

TRAINING THE AGRICULTURAL HUMAN RESOURCES IN HANOI CITY IN THE CONTEXT OF THE FOURTH INDUSTRIAL REVOLUTION

Can Anh Vu

ngocvu9091@gmail.com

Academy of Politics, Hanoi, Vietnam

Abstract

In the economic structure of Hanoi city, although the productive value of the agricultural sector is not high, but it plays a very important role in agricultural development. This is the strategic foundation that contributing to the successful achievements of the industrial and modern process in Hanoi capital. At present, the context of globalization and international integration is going on over the world, especially the effects of the fourth industrial revolution have gotten both many chances and challenges in Hanoi agriculture. Actually, the evolution of this revolution has brought about a deep change in current background. Therefore, managers need to establish the overall solutions to promote Hanoi's agriculture to develop comprehensively follow the modern direction and the sustainable development. Therein, training human resources in agricultural sector plays the essential and urgent role. This article generalizes about the state of agricultural production; analyzing and clarifying the current situation of training the agricultural human resources in Hanoi city. Thence, proposing a number of recommendations to improve the quality of training of agricultural human resources in Hanoi city to meet the requirements of the Fourth Industrial Revolution.

Keywords: *Training, human resources, agriculture, Hanoi, the Fourth Industrial Revolution.*

1. Introduction

Hanoi is a special urban area of the country, but agriculture still plays a very significant role. It is the strategic foundation contribute to ensuring food security, maintaining socio-political stability, preserving and promoting cultural characteristics; creating the chances of employment and protecting the ecological environment. Hanoi is the largest central city in the country since the merge of Ha Tay province, the natural area of Hanoi city is 3,328.89km². It consists of 12 urban districts, 17 rural districts and 1 district-level town, therein the suburban agricultural and rural areas account about 60 percent of the population and 50 percent of the city's workforce.

Hanoi city's Party and people are profoundly aware of the role of agriculture in the industrialization and modernization, so Hanoi city's leaders have proposed many guidelines

and policies for agricultural and rural development and achieved the important results in recent years. However, Hanoi city's agriculture is also coping with many difficulties and challenges in the current context, such as: rate of the rapid urbanization lead to the area of agricultural production to shrink and fragmentation; applying the high technology to production is limited; productivity and quality of agricultural products are low; polluting the ecosystems; the change of climate and epidemics impacted more complexly and seriously; the quality of agricultural and rural human resources is limited, the shortage of employment and the proportion of unemployment of rural workers are increasing; the quality of life and income of the suburban Hanoi's people are still slow. Therefore, Hanoi City needs to combine the numerous elements to establish and develop a modern agriculture and civilized rurality in the context of the Fourth Industrial Revolution, therein training the high-quality human resources play the first essential role in a strategy of agricultural development.

2. Methods

The article used an overall and comprehensive approach to collect and summarize the last studies and reports that related to this topic. The source of the secondary data was used such as: Decisions, Reports and Projects of the Hanoi City Party Committee, The Hanoi municipal People's Committee, Department of Agriculture and Rural Development; Hanoi Department of Statistics. Besides, databases also were collected via the internet, newspapers, magazines ... as a basis for analyzing the state of agriculture and agricultural and rural human resources in Hanoi at present.

3. Results

3.1. Some of generalizations about agriculture in Hanoi at present

In recent years, Hanoi agriculture has achieved the important results contribute to the economic growth of the whole city. Agricultural production has gained the significant achievements, the value of production has continuously increased over the years. According to the report of The Hanoi municipal People's Committee, the total value of agricultural, forestry and fishery production in 2018 reached 35,959 billion VND (compare in 2010) increasing about 13.08% compare in 2014. Growth rate of value added in agriculture in the period of 2014-2018 has increased on average about 2.32%, the growth in the value of agricultural, forestry and fishery production were 3.35%, wherein the cultivation, livestock and aquaculture were 2.4%, 4% and 6.06% respectively¹⁸. Moreover, many co-operative models and productive teams were formed and promoted effects that contributed to the development of suburban agriculture to meet the new requirements at present.

