



Original article

The consequences of expropriation of agricultural land and loss of livelihoods on those households who lost land in Da Nang, Vietnam

Nguyen Tran Tuan^{1, 2}

¹Department of Economic and Social Geography, University of Szeged, Egyetem u. 2. H-6722 Szeged, Hungary

²Department of Land Management, School of Agriculture and Resources, Vinh University, Vinh, 461010, Nghe An, Vietnam

E-mail address: nguyentrantuandhv@gmail.com

ORCID iD: <https://orcid.org/0000-0002-3384-2277>

ABSTRACT

Acquisition of large-scale agricultural land for urbanization and industrialization is a widespread phenomenon in Vietnam. This acquisition has impacted those households whose land was expropriated in many ways, such as economic, cultural, and social aspects. In this research, the author surveyed 100 households who lost their land for Da Nang Hi-Tech Park project to collect data about the change in their livelihoods and the satisfaction level with their quality of life. This study aimed to answer three questions relating to employment, compensation expenses, and life. The results show that these householders still have many difficulties adapting to a new life after nearly ten years. The unemployment rate increases, but it depends on the gender and age of the worker. Compared with the five years ago, the households' incomes also decreased by 190 USD/household. The misuse of compensation money paid for their has also had negative impacts on their livelihoods. Some other problems such as environmental pollution and social evils have put pressure on households who lost their land. Hence, most of these households want to return to their previous agricultural life.

KEY WORDS: land expropriation, ex-agricultural households, peri-urban households, quality of life, Vietnam

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1. Introduction

Land is a precious natural resource. It is a superior means of production and the prerequisite for all production activities and life. Therefore, without land, there would not be any production industry, and people could not produce material wealth to sustain life (TUAN, 2021). In addition, humans improve the land and transform it from a product of nature to a product of human labour (SAMUEL, 2012). It is also a product of society. In other words, people possess the land and turn land from a natural asset into a community or a nation's property (FAO, 2010). According to the World Bank and the Chinese Academy of Sciences, about half to two-thirds of peoples' wealth is tied to the land (WORLD BANK & DRCOSC, 2013).

Many studies have highlighted the importance of land in peri-urban areas, especially in the agricultural sector (JOHNSON, 2002; HALADA ET AL., 2011; PRITCHARD, 2013). Peri-urban agriculture creates green spaces for urban dwellers (BREANDA ET AL., 2017). It also protects the environment by reducing urban effects and flood risk (PARROTT & OLIVER, 2009; MARIELLE ET AL., 2019). Another critical issue that suburban agriculture brings is an income for the households living there, especially for the poor. In the development context, peri-urban agriculture is also valued in urban sustainability (MCGEE, 2010). With a location near the urban centre, this area ensures food security (MELISSA ET AL., 2015), provides income opportunities (MANDERE ET AL., 2010), and reverses environmental degradation in urban areas (TORRES, 2011). Therefore, the retention of agricultural land in the peri-urban area is important.

The retention of farmland is also essential for livelihoods in many different ways. In developing countries, the maintenance of resources plays a vital role in providing livelihood security. Especially in times of crisis, diversified livelihood options are essential for the rural poor (DAVIS ET AL., 2010; GAUTAM & ANDERSEN, 2016). In other words, the conservation of natural resource provides a necessary package of long-term insurance against risks such as crop failures, market loss, and natural disasters (FISHER ET AL., 2005). Some economists have also demonstrated that the poor often have to depend on natural resources to survive, even though this is not their wish (USAID, 2006; OECD, 2008; KUMAR & YASHIRO, 2013). Therefore, natural resources provide a guarantee for the security of the livelihoods of people living in rural areas. Consequently, ineffective government economic development policies often directly endanger the lives of the poor by destroying natural resources (FISHER ET AL., 2005).

In Vietnam, historically, the mass movement of the peasantry was the premise for the Socialist Republic of Vietnam to be established in 1945. However, the importance of peasants declined after Vietnam undertook reforms in 1986. During the period of significant industrialization and urbanization, the acquisition of agricultural land took place rapidly. The paddy land area decreased sharply from 4.3 to 4.1 million ha between 1995–2018 (MONRE, 2019). Although the number of farms in 2020 increased by 9,433 compared to 2011, the number of cultivated farms decreased from 9,216 to 7,641 (2016–2020). The decrease in the number of cultivated farms was due to many reasons, of which, the shrinking of paddy land by industrialization and urbanization was one of the main causes (NGHE, 2020). The average agricultural land per capita in Vietnam continues to decline and remains low globally (NGUYEN, 2021). In 2016, more than 50% of households held less than 0.5 ha (WORLD BANK, 2016). According to a survey by KHOI & THANG (2019) on the size of household land use over ten years (2006–2016), the number of households that do not directly use land increased from 18.23% to 21.38%. The number of households which use from 0.2 to less than 0.5 ha decreased from 32.29% to 27.11%. Only about 5% of farming households have a land size of more than 3 ha. Small cultivated areas cause growth in the agricultural sector to be limited (AYERST ET AL., 2020). Small arable land also leads to limitations in the application of advanced agricultural models (WORLD BANK, 2016).

