INFLUENCE OF THE FOURTH INDUSTRIAL REVOLUTION ON AGRICULTURAL LAND DISTRIBUTION IN VIET NAM

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Abstract

The article uses land data of ministry of natural resources and environment, productivity data of some annual main crops in Viet Nam of general statistics office in the period 2005 to 2016, rice exports quality and value data of Vietnam Food Association in the period 1991 to 2017, to evaluate the current state of agricultural land distribution in Viet Nam according to type of use, subject used and region. The research shows that the agricultural land users in Viet Nam were mainly households who used principally agricultural production land. Agricultural land of households was small and of fragmentary scale, land use productivity is not high, rice land area appropriated a significant proportion. Besides, the article evaluates the positive and negative influences of the fourth industrial revolution (industry 4.0). Besides negative influences such as reducing efficiency of agricultural land use, farmers don't exploit the whole potential of land as well as other factors, such as the difference between the rich and the poor class is considered the most critical creating manual laborers which are a large part of farmers who have lost their land due to backward technology. Thus, Viet Nam' government should have a new perspective to implement the policies of agricultural land distribution such that land users can have access to high technology in production.

Keywords: The fourth industrial revolution, distribution, agricultural land distribution

INTRODUCTION

Viet Nam is the country has area was 33123.1 thousand hectare and average population 93671.6 thousand persons in 2017. Inside, agricultural land area was 27284.9 thousand which accounted 82.37 % of the total area, employed population at 15 years of age worked in agriculture, forestry and fishing was 40.2 % (General statistics office, 2017). We can say that agricultural land distribution in Viet Nam has an extremely important role. Proper agricultural land distribution is the basis for stable livelihood for users, ensures food security, increases crop yields and improves nutrition for the poor in rural areas and reduces social instability (Pamela Rodney, 2007). Besides, agriland distribution has impact on other aspects like economy, politics and society because it is the factor that decides economic efficiency of land use and is related to social justice (Lorenzo Cotula, 2006). According to Patrik Sundqvist, Lisa Andersson (2006) how agricultural land distribution takes form of agriland area size is based on fragmentation or accumulation, concentration. In Viet Nam, the state owns the land. Households and organizations own land use rights (Parliament, 2013), the policies of Viet Nam' government has been geared towards the use of land in general and agricultural land in particular. This has been clearly shown in Land Law No. 45/2013/QH11, No.13/2003/QH, No. 324/1993/QH9, No. 3-LCT/HĐNN8 of Parliament, Viet Nam. Fair land distribution policies will lead to fragmentation. Although, policymakers has often pointed to the limitations of fragmentation but they have not agreed that fragmentation is a negative phenomenon (Patrik Sundqvist and Lisa Andersson, 2006). However, small-scale farming and fragmentation of land are barriers to the land accumulation and development of large commodity production. Especially with Viet Nam, main agricultural production is done in the traditional way since the fourth industrial revolution (Industry 4.0). Besides, positive influences it also has negative influences. If Viet Nam doesn't access to new technology, it will lead to the risk of lagging, increasing the gap between rich and poor.

Based on the analysis of the current status of agricultural land distribution in Viet Nam according to a type of use, the subject user and region, this article evaluates the influences of the fourth industrial revolution to agricultural land distribution in this country. Thence, the research suggests some solutions to improve the efficiency of agriland use.

REVIEW OF THE LITERATURE

Distribution defined

The distribution of land is the balanced allocation of resources. A good distribution is a sufficient, effective and equitable distribution. In particular, the level of inequality at the limits is acceptable (Herman E. Daly, 1992) or according to Paul A. Samuelson and William D.

Nordhaus (2010) distribution is a way of dividing output, wealth, income for individuals or factors of production (labor, capital, land). We can understand distribution is a way of dividing resources for individual or organizations in society in a balanced way from which to form the results or status quo of distribution. A good distribution is a distribution that is effective and individuals in society feel acceptable.

