

Farmers' Poverty Eradication Policies and Resolution of Developing Countries

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Abstract

The problem of farmers' poverty eradication is one of puzzles of many governments. Beside political purposes, the real subsidy of governments for farmers varies from countries to others. Their policies usually aim to enhance the live of poor farmers who are the most low income stratum in the society. The governmental policies could alleviate this social problem in short term, and most of them seem to be modestly successful and confronted serious criticism. The resolution of the socio-economic situation is still a question for many agricultural countries. This paper presents the subsidy policies of some developing countries with their success and failures; the author also introduces the experiences of solving farmers' poverty in rural areas and proposes resolutions.

Keywords: poverty eradication, subsidy, policies, rice, income, farmers, success, failures

1. Introduction

In developed or developing countries, farmers are usually ranged in low income stratum. The countries producing rice such as Thailand, Vietnam, China and India, their agriculture consists of rice, cereal, fruit, industrial plant, aquaculture, breeding... Rice farming is still considered to be the key sector of the industry. Most of the farmers with thousand years of rice farming tradition are ranked in the lowest living standards and their hunger-poverty proportion is the highest in developing countries. Actually, there are many reasons for this situation: climate, pests, productivity and quality, scale of farming, educational level, market, and government policies...Resolution for farmers' poverty isn't easy to solve, many governments issued policies to solve the problem but the results seem modest. Truthfully, they didn't find out stable solutions for the low income of farmers, especially the rice planting people. The farmer's earnings seem to be improved slowly although there was a strong development of countries' economies. According to *World Bank*, income per capita of farmers increased sluggishly despite of government's endeavor. To solve the poverty and low income of farmers, the authorities have concentrated to agriculture encouragement plans (cultivation techniques, new breed supply, and irrigation...), credit and subsidy policies, poverty reduction program; however, their efficiency showed rather modest. In nearly 34 years, agriculture value added per worker of rice planting countries increased about twice (except Japan, a developed country), (see Table 1), besides their medium GDP grew up from 4-8 times (see Table 2). This shows income state of farmers was still rather low during last three decades despites of strong development of economy and revenue improvement of industrial-service workers. For instance, Philippines is one of developing countries where farmers are classified as poorest with high proportion (see Table 3).

Table 1. Agriculture value added per worker (Constant 2005 US\$)

Year	1981	1990	2000	2010	2014
Cambodia	-	-	375	499	523
China	230	317	438	657	791
India	398	459	528	666	716
Indonesia	574	613	662	910	1079
Japan	10539	15305	25258	39284	51105
Lao PDR	-	345	432	483	522
Malaysia	3493	4812	5485	8398	10124
Philippines	901	826	882	1081	1148
Thailand	521	580	759	977	1133
Vietnam	-	266	353	446	489

Source: World Bank (2016)

Table 2. GDP per capita (Current US\$)

Year	1981	1990	2000	2010	2014
Cambodia	-	-	299.6	782.7	1094.6
China	195.6	316.2	954.6	4514.9	7590
India	-	375	452.4	1387.9	1581.5
Indonesia	612.5	630.7	780.1	3125.2	3491.9
Japan	10212.4	25123	37299	42909	36194.4
Lao PDR	-	203.8	324	1147.1	1793.5
Malaysia	1763	2417	4004	9069	11307
Philippines	731	715.3	1039	2145	2872
Thailand	720.9	1508.3	2016	5112	5977
Vietnam	-	-	433	1333.6	2052

Source: World Bank (2016)

Table 3. Distribution of Poor and Non-poor Households by Occupation of Philippines Households Head

Occupation	Frequency			Percentage		
	Poor	Non-poor	Total	Poor	Non-poor	Total
Farmers, forestry workers	2,079,936	2,460,602	4,540,538	45.92	19.32	26.30
Laborers and unskilled workers	1,108,409	1,721,032	2,829,441	24.47	13.51	16.39
Trades and related workers	359,923	1,215,491	1,575,413	7.95	9.54	9.12
Plants, machine operators and assemblers	237,360	1,289,811	1,527,171	5.24	10.13	8.85
Managers, government officials, supervisors, executives	164,466	1,732,923	1,879,389	3.63	13.61	10.99
Service workers, shop/ market sales workers	114,478	730,927	845,404	2.53	5.74	4.90
Technicians	38,592	325,892	364,484	0.85	2.56	2.11
Clerks	32,012	333,058	365,070	0.71	2.62	2.11
Professionals	2,575	371,116	373,691	0.06	2.91	2.16
Special occupations	10,273	81,463	91,736	0.23	0.64	0.53
Not applicable/ no job	381,564	2,473,194	2,854,757	8.42	19.42	16.53
Total	4,529,587	12,735,507	17,265,094	100	100	100

Source: Philippines National Statistics Office (2016)

