Policies to support young farmers:

an international review and a first look from a Thai perspective

Working paper. Comments are welcome

Nicolas Faysse

G-Eau, Cirad, Univ Montpellier, Montpellier
France ; Asian Institute of Technology, Thailand

Contact: faysse@cirad.fr

Summary

The farming population in Thailand is rapidly aging and this may stand as a key obstacle for the agricultural sector to face current economic and environmental challenges. How to support the installation of young farmers is becoming an increasingly discussed issue, and several programs have been initiated over the past 10 years to support young farmers. In order to contribute to this discussion, the present study proposes a review of policies implemented to support the installation of young farmers in various countries, mainly in the European Union, the United States, Japan and Korea. These policies are diverse in terms of the types of actions and the budget involved, but also, more generally, in terms of their objectives. These policies encompass: 1) a support to elder farmers to transfer their farm holdings to young people or to enter in partnerships; 2) a control of land sale prices; 3) a provision of loans, subsidies and training to young farmers; 4) the definition of guarantees with regard to the conditions and duration of land leases. The article finally considers investigations that may take place in Thailand to inform a discussion about policies to support young farmers.

1. Introduction

As many countries of Asia, Thai society is rapidly aging (Ariyapruchya et al., 2016). This process is particularly important in the farming population, which leads to major challenges. First, for many aged farmers, farming has become a complement to other sources of income (e.g., pensions and remittances, Nilsen, 2014). Aged farmers may not be willing to invest much more time and efforts in their farming activities that they do currently. Second, many aged farmers are used to certain farming practices. Third, a survey done in Prachinburi found that in most small-scale rice farms, children do not want to take over the farm after their parents retire (Faysse et al., 2017). Farmers may be reluctant to invest in their farms if they do not clearly identify a family member who could take over the farm once they retire. For these three reasons, aged farmers may have limited willingness to undertake changes in their farming systems.

The Thai government has initiated in 2015 a policy to develop “large-scale schemes”, whereby small-scale farmers receive support to work together in order to decrease production costs and collectively market products (National Economic and Social Development Board, 2017). However, these schemes will require proactive actions to be taken at individual and collective level, that aging farmers may not implement for above-mentioned reasons. The risk is of many farms to be trapped in a vicious circle of limited innovations, low profitability, and limited interest for young people to take over the farms. One consequence would be a strong decrease of the capacity of the Thai agricultural sector to face current economic challenges (e.g., remaining competitive especially compared to other countries where labor costs are cheaper) and environmental challenges (e.g., shifting to farming systems that pollute less and contribute less to global warming).

In Thailand, the discussion on policies to support young farmers is still incipient. In the past 10 years, a series of programs have been launched to support the installation of young farmers. The core component of most of these programs is capacity-building (Tapanapunnitikul and Prasunpangsri, 2014). Apart from a small amount of land provided by the Agricultural Land Reform Office, limited support for accessing land, capital and market is provided. The discussion on public policies to support young farmers may be furthered, especially with regard to three questions: 1) on which types of farms (in terms of size, of production, etc.) the installation of young farmers should be supported?; 2) what type of support should be provided?; and 3) how many young farmers should be supported so as to strongly decrease the process of aging farming population and to stop the above-mentioned vicious circle?

This discussion has taken place in many countries around the world over the past 60 years. In particular, such a discussion took place in France in the 1960s. At that time, the French Union of Young Farmers explicitly asked the government to stop considering that agricultural policies should only focus on supporting agricultural prices (as such policies actually mainly benefitted to well-established farmers on large farms). Rather, this Union of Young Farmers asked the government to develop policies focusing on farm structures, especially to accompany the installation of young farmers on economically sustainable farms (Goure, 2008).

The present study proposes a review of policies implemented in some countries to support the installation of young farmers. This review mainly focuses on countries of the European Union, the United States of America, Japan and Korea. Indeed, policies that would aim to change the on-going trends towards an aged farming population in Thailand have to be ambitious in their goals and means. These countries have developed policies to support young farmers for already several decades and, for some of them, with ambitious goals and means. Based on this review, a discussion section presents some elements that may be taken into account if some of these policies serve to inspire the design of policies to support young farmers in Thailand.