Agricultural land distribution defined

Agricultural land distribution is the process of completing a change of agricultural land structure within a system which includes the allocation of agricultural land, land use rights, land use, agricultural land size, agricultural land management, local distribution area (Harriet Kasidi Mugera, 2015 and Huaizhou SHI, 2014). It is the result of a series of steps to establish the structure of agricultural land by users, the purposes of users (the type of use) and the economic areas (Ulle Endriss, 2006).

It can say that agricultural land distribution is a state, is the status quo of a division of agricultural land area by the purposes of users, the users, region. In this sense, the expression 'agricultural land distribution' is a structural condition of agricultural land (by the purposes of users, users, region) or it is a process of adjustment, redistribution of agricultural land or changes in the status of an agricultural land structure.

The fourth industrial revolution

The world went through three industrial revolutions. Today, the fourth revolution is continuing with digital, biological technology and physics (Giovanni Caccavello, 2017).

According to Gartner and Klaus Schwab, we can understand the fourth industrial revolution (industry 4.0) connects intelligent production systems to the digital convergence between industry, business, functions, and production cycle, or 'industry 4.0' is a term that consists of a series of modern automatic technology, data exchange trends, manufacturing industry and intelligent production (Klaus Schwab, 2016).

Vietnam is approaching the agriculture 4.0 model with hi-tech agriculture projects implemented. Hi-tech agriculture is a modern farming method that reduces the cost of inputs and increases the value of agricultural products while making them safe and environmentally-friendly (Luu Tien Dung &Nguyen Thi Kim Hiep, 2017).

Luu Tien Dung &Nguyen Thi Kim Hiep (2017) show that agriculture also developed five stages in the development process:

(i) Agriculture 1.0 appeared as a labor-intensive system of agriculture with low productivity;

(ii) Agriculture 2.0 widely remembered as the Green Revolution and agronomic management practices like supplemental nitrogen and new tools like synthetic pesticides, fertilizers and more

efficient specialized machines allowed to take advantage of relatively cheap inputs, thus dramatically increasing yield potential and growing returns to scale at all levels;

(iii) Agriculture 3.0, its focus was moved from pure efficiency in terms of cutting costs to profitability which can be seen as objectively and creatively seeking ways to lower costs and enhance the quality or develop differentiated products;

(iv) Agriculture 4.0 means that information in digital form exists for all farm sectors and processes; communication with external partners such as suppliers and end customers is likewise carried out electronically; and data transmission, processing, and analysis are automated. Agriculture 4.0 paves the way for the next evolution, including the present operation without direct human and system-based devices that can make decisions automatically.

(v) Agriculture 5.0 will be based on robotics and (some form of) artificial intelligence.

Industry 4.0 has influenced positive influences: Firstly, Inputs are cheap. Secondly, the transition to more sophisticated high-tech manufacturing system will create the division of labor, increase labor value, reduce rapidly the weekly hours of work. And thirdly, land will become less important. Fourthly, in creating genetically modified foods. Besides, industry 4.0 has negative impacts such as increased unemployment due to hybrid saving technologies will reduce the demand for labor and workers who do not catch up with technology. This poses a risk of lagging for countries which have large numbers of workers but the quality of labor is poor.

METHODOLOGY

The article uses land data of ministry of natural resources and environment, productivity data of some annual main trees in Viet Nam of general statistics office in the period 2005 to 2016. Rice exports quantity and value of Vietnam Food Association in the period 1991 to 2017. Besides, we use descriptive statistic method: relative numbers, absolute numbers, average numbers, time series, total factors productivity in the analysis of the current status of agricultural land distribution in Viet Nam according to type of use, subject used and region, evaluating the influences of the fourth industrial revolution to agricultural land distribution in this country.

RESULTS AND DISCUSSION

Status of agricultural land distribution in Viet Nam

Viet Nam is the country which has agricultural land area accounts for a significant proportion. It can be said that this land area was constantly increasing in the period from 2005 to 2016. In 2005, this land area accounts for 75%. In 2011, it accounts for 79.35% and in 2016, it accounts for 79.36% (Figure 1).

