No. 01/ 2018



Thammasat Institute of Area Studies

WORKING PAPER SERIES 2018

The Evaluation of Japanese ODA

to Vietnamese Farmers

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December 2018

THAMMASAT UNIVERSITY

PAPER NO. 01 / 2018

Thammasat Institute of Area Studies, Thammasat University

Working Paper Series 2018

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Abstract

This paper seeks to evaluate the impact of the agricultural aid program to Vietnamese farmers, specifically, living in the rural communities of Hanoi and Nam Dinh province. A grassroots Official Development Assistance (ODA) program was implemented by the Japan agricultural cooperative of Ibaraki to teach Japanese farming techniques and knowledge to the selected areas. The Vietnamese Agricultural industry has received little foreign aid, and few studies have focused on benefits from technology and knowledge transfer to local farmers. Data for this study were collected by in-depth interviews with farmers, researchers, and extension staff from Chuc Son, a town in Chuong My district, Hanoi and Yen Duong, a town in Y Yen district, Nam Dinh, where the ODA program had been implemented. The finding of the study indicates that understanding local needs before implementation of the project raised satisfaction levels of participants. It also highlights that education about Japanese agricultural practices and techniques had positively impacted on local agricultural development. Increased safe vegetable and fruit production is expected from newly introduced practices. Remaining challenges include inadequate marketing, distribution, pricing as well as lack of institutional structure. These challenges may decrease incentives to continue adopting methods through foreign aid.

Keywords: Agriculture, Knowledge transfer, Japan, Official Development Assistance (ODA), Vietnam

1. Introduction

This study examines the Japanese Agricultural Official Development Assistance (ODA) program for Vietnamese farmers and evaluates how the program benefits local farmers in the sector by interviewing Vietnamese farmers. In 2016, Japan disbursed \$16,819 million in foreign aid (\$10,380 million net) (MoFA, 2017a). Of this, the Socialist Republic of Vietnam (hereafter Vietnam) received the largest amount at \$1,583 million (\$1,166 million net) In fact, Tokyo has been the largest donor to Hanoi for many years. The importance of Vietnam in terms of geopolitics has increased due to the rising political competition between China and Japan to maintain a friendly political ally in Southeast Asia. Vietnam, as the largest recipient of Japanese foreign aid, is part of Japan's diplomatic strategy.

Despite of the substantial outflow of foreign aid to Vietnam, most ODA programs focus on large infrastructure projects such as the construction of dams, bridges, airports, harbors, power plants, hospitals, and so forth. The spending on economic infrastructure development accounts for more than 50% of the aid (MoFA, 2017b). Although Vietnam improved from a low-income country to lower middle-income country in 2010, the majority of Vietnamese citizens still have very low income. The Food and Agriculture Organization (FAO) of the United Nations reports that nearly 40% of the population still lives below the poverty level with rural villagers earning less than \$2 a day (FAO, 2018).

This study attempts to look at the Japanese ODA to the Vietnamese agricultural sector where the main beneficiaries are farmers. Agriculture is an important industry for Vietnam despite a decline in its workforce and its contribution to GDP. For this reason, this paper provides a detailed analysis of the ODA aid effectiveness for Vietnamese farmers by closely examining the ODA program. The agriculture ODA program included farmers, researchers and agricultural leaders on the outskirts of Hanoi and Nam Dinh Province between February 2015 to March 2017. The project was named the "Promotion of Agriculture in Suburban Areas around Hanoi city and Nam Dinh Province," initiated by the Japan Agricultural Cooperative Ibaraki (JA Ibaraki) as one of the Grant Assistance for Grassroots Human Security Projects (GGP).

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1.1. Research Objective

The overarching objective of the research is to evaluate the effectiveness of Japanese Agricultural ODA in Vietnam

1.2. Research Methodology

To better understand the Vietnamese farmers' perception of the Japanese ODA and to evaluate the ODA project, a fieldwork survey was conducted in Vietnam, specifically Hanoi and Nam Dinh Province. In-depth interviews were the primary method of data collection. The necessary information obtained through 11 interviews became a critical foundation of overall research findings in this study. Moreover, secondary research utilizing existing pieces of literature, official statistics from related institutions was employed to further analyze and verify findings. The aid effectiveness is examined from recipients' point of view rather than donors' in this study. It is because donors tend to conclude that aid is effective as long as the project delivery is completed. The process of delivery and the result of the projects as well as the benefit of locals are often ignored. Hence, to examine farmers' perception, such as local needs, costs and benefits, personal needs are looked into through interviews. Meanwhile, the evaluation of the project is also given based on the findings. Just because aid beneficiaries feel satisfied with the project, it does not mean that the aid project is worth continuing. The economic benefit of continuing the new practices is considered.

