more money for non-profit purposes.

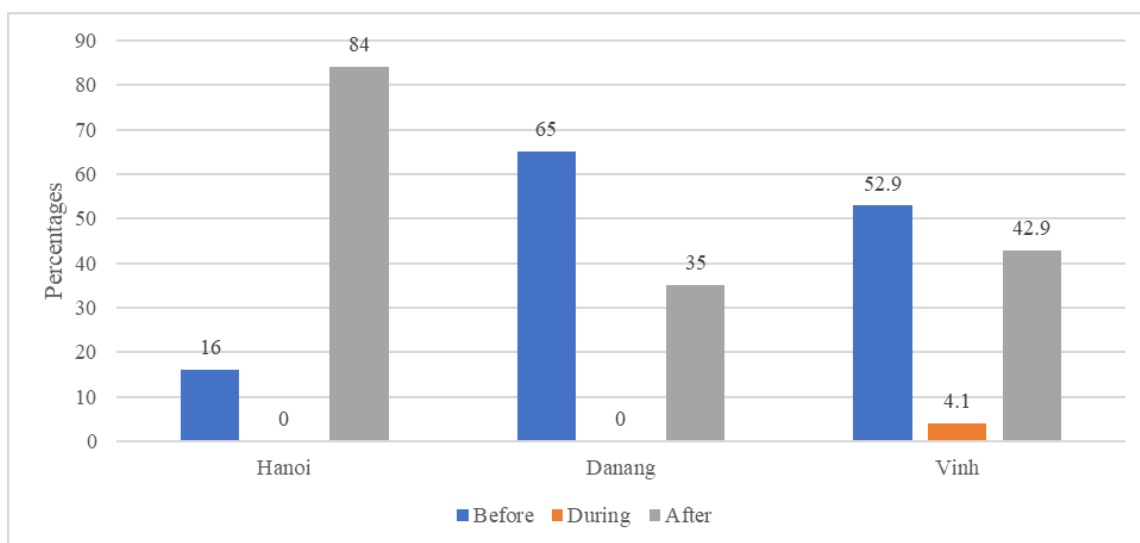
Given these variations in compensation expenditure, income, and employment after expropriation, it is simple to visualize how household quality of life has changed across the three locations. Compared to Danang homes, households in Hanoi and Vinh reported living more comfortably and conserving more money (Figure 5). Danang land-expropriated households reported a harsher living, and the number of homes without savings increased by 26.1%. Hanoi reported a 15.4% increase in “having a comfortable life,” which was the largest change. Additionally, the greatest income rise was seen in this area (Table 4).



**Figure 5.** Changes in quality of life after land acquisition. Source: Household survey, 2019 and 2020.

The dependence on agricultural revenue prior to the purchase of the land is probably responsible for changes in quality of living. In Danang, 63% of households relied solely on agriculture for income, followed by Vinh with more than 45% and finally Hanoi with only 4%. Consequently, post-acquisition adaptation was simpler in Hanoi than in Danang and Vinh.

We also asked households if they would rather live before, during, or after land acquisition. The survey results were unexpected. In Vinh, 52.9% of families stated that they would like to return to their way of life before land acquisition, despite surveys showing that the quality of life had improved, and that average household income had increased by 18.2% (Figure 6). Prior to land acquisition, 65% of Danang residents reported being happy, which is consistent with the declines in the quality-of-life variables mentioned above. However, the majority (84%) of households in Hanoi said that they preferred their post-land-acquisition lives. Hanoi households benefit greatly from life post-land acquisition; after expropriation, the unemployment rate remained stable, household income climbed, and quality of life was enhanced.



**Figure 6.** Life choices of surveyed households in the time before, during, or after land acquisition. Source: Households survey, 2019 and 2020.

Social and cultural elements should also be considered, even though income and employment are significant determinants impacting livelihood after land recovery. The qualitative information gathered from households in Vinh reveals that people had positive memories of their time working in agriculture. Their previous lives were enjoyable and free from rivalry, and social wrongs were relatively minor. Residents of Vinh desire a more tranquil existence than once that is mentally draining and materialistic existence.