Figure 1. Total land area and agricutural land
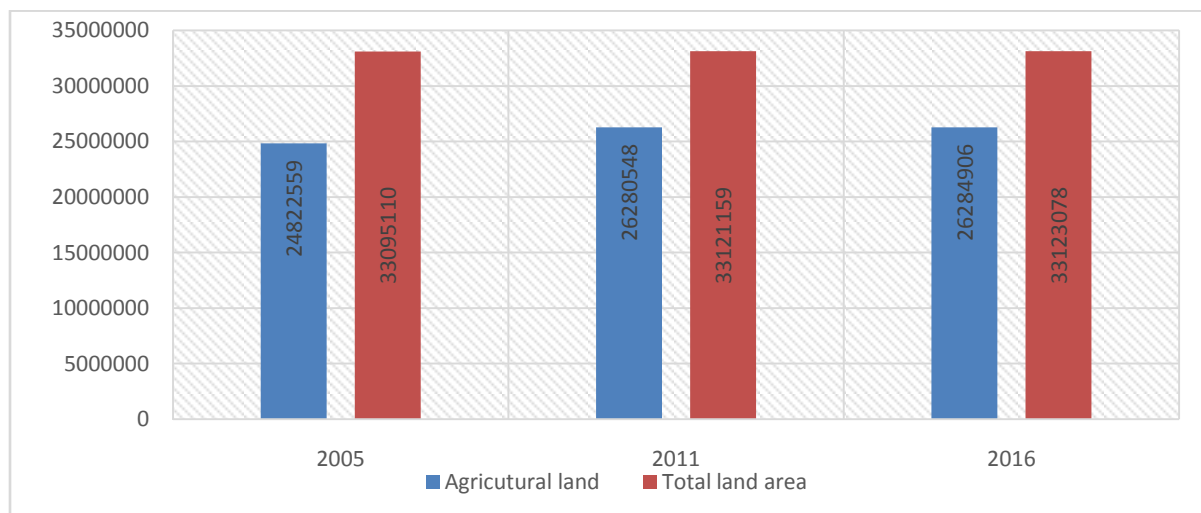
The land is an indispensable resource in agricultural production. Therefore, the distribution of agricultural land is a matter of concern.

Through the results of agricultural land, the distribution shows that agricultural land in Viet Nam has been distributing by users, the purposes of users (type of use) and the economic areas. In the period from 2005 to 2016, agricultural land distributed by type of use show that forestry land was largest and accounted more than 50 percent of the total agricultural land, this land area tended to decrease over the years. Land for salt production was at least. Agricultural production land was second. This land area tended to increase from 2005 to 2016. It accounted about almost 40% in this period.

Table 1. Agricultural land distribution according to type of use from 2005 to 2016

	2005		2011		2016	
	Area (hectare)	Rate (%)	Area (hectare)	Rate (%)	Area (hectare)	Rate (%)
Total agricultural land	**24822559**	**100.00**	**26280548**	**100.00**	**26284906**	**100.00**
Agricultural production land	9415568	37.93	10151055	38.63	11526798	43.85
Forestry land	14677409	59.13	15373063	58.50	14908427	56.72
Water surface land for fishing	700061	2.82	712003	2.71	797295	3.03
Land for salt production	14075	0.06	17895	0.07	17594	0.07
Others	15447	0.06	26532	0.10	34792	0.13

Agricultural production land increased because a part of forestry land and unused land transferred this land. It used mainly by households who produce agriculture (Table 1).

Agricultural land can be divided according to region. Different regions have different areas. In Viet Nam, this land distributes six regions. They are northern midlands and mountain areas, red river delta, north central and central coastal areas, central highlands, south east and Mekong river delta.

Table 2. Agricultural land distribution according to region

	2005		2011		2016	
	Area (hectare)	Rate (%)	Area (hectare)	Rate (%)	Area (hectare)	Rate (%)
Agricultural land	**24822559**	**100.00**	**27281040**	**100.00**	**27284906**	**100.00**
Northern midlands and mountain areas	6821781	27.49	7770528	29.57	7575923	27.77
Red River Delta	962557	3.88	940053	3.58	1424046	5.22
North Central and central coastal areas	6960831	28.05	7440894	28.31	8045836	29.49
Central Highlands	4672837	18.83	4824106	18.36	4925733	18.05
South East	1960224	7.90	1901353	7.23	1903863	6.98
Mekong River Delta	3444331	13.88	3403615	12.95	3409506	12.50