2. Ibaraki's development assistance to Vietnam

Ibaraki's contribution to Vietnamese agriculture dates back to 2014 when Ibaraki and Vietnam signed a memorandum on technological improvement and human resource development in the field of agriculture. As a part of the agreement, Ibaraki Prefecture outlined areas of cooperation, focusing on seven core themed areas, summarized in Table 2-1. JA Ibaraki was responsible for four and six, nurturing human capital by accepting trainees from Vietnam and dispatching specialist from Japan; whereas Ibaraki prefecture was in charge of the rest of areas

on the list. To implement these, JA Ibaraki used Grant Assistance for Grassroots Human Security Projects (GGP) from JICA for funding. The scope of this paper is focused solely on the efforts of JA Ibaraki. The estimated budget that JICA provided to JA Ibaraki was some 46.2 million yen (US\$ 416,539) (JICA, 2015).

Table 2-1: Area of cooperation between ibaraki and vietnam				
	1	Application of the latest technology in agricultural products		
	2	Breeding improvement of Vietnamese Rice and Meat production		
	3	Mechanization		
	4	Nurture of agricultural engineer		
	5	Technical assistance on processing and preservation of products		
	6	Dispatch trainees from Vietnam to Japan		
	7	Development of agricultural cooperative		

Source: Ibaraki Prefectural Government (2014).

2.1. JA Ibaraki's project: Ibaraki's GGP

JA Ibaraki's assistance to Vietnam touched two locations, the Chúc Son community in the Chuong My district in Hanoi and the Yên Duong Community in Ý Yên district in Nam Dinh. Both communities received the same assistance from Ibaraki although in different time frames. Farmers in both areas received lectures and on-site training and were invited to Japan for a short training. Only a few households were selected for the pilot farming project in their fields.

As mentioned, the main responsibility of JA Ibaraki to educate farmers in terms of new knowledge, techniques, and practices through on-site and classroom training. The project aim was to nurture human resources (researchers, leaders, farmers) who could contribute to the development of agriculture in the target areas by studying the production and distribution techniques used in Ibaraki for agriculture in a suburban area, a type of agriculture that utilizes Ibaraki's strengths. The full project scope is presented in Table 2.2

Table 2.2: Scope of Project

Accepting agricultural trainees from Vietnam to Ibaraki
 -Conduct trainings for Vietnamese Agricultural Trainees
Dispatch Specialists from Japan to Vietnam
 -Conducting seminars targeting leading members of the Agricultural
 community
 -Conducting classroom and onsite training for Vietnamese Farmers
 -Demonstration of high quality and leafy vegetables production
 techniques on model farms in Hanoi and Nam Dinh
 -Confirming examples of the distribution of healthy and safe
 agricultural products and proposing for distribution system

Source: JICA (2015)

3. Findings

3.1. Gain from Participation

There are several reasons for farmers participating in the project. It is due to the fact that they want to learn something new, study a new approach, benefit from classes, or be given the free cost or other motives. Of all, learning the Japanese technology without cost burden accounts for the largest part of their incentive to participate in. Although farmers expressed that the acquisition of advanced technology is the main incentives, free participation cost is presumed to be the most important factor than anything else because farmers can acquire advanced technology without any costs. Interviewees unveiled that the objective of the project met their expectation, which was to learn safe vegetable production. All participants unanimously agreed that JA Ibaraki's practices and techniques were suitable for their farming and positive production results were expected. However, the validity of such remarks could be argued and should be examined, as participants may not have expressed honest opinions due an unwillingness to tell the truth. Such reluctance to express an honest opinion may come from a fear that ODA programs would end, or benefits might be removed. Non-project

participants could shed light on this aspect because they do not own any responsibility against the project, but they also showed a willingness to participate in the project due to better satisfaction of existing participants.