¹⁸Ha Noi Department of Agriculture and Rural Development (2018), *Results of the performance of tasks in 2017, tasks and solutions in 2018, Hanoi.*

The structure of agricultural production has transferred follow the positive direction that has formed many areas of the concentrated agricultural production contribute to improve the high economic efficiency such as high-quality rice areas, fruit trees areas, livestock breeding areas and aquaculture areas. Some of the specific methods have been conducted, such as: promoting the conversion of inefficient rice land to other crops for higher economic efficiency, the value increased from 3 to 8 times compared to rice cultivation; building about 101 the concentrated productive areas of safe vegetable with a scale of over 20 hectares harvest about 400 - 500 million VND/ha /year of the productive value; developing about 50 productive areas of flower harvest about 0.5 - 1.5 billion VND/ha/year etc. Moreover, Hanoi city has built about 15 large-scale concentrated livestock areas outside residential areas that a value gained about 1-2 billion VND/ha/year; building about 12 collective brands for agricultural products... At the same time, the material and spiritual life of people is constantly improving, the income of people in rural areas reaches over 38 million VND/person/ year, increasing about 58.3% (compared in 2014).

However, the scale and growth rate of agriculture in Hanoi are not appropriate with the potential and strengths reality; it has not met the needs of the internal city and external provinces. The quality of Hanoi's agricultural growth is still low because the infrastructure of agricultural production are still small and fragmented units, so gaining the low efficiency. The state of small scale and backward technology lead to Hanoi's facilities of the agricultural process have not linked between production and processing. Some essential services are limited (organizing the consumption of products, preserving and processing of agriculture, silviculture and aquiculture etc.); sharing of responsibilities and benefits between agricultural provider and producer has not gained the high efficiency which affected negatively to Hanoi agricultural development. On the other hand, transferring of the agricultural economic restructuring in Hanoi is still slow. Both of the productivity and quality of food products are not high, safety and hygienic, so it has not met the needs of the Hanoi's people. The forms of productive organizations have achieved initially the successes but many activities have not gained the positive achievements, especially the co-operatives models with small scale and lack of government funds.

In brief, the above findings identify importance of the requirements of sustainable agricultural development, but the transference of Hanoi's agricultural structure is still not really suitable and appropriate with Hanoi capital's potential and advantages.

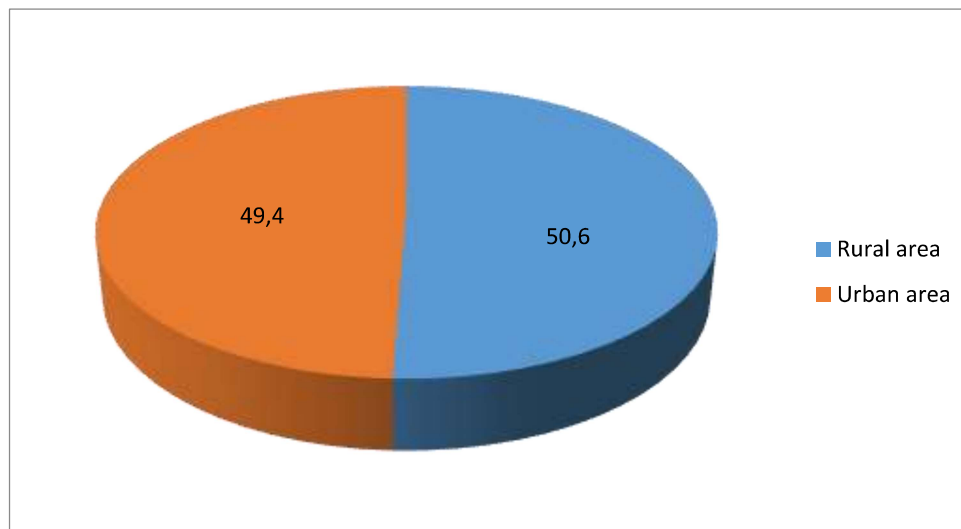
3.2. The state of training human resources in agriculture in Hanoi City at present.

