

RICE PRODUCTION IN VIETNAM: REMARKABLE SUCCESS BUT FARMERS' LOW INCOME

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Summary

After implementing “Reform” (Doi Moi) process from 1986 rice industry in Vietnam has developed continuously and obtained some remarkable results. Vietnam became a top producer in the world. Vietnam produces about 29 million tons milled rice every year, in which 22 million tons milled rice is consumed in the domestic and about 7 million tons milled rice is for export. With over 60% of total population in Vietnam is living on rice production and so the development of rice industry created many works in the countryside, declined poverty and stabilized the economy, politics and society, etc. In addition, rice production has also inadequacies and limitations such as the low selling price and profit of farmers. This paper will concretely analyse the current situation of rice production in Vietnam to solve these obstacles.

Key words: *Rice production, Farmers, Profit, Stakeholders, Vietnam*

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Introduction

Vietnam has advantages in rice production such as appropriately natural conditions, 2 big alluvial deltas and 80% of farmers has experience in rice production (United Nations Environment Programme, 2005) and therefore, rice has an important role in agricultural production and food consumption in Vietnam. It is the country's main crop, consumed by nearly 90 million of the total population and an important source of income with about 44-51 percent of rural household revenue (United Nations Environment Programme, 2005) for more than 60 million people living in agricultural and rural areas (Le Trong Hai, 2012). According to FAO, Vietnam is the 5th largest rice producer in the world. The area of rice production in Vietnam was 7,816,000 ha, accounted for 40% of total land of agricultural production (GSO, 2014). Vietnam produced 44,974,000 tons paddy, occupied 4.74% of total amount of rice in the world (FAOSTAT, 2014).

But, there are obstacles in rice production in Vietnam what is negatively affecting on farmers' income. This paper will describe the rice production system in Viet Nam.

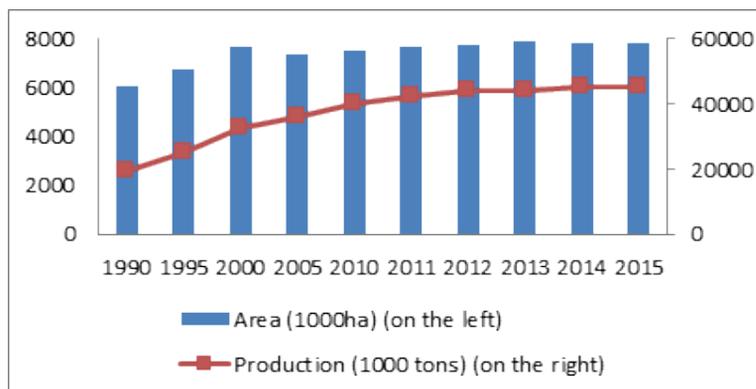
Material and methods

We collected the secondary datas from reliable sources such as General Statistic Office of Vietnam (GSO), FAOSTAT.

Results

Rice production in Vietnam

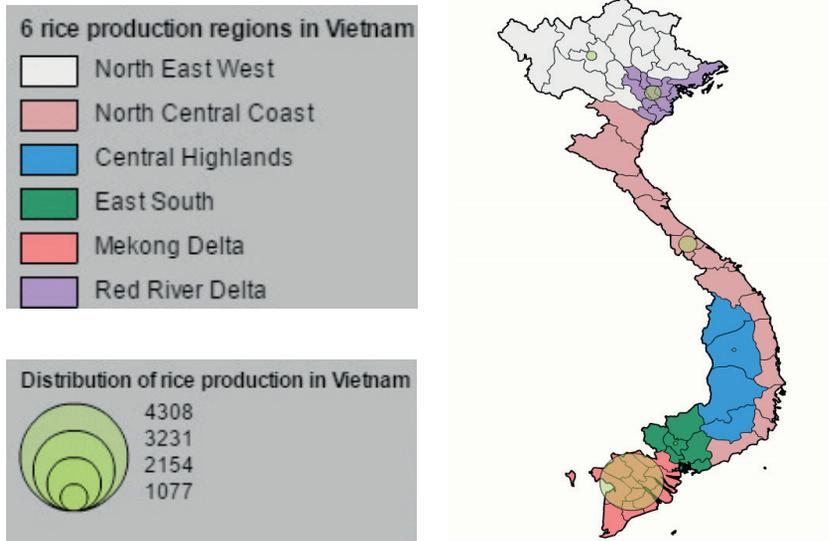
After Doi Moi process ("Reform") in 1986, rice industry of Vietnam has developed quickly and sustainably. This result achieved due to the increase of rice land, intensive production of farmers to raise rice yield, the application of advanced science and technology such as the introduction of different rice varieties, new production models, an efficient irrigation system and postharvest losses have also been greatly reduced due to the mechanization of rice harvesting and drying (Le Trong Hai, 2012). Rice production in Vietnam increased by 135% from 1990 to 2015 (19,225,000 tons to 45,215,000 tons) (chart 1). In this period, the area of rice production increased averagely by 1.18%/year, meanwhile the output of rice grew up by 5.4%/year.