Vietnamese farmers face many difficulties and challenges in their daily life. With the loss of agricultural land, it is difficult for farmers to find suitable employment and they are unable to

maintain a basic standard of living (FAO, 2019). Industrialization has harmed one in nine of the Vietnamese population (NGHIA, 2014). This problem can lead to profound effects on social development when injustice occurs. According to reports, in Vietnam, 70% of lawsuits involved land acquisition, compensation, and resettlement issues (VAN HAO, 2018). This figure shows how big people's frustrations are in relation to land issues. Thus, this article has the following research questions:

1) How has the employment and income status of the affected households changed compare to before the loss of land?

2) What are the uses of the compensation money of families?

3) How has the quality of life of the households changed compared to before the loss of land?

To answer these questions, the author has reviewed documents related to land acquisition in the world. The research questions were answered by surveying households who lost their agricultural land to the Da Nang Hi-Tech Park project.

2. Land acquisition: literature review

Land expropriation is a land management system applied in almost every country worldwide to serve some purpose. First, it is the vehicle to provide land for public and social facilities (KOMBE, 2010). This goal exists only for the needs of the State to ensure public, economic, and social conveniences. The land reserved for this purpose is unlikely to be provided by the private sector. Second, in the case of ineffective private activities, it can overcome the economic and social shortcomings (AUGUSTINE ET AL., 2016). Land acquisition can be used to achieve levels of efficiency that cannot be achieved by individual organizations. This method guides the development and reallocation of land for more essential purposes. It limits the spread of cities to neighbouring areas, or areas that are not needed in order to conserve agricultural land (ZHU ET AL., 2018). Finally, land acquisition brings more social equity in land distribution (KAROL, 2010; MALCOLM & CARTER, 2014). This approach helps the poor to access land more easily because government intervention stabilizes price escalation. Consequently, the legal requirement in most countries is fair compensation to the parties whose land is acquired (KAUKO ET AL., 2010).

Compulsory land acquisition is a government right to recover private land for public use without the landowner's consent. This tool ensures that the government has ground to build essential infrastructure (FAO, 2008). However, there are still controversies about compulsory land acquisition

both in theory and in practice. In practical terms, lost costs (especially human costs) can exceed the value of standard compensation packages (LINDSAY, 2012). These costs can be mentioned as disrupting community cohesion or changing livelihood patterns and living habits. The lost costs can also be multiplied if the claims process is not handled well. The consequences of this land acquisition are also quite diverse. Some people have lost their homes and land, and some have also lost their livelihoods (KOMBE, 2010; GIRONDE & PEETERS, 2015). Meanwhile, positives are observed in Northern European countries, such as Finland, Norway, and Sweden. Their transparency has brought a sense of credibility to negotiating compensation costs (KOTILAINEN, 2011).

Several studies globally on land acquisition and compensation have shown that farmers whose land has been recovered are vulnerable for different reasons. However, there are two main reasons: First, compensation standards have not yet met the damages that households have had to suffer; second is that security for future livelihoods is not guaranteed. Many countries do not have national laws that comply with internationally recognized standards (TAGLIARINO, 2017; LAURA ET AL., 2020). Households who lose land in Brazil, South Sudan, Ethiopia, and Afghanistan are in a situation of inadequate compensation under their Land Governance Assessment Framework (WORLD BANK, 2016). In most cases, landless households face landlessness in Nigeria and homelessness in China and South Africa. Joblessness and morbidity rates increased in India, Kenya, Indonesia, Nigeria, and China (EERD & BANERJEE, 2013).

As a negative result of land acquisition, dissatisfaction over land acquisition issues occurs worldwide (CLETUS, 2016). In Ghana, the State has acquired about 20% of the country's land area, and it has caused inequity in compensation and delays in compensation payments. These problems have caused the loss of trust among Ghanaians in the State (LARBI, 2009). In Nigeria, people underestimate compensation and ownership transfer problems during land acquisition (KUMA ET AL., 2019). Meanwhile, in Botswana, people's dissatisfaction is often related to misinterpretation of legal frameworks due to the low perception of affected owners (LEKGORI ET AL., 2020). In China, public discontent is often associated with the compensation process and standards, compensation method, and distribution (WANG, 2013). Meanwhile, in Malaysia, emotional factors and land acquisition notification lead to landowners' dissatisfaction (OMAR & ISMALI, 2009). From the synthesis of the above research, the author makes a subjective

judgment that land acquisition results are diverse, positive, and negative. However, the positives are more common in developed countries with robust land management systems. In developing countries, most of the dissatisfaction of affected households is related to the value of compensation.

3. Methodology

3.1. Study area

Da Nang is located in the middle of Vietnam at a distance almost equally divided between Ho Chi Minh City and Hanoi (Fig. 2). The city is also located on the North-South traffic axis for road, rail, sea, and air. This site is also the endpoint of the East-West Economic Corridor stretching from Burma, Laos, Thailand, and Vietnam. In terms of topography and geomorphology, Da Nang city's topography is quite diverse, with both plains and mountains. On one side of the city is Hai Van Pass while on the other is the pristine Son Tra peninsula. The high and steep mountains are concentrated in the west and north west (Fig. 1). From here, many mountains stretch to the sea, and several low hills are interspersed with narrow coastal plains. The mountainous terrain occupies a large area, is home to many watershed forests, and is meant to protect the city's ecological environment. The coastal plain is lowland, affected by the sea. This is also the region with many agricultural, industrial, service, military, residential and functional areas.