In such situation, economists tried to analyze the causes of farmers' poverty and aimed to find out resolutions. In India, where rice cultivators are the essential of farmers, Puja Mondal (2015) presented three main reasons of poverty. First, there's the climatic factor, such as frequent floods, earthquakes, cyclones that cause heavy damage to agriculture; besides, excessive or deficient rain affect severely agricultural production. Second, there's the demography of a developing country, which is a rapid population growth in that case, and the big size of families that lower the income per capita. Third, it consists of economic problems; Puja Mondal (2015) showed that a low agricultural productivity, an unequal distribution of resources, a failure of village industries, an immobility of labor and a lack of employment opportunities in countryside are barriers to the prosperity of the economy. The other reasons relate to personal shortcomings (motivation lacking, idleness) and social problems (low education, caste system, joint family system, social customs, and growing indebtedness). Elizabeth Francis (2006) said that the poverty in rural South Africa comes from the mistakes of politic and economic policies. In the report of poverty of the Philippines, ADB (2009) determined that the majority of the poor folk are farmers who live in countryside; one of the main reasons is the failure to fully develop the agriculture sector and the bad governmental policy. In the other hand, unfairness in international market induces a declination of agricultural product price, hence the situation of poverty becomes worse off than it was twenty years ago (Oxfam, 2009). In China, an analysis of farmer household reveals that the dense population, the lack of education, knowledge of science- technology of farming, and information are some poverty sources (Xinyu Hu and Yunjin Tan, 2013).

The farmers' poverty can't be the same throughout the countries, but there is a similarity, which is that the rice planting cultivators are arranged as the poorest of all of the poverty farmers. Researchers proposed many resolutions to solve this situation. Tazoacha Francis (2001), presented that in Africa, the education and the vocational training can help poor people to change their life. Oxfam (2004) proposed many resolutions for poor farmers, these relate to the policies of trade and agriculture. Their six objectives consist of promoting food and income securities by using border measures; ending export dumping; opening market access for developing countries; promoting sustainable rural sector in environment and social equity; ensuring sustainable practices in the agri-business sector and guarantee fair and stable price for agriculture primary commodities. In South Africa, Elizabeth Francis (2006) revealed that government have to revise their ineffective policies so that the poor people could be integrated to the governmental poverty reduction program. According to Sununtar Setboonsarng et al (2006), one of the ways to escape the poverty of farmers, especially the rice planting people of South-East Asia countries, is to contract farming and organic agriculture. This resolution can raise farmers benefit, increase the income and reduce price risk. Besides, the economic specialists also determined and showed the role of agricultural policies and programs for farmers' poverty reduction (Chronic Poverty Advisory Network, CPAN, 2012), they concentrated to policies that build poor households' assets, protecting them and making them more productive. These three policy groups aim to reduce chronic poverty of farmers.

2. The Poverty's Reason of Asian Farmers

The farmers, especially rice cultivators, are arranged in the poor people in the countryside; according to the statistic, their incomes are low and seem slowly to improve. In Vietnam and other Asian rice planting countries, the economists discovered many causes which trigger the poverty.

2.1 Land Problem

The restricted cultivated land of households is the main barrier for the rice planting farmers who want to escape poverty. The average arable land for farmers diminished quickly although there were land agglomeration policies in many countries (see Table 4). In consequence, the land deficiency causes the low income of rice planting farmers in spite of the progress in agricultural science-technology. The reasons of the cultivated land declination are the increasing of population, the development of the industry and of urban areas.

Table 4. Arable land (Hectares per Person)

Countries	1981	1990	2000	2010	2013
Cambodia	0.30	0.41	0.30	0.28	0.27
China	0.11	0.11	0.09	0.08	0.08
India	0.23	0.19	0.15	0.13	0.12
Indonesia	0.12	0.11	0.10	0.10	0.09
Japan	0.04	0.04	0.04	0.03	0.03
Malaysia	0.08	0.06	0.04	0.03	0.03
Philippines	0.11	0.09	0.06	0.06	0.06
Thailand	0.35	0.31	0.25	0.24	0.25
Vietnam	0.11	0.08	0.08	0.07	0.07

Source: World Bank (2016)

2.2 Bad Weather

The agricultural production, especially rice planting confronts always the harmfulness of bad weather. In Asian countries, the main production areas of rice suffer every year five typhoons on the average along with droughts and floods, which cause damages to the farmers' yield. This situation depends on the nature and the farmers can't prevent it (see Table 5).

2.3 Pest

There are also other farmers' enemies, the pests, such as insects, plant hopper, fungal diseases, yellow snails, and mouse... They are permanently hostiles and they always wait to ruin the crop and cause, not only the poverty, but also the starvation of poor farmers.

2.4 Lacking Capital

Beside the difficulties of natural disasters, farmers usually suffer a severe capital lacking for agricultural production. Most of farmers have to borrow financial resources from the bank or even via black credit; as a result, the high interest rate is one of the reasons that affects the income of the rice planting people. Because of capital shortage, farmers can't buy agricultural machineries. Therefore their labor productivity keeps a low rate.