1. chart: Paddy production area and output in Vietnam (1990–2015)

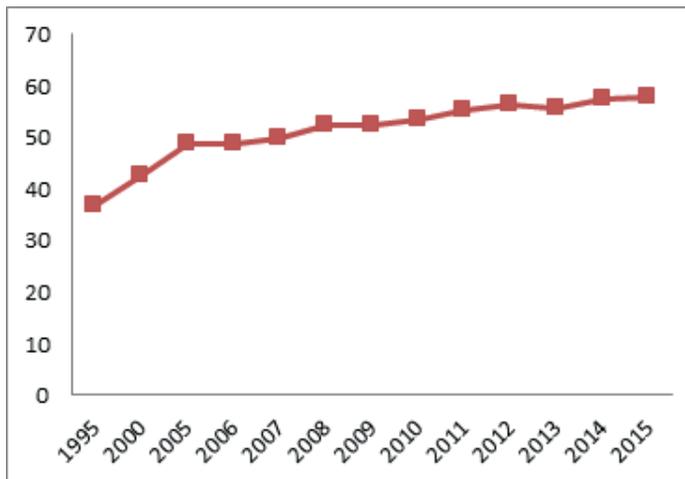
Source: GSO, 2016

Rice is grown in all provinces in Vietnam, but the most important region of rice production is Mekong delta (accounts for 55% of total area of rice production in Vietnam), followed by North Central Coast (16% of total area of rice production) and Red River delta (14%) (Map 1)



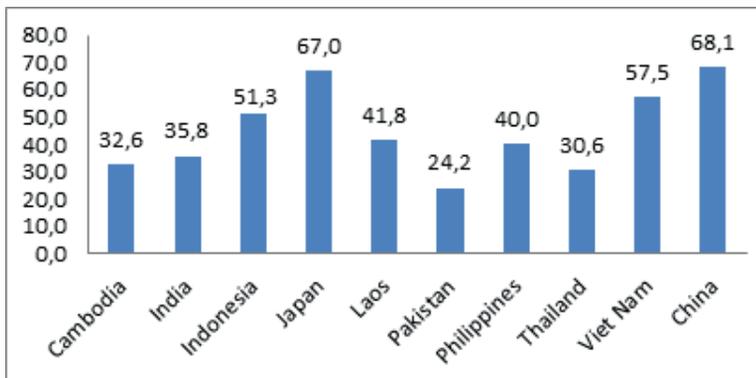
1. map: Distribution of rice production by region in Vietnam (2015)

According to GSO, 2016 and Nguyen Duc Thanh and Dinh Tuan Minh (2015), the average rice yield of Vietnam increased from 3.2 tons/ha in 1990 to 5.77 tons/ha in 2015. The recent yield in Vietnam is higher so much compared to Thailand, India and Pakistan (Chart 3).



2. chart: Yield of rice production in Vietnam (1995–2015)

Source: GSO, 2016 and Nguyen Duc Thanh; Dinh Tuan Minh, 2015

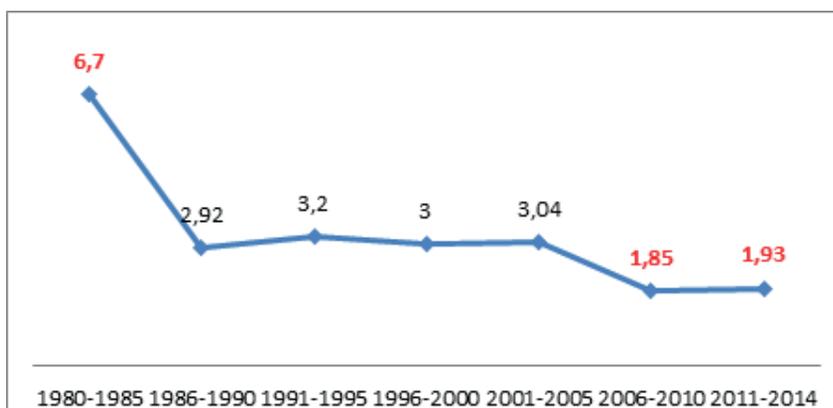


3. chart: Yield of rice in some countries in 2014 (quintal/ha)