In 1997, Da Nang became one of the five municipalities directly under the central government of Vietnam, and by 2003, this city was recognized as urban-type I. From 1997 to 2014, Da Nang had 304 Foreign Direct Investment (FDI) projects from 36 countries and territories with a total investment of 3.37 billion USD (HAI CHAU, 2014). Concurrently, the population grew sharply from over 684,000 people in 1999 to 1.1 million in 2018. To meet the population explosion and development needs, land conversion in Da Nang was necessary. In terms of land use in Da Nang, agricultural land still accounts for most of the city's natural area. However, this number is not much different from the area of non-agricultural land. From 2011 to 2018, the area of agricultural land showed a gradual decrease year by year with 5 thousand hectares, whereas the area of non-agricultural land in this period increased by over 3 thousand hectares (MONRE, 2019). If considering the 20-year cycle, non-agricultural land had a strong growth from 43 thousand hectares in 2000 to 55 thousand hectares in 2018 (MONRE, 2019). This transformation can be seen in Figure 1 as the built-up land has expanded over the years.

From 1995 to 2005, land conversion tended to expand northward, while, over the past ten years, land transformation tended to be toward the south and east of the city. This conversion was mainly from paddy land to urban land.

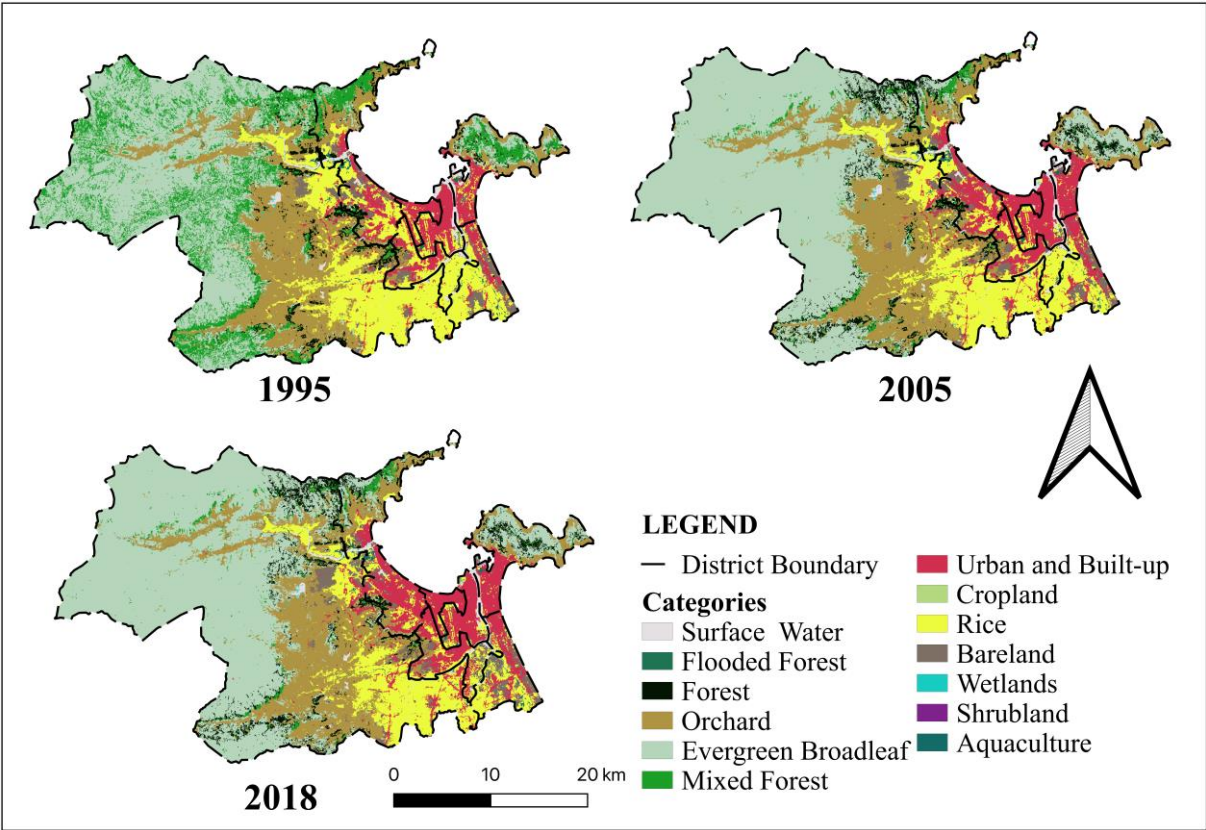


Fig. 1. Land cover in Da Nang city over the years

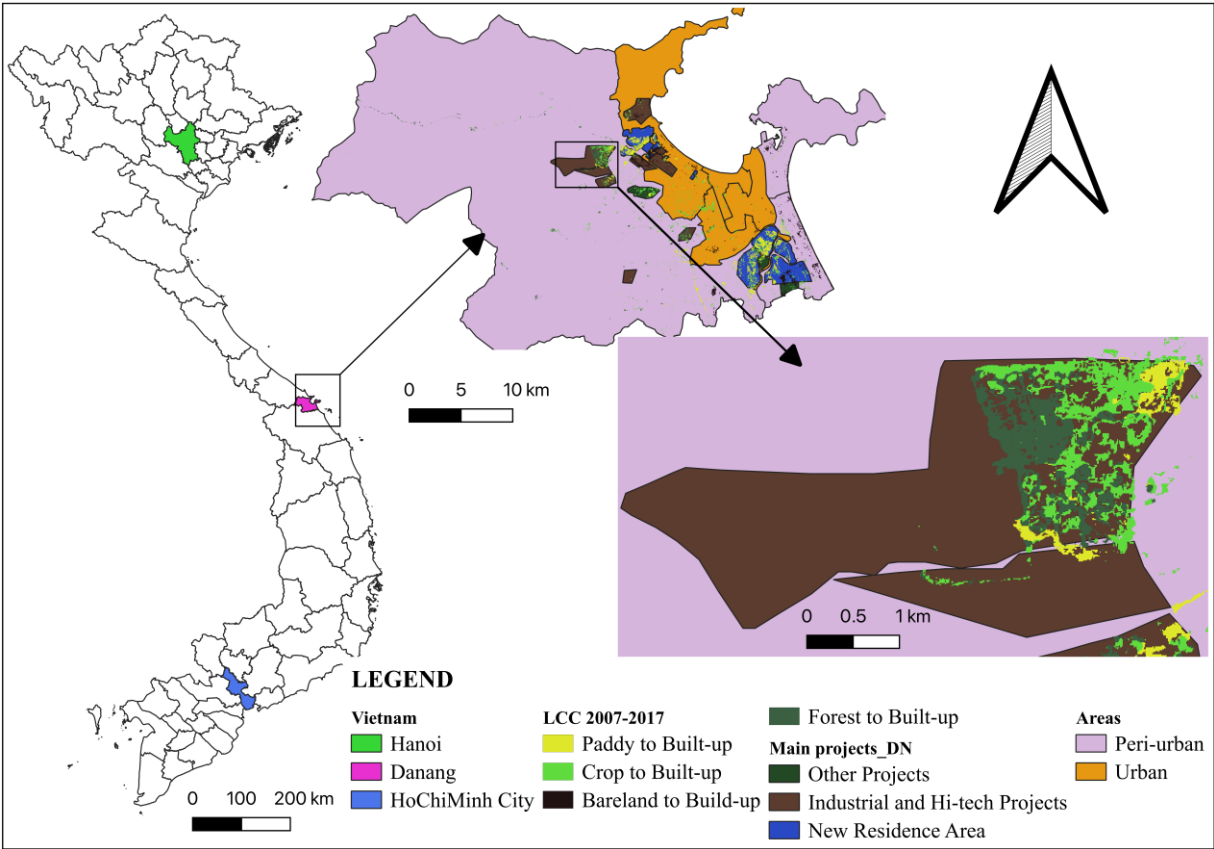


Fig. 2. The location of Da Nang and the research project

Currently, Da Nang has six main Industrial Zones (IZs) with a total area of more than 1,160 ha. As of 2019, these IZs have attracted 488 investment projects with a total domestic capital of 17,339 billion VND (752.4 million USD) (363 projects) and foreign investment capital of 1,669 million USD (125 projects). In addition, the Prime Minister has approved a project to establish Da Nang Hi-Tech Park from 2010. This project is one of three national-level multi-functional Hi-Tech Parks in Vietnam. This project is located in the west of the suburban area of Da Nang city (Fig. 2). According to the plan, Da Nang Hi-Tech Park has an area of 1,128.4 hectares, in which the leasing area is 612.27 ha. Up to 2020, this project had attracted 18 projects, with half being FDI projects. The total invested capital of these projects is more than 336.9 million USD, and the domestic investment capital is 5,272 billion