Table 5. Statistic of storms landing to Vietnam

Time Appearance	Storm Names	Storm Levels	Time Appearance	Storm Names	Storm Levels
Nov. 14/2012	T. Depression	6	Ju./15/2011	T.D.	6
Oct.23/2012	SonTinh	6	Ju./9/2011	Sarica	6
Oct.1/2012	Gaemi	6	Nov./12/2010	T.D.	6
Aug.19/2012	Tembin	6	Oct./16/2010	Megi	12
Aug.13/2012	Kai-Tak	6	Aug./27/2010	Lionrok	9
Jul.21/2012	Vicent	6	Aug./21/2010	Mindulee	10
Ju.26/2012	Doksuri	6	Jul./18/2010	Chancho	7
Ju.16/2012	Talim	6	Jul./12/2010	Conson	7
Mar.29/2012	Pakhar	6	Jan./18/2010	T.D.	6
Jan.17/2012	T.D.	6			

Source: <https://dulieudiali.wordpress.com>

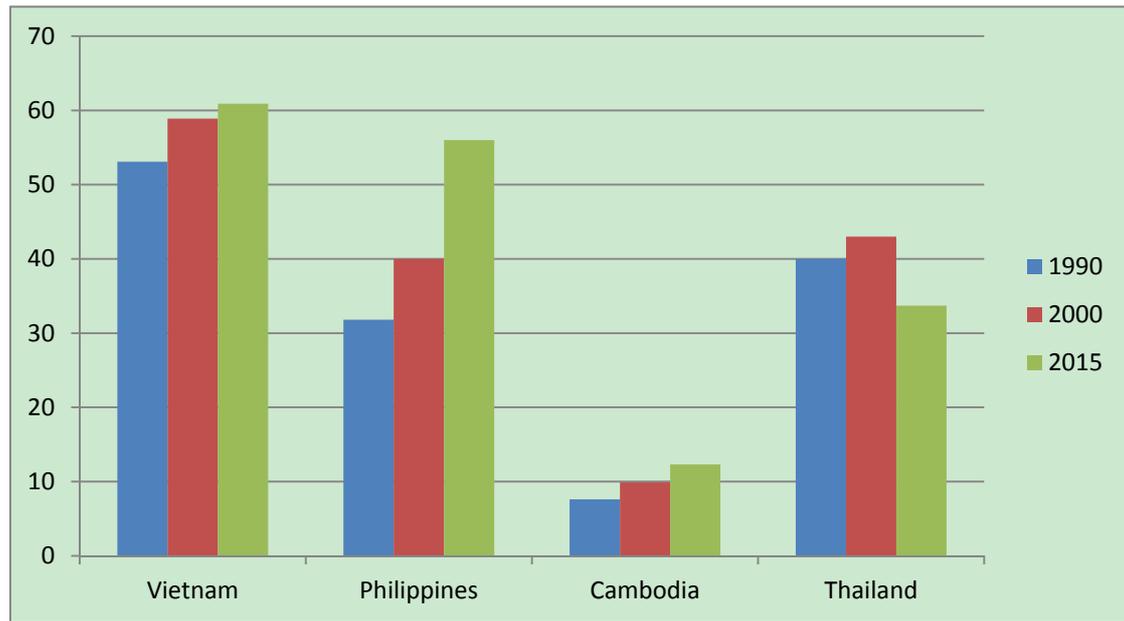


Figure 1. Rural population of some Asian countries (Million Habitants)

Source: World Bank (2016)

2.5 Strong Population Growth

The population in rural areas of many developing countries still increases quickly in spite of governmental endeavor to limit growth population (see Figure 1). This situation contributes to the poverty in rice planting areas, when the average of land per person diminishes sharply but the rice productivity can't pursuit.

2.6 Weak Employment

In addition, the employment in countryside can't satisfy the growth of young labor. The statistic data show that although there is the labor transition from agriculture to industry and service sector, the labor in agriculture remains still high (see Figure 2). Real unemployment and underemployment in agricultural areas are always higher than in the cities. Some countries such as China, Thailand, Vietnam or even Indonesia, are applying industrialization and urbanization to the countryside, which aim to create more jobs for rural people. There are some achievements but this seems rather modest. The low development of services and industries in the countryside hinders the labor transition from agriculture to other fields. Actually, the population's move is rather difficult because farmers always love their land. So many of them suffer their poverty. They don't like leaving rural areas.