Source: FAOSTAT, 2016

However, from chart 4 we can see that the rate of rice yield increase in Vietnam has a down trend and it is very hard to increase the rice yield in the future. Before 2005 the rate of rice yield increase was over 3%/year but now it

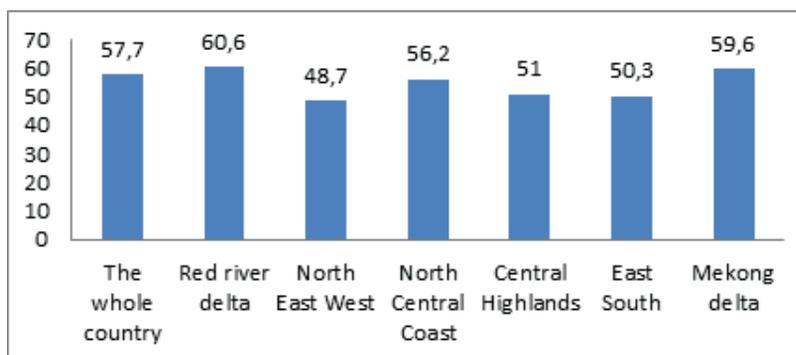
is under 2%/year. We can say that Vietnam is hard to increase rice output because almost of rice land has exploited and the rice yield touched upper limit.



4. chart: Rate of rice yield increase in Vietnam (%/year)

Source: FAOSTAT, 2016

The rice yields in Red Rive Delta and Mekong Delta are highest in Vietnam because these 2 regions have advantages on natural condition to grow rice and farmers have a lot of experiences in rice production. The average yield of rice in Vietnam is 57.7 quintal/ha, in which the rice yields in Red River Delta and Mekong Delta are 59.6 and 60.6 quintal/ha, respectively. The lowest yield of rice in Vietnam is in North East West because this is a mountain region.

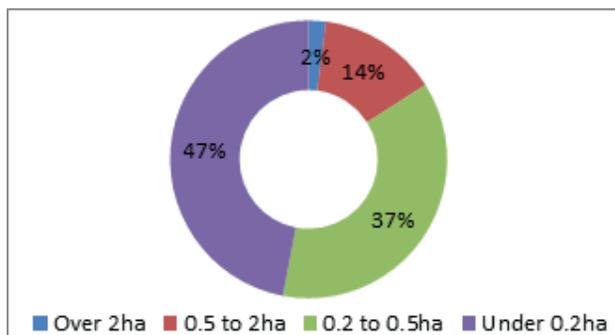


5. chart: Yield of rice by region in Vietnam in 2015 (quintal/ha)

Source: GSO, 2016

Therefore it is said that from 1980s to now the rice industry in Vietnam has developed according to an orientation of rice output increase. The rice production in Vietnam increased from 19.23 million tons paddy in 1990 to 32.53 million tons paddy in 2000 and to 45.22 million tons paddy in 2015. In 1990s the rice production increased due to the increase of rice production area, from 6,042,800 ha in 1990 to 7,666,300 ha in 2000 and from 2000 to now the rice production increased based on the increase of rice yield, the area of rice production didn't change so much (7,834,900 ha in 2015).

Another remarkable characteristic in rice production in Vietnam is that it is carried out by a large number of rice farmers who have tiny and fragmented farms, low mechanization and limited capital to invest (Tran Cong Thang, Do Lien Huong and Le Nguyet Minh, 2013). According to the study of Nguyen Duc Thanh and Dinh Tuan Minh (2015), the average area of rice production per farmer household was 0.44ha and about 47% of farmer households cross the country has less 0.2 ha for rice production. This ratio in Red River Delta is 63% and 8% in Mekong Delta.