VND (229.2 million USD). The total revenue for the State budget from the IZs in 2019 was about 5,541 billion VND (241.5 million USD), accounting for about 17% of Da Nang city's total budget revenue. This contribution shows the importance of IZs in general and Da Nang Hi-Tech Park in particular. This was a significant capital source, but by the end of 2017, the project had only converted and built a part of the project's Eastern area. The converted land areas are mainly from crop and forest land (Fig. 2).

3.2. Data analysis

This article quantitatively examines the factors affecting the livelihoods of landless households, such as jobs, income, and life choices. The field survey took place of those households whose land was acquired from 2013 onwards because this was the year when Vietnam applied its new land law. The survey locations were the suburbs of Da Nang, where the Hi-Tech Park was built. The survey took place between mid-January to early February 2020. The survey was carried out by the methods of "strategies" and "snowball". Respondents were the head of the household for the face to face method of interviews because they were the target respondents. 100 completed questionnaires were collected. The questionnaire was divided into four parts: (1) information about the householders (name, age, gender, occupation, and education level of family members); (2) General information on land acquisition and compensation for homes; (3) Detailed information on livelihoods of householders after land acquisition; (4) Perspectives of householders on the process of land acquisition.

We also conducted five interviews with local authorities, a Hoa Vang District Compensation and

Recovery Council member, and the Da Nang Hi-Tech Park Project Management Board. Interviews were performed using the semi-structured methodology and in-depth interviews. This provided qualitative data available for this article. With the collected primary data, the author processed with SPSS software and then was presented through tables so that readers have a detailed view of the project's impact on people's livelihoods. To make the maps, we used the databases from two organizations. These were the Advanced Land Observing Satellite (ALOS) from Japan and the Asian Disaster Preparedness Center (ADPC) from Thailand. While Japanese maps have a spatial resolution of 10 m, the map resolution in Thailand is 50 m. The overall accuracy of the maps is over 90%. These numbers indicate the high reliability of the data used.