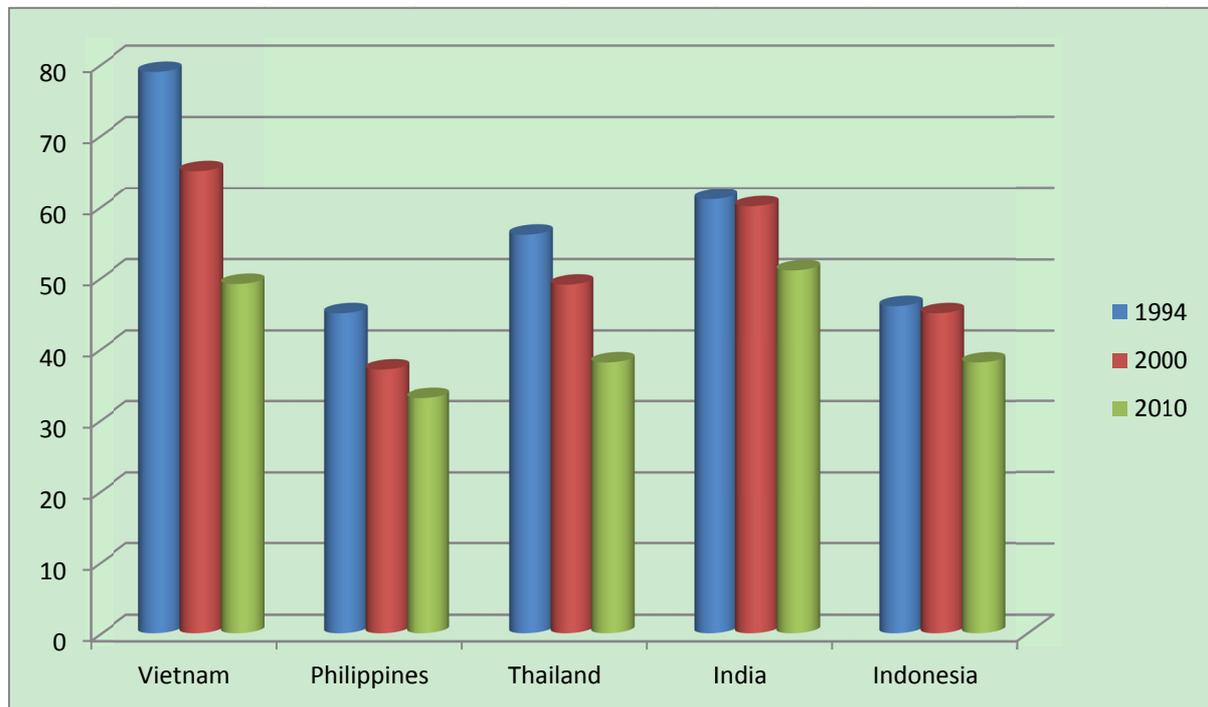


Figure 2. Employment in agriculture (% of Total Employment)

Source: World Bank (2016)

2.7 Low Education Level

The education level of farmers is proved as to be an obstacle to improve their income; because of low education, the rice planters can't approach new technology in cultivation and market, so they usually stand the disadvantages in production and product selling price (Kausar, 2011; Xinyu Hu, 2013).

2.8 Slow Infrastructure Development

In the countryside, road, electricity and irrigation system are usually poor invested; hence, farmers' products as rice has a high cost of production and it has a low competition. In many remote areas, even there are few agricultural product traders and farmers, they can't transport their product to the market. Because of difficult transportation, the agricultural trading enterprises usually lower the price of the farmers' agricultural product. As a result, the imbalance between farmers and traders hinders the income augmentation of rural people (Per Pinstруп, 2006).

2.9 Weak Marketing

The most important reason, which causes low income of the rice planting and other agricultural industry, is the inequality in access to markets. In production and dealing, farmers can't decide their 'input' and 'output'. Actually, the price of the input materials, such as fertilizer or pesticide, is decided by traders and industrial producers; whereas farmers find difficult to foresee their product price, which depends on many agents.

In many countries, there are one or two crops; during harvest time, rice price always goes down. They usually tell to each other, farmers have to stand the 'gain crop, lose price' epic. The reason is easy to understand, the rice quantity is high in market while farmers have to sell their agricultural product. In fact, they can't store rice to await high price because farmers need money to pay back their loan. In addition, most of farmers have a small product quantity but they haven't enough storehouses for their rice although it's not time for the bank payment.

In reality, rice price and farmers income also depend on international market. In 2008, rice price gained his highest peak because of crisis, and then it fluctuated and kept downtrend (see Table 6). The international price instability is a disadvantage for farmers because when they harvest rice, the price in international market usually goes down. Obviously, this situation thrusts farmers to difficult position in markets, where they always suffer from losses. Along with this weakness, the farmers of developing countries had to face the dumping of producers from advanced and developed countries. With advantages of big production, high science-technology, strong capital, government support; the agricultural producers of those countries launched their product with lower

prices (USA, Thailand...). Consequently, this strong competition created many difficulties for the weak small farmers in developing countries. Besides, the cooperation among agricultural countries wasn't enough considerable to maintain the income of farmers, especially the rice planting cultivators. In past time, it seems there was no international coalition in producing and exporting rice and other agricultural products; consequently, this triggered surplus in production and dumping in exportation. This event causes damages to farmers in many countries.

Table 6. Rice price indices

Year/ Month	FAO Rice Price Indices				
	All	Indica		Japonica	Aromatic
		Higher Quality	Lower Quality		
2002-2004= 100					
2010	227	206	212	252	229
2011	242	232	250	258	220
2012	231	225	241	235	222
2013	233	219	226	230	268
2013 May	238	224	237	231	273
June	237	222	235	229	274
July	237	222	235	233	273
August	238	215	223	248	269
September	226	206	206	235	263
October	224	207	209	227	259
November	224	212	206	223	265
December	227	214	206	226	271
2014 January	227	212	198	236	263
February	237	212	197	267	263
March	238	207	199	270	264
April	237	205	198	268	264
May	235	207	199	262	264
2013Jan- May	237	227	239	228	269
2014Jan-May	235	-208	198	261	264
% Change	-1.0	-8.1	-16.9	14.3	-1.9

Source: FAO (2016)

2.10 Weak Policies

The weaknesses of governmental policies are also one of the reasons. To solve the low income and poverty of farmers, the governments issued many policies and plans. Judicially, some were helpful but there were also demagogical and vain policies, which aimed to politic purposes.

