

LIVELIHOOD DEVELOPMENT OF HANOI SUBURBANITES IN THE PROCESS OF URBANIZATION

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Abstract

The process of urbanization has created a strong impact on the socio-economic development in the peri-urban/suburban (or the edge of the city boundary) areas. Mass agricultural land conversion for urbanization, industries and services purposes have caused noticeable changes in the livelihood of peri-urban residents (or suburbanites). This paper discusses relevant theories in the literature and presents evidence which reflects the updated experienced reality of the livelihood development in the Hanoi's suburbs. This paper presents an original attempt to contribute to providing scientific explanation of the city peri-urban residents' livelihood development as well as proposes some policy recommendations for their livelihood development in the future¹⁴.

Keywords: *Livelihood model, Sustainable development, Urbanization and efficiency*

1. Introduction

In the 2011-2020 period, Hanoi's urbanization process has been rapid in terms of both population and urban land. According to the Hanoi authority for Planning and Investment, Hanoi's population will reach about 11 million by 2045. In addition, the municipal governments have converted approximately 30% inefficient rice cultivation land for non-agricultural purposes (Nguyen Manh Quyen et al. 2019). The rate of urban population raise quickly: 3 from 36.8% in 1999 to 41% in 2009 and 49.2% in 2019 (Hanoi Statistical Office, 2019). The capital's population is expected to increase by about 200,000 people each year, equivalent to a large suburban district (Chau Anh, 2019). Meanwhile, the agricultural land area has been reduced by tens of thousands hectares because of urbanization and non-agricultural development purposes. In this process, tens of thousands labours have lost their agricultural-based jobs and have been seeking non- agriculture work to make ends meet. However, in recent times, this issue has not been adequately studied that practical solutions which can (1) improve the peri-urban people's livelihood development, (2) contributes to effective economic growth in the peri-urban landscape and (3) enhances their

¹⁴ The use of "peri-urban area" and "suburban area", and the use of "peri-urban residents" and "suburbanites" is interchangeable in this article

incomes and standards of living. In this context, this paper provides additional and updated information about livelihoods of peri-urban people in Hanoi.

The article is structured as follows. The second section summarizes the research methods used. The third section provides a comprehensive analysis of the impact of urbanization on suburbanites' livelihood. This section starts with a brief overview of literature related to livelihood and livelihood model of suburbanites before describing the contemporary state and trend of urbanization in Hanoi and its impact on Hanoian suburbanites' livelihoods. Section four recaps the research findings of the paper and some concluding remarks are given in the conclusion.

2. Methods

To get an insight into actual livelihood experienced by peri-urban residents, the approach was simulated from theoretical livelihoods models to aggregate a comprehensive money-earning behaviors by different economic activity sectors. This is done via the Analysis of production efficiency which involves a close look at revenue and costs. Base on the collected data, the general method of production efficiency is used to calculate the livelihood model of Hanoi suburbanites. In addition, policy analysis is conducted and tabulated in table 6 to table 13.

Besides, two qualitative methods were used to highlight specific characteristics that might be omitted from the model which are field survey and expert interview. For field survey: surveys related to livelihood models in the Hanoi' peri-urban areas were conducted in the following fields: co-operative, farms models such as model of growing vegetables and medicinal herbs in Van Duc commune, Gia Lam suburban districts, Khai Thai growing vegetables need water in Phu Xuyen, Hoa Viên Modern Farm growing organic and fruits in Thach That, Thanh Xuan cooperative growing vegetables in Soc Son suburban district, Ba Vi clean food Corporation raises Oc Que pigs and chickens, a model of afforestation and raising honey bees in Ba Vi.

For expert interview, the authors consulted experts who are knowledgeable about the livelihoods of peri-urban people to evaluate the comments and suggestions.