4. Results and discussion

The acquisition of agricultural land for industrialization in recent years has brought significant changes in Vietnam's rural areas (SCOTT, 2008). The establishment of Industrial Enterprises has created high economic growth, diversified income sources, upgraded infrastructure, and contributed significantly to poverty reduction in many rural areas (BREU ET AL., 2012). However, land acquisition for industrialization has a direct and long-term impact on the employment of farmers and their livelihoods (TUAN, 2010). The loss of land, lack of jobs, and lack of food autonomy are everyday situations among farming households in industrialized areas, not only in Vietnam but also in developing countries (PHAM & BARKHATOV, 2020). As a large part of agricultural land is acquired to construct industrial zones, urban areas and their associated infrastructure, the number of farmers losing land and having to change jobs has increased rapidly.

According to data provided by the Management Board of Da Nang Hi-Tech Park, as of May 2020, the project had acquired 1,001.8 hectares from 620 households, of which, 81.7% of the acquired land was agricultural. Table 1 shows the information gathered on agricultural land lost, working status, and the incomes of the surveyed households as a whole. 90% of agricultural land had been acquired (154,553 m²), while population in working age increased by 14 people. The number of workers employed also decreased when the State recovered land. There was a significant decline in income (by more than 18 thousand USD). However, the rate of change in income varies among households. Nearly 50% of households said their income decreased after giving land to the project, while

30% of households had an increased income. The remainder (23%) was the number of households with no change in income. (Income is determined by current prices and was estimated by the respondents). The cause of the decline for nearly 50% of households was believed to be related to

their work. 89% of households surveyed said that agricultural production was the top job that helped them generate income. Thus, the loss of almost all agricultural land has significantly impacted the work of these households and their income.

Table 1. Some indicators of investigated households in study area (Source: Households' survey, 2020)

No	Indicators	Unit	Before	After	Changes
1	Investigated household	Household	100		
2	Farmland area	m ²	171.593	17.040	-154.553
3	Population	People	442	450	+8
4	Working-age population	People	338	352	+14
5	Working population	People	256	229	-27
6	Income	USD	503.786.6	485.405.2	-18.381.4
7	The average income per household	USD/ household	5.037.9	4.854.1	-183.8

Da Nang's labour market has a severe imbalance between labour supply and demand. Each year, the labour force of this city grows from 20,000 to 25,000 people, while the unemployment rate in 2017 was 4% (GSO DA NANG, 2018). Many reasons have led to the situation of people not finding a high job in Da Nang. One of these is the high urbanization rate, so several traditional occupations have been lost. Meanwhile, the city's labour supply also has reasonably good training, but training does not consider the economy's labour structure. As a result, Da Nang has more than 4,000 unemployed workers with a university degree, or other form of higher education training (GSO DA NANG, 2018). In terms of the demand for labour, in recent years, the city's economy has grown steadily, creating many jobs for workers. Every year, the city creates jobs for about 34,000 workers (Data provided by the Department of Labour, Invalids and Social Affairs of Da Nang). In particular, Foreign Direct Investment enterprises in industrial zones are sources of quality jobs and high income for workers in this city. However, it is a fact that businesses have not actively participated in vocational training. Therefore, enterprises are often passive in using trained workers and mainly use human resource training from training and vocational training institutions. This has caused many difficulties for households when giving up land to build industrial and Hi-Tech parks in the city.

For households who lost land for Da Nang Hi-Tech Park, the loss of agricultural land has an impact on their employment. The number of labourers who got jobs after losing their land decreased by 27 people. In this study, the employed workforce is divided by age and sex into two groups. Group 1 consists of women aged 18 to 35 and men aged

18 to 40, and Group 2 comprises women over 35 and men over 40 years of age. This division was based on the results of interviews with investors and recruitment announcements. The first group of workers has a youthful dynamic, who find it relatively easy to absorb new knowledge. In addition, these workers have easy access to many types of jobs that require dynamism. Table 2 shows a drastic decrease in employment for older workers. Before the land acquisition, the labour force of individuals in Group 1 accounted for 63.7% of 256 workers. This figure dropped to 47.2% after the land acquisition. Part of the reason for this decline was the low education level of the workforce, and thus the workers failed to meet the recruitment requirements of businesses in the Hi-Tech Park or in neighbouring industrial zones. This decrease also showed that the vulnerability to income of people in Group 2.

The rising unemployment rate seems to be due to the fact that people's living and working habits have not changed and that they have not been able to adapt to a new life after land acquisition. However, 8% of households chose to depend entirely on agricultural production, and 9% of families combine agricultural output and finding a new job (Table 3). Meanwhile, 20% of households reported that someone in their family would expect to stay at home and do nothing to generate income. Although 83% of households said that they were willing to look for a new job, the jobs they chose were only seasonal. According to an interview with members of the People's Committee of Hoa Vang, in March 2019, the district held a job festival for the first time. In this festival, there were 7,236 jobs for workers, in which, there were 4,475 unskilled labor positions. In other words, they are jobs that

do not require education or work experience. However, the results obtained at the end of the festival did not show a positive sign when only 316 people registered for the job interview and

participated in the preliminary round. That is a very modest number, and it shows the consequences of "seasonal" thinking of people.