3. Subsidy Policies of Governments

The resolution to solve poverty and low income of farmers is the hard duty of governments, but it's an unavoidable function if they want to keep their position or keep the real satisfaction of people. In this paper, the author presents some governmental policies which aim to help farmers, especially the rice planting cultivators.

3.1 Land Policies

There are two stages in economic development process of a developing country; the first period is determined when the economy bases on agriculture and most population are farmers. Therefore, land distribution policy is

considered as good solution to solve starvation and poverty. Many countries issued land redistribution policy, governments applied 'land for farmers' or 'plowmen have field' policies which aim to supply land for tenant (China, Vietnam, Thailand). Consequently, the farmers' live has achieved a significant change, starvation seems to be eradicated in many countries, the countryside people income was ameliorated, and poverty diminished considerably. However, the average land distribution leads to form small farmers, and households land is very small. This situation hinders income growth of farmers.

In the second stage, when the economy of a country develops strongly industry and service sector, the income of workers increases higher than farmers. The sluggishness in farmers' live improvement urges governments to change land policy. China and Vietnam are communist countries, but they issued promptly land law (VNA, 2013), which permits the formation of land accumulation, of new landlord and of bigger farm. These new policies encourage the competition of agricultural production and the dealing in market economy. Vietnam issued also law to permit land accumulation, but in careful step. This law (VNA, 2013) still imposes the ceiling of land use and there is also a limit of land accumulation.

3.2 Agricultural Encouragement Policies

With the purpose to alleviate the poverty of farmer, governments issued policies that aim to reduce poverty in rural areas. They implemented agricultural development plans so farmers could get more profit. The governments supplied and presented new rice variety, new cultivation method, agricultural machineries, fertilizer, pesticides... Besides, there were also programs to transfer new technology of planting, breeding, training, loan supplying... The governmental media informed weather forecast for agriculture so farmers could select planting time, foresee plant diseases and alleviate damages of disasters. These policies showed rather success in India, China, Vietnam, and Thailand...

In India, the 'Green revolution' helped to increase the agricultural productivity and got a big contribution to the starvation and the poverty escape of farmers. The popularization of the new high yield rice and the new cultivation method contributed to the renovation of Asian farmer's income. In addition, the new technologies in agriculture such as field improvement, reasonable use of fertilizer, pesticide, water, and more were very useful to lower the cost, to raise the income of cultivators.

3.3 Population Policies

Fast population growth is an obstacle of economic development, poverty alleviation, income improvement of farmers. Most of developing countries are applying birth control policies and they achieved success after many years of perseverance. Some countries have achieved important result in population growth limit programs (China, Vietnam, India...). This policy helps developing countries to augment quickly their population income. However, some have to face against labor shortage after a long time applying.

3.4 Education Development Policies

Many countries find out that education development is the key for poverty escape, so that they implement policy to encourage education. The raising educational level helps farmers to approach better the new technology and the market; many researchers demonstrated that high educational farmers get more income than normal farmers (Xinyu Hu, 2013). On the other hand, they can change to another sector to earn their living easily. In reality, Singapore is the model of poverty escape by strong policy of education; China also gets success in educational encouragement in the countryside along with poverty alleviation plan.

3.5 Infrastructure Policies

Most of the countryside areas in developing countries are in bad condition; this causes a high cost of agricultural product because of a difficulty in the transportation and the market approach. The lacking of electricity and the water supply bring a high cost in production. Therefore, although there are difficulties in the budget, governments have considered to invest basic infrastructure in the countryside. Irrigation systems, roads, bridges, waterway, electricity were built to decrease the cost of agricultural product and to develop the rural market. The infrastructure development helps increasing the price of rural product and lowering the input cost (Per Pinstrup, 2006). In Vietnam, government issued 'New countryside' plan which aims to build infrastructure of villages, especially hydraulic and road systems; they hope through this policy, the farmers' live will be ameliorated.

3.6 Market Policies

The biggest obstacle of farmers in developing countries is to do the marketing of their products. Firstly, agricultural production scale is small so there isn't enough a big quantity for the market and the exportation. For example, each farmer's household in Vietnam possesses about 0.3- 0.5 hectare of rice field, so their product

quantity is rather small for selling to the market. In Thailand and Vietnam, there are some systems of traders who buy the farmers' product directly, and then they resell it to the trade companies. The intermediary role of traders is helpful for the sale of farmers' product, but it diminishes the profit of the cultivators. Besides, the price of the input materials such as fertilizer and pesticide, always increases, it causes pressure to raise the cost of agricultural production. To solve the farmer's market problems, Vietnam and many other countries issued several support policies to farmers.

- 'Establishment encouragement of agricultural co-operatives' aims to gather small farmers into bigger organization, which can remedy the shortcoming of small-farming; they hope that co-operatives can apply new technology, get easy loans and decrease input cost. The new co-operative will have a big scale so their product will be big enough for selling to market. The final purpose of the new co-operatives will raise the profit of co-operative members who get disadvantages when they are individual farmers (Nguyen, 2014; GF.Ortmann, 2007).