According to the Hanoi Statistical Year-book, Hanoi's the average population was estimated at 8,093.9 thousand inhabitants in 2019, increasing about 179.4 thousand inhabitants that was equivalent to 2.3% (compared with result in 2018). Therein, the urban population is

4,000.3 thousand inhabitants that was equivalent to 49.4%; the population of rural areas is 4,093.6 thousand inhabitants that was equivalent to 50.6% of population in the entire city.

Table 1: The average population of Hanoi city in 2019

Unit of measurement: %



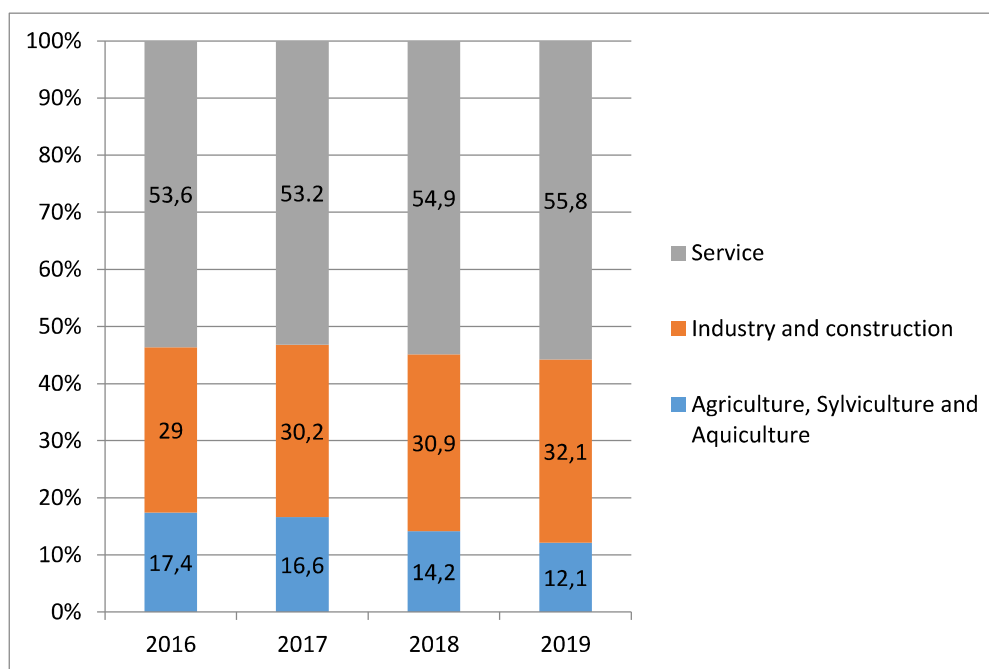
(Source: Hanoi City Statistical Year-book 2019)

In 2019, Hanoi's workforce (age of 15 years and above) was 4,122 thousand people (accounting for 50.9% of the population), therein, the labor force in Hanoi's rural areas accounted for 51.6% compare with the labor force in whole city. Rural workforces from age of 15 years and above that are working in the economic sectors in 2019 were 2,247 thousand people that was equivalent to 55.5% of the total number of workers from age of 15 years and above¹⁹. The state of above population found that Hanoi's agricultural and rural areas are place where have the abundant human resources for socio-economic development in general and agriculture in particular. However, the process of industrialization and modernization create many opportunities for employment, incomes and living conditions. These lead to increase the proportion of migrants from suburban areas and other provinces into Hanoi city that create the serious pressure for Hanoi capital's socio-economic development.

¹⁹Hanoi Bureau of Statistics (2019), *Hanoi Statistical Yearbook 2019*, Hanoi.

Table 2: Labor structure distribute on economic sector of Hanoi city for the period 2016-2019

Unit of measurement: %



(Source: Hanoi City Statistical Yearbook in 2016, 2017, 2018, 2019)

The labor structure of Hanoi city is transferring towards reducing the proportion of labor in the agricultural sector, increasing the proportion of labor in industry, construction and services. Currently, the labor structure distributed towards the economic sector, the proportion of agricultural labor was 12.1%, the proportion of industrial - constructional labor was 32.1% and the proportion of service labor was 55.8% in 2019.