Source: Ministry of Natural Resources and Environment, 2012, 2017 and Prime Minister, 2007

Table 2 shows that agricultural land of the regions such as northern midlands and mountain areas, red river delta, north-central and central coastal areas, central highlands had tended to raise in the period from 2005 to 2016 but the agricultural land of southeast and Mekong river delta tended to reduce. Average area of northern midlands and mountain areas raised 5.3%, average area of Red River Delta increased 21.63%, average area of north-central and central coastal areas raised 7.51%, average area of Central Highlands increased 2.67%, average area of southeast reduced 1.45%, average area of Mekong river delta decreased 0,5%. Causes of rising and fall in the regions are due to the policies of these regions, land use practices, and the culture of regions are not the same.

Besides, agricultural land distribution by type of use and region, agriland has also been distributed by subject used. Table 3 shows that Land was allocated for users accounted for a significantly proportion in the period from 2005 to 2016. This area has been increasing. In 2005, it was 21275314 hectare and accounted for 85.71%. In 2011, it was 22913094 hectare and

accounted for 87.19%. In 2016, it was 24480887 hectare and accounted for 89.72%. Average increase was 32%. This land area is used by households.

Table 3. Agriland distribution according to subject used

|	2005		2011		2016	
	Area (hectare)	Rate (%)	Area (hectare)	Rate (%)	Area (hectare)	Rate (%)
Total agricultural land	**24822559**	**100.00**	**26280548**	**100.00**	**27284906**	**100.00**
Land was allocated for users	21275314	85.71	22913094	87.19	24480887	89.72
Agricultural land was allocated for Household	12430336	58.43	14148052	61.75	15022297	61.36
Land was allocated for managers	3547245	14.29	3367454	12.8	2804019	10.28

Source: Ministry of Natural Resources and Environment, 2012, 2017 and Prime Minister, 2007

Agricultural land was allocated for Household appropriated about 60% in the period 2005 to 2016. This land tended to raise. The increase was due to the Vietnamese government's policies to ensure equity in distribution, people have land to produce, ensure livelihoods for rural residents. While land allocated for users increased, the land allocated for managers decreased. In Viet Nam, although forestry land occupies the largest percentage and natural forest land accounts for a significant proportion. In 2016, this land was 10242.1 thousand hectare and appropriated nearly 70%. Agricultural land is mainly used by households. The households use agricultural production land to ensure livelihoods. Also, these households use the land to plant annual crops. This land accounted for 60.63%

In order to see the efficiency of the status quo of agricultural land distribution the research uses productivity index of some annual crops like rice, corn, sugarcane, cotton, peanut and soybean.

Although Viet Nam was the third rice exporter in the world after India and Thailand in 2017, only in the first eight months of 2018, Viet Nam exported over 4.89 million tons of rice. With the worth of export about 2.46 billion USD. This raised 6.7% in volume and 21.3% in value of the same period last year (Nguyen Hoan, 2018). However, according to table 4, the yield of rice in Viet Nam tended to increase slowly in the period 2005 to 2016.