3. Results

3.1. Main theoretical issues about the livelihoods of peri-urban residents

a) Awareness of the livelihoods of the suburbanites in the big city

Livelihood can be understood to consist of “assets capacity, approach (storage, resources, ownership, right-of-use asset) and activities necessary for life. (Chambers, 1983). Nguyen Minh Tien et al defined livelihood as a way of making of living, a process of earning a living and subsistence. It is a combination of use of resources and life-sustaining activities”. (Nguyen Minh Tien, 2018). The authors argued that a sustainable livelihood is

the ability to continuously maintain or enhance current standards of living without causing damage to natural resources.” (Nguyen Minh Tien, 2018)

The definition above indicates the concern for environment as the source of making a living. Other researchers have also proposed similar definitions of sustainable livelihoods. For example, Hanstad et al. (2004) specifically stated that: “A livelihood is sustainable in case of able response and recovery from effects, or can promote capabilities and assets both now and in the future without destroying the natural resources foundation”.

Koos Neefjes was in agreement with views above. He also believed that a livelihood must depend on capability and wealth (both assets capacity and social resources) and activities are all necessary to making a living. The livelihood of each person or a family is sustainable if they are able to response and recovery from stress and trauma, it has maintenance or enhances residents abilities and possessions in the future without damaging to environmental resources”. (Neefjes, 2000).

In summary, the general consensus on the definition of “livelihood” suggests some characteristics as follows:

- The resident's livelihood is understood as a methods and means of making a living or economic activities to seek jobs and earn money by themselves. Livelihood is always associated with specific situation and specific group of residents. Each individual or a group of inhabitants could have the same livelihood. The development of technological level, the capacity of the local governments, as well as the living circumstances can all equally have effects on resident’s life.

- Livelihood exists in a group of people, not just each individual. Therefore, livelihoods relates to a residential community and local governments.

- Livelihoods is also not constant but changes over time. However, it needs to develop relatively steadily in the period of time.

b) Awareness of suburban prevailing livelihood models in the big city

- Livelihood model can be defined as model of the method of making a living which is allowed by law (having legal status) or accepted by society that each individual or a group of residents use their capital to do economic activities to increase their income, improve standards of living and contributing to local prosperity. Scientists and policy makers use the term “Livelihood model” to reflect the universality of making a living in the research process. Livelihood models are connected with business activities and it is determined by resident’s commitment and investment capital.

- In essence, livelihood model refers to the model of making a living suitable with local context with primary aim to improve the inhabitant’s living standard and contributing to the socio-economic development in the peri-urban areas. Sustainability is necessary for developing the livelihood model. A livelihood model is not time-invariant, but its content

and essence exist for a long time relatively. On the other hand, the livelihood model is also the solution to socio-economic development of the residential community or a group of particular residents in the edge of city.

- It is necessary to clearly identify two important aspects: resilience and stability when discussing the development of livelihood model. Resilience refers to the quality that the livelihood model has effectiveness and efficiency in the long-term. Whereas, stability is understood that the livelihood model has effective and promoting relatively stable development, with minimal. Together they indicate that development effectiveness of the livelihood model remained unchanged fairly in a long time, not only improving income for residents who make a living but also contributing to the society and community, as well as supporting the sustainable socio-economic development in the peri-urban area and entire Hanoi city. Sustainability is both development targets and requirement of the livelihood model development.

- Evaluating the results and effectiveness of the livelihood model development in suburban areas is vital. It is necessary to measure the size of the livelihood model by labour, capital-labour ratio, average income per person, the profit margin ratio.... Moreover, the public disclosure of assessment results is also important.

3.2. The contemporary state and trends of urbanization in Hanoi

a) Urbanization

Average urban population increase to 4.15%/year, rate of urbanization in 2030 is about 65 - 68% (Hanoi Statistical Office, 2019). This is a relatively high level of urbanization because the average population grows about 7.2%/year. Hanoi People's Committee has approved a plan to transform Hoai Duc, Dong Anh, Thanh Tri and Dan Phuong rural districts into urban districts by 2025 (Xuan Long, 2019). By that time, rural areas - in terms of both land area and number of districts - will be much narrower than it is today. In comparison, Hanoi's urbanization rate is higher than the national average and faster than that of some centrally run cities (Table 1)

Table 1: Urbanization rate of some centrally run cities divided into two periods of 5 years