6. chart: Percentage of rice households by farm size

Source: Tran Cong Thang et al, 2013

Farmers' profits in rice production

Some researches showed that the income of farmers in Vietnam from rice production is low because rice production field is small-scale production and the selling price is low. Rice farmers' income from rice production in Vietnam is 419 USD/ha, equivalent to 37.1% of Thailand farmers, 65.0% of Phillipine farmers and 42.2% of Indonesian farmers (Nguyen Van Bo, 2016).

According to Agriculture and Rural Development Ministry (2014), the rice production cost in Vietnam is quite low. The cost for 1 kg rice in Mekong delta in 2014 was 0.13 USD/kg, it was 0.15 USD/kg in India, 0.2 USD/kg in Thailand, 0.24 USD/kg in China, 0.24 USD/kg in Indonesia and 0.25 USD/kg in Phillipines. But the profit of Vietnamese rice farmers per 1kg rice was only 0.06 USD/kg, meanwhile, the profit of Thailand rice farmers was 0.2 USD/kg, Indonesia was 0.14 USD/kg, China 0.24 USD/kg and 0.09USD/kg in India. This proves that the rice selling price of Vietnamese farmers is very low. Nguyen Van Bo (2016) indicated that the farmers' profit of rice production is related considerably to the selling price and so it is said that market information is more important for farmers. The selling price of paddy in Can Tho city was 4,290 VND/kg, it was 5,192 VND/kg in India, 8,404 VND in Indonesia, 8,889 VND in Thailand and 7,700 VND in Philipine in 2014 (Nguyen Van Bo, 2016).

Farmers' income from rice depends on their rice field size. A study of World Bank (WB) in 2010 mentioned that income from rice production of over 3ha rice farmer household attained 1,300,000 VNĐ/person/month, 8.6 times higher than income from rice production of under 1ha farmer household with only 151,000 VNĐ/person/month (Agriculture and Rural Development Ministry, 2014). And over 90% of total farmer households in Vietnam has rice production area of under 1 ha (Nguyen Van Bo, 2016) and so it is said that rice farmers' income in Vietnam is so low.

Farm size	Total income per Capita (VND)	Rice income per Capita (VND)	Other crop income per Capita (VND)	Animal and Aquatic income per Capita (VND)	Non-farm income per Capita (VND)
< 1ha	849	151	84	82	533
1-2ha	1165	284	72	359	449
2.01-3ha	1901	658	26	728	490
>3ha	1933	1296	10	88	540
Total	1312	535	56	209	512

1. table: Farmers' income from different sources in Mekong delta

Source: Bernhard Liese and et al, 2014

Farmers are the most disadvantage stakeholder in the rice value chain. According to Hoang Thanh Tung and Yoshiro Higano (2011), farmers' profit from rice production in Mekong delta is 300USD/year, the lowest in the rice value chain, whereas the wholesalers are the most profitable one with 52,900 USD/year because the price that farmer sell to wholesalers and other stakeholders are usually much less than those of the wholesalers sell to export companies or final consumers. Nguyen Van Bo said that rice farmers had only profit with 240 USD/year, meanwhile profit of traders were 25,000 USD, millers 48,400 USD and export companies profited 2.22 million USD/year.

	Profit (VND/kg)	Average quantity/stakeholder/year (tons)	Profit/stakeholder/year (1000 USD)
Farmers	507	8.4	0.3
Traders	39	1,700	4.0
Millers	128	4,948	38.4
Polishers	50	1,300	3.9
Transporters	120	3,528	25.6
Wholesalers	727	1,200	52.9
Retailers	632	240	9.2

2. table: Profits of stakeholders in the domestic rice value chain

Source: Hoang Thanh Tung and Yoshiro Higano, 2011

Conclusions

Vietnamese rice production attained outstanding outcomes. Rice quantity produced has increased continuously to meet the demand of the domestic and export. After 30 years of "Reform" process from a country had to import rice Vietnam has became one of 3 top exporters and kept the 5th place about rice quantity in the world. Besides, rice industry has an important role in developing the rural, creating works, increasing farmers' income, reducing the poverty in the rural area (Nguyen Dinh Luan, 2013).

In addition to the above strengths, in rice production farmers' profits and income from rice is very low because of the low selling price, tiny and fragmented farms, low mechanization and limited capital to invest.

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