Table 3: Percentage of employees from age of 15 years and above working in economic sector that trained in the period 2015-2019

Unit of measurement: %

Year	Total	Urban	Rural
2015	53.2	68.5	36.7
2016	56.9	71.9	40.2
2017	60.7	75.6	44.3
2018	63.2	76.2	47.2
2019	67.5	79.6	54.8

(Source: Hanoi city Statistical Yearbook in 2019)

Results of table 3 revealed that the quality of labor resources in Hanoi's the agricultural and rural areas of is gradually being raised. In 2015, the proportion of workers that trained from the

training facilities in all level (primary workers, vocational skills, vocational certificates under 3 months) only reached 36.7%, but this proportion of workers was 54.8% that increasing approximately 18.1% in 2019. However, the proportion of employees that have the agriculture's technical qualifications is still low when people compared to the labor market's needs.

Surveying from state of vocational training and creating chances of employment for rural employees are still limited, especially lack of employment in places where agricultural land is recovered for other purposes, the unemployment rate in rural areas was 1.4%, number of people lack of employment was 0.3%. Most of Hanoi employees still have a picky mentality in choosing their employment and income. The proportion of the sustainable employments increases slowly, the part-time and temporary employment is quite high and the increase of young workforce tends to go away the agriculture and rural areas.

The process of industrialization, modernization and urbanization not only creates the huge demands about labor but also improve the productivity of agricultural labor that led to the number of workers of this industry transfer to non-agricultural industries more and more. The limitations of the qualifications of agricultural workers in Hanoi directly obstructed to the transition and application of achievements of modern science and technology into production.

At present, in the context of globalization and international integration, especially the development of the fourth industrial revolution, it is necessary to have policies that create the chances for employment. Besides, managers also need to have the specific strategies in restructuring the agricultural workforce such as reducing the proportion of simple workforces, increasing the proportion of professional workforces who have certificated from the universities and colleges.

In recent years, perceiving precisely about the importance of training to improve the quality of human resources, Hanoi city is interested in the occupational training for agricultural and rural human resources. Hanoi City's Party Committee grasped thoroughly and implemented the Prime Minister's Decision No. 1956/QĐ-TTg, 27 November 2009 about the project "Occupational training for rural workers to 2020". Therefore, focusing on occupational training meet the demand of local human resources is the mission and vision of Hanoi's Party and people in next years. At the same time, implementing the programs and objectives build the new rural areas; the projects and plans about socio-economic development will be adjusted flexibly base on the reality of each locality.

Since 2010 to present, the whole city has opened over 6,000 classes about occupational training for nearly 220,000 rural workers. Completing many long and short training courses, over 80% of rural workers have had employment or they are working the old occupation but they have achieved the higher productivity and quality. This result contributes to increase the proportion of trained workers in the city from 34.8% (results in 2010) to 70.2% in 2020.

However, the implemental process of the project also revealed many limitations. In some places, the organization of training is still formal without associated between training

and the social needs; the effectiveness of these programs is not high and appropriate with the investment.

The high rate of workers who have not trained, the number of trained workers is a low level, while lack of the professional workers who can meet the requirements of modern agricultural production. In addition, the system of occupational training institutions and resource of professional teachers is also limited. Therefore, Hanoi City needs to have the effective solutions improve the quality of human resource training for agriculture and rural areas at present.

3.3. Some recommendations improve the quality of training for agricultural human resources in Hanoi City at present

First, Hanoi City needs to establishing overall plan, finalizing the mechanisms and policies on training human resources for agriculture and rural areas. Training human resources is an important and long-term strategy, it must have a long-term vision and the appropriate guidelines. The system of mechanisms and policies play a very important role impact directly or indirectly to the training and development of agricultural and rural human resources. Training must be associated with appropriate use and remuneration that create motivation for agricultural and rural human resources to develop comprehensively. In fact, many new mechanisms and policies have a positive impact on the quality of the agricultural and rural human resource training. However, there are many limitations in the implemental process. Therefore, it is necessary to regularly adjust, supplement and improve the mechanisms and policies in accordance with the impact of the fourth industrial revolution, facilitating the training of agricultural and rural human resources.