In making this link between existing policies in other countries and the situation in Thailand, it is important to keep in mind that the type of support needed by Thai young farmers (e.g., to access to land, capital, information and markets) is likely to be different from the support needed by young farmers in another country. For instance, in Japan or in most countries of the European Union, access to land is very difficult (Zondag et al., 2015), while in several countries of Africa, young farmers can easily start farming land that was not previously farmed. This review should not thus be seen as a search for possible “silver bullet” policies that could implemented in Thailand, but rather as an opportunity to widen the diversity of policies that can be considered, and to think about what kind of questions have to be asked in order to analyze potential policies in Thailand.

2. Distribution of farmers’ age in various countries

This section compares the age distribution of farmers in Thailand and in various countries of the European Union, in the United States and in Japan. Figure 1 presents the ratio of farm holders being less than 35 years old versus those that are older than 65 for these countries. There is a large diversity of situations within the European Union: in Poland, only 8% of farm holders are above 65 while in Portugal, 47% of farm holders are above 65. The farmers’ population in Japan is also generally aged.

Beginning farmers in Japan are mainly people aged above 60 years that have "come home to farm" (Uchiyama and Whitehead, 2012).

Thailand is currently situated in an average position in Figure 1, based on the 2013 census. However, the difference between Thailand and other countries presented in Figure 1 becomes clearer when looking at the dynamics. In France, the average farmer age was 51 years in 1988 and was 49 for men and 53 for women in 2010 (Lebourg, 2015; French Ministry of Agriculture, Food and Forest, 2016). The position of France in Figure 1 did not evolve much between 2000 and 2011. In the United Kingdom, farmer median age increased – only - from 55 to 58 from 1990 to 2005 (British Department for Environment, Food and Rural Affairs, 2006). By contrast, Figure 1 shows the fast evolution of the position of Thailand between 1993 and 2013. In a village in the North East region of Thailand, farmers were in 2008 55 years old on average while they had been 36 years old on average 25 years ago (Rigg et al. 2012). If no specific action is taken, Thailand may go on moving towards the bottom-right corner of Figure 1 in the forthcoming years.