Figure 2. Viet Nam's rice exports quantity
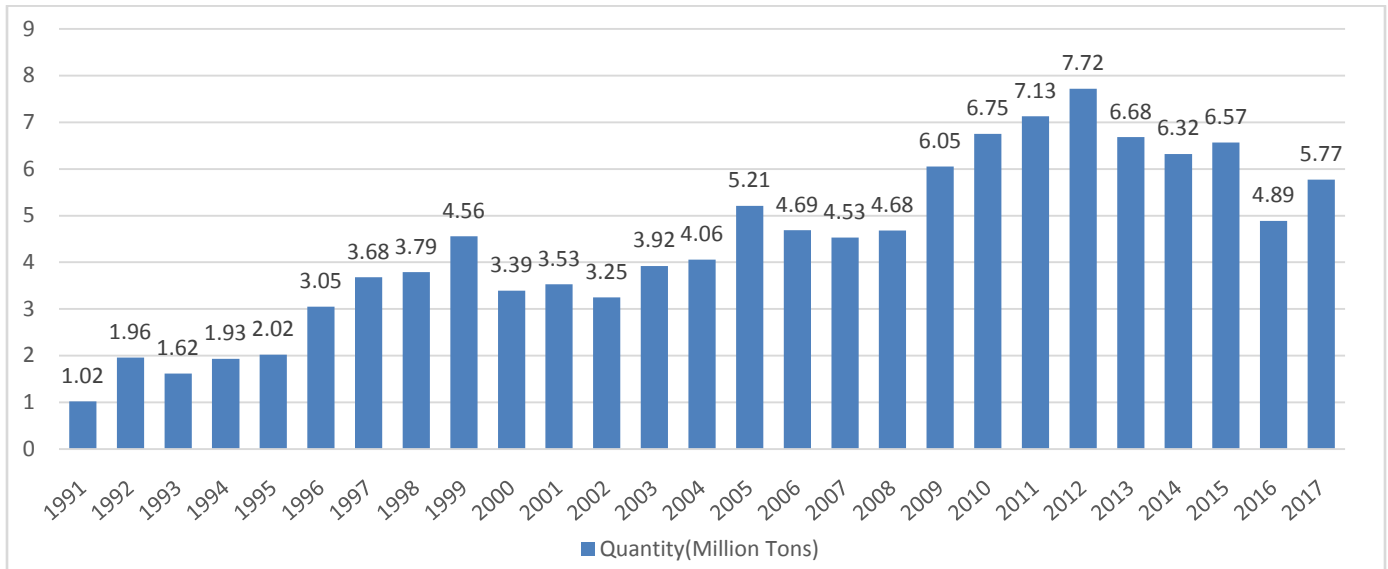
Source: Vietnam Food Association

Figure 3. Viet Nam's rice export value
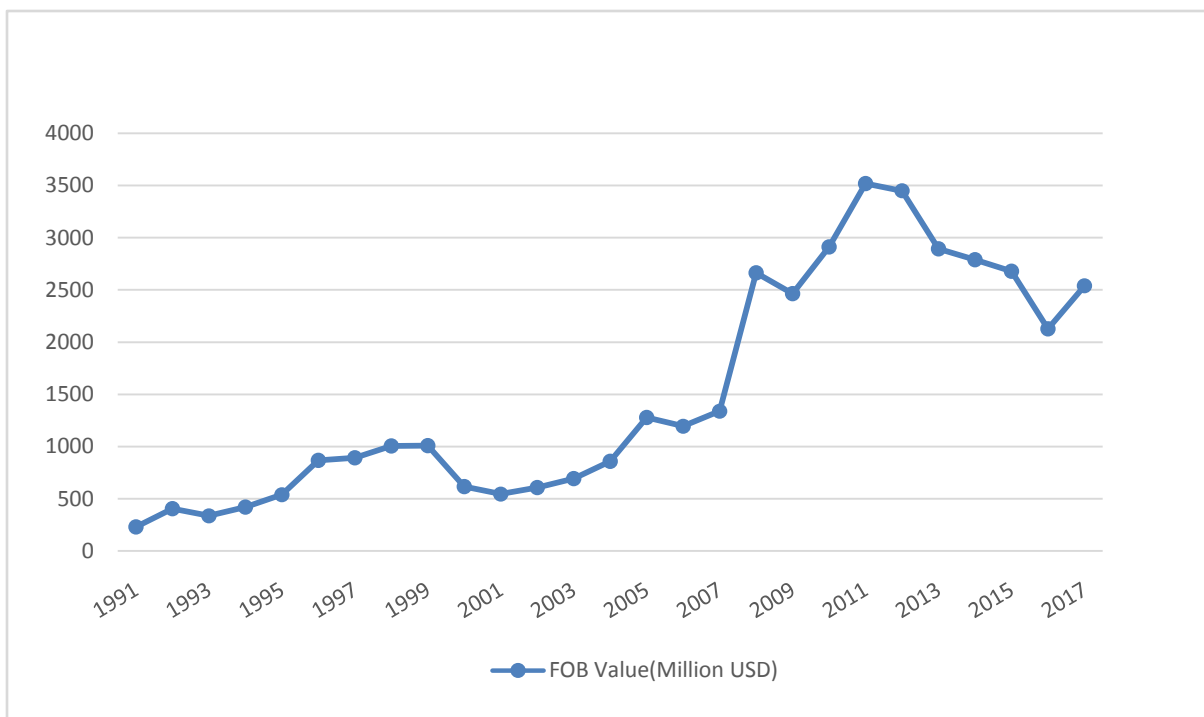
Source: Vietnam Food Association