Table 2. Proportion of employed workers by age group (Source: Households' survey, 2020)

No	Categories		Employee	Ratio [%]
1	Before landless	18-45 (male)/18-35(female)	93 workers	36.3
		>40 (male)/>35(female)	163 workers	63.7
		Total	256 workers	100
2	After landless	18-45 (male)/18-35(female)	121 workers	52.8
		>40 (male)/>35(female)	108 workers	47.2
		Total	229 workers	100

Table 3. Employment status of family members after land acquisition(Source: Households' survey, 2020)

No	Indicators	Frequency	Households	Percent
1	Retire/Stay at home	20	100	20
2	Farm production	8	100	8
3	Farm output and work another sector	9	100	9
4	Change jobs	83	100	83

On the labour side, the land-expropriated people shared that income is the most essential thing. Currently, where agricultural land remains they will produce enough on the remaining land to be self-sufficient in food. They will not worry about a lack of food. Moreover, during difficult times, they can undertake part-time jobs, in such as construction, and can earn over 20 USD/day (information from surveyed households). This income level is much higher than for those employed as workers in companies. According to the statistics of the Department of the Labour, Invalids and Social Affairs for the Hoa Vang district, this district has 75,000 people of working age, and the area of land in agricultural production is decreasing sharply. Therefore, having many enterprises recruiting unskilled workers is an opportunity for the locality to solve the employment problem in a stable and long-term way. However, the employees prefer to have a quick daily income instead of waiting until the month's end to be paid. Hence, local authorities need to help people with job orientation to have a stable career choice base.

According to the statistics in Table 1, the income of households has decreased slightly compared to before the land acquisition. This reduction contrasts with some studies in other places in Vietnam, like Nghe An and Quang Binh (NGUYEN ET AL., 2019; NGUYEN, 2021). After the land acquisition, the income of most households increases thanks to

the compensation payment and the support that families receive when transferring land-use rights. This contradiction raises the question of what purposes the land-recovered householders for the Da Nang Hi-Tech Park project used their money. Table 4 shows that the first choice of householders when receiving compensation money is to repair or build new houses. Up to 81% of households spent a large amount of money for this purpose. In particular, some families were even willing to borrow more money to build a new and more spacious house. Their second choice was to deposit the rest of the money in the banks for interest (34%). When asked for more details about why they do not use the funds to invest in other beneficial purposes, they shared their thoughts. The affected households never thought that their family would get this much money. This leads to some households not knowing how to use this money. Those with a low level of education and only know how to be engaged in agriculture, worry that investing in any business will lose their money. Therefore, the bank is the safest investment channel to choose, even if the interest rate may not be as high.

In addition to using the fund for the two primary purposes mentioned above, households use compensation money for other needs such as debt repayment, investment in education for their children, and buying motorbikes (24%; 21%; and 20%, respectively). Hoa Vang district is currently

constructing many projects, which attract a large number of workers for employment. Consequently, convenience stores and water shops have sprung up to meet the needs of these new workers. Foreseeing this situation, 15% of households chose to start in small retail businesses. Building apartments for rent is also a good idea for income generation. This not only contributes additional income for families as well as meeting the needs of accommodation for workers from other places. However, the number of factories in operation is still limited, so only 1% of affected homes have used this form as a means of making a living. From the above analysis, we can partly explain the reason for the reduced income of households who lost their land in Da Nang.

To have a clearer view on the use of compensation money, the household's main equipment, including tools of production and daily use items, are detailed in Table 5. Before the land acquisition, the agricultural tools and household items of the surveyed households had similarities, for about 900 items. However, after losing their land, the possession of household appliances was five times higher than the number of agricultural tools. This change showed a considerable variation in the equipment of households. The number of hoes, shovels, and cattle showed the most dramatic reduction. Most agricultural lands were recovered, thus families no longer felt the need for hoes and shovels. Meanwhile, people used cattle for ploughing and transplanting seed but did not want to raise them for meat.

Table 4. The main ways that compensation payments were used (Source: Households' survey, 2020)

No	Indicators	Frequency	Households	Percent
1	Building and repairing house	81	100	81
2	Buying motorbike	20	100	20
3	Investing in agri-machines	1	100	1
4	Small business	15	100	15
5	Flat for rent	1	100	1
6	Deposit currency in the bank	10	100	10
7	Remaining money deposited in the bank	34	100	34
8	Paying debts	24	100	24
9	Investment for children	21	100	21
10	Others	13	100	13

Table 5. Changes in equipment before and after land acquisition (Source: Households' survey, 2020)

	Categories	Before	After	Changes
I. Production tools (Item)	1. Hoes and shovels	569	182	-387
	2. Sprayer	66	12	-54
	3. Cattle	273	7	-266
	4. Thresher	17	1	-16
	5. Tractor	13	1	-12
	Total	938	203	-735
II. House facility (Item)	1. Mobile phone	274	300	+26
	2. TV	107	126	+19
	3. (Electric) bike	5	12	+7
	4. Motorbike	209	237	+28
	5. Karaoke	2	13	+11
	6. Computer/laptop	5	20	+15
	7. Washing machine	45	67	+22
	8. Gas stove	89	101	+12
	9. Fridge	86	101	+15
	10. Hot shower	10	31	+21
	11. Air-condition	4	31	+27
	Total	836	1,039	203

With regarding to essential household equipment, motorbikes are the primary means of transportation in Vietnam, so it is not surprising that motorbikes

are what people chose to spend their money on the most, followed by air-conditioning equipment and mobile phones. With the temperature high every

day, people have purchased air conditioners to overcome the heat. Along with the need for communication, new mobile phones are also being procured. Moreover, many landless households also purchased other entertainment equipment, such as television, karaoke machines, and laptops. People used their compensation money to satisfy their current personal needs rather than for economic purposes. On the other hand, respondents' purchasing decisions express possible former deficits in their quality of life. Moreover, nowadays the IT equipment is vital for educational and professional purposes.