Unit: %

Comparative objects	The period 2011-2015	The period 2016-2019
1. The national average	3,15	2,29
2. Hanoi	6,10	2,31
3. Ho Chi Minh city	1,85	1,65
4. Hai Phong	1,10	0,71
5. Da Nang	3,10	2,01

Source: Hanoi Statistical Office, Yearbook 2019

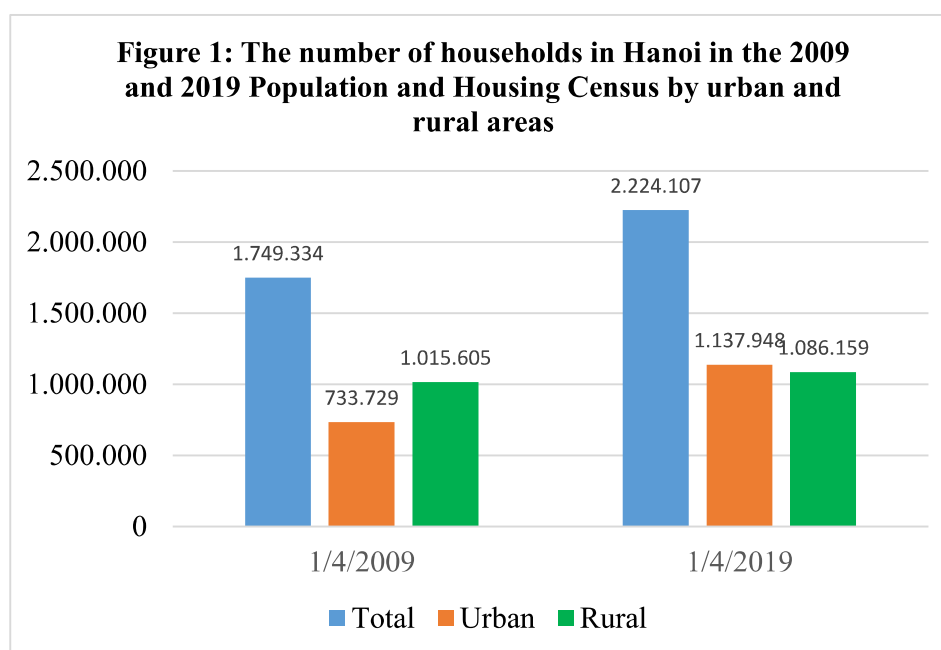
The number of Hanoi’s urban households and citizens increased rapidly. The high urbanization rate and the quick raise of the population and large amount of households lead to sharply effect the suburban Hanoi’ s socio-economic development as well as the livelihood development of this area.

Table 2: The population density in Hanoi were compared to 4 centrally run cities

Unit: person/km²

	The population density in Hanoi	The population density in HCM city	The population density in Can Tho	The population density in Hai Phong	The population density in Đà Nang
2010	1.962	3.530	854	1.221	722
2015	2.171	3.888	886	1.285	800
2019	2.410	4.385	859	1.302	841

Source: General Statistics office Yearbook 2015 and 2019



Source: Hanoi Statistical Office (2009, 2019)

The process of Hanoi’s urbanization has been rapid, however the urbanization process has revealed some shortcomings. The most obvious being that the industry contribution shared in GRDP of the whole city is a limited level. Furthermore, high - tech industries is still not enough, even too few.

Table 3: Some indicators of Hanoi's population and GRDP

Indicator	Unit	2010	2015	2019	The average annual growth rate
1. Population	In thousand person	6.630	7.433,6	8.094	2,34
Urban population	In thousand person	2.784	3.650,5	4.000,3	4,15
<i>% of total population</i>	%	42,0	49,1	49,4	
Divide by:					
- Natural growth rate of population	In thousand person	6.576	7.242	7.531	1,145
- Net migration rate	In thousand person	54	148	563	9,5
2. Gross regional domestic product at constant 2010 prices	billions dong	351.571	497.473	660.900	7,2
Gross regional domestic product at current prices	billions dong	513.294	672.949	958.436	-
Gross regional domestic product per capita at current prices- Vietnam currency	million dong	77,4	91,6	118,4	-
Gross regional domestic product per capita at current prices)- Foreign currency (at average exchange rate)	USD	3.980	3.948	5,110	-
3. The industry ratios	%	18,9	20,79	22,77	-
<i>Of which:</i>					
The ratio of manufacturing	%	10,12	13,14	14,01	-