Rice productivity reduced in 2013 and 2016. One of the reasons leading to reduction is Viet Nam's rice exports quality. Thence, it leads to decreasing rice exports value. This is described in figure 2, figure 3. Although rice land in Viet Nam tended to increase. In 2011, this land was

4092828 hectare in 2016, this land was 4136470 hectare. Rice land in 2016 compared to 2011 increased by 1.07%. In 2016, rice land occupied 59,19 % annual crops land. The productivity of corn, sugarcane, peanut, soybean augmented, additionally cotton productivity decreased in the period 2005 to 2016.

The research results show that the productivity of the annual crops is unmatched by the potential of agricultural land in Viet Nam.

Table 4. Productivity of some annual crops

Annual crops	Target	Unit	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Rice	Productivity	quintal/ hectare	48.9	48.9	49.9	52.3	52.4	53.4	55.4	56.4	55.7	57.5	57.6	55.8
	Development index	%	100.7	100.0	102.0	104.8	100.2	101.9	103.7	101.8	98.8	103.2	100.2	96.9
Corn	Productivity	quintal/ hectare	36.0	37.3	39.3	40.1	40.1	41.1	43.1	43.0	44.4	44.1	44.8	45.5
	Development index	%	101.7	103.6	105.4	102.0	100.0	102.5	104.9	99.8	103.3	99.3	101.6	101.6
Sugar-cane	Productivity	quintal/ hectare	561.3	580.3	592.9	596.4	587.7	600.6	621.5	629.9	648.5	649.9	645.2	643.2
	Development index	%	102.7	103.4	102.2	100.6	98.5	102.2	103.5	101.4	103.0	100.2	99.3	99.7
Cotton	Productivity	quintal/ hectare	13.0	13.7	13.3	13.8	12.6	13.7	12.9	12.8	10.7	10.4	10.8	12.0
	Development index	%	103.7	105.4	97.1	103.8	91.3	108.7	94.2	99.2	83.6	97.2	103.8	111.1
Peanut	Productivity	quintal/ hectare	18.1	18.7	20.0	20.8	20.9	21.1	20.9	21.4	22.7	21.7	22.7	23.1
	Development index	%	104.7	103.3	107.0	104.0	100.5	101.0	99.1	102.4	106.1	95.6	104.6	101.8
Soy-bean	Productivity	quintal/ hectare	14.3	13.9	14.7	13.9	14.6	15.1	14.7	14.5	14.4	14.3	14.5	16.1
	Development index	%	105.7	97.2	105.8	94.6	105.0	103.4	97.4	98.6	99.3	99.3	101.4	111.0

Source: General Statistic Office of Viet Nam from 2005 to 2016

In order to evaluate the effectiveness of land use, we look into adding total factor productivity. According to Ludena (2010), surplus land countries are more than countries with limited land. Total factor productivity (TFP) of labor, land, machinery, livestock, fertilizer, feed in table 5 trended to reduce in stages 2011- 2010, 2011-2014, 2005-2014 compared with 1991-2000 stage.

Table 5. Total factor productivity

Stage	1991-2000	2011-2010	2011-2014	2005- 2014
TFP (%)	24.85	23.66	23.99	24.62

Source: OECD, According to Keith Fuglie and Rada, 2017

Based on the current status of agricultural land distribution in Viet Nam, we can say that agriland tended to raise, different regions had different agricultural land. There is a change in the type of land use. Agricultural land is used primarily by households where agricultural land size is small and has fragmentation. The average agricultural household area was about 0.46 ha and an average was divided 2.83 sections in 2017. Land size of Vietnamese farmer households is lower than China's land size and much lower than other Asian countries' land size (Tran Ngoc, 2017). Although the area of agricultural land has increased, productivity tends to fluctuate. This shows that land use efficiency is not commensurate with its potential. The factors used in the production process are not high. Especially, when the fourth industrial revolution has started, agriland distribution becomes more and more important. The application of science and technology in production is crucial. So how does industry 4.0 influence agricultural land distribution?