3.2. Growing demand for safe produts and Pricing System

Ibaraki's method of producing vegetables will have strengths in Vietnam because of Japanese branding as well as environmentally friendly standards with fewer pesticides and chemicals. Vietnamese consumers are aware of the quality of Japanese products, and the reputation of the products is high. Additionally, the awareness of safe and environmentally friendly products has currently gained attention in Vietnam because consumers are concerned with the quality and safety of products because of pesticide residue or other harmful chemicals used on products (World Bank, 2017). These factors are advantageous for farmers because Ibaraki's practice would meet consumers demand, which result in better sales. Also, if products are certified with the Vietnam Good Agricultural Practice (VietGAP) whose standard is set by the Department of Agriculture and Rural Development, products will be recognized as safe and quality products and the retail price will be higher. For example, lettuce certified by VietGAP are sold at VND 40,00-100,000 (USD 1.7-4.2) per 1kg whereas the one without certification is sold at VND 10,000-15,000 (USD 0.4-0.6). (JETRO, 2015).

During the interviews, the majority of respondents felt that in the long run, JA Ibaraki's method would benefit them in terms of sales; however, they also expressed concerns about the pricing mechanism in Vietnam. In the existing system, the price of agricultural products, whether they are produced using foreign techniques or conventional methods, remains the same; hence, unless this situation changes, farmers will not be incentivized to continue using new methods through foreign assistance as these foreign methods require additional investments, resulting in higher operational costs. Cost is an important indicator of whether farmers will continue to use these new methods regardless of how beneficial they are. In essence, although a high level of satisfaction with the new technique would contribute to better vegetable productions

in farming, in order to sell their products, further development of a marketing and pricing system is required.

3.3. Change of Mindset

Bringing innovation to Vietnamese agriculture could be possible if farmers change their mindsets. The most important factor to achieve a remarkable transformation in Vietnamese agriculture is the change of farmers mindset and make endeavor to change practice from the conventional to modern approach. It is, most probably, easy to transfer the foreign technology and practices to local farmers because while they work together with agricultural experts sooner or later they will get used to new practices; however, it is difficult to change their mindset since farmers are working in the sector for 20 or 30 years with the traditional method. Some farmers had a suspicion of foreign practice initially, but later new practice convinced them and had a positive impact on psychological mindset. The farmers expressed that through JA Ibaraki's assistance, they were able to change their mindset towards agricultural work. The mind innovation could be seen as a type of innovation, which would bring a positive enlightenment. The implication was that farmers could produce strong quality vegetables and fruits if they correctly apply it to their farm. It should be noted that the objectives of agricultural aid would be achieved if farmers proactively change their mindsets and way of thinking after learning new practices. If not, aid recipients might return to old practices and the delivery of the project is to be failed.

4. Evaluation of the ODA Project

4.1. High Satisfaction

The delegation from Ibaraki made preliminary research on the site locations, farmers, local needs, and areas of cooperation. Detailed background studies before implementation of the program had enabled JA to provide to Vietnamese farmers with what farmers expected. As Williamson (2009) argued, the successful delivery of aid project involves coordination between

donors and recipients. Importantly, obtaining crucial information such as who needs, in which locations, and how much budget is magnificently essential to achieve the aim of projects. This result may be explained by the fact that accurate information gathering beforehand such as local and personal needs in a local context resulted in the farmers' tremendous satisfaction. Also, smooth management and implementation of the project could be attributable to overall performance. Moreover, knowledge gaps between donors and recipients are explained by Williamson. Lack of feedback and accountability to donor agencies have caused failure of aid projects. To put it simply, donors are not concerned with the results of projects nor do not require the maximization of profits. Since the ownership of this project was JA Ibaraki rather than Ministry of Foreign Affairs and the scale of the project is rather small, it contributed to the higher satisfaction and efficiency of the project management.

4.2. Implementation cost of Ibaraki's practice

JA Ibaraki financed the majority of the ODA project; hence, the cost incurred by farmers was nothing. While project was in progress, farmers were not concerned with the additional production cost to their operations. The real issue would occur in the post-project period as farmers will burdene with the costs to continue the Ibaraki's practice. It could be argued that the real value of the ODA project is put to the test after the financial donor support ended because if the participants did not continue the practices of the aid programs, the entire project could be said to be have failed. Sustainable practice among local residents can be one of the pivotal aspects of foreign aid programs; otherwise, the project ended up with just giving money and being recognized as the charity activity.