Source: Hanoi Statistical Office, 2015 and 2019

The figures indicates that that livelihood development of Hanoian suburbanites has not benefited significantly from rapid urbanization. The proportion of manufacturing grow slightly (see statistics in the table above); Therefore, high - tech industries has not been applied prevalence.

b) Trends of urbanization impacts on the livelihood of Hanoi suburbanite

In the 2010-2020 period, the process of urbanization in Hanoi city took place rapidly. Especially, after the neighbouring province of Ha Tay was merged into Hanoi, the process

of urbanization took place vigorously and altered the socio-economic status of both the inner and the edge of city. According to incomplete statistics, more than 1 million immigrants arrived in Hanoi in 2019. Approximately 65-70 thousand immigrants in the North of Vietnam found jobs in the Hanoi's urban economy in 2019 (Nguyen Manh Quyen et al. 2019). This immigration trend has led to increasing competition for peri-urban residents to find jobs in the inner city. At the same time, the farm land decreased about 7225 hectares to non-agricultural purposes (Chu Phu My et al. 2019) . The agricultural land areas which has been recovered but not used is much larger than that.

Table 4. Some indicators of urbanization in Hanoi and the effect on livelihood development in suburbs

Year	Population (in thousand person)	Urban population (in thousand person)	The ratio of urban population (%)	Urban population growth (%)	Unemployment rate in suburb (%)	The decreased farmland areas, hectares ¹⁵
2010	6617,9	2816,5	42,5	2,4	2,4	-
2011	6779,3	2880,6	42,5	2,3	1,14	629
2012	6957,3	2958,1	42,5	2,7	1,29	425
2013	7128,3	3024,6	42,4	2,2	2,18	632
2014	7265,6	3573,7	49,2	1,8	1,36	670
2015	7390,9	3629,5	49,1	1,6	0,99	780
2016	7522,6	3699,5	49,2	1,9	1,97	895
2017	7661,0	3770,0	49,2	1,9	1,92	898
2018	7852,6	3874,3	49,3	2,8	1,89	994
2019	8094,1	4000,3	49,4	4,15	1,88	1.299

Source: Hanoi Statistical Office. Yearbook 2019.

In 5 years (2016-2020), approximately 10 thousand hectares agricultural land was transferred to non-agricultural purposes. Average farmland areas decreases by around thousand hectares each year. Thus by rough calculation, if an average of one hectare cultivated land demand 4 labours, approximately 10,000 workers will become unemployed due to the loss of agricultural land. These are the group of labours that urgently need new jobs.

Generally, the social labor structure has a slight improvement in recent years, however it does not commensurate with the strengths and requirements of increasing labor productivity in order to rapid growth and sustainable economic development.

¹⁵ Compiled data from suburban districts

Table 5: The labor structure in Hanoi by economic sector and by urban and rural areas

Unit: %

Years	Total (Thous. Persons)	Of which			Of which	
		Agriculture, forestry and fishing	Industry and construction	Service	Urban	Rural
2015	3868	19,7	26,8	53,5	44,7	55,3
2016	3900	17,4	29,0	53,6	45,0	55,0
2017	3927	16,6	30,2	53,2	44,1	55,9
2018	3987	14,2	30,9	54,9	43,8	56,2
2019	4049	12,1	32,1	55,8	44,5	55,5

Source: Hanoi Statistical Office. Yearbook 2019

3.3. Summary of the results and effectiveness of the livelihood model development in the Hanoi's suburb area

a) Hanoi People's Committee has paid attention to the development of livelihood's inhabitants and expressed their will illustrates the socio-economic development policies in the peri-urban area

The fact that, diverse spontaneously livelihood models has existed in different sectors in the peri-urban areas of Hanoi city. However, there has not been any particular models of livelihood defined in the peri-urban area, therefore there are no suitable policies for each livelihood model. The author attempted to synthesize different type of business activities in table 6 to table 13:

Table 6. The livelihood models development policies applied in the suburban Hanoi

Orientation and policies of livelihood development	The sustainable livelihood model of cultivation sector	The sustainable livelihood model of livestock sector	The sustainable livelihood model of forestry sector	The sustainable livelihood model of handicraft industry sector	The sustainable livelihood model of commerce sector	The sustainable livelihood model of tourism sector
1. The advantages	- Combine with new rural construction - Associated with organic agriculture	- Combine with new rural construction - Supportive the application of	- Combine with new rural construction - A policy of allocating forest lands to households and	- Combine with new rural construction - Building industrial clusters to attract	- Combine with new rural construction - Developing rural markets and	- Combine with new rural construction -Upgrading and renovating monuments,

	and high-tech	antimicrobial coating	sustainable forest development	investment and developing craft villages	wholesale markets	restoring festivals
2.The disadvantages	In general, it is not specific, or not synchronous (if any)	Local governments have not determined a specific brand names	The governments have not had supportive policies for afforestation and forestry on livelihoods	The city's government has not suitable guide and attraction policies	- Local governments have not had supportive policies for wholesale markets	- Local governments have not had priority credit policies; connecting with the travel agencies

Source: author's survey and suburban districts and commune official's data

In recent years, Hanoi People's Committee has promulgated manifold policies to develop the livelihood model in the suburbs and contributed to certain effect of the results. Nevertheless, it can be said that the policies are not attractive and effective enough to foster resident's livelihoods in the suburban areas.

b) In general, the each production and business activities has a proper livelihood model and lead to positive results

- In term of the cultivation sector

The losing land due to a massive farmland conversion for urbanization, industrialisation, service development ... motivated to seeking of the inhabitant's livelihood. However, the size of the livelihood model has a small-scale at households and co-operative economics.

Table 7. The livelihood models of cultivation sector

Model	The development	The challenges and difficulties encountered
The households and co-operative economics grow organic agriculture	<ul style="list-style-type: none"> - Growing organic farming (rice cultivation, vegetables, fruits, grapefruit, oranges, guava - Planting flowers in combination with sightseeing tours on a small - scale and spontaneity. There is no successful sustainable livelihood model. - Traditional production method (rice, potatoes ...) 	<ul style="list-style-type: none"> - Basically unorganized. - The large corporations invest in high-tech agricultural development diffidently because of land accumulation. - There is a lack of advanced producing. - It is difficult to sell products due to having no advertising and obvious brand name of the products
Farms and households apply hi-tech agricultural producing	<ul style="list-style-type: none"> - Ecological farming associated with experience tourism. - In general, it is still small-scale and spontaneously. 	<ul style="list-style-type: none"> - The households lack both funds and detailed information production, lack of an advanced producing; do not

	- Some households apply high technologies in producing (cucumber, tomatoes, grapefruit,..)	closely connected with the travel agencies
The households grow flowers, fruits combined with experience tourism	There are varied households production linked together in Thanh Tri, Chuong My, Gia Lam districts	-The production has not organized into diverse linked chains. - Lack of production orientation and incentive policies

Source: author's survey

- In term of the livestock sector

In the Hanoi's suburbs, apart from the livelihood model of dairy farming in Ba Vi and Gia Lam, there is only the production model of pig raising with small-scale slaughter, also mainly spontaneous and low effectiveness. Pig raising is not a high value-added activity so economic efficiency is also limited.

Table 8. The livelihood models of livestock sector

Model	The development	The challenges and difficulties encountered
The producing of co-operatives, farms, households associated with modern production facilities	- Underdeveloped. -The slaughters have not been closely connected with livestock facilities.	- Not organized, lack of the local governments' orientations and low effective management. - The large corporations have not participated production yet; - Lack of geographical indication, traceability and obvious product's brand name lead to sell goods hardly
The production of farms, households associated with slaughter facilities	- Growing spontaneously in several places. - Food safety is not ensured. - The production process has environmental pollution and urgent issues	Lacked the difficulties of state management and without eligible solutions could be methodical organization
Aquatic plant farm	Grew aquatic plant by household in some districts and achieved certain success	However, absence of food safety certification; geographical indication, traceability and obvious product's brand name

Source: author's survey

- In term of the tourism sector

Hanoi People's Committee, the district's People's Committee have paid attention to promoting tourism in the edge of city, however, tourism is also spontaneous and ineffective due to numerous issues. Tourism development depends on the travel agencies in the inner city. Suburbanites cannot do it by themselves.