- 'Four houses plan' builds the cooperation among farmer, entrepreneur, scientist, and government. In this plan, the relationship by contract between the farmer and the entrepreneur is the core which builds a coordination to resolve the production-dealing problems of agricultural product, especially rice. The entrepreneur supplies farmer with input materials (seed, fertilizer, pesticide, technology...) and buys farmers' product. Responsively, the farmer has to comply with the cultivation technology of his partner and has to sell product by agreement. The role of scientist and government are supporters who supply science-technology for farmers and legal assurance of their contract. The plan purpose creates profit for both sides; farmer gets more profit and entrepreneur has better product for processing and exporting (Nguyen, 2014).

- 'Large field' is a variant of 'four houses plan' and is proposed by enterprises which produce agricultural materials and which export of rice. They desire to cooperate with the farmer so they can sell their product and buy a better quality of rice that enterprises can export with a good price. In such plan, they propose a value chain from rice production so that the farmer and enterprises can get more profit. In 'Large field', the enterprises contract with farmers for building rice field region (hundreds to thousands hectares), they help to complete the infrastructure systems, such as irrigation and drainage, electricity, road, dike, field land... Enterprises also supply agricultural materials and they instruct farmers in rice planting; then it can raise the quality and it assures the quantity for processing. Besides, farmers in the plan can sell their product according to the contract. This is helpful to avoid price fluctuation. As to enterprise, 'Large field' supplies stable, high quality rice to export and process; they can treat rice into many sub products such as rice bran oil and their co-products, rice germ, noodle, alcohol... This value chain helps the enterprise to increase the profit against to the disadvantages of the rude rice exportation. The 'Large field' model proves its win-win resolution to farmer and entrepreneur (VPM, 2013).

- 'Planting and breeding change' is issued to encourage farmers who chose other plants and animal instead of rice and regular animal in agricultural production. The plan build a model of production where farmers can get higher income. For example, governments promote the change from rice cultivation to maize, soya, farming products that have more income than rice planting. Actually, in market economy, many advanced farmers usually search new plant kinds for a better income. Besides, agriculture institutes also launch new plant breeds which can supply higher qualification. Nowadays, the farmers can cultivate new high quality of rice and harvest ten tons per hectare (twenty years ago, none could imagine that). The governments also issued a policy to encourage farmers to decrease the production when the supply overcomes the demand of the market. In 2014, Thai government appealed to reduction in rice production because of a big inventory and of a sharp price plunge; they implemented a farmer's support plan to change for another plant (sugar cane) instead of rice. Vietnam also issued a plan to help farmers changing from rice planting to maize, soya bean, and vegetables cultivation. All these plans aim to help raising profit of farmers, especially the rice planting cultivators (VG, 2012).

- 'Price subsidy' has been applied in Thailand, Vietnam, especially for rice, which is the principal agricultural product of Asian countries. In Thailand, government used the national budget to buy rice at a higher price (50%) than the market price. This policy was agreed by most of the rice planting farmers because their income was improved quickly. With the position of rice exportation leader, Thai government tended to store rice and would have sold this stored product only if price of international market had gone up. Vietnam applied another way; they issued a short price subsidy policy by spending the budget to support interest rate of traders who had to buy a designated rice quantity, but they had to stand their business result. This policy helps retaining price when there is big rice quantity in market, whereas the budget spending is not high but it can stabilize market (see Table 7). China also issued rice price policies to assure the income of farmers and help poor consumers.

Table 7. Vietnamese governmental expense for rice price support and rice purchase price

Year	Expense for Interest rate support (millions USD)	Temporary rice storage (millions Tons)	Rice purchase price (25% broken rice, USD/kg)	Note
2003	-	-	0.15	Exchange rate according to the annual official exchange
2004	-	-	0.197	
2005	-	-	0.22	
2006	-	-	0.22	
2007	-	-	0.27	
2008	-	-	0.4	
2009	0.84	0.123	0.34	
2010	6.20	0.863	0.34	
2011	-	-	0.42	
2012	12.2	1.314	0.43	
2013	12.4	1.806	0.39	
2014	9.5	1.05	0.38	
2015	-	-	0.31	

Source: Vietnamese Ministry of Finance and Vinafood II Enterprise

3.7 Other Policies

Beside direct policies that helped to increase farmers' income, governments applied long-term plans to improve the income of countryside people. China implemented 'Development of township enterprises' plan which encouraged the sector of the industry and the service in villages. They hope that the plan can create more jobs, which could solve the labor surplus and the leisure after harvest time; the plan helps to ameliorate farmers' income and to diminish the charge of migration to urban areas. Along with this policy, Chinese government opened many economic regions, industrial zones, and new cities which attracted rural regions farmers to the industrial and service sector. This is an indirect resolution that contributes to the change of the income of farmers' household and to the alleviation of the poverty. Thai government employed 'one tambon one product' program (tambon is sub-district in Thailand) that is based on the earlier experience of the 'one village one product' style of Japan (1970's). However, Japanese movement aimed to raise farmers' income to solve depopulation of the countryside, but Thai program oriented poor alleviation in rural areas. After the economic crisis (1997-1998), Thai government decided to apply 'one tambon one product' (OTOP) that stimulated rural development and poverty alleviation. In this program, the government had a main support role in loans' supply, marketing, and knowhow. The principal participants were community based on enterprises, single owner enterprises, and small enterprises which manufactured goods from agricultural product; they used mainly local materials such as rice, leather, herb, mineral, cotton... In Thailand, product from OTOPT could be provided for internal customers and also foreigners' tourists. Actually, the strong development of Thai tourism was marketing an advantage for this program. In such an economic situation, Vietnam had learned successful experiences of Thai and Japanese people, government have proposed also 'one village one product' (OVOP) but based on traditional handicraft of villagers. The government undertook an indirect supporter role, which was a catalyst to promote the traditional products such as agricultural co-production, family handicraft, and fine handicraft articles. In this program, cooperatives, small enterprises, and households were considered as the main core (Kaoru, 2011).