The expense that farmers need to cover is mainly for agricultural row covering (Pass Lite) and Net House as shown below in Figure 4.1. This material was brought over by JA Ibaraki and nowadays there are available in domestic shops. The calculation result is shown in Table 4-1. The exchange rate is based on the average price in August 2018 (US \$1= VND23,291)

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Figure 4.1: Pass Lite practiced and Agricultural Net House in Chúc Son farming fields

Source: Photographed by the Author in 2018

Table 4-1: Price and durability of Pass Lite and Net House VND:1,000

Name	Pass Lite	Nee House		
Price per m 2	8.5 VND (US \$0.36)	100 VND (US \$4.29)		
Durability	Half a year	3-4 years		

Source: Author's compilation

In order to introduce Pass Lite and Net House in Vietnam, the cost farmers must pay is as below. The average size of farms in Chúc Son is 2,040 m² and 4,000 m² in Nam Dinh according to the interviews. As a result, the additional cost estimated in table 4-2 is if farmers continue using Ibaraki's method.

Table 4-2: Total	additional	cost incurred t	o Farmers fo	or Pass Lite a	nd Net House	VND:1,000
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Concernation	Average size of	Price of Pass	Price of Net	Total cost for	Total cost for
Community	farmers $/m^2$	Lite / m^2	House $/m^2$	Pass Lite	Net House
Chúc Son	2040	VND8.5 (US \$0 . 36)	VND100 (US \$4.29)	VND17,340 (US \$734)	VND204,000 (US \$8,752)
Yen Duong	4000	VND8.5 (US \$0 . 36)	VND100 (US \$4.29)	VND34,000 (US \$1440)	VND400,000 (US \$17,160)

Source: Author's compilation

These two estimations are based on farmers using Pass Lite and Net House to cover their entire fields. If they introduce the equipment partially to cover farm areas, the total cost will be, of course, less than this. Therefore, the estimated cost may not be completely accurate but roughly suggests how much additional cost farmers need to invest. It is, indeed, arguable whether farmers will use this for their entire farm; thus, it has an additional investment attached to continue applying this practice. According to the office of statistics of Vietnam (2018), the average income in agriculture, forestry, and fishing is VND4,556,000 (\$182) in preliminary 2016 assessment. Thus, although it is likely that farmers partially introduce and utilize what they have learned in Japan and through on-site training in Vietnam, it remains to be seen whether they will continue to use Pass Lite or net house on their farms.

4.3. Economic return to farmers

The economic return to farmers is presented to ascertain whether Ibaraki's practice effectively works for farmers. In this calculation, the price of lettuce is used as an example to analyze the economic return for farmers and according to JETRO survey (2015), the price is sold at VND 10,000 (\$0.42) per kg. It is based on farmers in Chuc Son community sell their products to the market. For the sake of convenience, costs such as labor, fertilizer, distribution, and packaging are excluded. Also, in order to simplify the calculation, only four scenarios will be used (Table 4-3), and the calculation result is shown in table 4-4.

Scenario	Description (Ratio: Pass Lite and Net House)
А	No agricultural equipment is used (0:0)
В	Use both Pass Lite and Net House (50:50)
С	Use Pass Lite only (100:0)
D	Use Net House Only (0:100)

Table 4-3: Four scenarios

	Scenario A	Scenario B	Scenario C	Scenario D
Additional cost ¹	0	VND 110,670	VND 17,340	VND 204,000
Additional Cost	0	(\$4,743)	(\$734)	(\$8751)
	VND 40,000	VND 40,000	VND 40,000	VND 40,000
Revenue	(\$1,717)	(\$1,717)	(\$1,717)	(\$1,717)
Yield ³	4,000 kg	4,000 kg	4,000 kg	4,000 kg
Dring par kr	VND 10	VND 10	VND 10	VND 10
Price per kg	(\$0.42)	(\$0.42)	(\$0.42)	(\$0.42)
Earnings ⁴	+VND 40.000	-VND 70,670	+ VND 22,660	-VND 164,000
Carrings	(\$1,717)	(\$3,026)	(\$983)	(\$7,034)

Table 4-4: Additional cost, Expected revenue, and EarningsVND: 1,000

Source: Author's compilation

Scenario B and D are not practical as it causes financial loss to farmers. It discourages farmers to pursue these two scenarios. On the other hand, the feasibility of implementation of scenario C is high, despite its investment, farmers will be able to gain profits. If the price of the product remains unchanged, it is likely that farmers take either Scenario A or C, but Scenario A is the worst scenario because farmers will return to the old practice. What if the price of the product goes up as a result of quality improvement? Are there any differences in each practice? The next table shows the minimum price in order for scenario B and D to make it sustainable.