Table 9. Livelihood models of tourism sector

Typical model	Available advantages	The developments
Homestay model is initial associated with craft villages and ecological zones	Human resources availability and the household's facilities	Master plan and support of local government will take shape clusters if this model continues grow
Tourism development model related to agro-ecological zones, ecological farming and experience tourism.	In the suburban area, there are several the agro-ecological zones, ecological forestry where attract traveller with ecotourism and experience tourism.	- Spontaneous development by household or travel agencies companies (For instance, Chimi Farm grow flowers or strawberry garden in the Red River's Stone Garden). Travel companies have not had specific plans to attract visitors - This model can develop vigorously but it is guided and organized by local governments.
Development model of cultural and religious tourism	There are lots of monuments, traditional festivals and cultures (for examples, ceremonial/festival song, a singing party at the songstress house, traditional operetta, modern theatre ...) and pagodas, village communal houses in the suburbs.	- The development model is spontaneous associated with available relics (pagodas, village communal houses, revolutionary war monuments ...) - Relics and tourism activities is not organized and linked together

Source: author's survey

- In term of the Industrial and handicraft industry

It can be said that all government levels has been concentrated on this sector. Hanoi People's Committee has planned 38 industrial zones with a total land area approximately 3776 hectares in the edge of city (Nguyen Manh Quyen et al. 2019). Hanoi Export Processing and Industrial Zones Authority is directly responsible for the efficient running of this industrial zones.

In addition, Hanoi People's Committee also has planned 70 industrial clusters with a

total area of around 1400 hectares in the suburban area (Nguyen Minh, 2020). Nevertheless, due to the lack of specific orientation and insufficient guidance, the livelihood models of industrial and handicraft industry grew properly. Inhabitants mainly invested by themselves. The industrial clusters and craft villages model were took notice but residents are still perplexed, so the result of this model has not gotten desired results yet.

Table 10. Livelihood models of industrial and handicraft industry

Model	The development	The challenges and difficulties encountered
Industrial clusters	- By 2019, there are 106 industrial clusters operating in 17 suburban districts, 3864 operating enterprises, creating jobs for roughly 70 thousand workers, contributing to the state budget approximately 1,100 billion VND / year in the edge of city. (Nguyen Minh, 2020)	The master plan has changes, especially in terms of location and orientation priority. Scarcity of investment capital for infrastructure construction projects, absence of orientation information of industrial clusters to attractive companies
Small industry	- There are 261 planned small industrial (in the area of 386 communes) (Doan Mai Huong et al. 2020) but they has not desired effectiveness yet because there are no necessary supportive policies.	Due to absence of supportive policies, so it has not attracted high-values corporation yet.
Craft village	In the suburban area, there are roughly 1350 handicraft (of which approximately 300 traditional craft villages) (Chu Phu My et al. 2019). About 5 craft villages linked together in order to tourism development but their results are not desired effectiveness.	- Lack of geographical indications, communication, linking with travel agencies and obvious product's brand name. - Producing areas are too cramped and causing environmental pollution, thus they are necessity to move out of residential areas
Limited liability company	- Focus on producing stainless steel accessories for making all kinds of door hinges, gates of houses;... - Focus on producing shoes, wooden products, etc. Some associations were established however their activities are low effectiveness	Just small- scale production. Absence of special policies to encouraging business activities in rural areas.
Household's handicraft	Main handicraft products to serve villager life, for instants: making hats, fans, children's toys, making joss paper, producing vermicelli, etc.	Not enough information for producers. Craft production is key. The quality of the production is still low

Source: author's survey

- In term of the commercial sector

There is more than 4 million people in the peri-urban area (account for more than 50% of the city's population) (Hanoi Statistical Office, 2019). Although the total of suburbanite's income takes up approximately 70% the city average but if roughly 60% of that money is for consumption - it is quite huge. It means that the demand of exchangeable goods is massive. The livelihood model of commercial development is extremely necessary in the peri-urban area, but recently, it just has been mainly spontaneous.