Influencing the fourth industrial revolution to agricultural land distribution
Industry 4.0 not only has positive influences but also negative influences on agriland distribution.
Positive influences
Viet Nam is the country which specializes in agricultural production. Therefore, agricultural production is Viet Nam's potential. When industry 4.0 has happened it has positive influences:
It helps to create inputs which are cheap.
The transition to more sophisticated high-tech manufacturing system will create the diversion of labor, increase labor value, reduce rapidly in weekly hours of work. Using high-tech agriculture with high productivity and efficiency. Thus, it creates conditions for efficient land use.

Implying a transformation of the production infrastructures: connected farms, new production equipment, connected tractors, and machines. From there, agricultural land is distributed on a concentrated and accumulative scale. The land will become less important.

Besides, it also makes modifications in value chain, creating genetically modified foods This chain has become more sustainable. This helps farmers to stabilize production. Thence, agricultural land distribution is adequate and reasonable, land resource is used optimally.

The digitalization of agriculture is based on the development and introduction of new tools and machines in production. Which will exploit the potential of agricultural land.

Negative influences

Industry 4.0 also negative influences on agricultural land distribution in Viet Nam.

The development of Agriculture 4.0 requires technological standards to ensure the compatibility of equipment. When agricultural land is used by peasants who produce following ways of tradition with small and fragmentation scale and backward technology, they will be forced to have to buy their land use right for people who are wealthy because the ability of farmers to invest and to modernize their practices of production is limited. Agricultural land will concentrate more but it drops in a hand of people who haven't done agriculture. This will reduce the efficiency of agriland use.

Another important transformation in the agricultural production process is the rising role of automation that increases productivity by reducing the need for the human workforce. Increased unemployment due to hybrid saving technologies will reduce the demand for labor and workers who do not catch up with technology will not be used. This poses a risk of lagging for Viet Nam which has large numbers of workers but the quality of labor is poor. Especially, in Viet Nam the greatest part of the population is peasants.

Finally, the adoption of the IoT (Internet of Things) in agriculture is the development of communication infrastructures in rural areas. Farmers of Viet Nam haven't accessed information technology, hence, weakly connecting with a market. Products consumed in the market are limited. This problem leads to restricting the development of large-scale goods production. Farmers don't exploit the whole potential of land as well as other factors.

All of the negative influences of industry 4.0 that are stated above show that if Viet Nam's agriculture doesn't catch up with high-tech agriculture, Viet Nam will lag behind economically. Hence, Viet Nam's government should have policies of agriculture land distribution such as planning of specialized areas, encouraging households to integrate agricultural land in order to develop large-scale goods production, expanding market information channels of agricultural production by helping farmers access information technology,

production support. Farmers should adopt new technologies, develop plant production with a strength of regions.

CONCLUSION

Different regions in Viet Nam distribute different agricultural land, agricultural production land and forestry land accounts for a significant proportion. Although forestry land is largest it is mainly natural forestry. In agricultural production land, rice land appropriates nearly 60%. This land is used by a majority of households. When industry 4.0 has happened, it has not only positive influences but also negative influences such as reducing efficiency of agriland use.

The main factors are that the farmers don't exploit the whole potential of land as well as other factors, the difference between the rich and the poor class, agricultural land will concentrate more but it drops in a hand of people who haven't done agriculture. Thus, Viet Nam' government should have a new perspective to implement the policies of agricultural land distribution such that land users can access high technology in production. This research can be further expanded by including other factors such as influence on the fourth industrial revolution to income and livelihood of rural people.

REFERENCES

General statistics office, 2017. Statistical Yearbook of Viet Nam. Statistical publisher, Ha Noi, Viet Nam

Giovanni Caccavello (2017).The fourth industrial revolution and its impact on labour, (translated bt Malika Bamaarouf). Eonopoly – II sole 24 Ore.