We can infer from the above analyses that, following land expropriation, the various urban types have an effect on local livelihoods. Even while the affected households are ultimately responsible for the ability to recover after land acquisition, the recovery process also depends on the local area's development regulations. Smaller urban areas are more reliant on agricultural income and have less access to employment in other sectors, making the transition challenging. Our findings emphasize crucial elements and criteria that need to be taken into account when planning land acquisition initiatives, particularly in Urban Type I (provincial) locations such as Vinh. Our research can help with the creation of new policies that will better support the shift from rural to urban areas and enhance the living conditions in Vietnam.

## 5. Discussion

We will address the changes seen at each of the three study sites following land acquisition in the framework of the DFID sustainable livelihood model in order to put our findings into context. According to this framework, livelihood consists of natural, human, physical, social, and financial capital.

Vietnam is regarded as a nation with strong development potential following 35 years of economic reform and the adoption of suitable policies [37]. The inefficient use of resources, however, has hampered progress. One of the main causes is the “ask-give” system, which allows the potential for corruption by allocating land choices to developers and local governments [38]. In other words, Vietnam has not allocated resources according to the principles of the market [39]. The market is essential for resource mobilization and distribution, which necessitates bidding, transparent competition, and open competition [40]. To address this issue and improve planning quality and resource allocation, the state must complement and strengthen existing laws and policies.

To promote high-quality development, proper resource allocation, particularly in the case of land, must be taken into account. Vietnam has a small average land area per person, and demand for infrastructure, urban areas, and industry has grown quickly [41]. In addition, both rural and urban areas may include land that is occupied but not utilized.

These flaws are a result of the current land acquisition and compensation procedures. The greater the need for land conversion in a given area, the more frequently land is left fallow. As evidenced by the major conflicts and lack of support from the populace in land acquisition and compensation, many households expressed unhappiness in our interviews and surveys.

In order to quickly integrate the Vietnamese economy with the global economy and achieve socio-economic goals, industrialization and modernization must be accelerated and human resources must be a key component [42]. Between 2010 and 2020, Vietnam's human capital index increased from 0.66 to 0.69 [43]. In general, there is more supply than demand on the Vietnamese labor market [44]. However, inadequate attention has been paid to human resources training, and the necessary actions are not being implemented [45]. The skilled labor rate (about 23%) is low due to a lack of formal training, especially in the vocational field, which results in low worker quality. Only 10% of the workforce in rural areas comprises trained labor [21]. A staggering 35 million people in rural areas are unemployed, a number that is rising by 1.6% annually [21], despite decades of economic and labor reorganization. This growth is due to the idle agricultural labor force and the approximately 1 million workers who are of working age but are unemployed. A weak economy is caused by an imbalance in the labor force and a lack of skilled workers. Due to a lack of education, especially in small communities, workers who lose agricultural property frequently struggle to find employment [46]. According to studies, the unemployment rate and level of education are mutually exclusive [47]. The areas in this study that were predominantly agricultural before land acquisition performed the most poorly (Danang and Vinh). In contrast, Hanoi's skilled workers were able to adapt more quickly after the takeover. Thus, ensuring equal access to education can enhance livelihoods and the effects of urbanization in smaller cities.

The caliber of a nation's infrastructure is frequently used to gauge that nation's performance. Connected infrastructure (physical capital) and equitable access to water and energy are necessary for prosperity [48]. High-income nations have some of the best infrastructure. According to estimates, investing an additional 1% in physical infrastructure will boost GDP by 1–2% (if other variables remain constant) [43]. Vietnam has less physical capital than economies in more advanced East Asian regions, despite numerous notable advancements during the early 1990s [43]. Vietnamese infrastructure and socioeconomic structure are not coordinated and fall short of what is needed for the country to industrialize and modernize. Investments in infrastructure mainly rely on the state funding, and while infrastructure in industrial and urban centers has significantly increased [49], it is still deficient in surrounding areas. Physical capital also includes personal belongings [50]. According to our findings, this capital source is growing rapidly for households that lose property as a result of land acquisition. As households used their compensation money to purchase housing and transportation assets, physical capital expanded while investments for future profit decreased. In each of the three urban types, this shifting pattern was seen.