Table 11. Livelihood models of the commercial sector

Model	The development	The challenges and difficulties encountered
Limited liability company	Little development. There are around 110 companies which have low <i>productivity</i> and efficiency in the suburban area.	Lack of investment capital, market information, absence of the local government's development orientation in the locality.
Rural market	There are 454 markets in the city, of which 15 class 1; 59 class 2; 329 class 3. The development of rural markets achieved certain effective, however there are still several problems.	Necessity for long-term orientation, in general, the commune officials have not had proper organization. In many places, the market was built but its activity is little or no.
Households	There are 386 business households in communes or along inter-suburban district and inter-communal roads. This model is quite popular in peri-urban areas, but its small funds and limited efficiency.	- Absence of necessary information, product's brand name. the communication is limited. - Lack of skilled and qualified labor

Source: author's survey

- In term of the forestry sector

In the edge of Hanoi city, forest area is small, only approximately 23 thousand hectares that located in mountainous Ba Vi, Soc Son and Son Tay town. Residents were guided how to grow sustainable forestry. Base on forest land allocation, individual households manage their areas and grow new forests where necessary.

Table 12. Livelihood models of the forestry sector

Model	Developments	Limitations and difficulties encountered
Forest households	<ul style="list-style-type: none"> - The silvicultural households grow forests for environmental protection and sustainable management. - Raising honey bees - Growing medicinal plants 	Lack of funds and local government's specific orientation for forest trees.

Source: author's survey

According to the survey of authors and the calculations of official suburban districts, the author initially summarizes the results and the effectiveness of the livelihood model development in the Hanoi's peri-urban areas. Livelihood models of the industrial and handicraft industry, the commercial and the livestock sector are needed a massive funds, however their revenues received are also higher than other livelihood models.

Table 13. Results of livelihood model development in the Hanoi's peri-urban area

Indicator	Unit	Sustainable livelihood model of cultivation sector	Sustainable livelihood model of livestock sector	Sustainable livelihood model of forestry sector	Sustainable livelihood models of industrial and handicraft industry	Sustainable livelihood model of commercial sector	Sustainable livelihood model of tourism sector ¹⁶
1. Average income per capital (per month)	million dong	51,9	62,3	41,2	86,9	75,8	63,1
2. Productivity of employed	million dong	68,4	82,8	54,7	115,6	100,8	83,9
3. The capital-to-labor ratio	million dong	90,9	89,2	58,1	134,5	95,6	77,8
4. The profit margin ratio	%	6,0	6,3	2,7	8,7	12,1	8,8
5. The number of jobs from sustainable livelihood model	In thousand person	521,4	224,5	12,8	202,0	160,2	39,8
6. The ratio of state budget payment to revenue	%	-	1,5	-	10,8	11,2	2,3

Note: Average income per capital and Productivity of employed at constant 2010 prices

¹⁶ Tourism statistics was calculated in 2019 before happening the Covid -19 pandemic

Source: Calculation from authors' survey and refer to project: Research and building sustainable livelihood model related to the process of urbanization and climate change in the Hanoi rural, 2020 .

In the suburbs, the average labor productivity of the livelihood models is quite low, only around 40% of the average level city. Thus, it can be said that residents' livelihoods are not high-paying jobs in peri-urban areas. It is necessary to focus on this issue in the coming years.