Quality of life (QoL) is a subjective measure of happiness (ANETT & PETO, 2015). Factors that play a role in enhancing quality of life vary according to individual preferences. These often include financial security, job satisfaction, home life, health, and safety (DALIA & ALGIRDAS, 2009). Figure 3 shows

the households' overall assessments of their QoL. In general, the QoL of families is worse than before. The proportion of households experiencing difficulties in their lives has increased. An increase has also been seen in families with enough food but no savings. Meanwhile, the proportion of households with comfortable lives and savings has decreased sharply. This can be explained by the fact that pre-landless incomes were enough for 63% of households to live well. The compensation money also made them want to build houses and repair houses. They also bought new equipment. This led to families using their savings or borrowing money as a mortgage to build new houses. Along with that, after losing land, the unemployment rate has increased, and jobs are not stable. The daily costs of food have become volatile. Affected households felt that their quality of life had decreased.

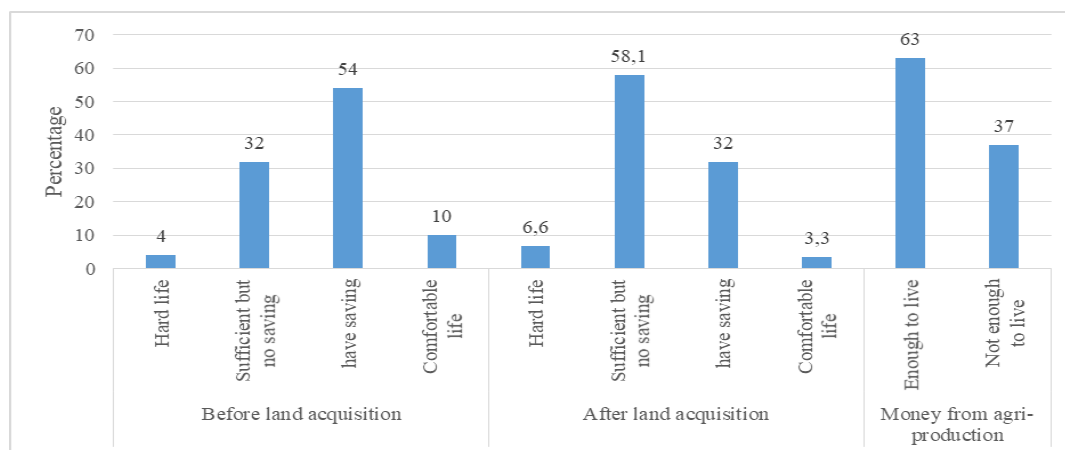


Fig. 3. General assessment of Quality of Life of surveyed householders (Source: Households' survey, 2020)

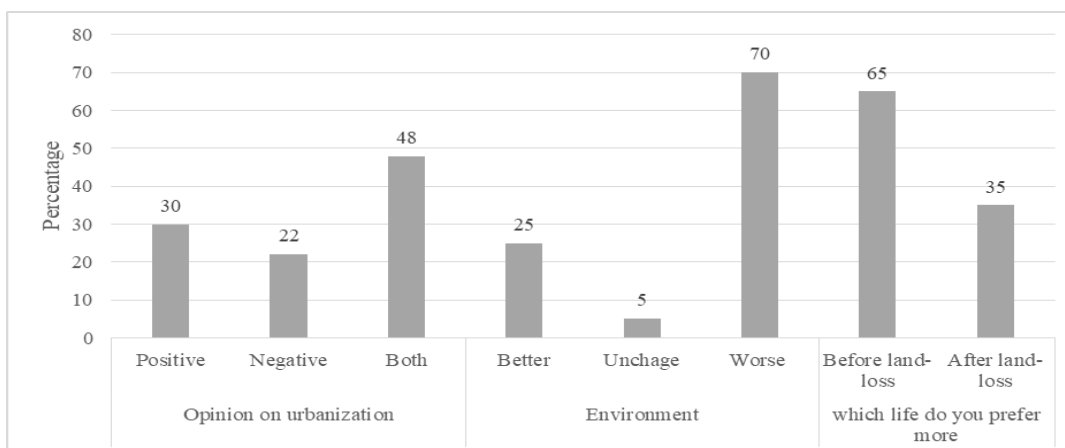


Fig. 4. Perspectives on urbanization, environment and life choices (Source: Households' survey, 2020)

Another essential factor for the QoL is the environment status. Up to 70% of householders said that the climate in the area had been seriously affected (Fig. 4). When the Da Nang Hi-Tech Park project was under construction, a large number of trucks damaged the roads, and caused the

generation of dust and made it more difficult for householders to travel. The blocking of streams for the construction of the Hi-Tech Park led to drought in the fields. Trees were destroyed, so the temperature in the area was likely to be higher than before. Some householders also said that the

groundwater source was affected, and polluted their water source (most families who live here even use drilled water for daily life). Changes to the environment was part of the reason that 48% of householders rated the process of industrialization and urbanization as both positive and negative.