Second, innovating the contents, programs and methods of training agricultural and rural human resources in accordance with the context of the fourth industrial revolution. Focusing on investing in material facilities, advanced documents about agriculture and rurality in the world. Especially, improving ability of foreign language and soft skills, applying about information technology in teaching and educational management. Expanding international cooperation to approach science and technology shorten the duration of international integration.

Third, coordinating closely with the agricultural universities and colleges to link training and transferring the agricultural knowledge to farmers. The training institutions should organize regularly the practical sessions improve practical knowledge, so that learners will propagate their knowledge to farmers increase the effect of agricultural production. Therefore, managers need to increase the investable funds in education and vocational guidance from high school in rural areas and establish the favorable conditions to attract the professional and enthusiastic teachers for agriculture and rural areas.

Fourth, solving employment for workforce in rural areas. It is necessary to transfer restructuring of rural economy and developing infrastructure. Besides, promoting the local advantages to develop tourism and trade to transfer the economic structure follows the modern way, diversifying the production and business forms. Increasing the support for

farmers about fund, knowledge about market and integration so that farmers can produce items according to the needs of the market promote the production of goods.

Fifth, promoting the general power of organizations and forces for the training of agricultural and rural human resources. Training and development of human resources in general, agricultural and rural human resources in particular. This is an important mission of the whole political system in Hanoi capital's all levels, branches and people. Therefore, it is necessary to promote the role of many subjects, creating a general power for the training of agricultural and rural human resources.

Sixth, regularly evaluating, summarizing and replicating the advanced models in accordance with the transfer of technical advances in agricultural production. At the same time, investigating about the training programs at training institutions that are suitable for practical production. This result will support to adjust the training program in accordance with the requirements of modern agricultural production.

4. Discussion and Conclusion

Currently, the fourth industrial revolution is going on strongly and opening up huge developmental opportunities for all of sectors, especially socio-economic domain. For agriculture, this is a specific domain that was affected by this revolution, it will gradually transfer from traditional agriculture to high technology and smart agriculture. Therefore, managers have to have the special strategies to improve the quality of training of human resources to adapt and get the best opportunities from the Fourth Revolution. Accordingly, Hanoi city needs to improve the system of mechanisms and policies for the training of this human resource; the training institutions need to innovate programs, contents and methods in accordance with the requirements of the Fourth Industrial Revolution. At the same time, promoting the role of organizations and forces that participate in the training of agricultural and rural human resources contribute to improve the quality and efficiency.

5. References

1. Hanoi Bureau of Statistics (2019), *Hanoi Statistical Yearbook 2019*, Hanoi.
2. Do Huy Ha (2019), Agricultural economic restructuring in Hanoi: Contents that need to focus on breakthroughs <https://www.tapchicongthuong.vn/bai-viet/co-cau-lai-kinh-te-nong-nghiep-tren-dia-ban-thanh-pho-ha-noi-nhung-noi-dung-can-tap-trung-dot-pha-67224.htm>.
3. Nguyen Hong Nhung (2017), Solving the employment for rural workers, <http://tapchimattran.vn/kinh-te/giai-quyet-viec-lam-cho-lao-dong-o-nong-thon-5921.html>.
4. Hanoi Department of Agriculture and Rural Development (2018), *Results of performance of tasks in 2017, the main tasks and solutions in 2018*, Hanoi.
5. Hanoi Party Committee (2016), *Program No. 02-CTr/TU about agricultural development, constructing the new rural areas, improving the life of farmers in the period 2016 – 2020, April 26, 2016*, Hanoi.
6. Prime Minister (2009), *Decision No. 1956/QĐ-TTg about the project "Occupational training for rural workers to 2020"*, November 27, 2009, Hanoi.