Harriet Mugera, Panagiotis Karfakis (2015). Land Distribution and Economic Development: Small Scale Agriculture in Developing Countries. Journal of Management Studies, Vol 3(No. 5-6). pp 138-153.

Herman E. Daly (1992). Allocation, distribution, and scale: towards an economics that is efficient, just, and sustainable, Ecologicd Econorrzics 6 (1992). (185-193) Elsevier Science Publishers B.V. Amsterdam

Huaizhou SHI (2014). Fairness and Resource Allocation in Device-to-Device Wireless Regional Area Network. Geboren te Shanxi, China. Pp 61- 106.

Klaus Schwab (2016). The Fourth Industrial Revolution: What it means, how to respond. World Economic Forum. https://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond/

Luu Tien Dung &Nguyen Thi Kim Hiep, 2017. The revolution of agriculture 4.0 and sustainable agriculture development in Viet Nam. International conference proceedings emerging issues in economics and business in the context of international integration. National Economics University, Ha Noi, Viet Nam. pp 317- 328.

Lorenzo Cotula (2006). Better land access for the rural poor. Lessons from experience and challenges ahead. IIED, FAO. pp 8- 13.

Ministry of Natural Resources and Environment, 2012. Decision No. 1482/QĐ- BTNMT about approving and publishing the results of land area statistics in 2011 promulgated 9, September, 2012. Ha Noi, Viet Nam.

Ministry of Natural Resources and Environment, 2017. Decision No. 2311/QĐ- BTNMT about approving and publishing the results of land area statistics in 2016 promulgated 28, September, 2017. Ha Noi, Viet Nam.

Ministry of Planning and Investment of Viet Nam (2016). Impact of the fourth industrial revolution on socio- economic. Central Economic Committee. https://kinhtetrunguong.vn/web/guest/nghien-cuu-trao-doi/-/view_content/content/781230/tac-đong-cua-cuoc-cach-mang-cong-nghiep-lan-thu-tu-đen-kinh-te-xa-hoi-viet

Nguyen Hoan, 2018. Viet Nam rice export ranked third in the world. https://baomoi.com/xuat-khau-gao-viet-nam-dung-thu-3-the-gioi/c/28111037.epi.

Pamela Rodney (2007). A study land distribution in Guyana: assessment of existing practices. Guyana. pp 4- 10 http://parliament.gov.gy/documents/acts/3819-ethnic_reltions_commission_report_on_the_study_of_land_distribution_in_guyana.pdf

Patrik Sundqvist, Lisa Andersson (2006). Thesis: A study of the impacts of land fragmentation on agricultural productivity in Northern Vietnam. Department of economics. Uppsala University. pp 3-5.

Parliament, 2013. Land Law No. 45/2013/QH11 29, November, 2013. Ha Noi, Viet Nam

Parliament, 2003. No.13/2003/QH1 26, November, 2003. Ha Noi, Viet Nam.

Parliament, 1993. No. 324/1993/QH9 14, July, 1993. Ha Noi, Viet Nam.

Parliament, 1987. No. 3-LCT/HĐNN8 29, December, 1987. Ha Noi, Viet Nam.

Prime Minitser, 2007. Decision No. 272/QĐ- Ttg about approving and publishing the results of land area statistics in 2005 promulgated 27, February, 2007. Ha Noi, Viet Nam.

Paul A. Samuelson and William D. Nordhaus (2010). Economics, 19th ed. The McGraw-Hill Companies. pp. 227-283

Tran Ngoc, 2017. Fragmentary land- Discourage long-term investment in agriculture. VOV.VN. https://vov.vn/kinh-te/dat-dai-manh-mun-luc-can-dau-tu-dai-han-vao-nong-nghiep-613756.vov.

Ulle Endriss (2006). Efficiency and Fairness in Distributed Resource Allocation. Institute for Logic, Language and Computation University of Amsterdam. https://www.math.uni-hamburg.de/home/loewe/2006-07-I/Endriss.pdf.