Most households have a desire to return to their previous agricultural life (65%). They said that, despite having a large amount of money from land compensation and livelihood support, this amount would expire very quickly if there have no job. Before land acquisition, their land was enough for cultivation and animal husbandry, and generated a steady income. Farming also gave them plenty of free time to take care of their children. Physical labour also brought them health. Now, their life feels more tired without having anything to do. Moreover, because there was money available from compensation, this has meant that social evils have flourished in the area. Lack of a job has meant more leisure time. People have engaged in gambling, drinking, and several other social evils. These householders prefer a simple life, working in agriculture, having enough food, and a warm life with their family. These preferences indicate that these farmers have not yet adapted to their new life. They still have memories of their previous lives.

In general, without arable land, these farmers can no longer sustain a livelihood. Worse still, despite their change in status, they do not have access to urban resources. They are still too familiar with the life and customs of the countryside, so they cannot easily adapt to a new life. These farmers are almost unable or unwilling to integrate into urban life. New cultures, contemporary societies, new ways of life are quite strange to them. Although nominally, they are still residents of Da Nang city, in reality, they still consider themselves rural people. Sometimes, it is this thought that makes the landless farmers not accept a new life.

5. Conclusions and suggestions

This study presented new evidence of the effects of the industrialization occurring in Vietnam from farmers who have lost their land. A survey was conducted of 100 affected households. The findings of this study have answered the three research questions raised at the beginning of the study. The results of the study with regard to the householders' work status and income after transferring land use rights provide convincing evidence that ex-farming households are having difficulty adapting to their new livelihoods. The unemployment rate for people whose land had been taken increased sharply for women over 35

and men over 40. However, the living and working habits of these people have not changed, they still choose agricultural production in the remaining area, so the householders' average income decreased nearly 190 USD/household compared to the past. This decline in revenue was also partly due to the consumption of compensation payments for their land. This statement also answered the second question. The use of compensation money for non-economic purposes has had negative consequences on the livelihoods of these households. They mainly spent their money on repairing their home and for purchasing new household appliances.

On the other hand, this study also assessed the satisfaction level of households' lives without agricultural land. This problem is important because it allows local authorities to have an accurate view of the people's consensus on the local industrialization and urbanization process. Most of them wish to return to their previous lives. When they have agricultural land, their income is stable, and they can save some money for the future. Losing their land has made their lives much more difficult. Without agricultural land, they cannot find new jobs, so social evils occur more often, which is true of the saying "Idle hands are the devil's tools". Furthermore, farmers are accustomed to manual labour, so they feel their health has deteriorated because they stay at home all day and are inactive. In addition, tree cover has been lost. The Da Nang Hi-Tech Park project is in the process of construction, and the resulting traffic has generated noise and dust. The water source has been polluted. These reasons make the households' assessment of their living environment worse. In other words, it could be said that their quality of life has deteriorated. Therefore, the people who lost their land for this project want to return to their former agricultural life.

Ensuring equity for landless households is central to social stability in Vietnam. In order to achieve this goal, improvement in land acquisition policy from the government and people's ability to adapt to new life is needed. The government can review compensation and assistance, whereas affected people need to work harder to adapt quickly to their new life. The State should also provide vocational counseling organizations to provide help for those people whose land is acquired. It is necessary to clearly define the responsibilities of the State parties, project owners, training organizations in training skill quality for these households. Local authorities should also proactively advise people to use their compensation money effectively by depositing it in banks or safe investment channels. With this approach, after

having had their land acquired, people would receive deposit interest to have a stable income.

Furthermore, workers over 35 usually have experience in traditional agricultural production. When their land is acquired, it is difficult for them to adapt to their new environment and the dynamic labour market. Also, they do not have the educational attainment to take part in job change training courses. Along with that is the burden of being away from family and the cost of training, so local authorities should develop a market in traditional to create jobs for them. The State should also provide preferential loans and tax exemptions policies for elderly workers and for workers with low educational levels to create jobs in the livestock sector and service businesses. In addition, the local government should also have policies to encourage people to actively participate in agricultural classes and to learn to use new technologies. In order to do this, the local authority needs to cooperate with several government organizations such as the Farmers' Association, Women's Union, and Veterans Association to provide free short-term training courses. The essential thing is still to improve the quality of the labour force for those people whose land was acquired following the new development.

This article was based on a relatively small sample of respondents for one particular case study. This study highlighted the importance of the research problem for the surveyed population. However, it has not shown enough impacts on the part of the population whose land has been acquired. Therefore, it is recommended that future studies apply to a larger number of samples to yield a more in-depth analysis of these effects. In addition, the survey process was also carried out during the early stages of the Covid-19 pandemic, so these results do not reflect the difficulties these households will face in the future. Besides, the time it takes to analyze the research over a short period (5 years) does not provide enough time to see the positive and negative effects of the research problem in the long term. Exogenous factors also had a minor influence on the study results, especially the income-related data.

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