4. Discussion and Conclusion

4.1. Discussion

a). How does rapid Hanoi's urbanization affect the making a living in the peri-urban people areas. Previous studies illustrated several issues to livelihood development of Hanoian suburbanites, nevertheless inhabitant's livelihood has not reach of effectiveness as expected. Livelihood is related to high-paying jobs. All government levels is perplexed, this problem needs to be studied carefully and methodically. How to promote positive impacts and minimize negative effects of rapid urbanization.

b) What should the Hanoi's government do to enhance the making a living in the peri-urban residents areas. Although, Hanoi People's Committee and People's Committees of suburban districts direct their attention to the creation or development of feasible livelihood models, the results are not expected success. In fact that all government levels from the city to the suburban districts, communes play a great role in the inhabitant's livelihood development.

c). It is necessary to find out the reasons of the success and limitations to give suitable solutions that develop greatest livelihoods in the Hanoi's peri-urban people areas.

d). Sustainable and high-income livelihood development could be feasibly solved, nevertheless the effort from both People's Committees (at all levels) and suburbanites together is required to take action expeditiously and effectively in the whole Hanoi city.

4.2. The reasons of the success and the limitations of livelihood model development

a) The reasons of the success of livelihood model development

- The process of urbanization in Hanoi takes place rapidly, so the government officials from city to district level are aware of changes in livelihood for the inhabitant's suburbs. The Hanoi's government has paid attention to livelihood development for the peri-urban people area and promulgated initially supportive policies. The municipal governments are aware of vital livelihood and has promulgated great deal initial decisions implementation such as Hanoi People's Committee published Decision No. 2952/QD-UBND dated June 15, 2018, on the establishment of Phu Yen industrial and craft village cluster in Gie Ha Village,

Phu Yen Commune, Phu Xuyen suburban district; or it has recently released the plan No. 99/KH-UBND dated April 12, 2021 on the development of rural careers in Hanoi in 2021. In recent years, the city government has issued multiple decisions on the enhancement of craft villages, industrial clusters, industrial zones as well as the growing organic agricultural products policies associated with experience ecological tourism

- Hanoian suburbanites also have experienced with various lessons spending of compensation by the state and investors because they used to be bankrupt and fell into struggling and sought jobs in the inner city, however the result is not the same as desired. Therefore, they have given much thought to livelihood development in their own homeland.

b) The reasons of the limitations

- A large number of farmers have to change their jobs because of agricultural land that has been converted to urbanization, non-agricultural development purposes and infrastructure construction projects. Therefore, seeking livelihood of peri-urban residents are happening at a relatively massive scale. In fact Hanoi People's Committee has not promulgated master plan for the whole peri-urban area promptly, established a production specialization area so peri-urban residents still face many difficulties.

- Due to the lack of information and lack of awareness about occupation changes, several peri-urban residents used the compensation to indulge in dissipation and became bankrupt, severely hinder their effort to improve livelihoods. Due to absence of a specific skill level, suburbanites could not seek jobs in the peri-urban areas and it is also difficult for them to look for occupations in the inner city. If any, there are simple unskilled employments such as porters, housework, etc with unsteady income or insurance.

- Hanoi People's Committee has not had a practical plan yet as well as sufficient supportive policies that lead to low efficiency of new livelihoods. More specifically, residents are not really interested in investment capital policies because it is just a small funds, required cumbersome and time-consuming process.

4.3. Conclusions

(1) The process of rapid Hanoi's urbanization will be happening fast in the future and greatly affects *the equitable development of livelihoods* in the edge of city. A huge number of agricultural workers who lost their land - the means of production need new occupations otherwise they are easy unemployed. The livelihood diversification is an *urgent request* in the Hanoi's suburbs. Making a living of the agricultural sector will have a strong attachment to high-tech agriculture, combine ecological agricultural with ecotourism and experience tourism. Livelihoods of the industrial sector also is required multifarious production and scientifically organized.

(2). Being the fact that sustainable development livelihood models must be associated with clean production and business without polluting the environment. However, the application of science and technological advances is still difficult for companies, cooperative economics and households due to limited funds. All government levels should provide both technical and investment capital as well as accompany in the production and business process.

(3). Making a living and livelihood model development are extremely necessary in the suburban Hanoi. Nevertheless, an effective and sustainable livelihood model development requires innovative approaches which differ from methods in recent years. First of all, all official government levels need determination, particular programs, obvious master plans to guide the inhabitant's production. It is necessary for the city government, the district and commune government to promulgate the special policies to supporting resident's livelihood development. Policies focus on particular business activities and individual people in different circumstances. There should be no general policies, absence of quantitative analysis

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