Relationships, common ideals, social standards, and civic involvement are all aspects of social capital [51]. A society can function well thanks to the social networks and interactions that exist among its members. Social and occupational systems are significantly altered by industrialization [52]. Job transitions after land acquisition were common in Hanoi and Da Nang and occurred to a lesser extent in Vinh. Before land acquisition, families are almost in equilibrium with households in the acquired area. However, because various households and groups may not receive equal recompense, land acquisition has an impact on social capital. Conflicts may arise for families whose land was acquired if compensation payments fall short of necessities. Conflicts may also arise amongst households in the impacted region who did not receive compensation from the local government. Social ills are more prevalent, especially in large cities, as industrial parks and high-tech zones are developing quickly. Additionally, a key factor in boosting social capital is the dissemination of information across households and communities. However, compared to before land acquisition, household interactions, exchanges, and close connections have

decreased as a result of changes in the employment structure and material capital. Some household members, especially those in smaller communities where communal cohesion was cherished, displayed nostalgia for the past.

The last resource listed in the DFID sustainable livelihood framework is financial capital. Financial resources serve as a bridge for trade and are necessary for the effective use of other kinds of capital. These are the tools that individuals employ to accomplish their life goals [53]. Financial capital significantly expanded in Hanoi and Vinh but fell in Danang following the land purchases. The way that households in the three regions spent and invested their compensation money also varied, which had an impact on income. Moreover, households have not invested much money to boost productivity. The majority of investments are short-term, and their size does not correspond to what is needed for a sustainable way of life. For instance, many households deposited their compensation funds in the bank, a dependable and established source of funds.

## 6. Conclusions

In Asia's largest cities, where rapid population increases and urban development result in peri-urbanization and suburban expansion, land and natural resources are currently in high demand. This is a significant problem in Vietnam because the nation is rapidly urbanizing, which frequently leads to the State acquiring land. In this study, we compared how households in three cities with various types of urban areas in terms of how they established means of subsistence post-acquisition.

First, we examined how three different localities implemented their land purchase and compensation rules. We discovered that the implementation process was weaker in larger cities. In contrast to Vinh, a smaller city, Hanoi applied few compensation plans, but most of them were executed. Our findings demonstrate that these regulations were made without consideration for the viewpoints of households and managers. Households in the vicinity of industrial and high-tech initiatives in all three regions consequently lack funding assistance and local government attention. These households suffer injustices as a result of development projects.

Second, we calculated the impact of land acquisition on income, employment, and standard of living. Households recovered quickly and even claimed an improvement in quality of life after the acquisition in the large metropolitan region (Hanoi), which was less dependent on agriculture before the purchase. However, a number of variables affected the income after the purchase of the land. The choice of employment following property purchase and the usage of compensation funds were crucial variables. Most households in Hanoi and Danang changed careers after losing land, whereas most households in Vinh stuck with farming despite losing more than half of their farmland.

Third, we examined how households spent their compensation funds and inquired as to whether respondents felt that their quality of life had improved before, during, or after land acquisition. Changes in income after losing land may be influenced by the misuse of compensation funds. The majority of households used their money to build homes, pay off debt, and purchase transportation, but many also made investments for future generations. Even though Hanoi and Vinh reported higher quality-of-life indicators, such as savings and perceived comfort, Hanoi was the only location to indicate a higher life satisfaction post-acquisition. This distinction demonstrates the influence of natural, human, physical, social, and financial capital on the quality of life of households following land purchases in the framework for sustainable livelihoods.

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## Note

- <sup>1</sup> This is the definition used in Vietnam to represent a form of urbanization. It is the city's development due to the excessive increase in urban population and the arrival of people from other regions, especially rural areas, which leads to unemployment and a reduced quality of life.

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