4. Experiences of Success and Failure

- Land policy is considered one of the important policy for solving poverty. Historically, when communists gained governance in many countries, they applied 'land equalization' by seizing and redistributing landlords' field for all farmers of cooperatives. Subsequently, every household got a small land so they could cultivate and escape starvation, this could bring equalization in socialism. However, when communist countries changed into market economy, characterized by small piece of land, farmer households couldn't escape poverty. This is easy to understand because with a very small field (see Table 4), the income of the farmer from rice planting (and also

other cultivation) is enough only to supply their fundamental food to live. It doesn't help them to escape poverty. Actually, this situation happened not only in socialist countries but also in capitalist nations. For instance, Thailand applied policy of 'ceiling land' distribution when government allocated public land for landless farmers (USAID, 2011). However, they have to change the policy to encourage land accumulation so that agriculture product can compete in market with better quantity and quality.

Many governments encourage the conversion of farmers into industrial or service workers and they consider this as the resolution of poverty reduction; then, the rests can get more land for a bigger production in the market economy. This policy needs more time because it's difficult to change farmers into workers in a short time.

- The policies of agricultural encouragement proved their success in many developing countries. Actually, governmental supports stimulated productivity and quality of agricultural production. As a result, farmers of China, India, and other Asian countries achieved considerable result in income amelioration of rural people. Especially two of the biggest countries of the world, China and India have solved famine in some decades. However, these policies can't help farmers to become rich. Besides, because of the low education and of many other reasons, ethnic minority and mountainous people couldn't benefit more from governmental supports.

- Birth control, education and infrastructure policies of many developing countries gained good success. The population growth rate was diminishing strongly. As a result, it supported effectively poverty alleviation plans of governments. In particular, the rural population of China and Thailand got a minus growth. However, these policies triggered bad impact when young people leaved the countryside. In fact, this caused labor shortage in agriculture. The education development plans have achieved a positive result in most of developing countries, the statistic data showed that the growth of education investment was in inverse ratio to poverty rate in most countries. Besides, the investment of fundamental infrastructure in rural areas such as roads, electricity, and hydraulic systems and more, impacted strongly to the agricultural production and the farmers' income. The shortcoming of this policy is the negativity in public management, which causes a budget loss and a retardation in rural development.

- The marketing policies caused much controversy. For instance, Vietnamese government encouraged the farmers' participation of cooperatives and hope that this model can stimulate a new motivation in agriculture. These help raising the income of rural people. In reality, farmers have boycotted this plan; there are many reasons but economists concluded four shortcomings: unsuitable cooperative law, prejudice against cooperative in planning economy, bad cooperative leadership, and weak support of government. 'Four houses' cooperation received the failure after ineffectual endeavor of the government because of distrust between farmer and entrepreneur. In addition, there is no legal regulation for this connection so that farmers or enterprises can easily break down the 'four houses contract'. 'Large field' is considered as a successful model of cooperation between farmers and entrepreneurs in Vietnam. In this exemplary application, both sides record utility of association, farmers get higher income (about US\$ 400-500 per hectare) and enterprises keep stable raw material for production and exportation. Besides, enterprises can sell pesticide and fertilizer to farmers. Though there is a good result from this model, 'Large field' plan can't be develop in a large scale, because there aren't enough big enterprises which are strong and zealous to participate to the program. The policy to encourage farmers who change crops and livestock received a few result. In fact, the farmers favored this plan but the obstacles of market and the cultivation habit hindered the plan; the income growth isn't attractive than the risk in planting or in breeding new plant or new animals.

Rice price subsidy is a policy which was applied widely in Thailand and Vietnam. The farmers, especially the rice planting cultivators, highly evaluated this governmental support, this plan maintains the income of farmers. However, the wrong calculation of Thai government in rice storage caused a national budget damage. From 2011-2013, Thai government (in term of former Prime Minister Yingluck Shinawatra) spent tens of billions of US Dollars on storage of rice. Subsequently, they couldn't solve the big volume of rice; in 2016, Thai government had to sell billions of tons at a very cheap price. According to Thai authority, this policy caused damage of eight billion of US Dollars and they stopped the rice price subsidy in early 2014. Vietnam has applied a better solution; when the rice price in the market declined, they implemented an interest rate support for rice traders; the government decided the rice quantity which designated enterprises had to buy in fixed time (see Table 7). Nevertheless, the policy retains only the market price that reduces the damage of rice producers; it can't stimulate the rice price, so the support doesn't enhance the farmers' income.