Table 4-5: Expected min	VND: 1,000		
	Scenario D		
Additional cost	VND 110,670	VND 17,340	VND 204,000
Additional Cost	(\$ 4,743)	(\$ 734)	(\$ 8,751)
Yield in Chuc Son	4,000 kg	4,000 kg	4,000 kg
Expected minimum price	VND 27,483	VND 4,355	VND 51,000
expected minimum price	(\$ 1.18)	(\$ 0.18)	(\$ 2.18)

Source: Author's compilation

¹ Calculated based the cost presented in table 4-2

² Revenue=Yield x Price

³ Aonuma and Kobayashi (2017): Red river delta region has vegetables production of 2,000kg per 0.1

⁴ Earning = Revenue – Additional Cost

If the price of the product goes up to the point that farmers earn back the cost of investment, it is feasible that farmers maintain the practice. If not, the result is easily imagined; back to the old practice. Therefore, the success lies to the increase in the demand for products and raise consumers' awareness of safety and health products. Promotion of educational activity will help consumers to increase awareness of safety products, and this might help to select Ibaraki-technique-products. If Vietnamese consumers become health-consciousness, it gives an excellent opportunity to sell and gains popularity among consumers. With the growing increase in the middle class, if farmers target at upper-middle class or upper-class, there will be great potential in the near future.

4.4. Additional cost or additional benefit

Introduction costs of new techniques may exceed farmers' budget due to a relatively high price of materials and equipment in comparison with their income. Meanwhile, there will be a growing demand for their products in the domestic market. Hence, these factors concluded that new practice, especially, the use of Pass Lite and Net House, works effectively as long as the price of the product in the market is more than the price shown in table 4-5. In order to make it sustainable, the price of products must be high enough to cover the additional cost incurred; otherwise, farmers would continue Ibaraki's practice as long as ODA activities last or the total profits they generate are greater than the cost incurred. If the profits are less than the costs, there is no sense in using the agricultural equipment. Sustainability of practice is key to achieving development, and the significance of aid program bears fruit if this is accomplished. A much stronger incentive for farmers is necessary, especially in terms of financial return.

Products branding and marketing strategy need to be improved in order to increase the awareness of products and sell their products well. Building consumers' confidence in products is quite essential, and this could be possible since Japanese products are acknowledged as sage, secure, and healthy in Vietnamese Society (JETRO, 2017). Lastly, improvement in the pricing system contributes to the higher income of farmers. Farmers' low

income has been due to the fact that double or triple commission when products are sold to third parties because products are sold to brokers, wholesalers, and delivered to end customers. Without reforms on these, despite introduction of new practice through ODA, the effectiveness of ODA to farmers would be limited.

5. Conclusion

The study evaluates the Japanese ODA program in Vietnam and examines the role of foreign aid to a lower income group such as farmers. Specifically, JA Ibaraki's agricultural assistance was chosen as a case study and participating farmers in Hanoi and Nam Dinh Province were interviewed during the fieldwork. As the paper describes, farmers have benefitted substantially from the program by accumulating knowledge, learning a new practice, and changing farmer mindsets towards agriculture. The innovative approach that JA Ibaraki applied has nurtured farmer thinking. As discussed, the contribution of Japanese ODA in Vietnam is mostly in large infrastructure sector areas but there is some aid assistant at the grass-roots level to improve the agricultural situation. The evidence from this study suggests that this project contributes to farmers as long as profits they produce are greater than investment costs. If not, it is highly likely that farmers enjoy the free participation and equipment provided by Japan, then cease the practice after the project is ended. The economic benefits are the important indicator for farmers whether they pursue what they learned.

Although the current study is based on a small sample of participants with reference to one case study, the findings suggest that agricultural development in line with the increase in farmers income could be possible if an appropriate distribution system was established in Vietnam. In addition, the current Vietnamese government's endeavor to double farmers income is a good sign for those working in the industry. The empirical findings through fieldwork highlight the existing challenges that farmers face at this juncture, which have largely resulted from the weak domestic system. Considering the farmers' eagerness to learn foreign techniques, the government needs to tackle the improvement in the fundamental system in

the agricultural industry. Establishment of the adequate system will ease the situation where farmers are in at the disadvantaged position in the society.

These findings from the research, therefore, provide the following insights for future research. Given the importance of agricultural development in developing countries, the research suggests that policymakers should tackle on reforms on distribution system to improve on farmers' incentives for the continuation of foreign adopted practices and increase sales of products for better revenue. There is a need for Japan to contribute to the development of the system through ODA since JA system could be a useful model for Vietnamese farmers. Improved agri-business environment is essential to allow farmers to pursue production of quality products, which in the end, lead to better living standard.

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