The plans 'one village one product' (OVOP), or 'one tampon one product' (OTOP) achieved some results; the people of some villages, which have advantages in manufacturing or service, can get a profit but they can't extend it to all rural areas. The number of beneficiaries is rather small (Kaoru et al, 2011), and the poor

alleviation in the countryside get a modest result. 'Township development of China also receives a humble consequence because of the low product quality and the weak competition (Jason, 2006).

5. Proposal Resolution

5.1 Long-term Strategy

The transition from agriculture to service and industry is the resolution of farmers' poverty eradication. The answer for this difficult problem is the escape from agricultural economy. The world history proves that, although they are strongest in agriculture, the countries can't enrich by an agricultural economy. However, it takes many decades for this transition; for instance, Japan took nearly one century and Korea passed fifty five years. The leaders of developing countries should determine that the industrialization and the urbanization are the right choice to solve the poverty problem of the people. In fact, this isn't an easy process; the lacking of resources, the bad leadership, the low education, and the unfavorable environment are always obstacles for the transition. In short, the success or failure of poverty eradication plan depends on the talent of leadership.

To be able to successfully implement long-term strategy, governments should persist in poverty eradication purpose. Firstly, they have to determine that industrial-urbanization is the long-term solution for poverty eradication; thus, the policies for farmers, rural areas are short or medium-term purposes. If the policies are implemented wisely, there is a little shock in the transition process and the poverty alleviation will be stable. Secondly, it needs a good environment for the market economy, especially the permission of land accumulation in the countryside, and an investment attraction. Thirdly, the preparation for the urban areas enlargement and industrial zones should be well calculated to limit the shortcomings of hot development. Fourthly, the governments should remove restriction of migration to the cities and the industrial zones; instead, they supply a good education and a training for rural people so they can easily find their live in the cities. Lastly, the governments shouldn't impose subjective policies, which consume more national budget but achieve few results. They should concentrate to resolve corruption so the national budget will be well invested.

5.2 Medium and Short-Term Policies

- Revision of Policies

The policies were applied in the past time should be revised; actually, there are usually plans and programs of governments that impact positively the income of farmers. These supports can't help them to become richer but they limit the losses of the farmers. The good lesson of Japan shows that the government should facilitate the farmers' transition from agricultural to the industrial and service sector. Although Japan is now a developed country, this process is going to take place; nowadays, Japan has only 5 % of the population who are living in rural areas and it continues to decrease. The implement of support policies needs to be retain but the governments should revised and rejected unsuitable policies. These policies aim to support the long-term strategy of poverty eradication, the transition of the economy and the population.

- Encouragement Effective Policies

The usual policies about land, agricultural encouragement, population, education, infrastructure, and marketing should be continued but the governments need to reject the shortcomings in implementing. Thus, they can become more effective. In reality, marketing is one of the biggest weaknesses of farmers in market economy.

-One important support is the intervention of government, technical help to balance the agricultural supply quantity. This is a helpful policy because the economic phenomenon of demand-supply and price is still a tough problem of farmers. The governments can supply resolution of scattering crops and agricultural product storage, which is an important support to ensure farmers' income.

-The government should permit farmers to change their cultivation from rice to other plants, which could create more profit. The prohibition of a plant exchange because of food security is a foggy fact in an integrated world and it causes poverty in rural areas.

-Whereas a reasonable intervention of governments to keep the price stability seems to be useful for farmers' income, however they need to apply selective subsidy policies instead of demagogic plans.

-In medium term, an international cooperation of agricultural production countries is useful to regulate the demand and the supply in world-wide market. This helps to limit the price fluctuation of agricultural product which always triggers damage for farmers; for instance, a food association of countries would regulate the production of rice and would keep a reasonable rice price in international market.

6. Conclusion-Discussion

The resolution of farmers' poverty eradication isn't an easy task. In reality, the successful countries needed a long time and much more national budget to solve poverty in rural areas. Besides, the ability of government and politic regime decide the success of socio-economy of a country. Based on success and failure of nations in the market economy, author would like to propose a solution of poor eradication through a new approach. Most of governments focused on short and medium term policies to solve poverty problem, but with the shortage of resources, they can only alleviate poverty. In this case, it's difficult to eradicate poor situation of farmers. Beside reasonable short term policies, governments should apply long term strategy. In national strategy, they should determine changing national economy from agriculture into industry and service sector as a long-term purpose; governments need proceeding to urbanization and to be prepare for the immigration of rural inhabitants. In such situation, governmental role decides the result of the policies. The policies implementation requests more time, resources, ability, immaculacy and determination. In addition, it needs changing the obsolete viewpoints of planning economy; authorities should reject restriction of urban residence growth, land accumulation, they should change the purpose of land use, and should issue suitable regulations in an integration economy.

The resolution of poverty, especially for farmers has a long history and there are many options; every country has its own situation and the way to prosperity requires time and endeavor from people and government. In short, to eradicate poverty of farmers, a country needs to struggle to become a developed nation whose economy is based on service and industry; where most of the people are urban inhabitants.

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