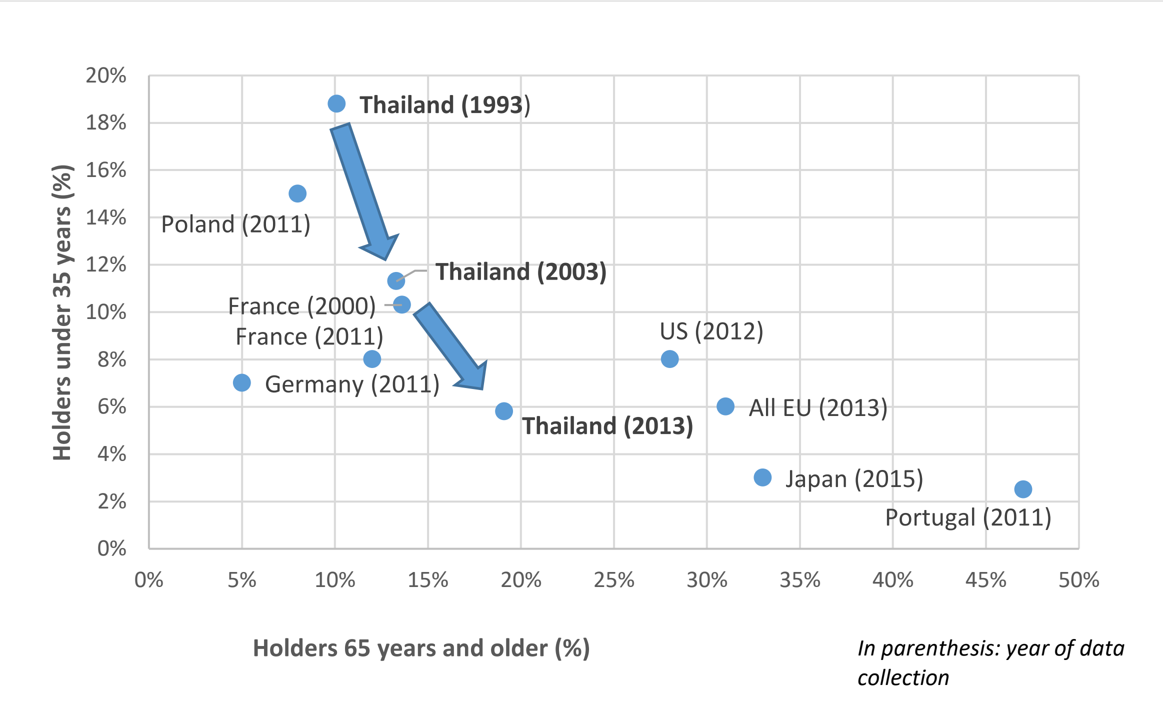

Figure 1. Farmers' age distribution in different countries

(sources: French Ministry of Agriculture, Food and Forest, 2000; Japanese Ministry of Agriculture, Forestry and Fisheries, 2017; National Statistical Office of Thailand, 2013; Wang, 2015; United States Department of Agriculture, 2014; Zagata and Sutherland, 2015)

3. Policies to support young farmers

3.1. European Union

The agricultural sector in the European Union is supported through the Common Agricultural Policy. This policy is mainly based on two pillars. Pillar 1 supports agricultural production and organizes a direct payment to farmers based on the type of production and the surface cropped. The amount of subsidy per hectare does not depend on the actual yield. Pillar 2 promotes broader rural development actions.

In the European Union, a young farmer is officially defined as someone who is less than 40, and who has started less than 5 years ago (Adamowicz and Szepeluk, 2016). Since the 1990s, three measures have been set up at the level of the European Economic Community (and then the European Union) for the installation of young farmers (Duric and Njegovan, 2015; European Commission, 2015; Wang, 2015). These measures are applied in almost countries but the criteria for eligibility, the support provided and the budget for each measure differ between countries of the Union.

1) ***Improvement in direct payments***. Under this measure (which is part of Pillar 1), young farmers can receive up to 25% of increase in the direct subsidies per hectare that the European Union provides to farmers.
2) ***Early retirement schemes***. This measure was implemented under Pillar 2. It was initiated in France in the 1960s. At that time, farmers over 65 obtained a supplement to their normal pension if their farm holdings were released to a farmer younger than 45 (Davis et al., 2013). Similar measures were adopted at European level since 1992. Farmers aged between 55 and 64 could transfer their holdings to young farmers and received a fixed pension payment. This measure ended in this form in 2013, because of criticisms about its efficiency (see below). In France, this measure was replaced by a one-time subsidy.
3) ***Support to the installation of young farmers.*** This measure (called Measure 112) is also framed as part of Pillar 2. Young farmers can access subsidies and loans at low rates. A young farmer usually needs to have some agricultural qualification and to prepare a business plan in order to benefit from this policy.

France is the country that by far spends the largest budget in supporting young farmers in the European Union (Gregory, 2010). In 2008, France spent approximately 160 million euro in the implementation of Measure 112, which benefitted 7,000 young farmers (ibid).

In the early 1960s, France also implemented other policies to support young farmers. Laws were enacted to facilitate the modernization of agriculture and the installation of young farmers on economically sustainable farms. One condition for getting subsidies was that the size of the farm of a young farmer should be above a certain threshold, depending on the region. These policies also aimed to discourage the development of very large size farms. In order to make mid-size farms accessible to young farmers, two main policies were set up.

First, the Land Development and Rural Establishment Societies (SAFER, according to the French acronym) were created. The SAFERs are private companies whose shareholders are public institutions and farmers' unions. The SAFERs are automatically informed of upcoming sales of land in agricultural or natural zones, and may exercise the right to preempt the land. They can buy the land at a price that is calculated based on predefined indicators. The SAFERs then sell back the land to farmers, often after a process of land unification. They sell the land in priority to farmers whose land has decreased and to young farmers (Sencébé, 2012; Hennessy, 2014). In the past decade, other non-governmental organizations have also started buying land so as to make it available to young farmers (Ravencroft, 2014).

A second policy organizes long-term leases. In 1946, a policy was set up to help tenants make investments and manage land over the long term (Barral and Pinaud, 2017; Courleux, 2011). According to this policy, tenant farmers have some guaranteed rights: they can choose the crops on their own, lease agreements can be continued automatically as long as the tenants pay the rent, and tenants have the right to preempt the land if the owner wants to sell it. The owners can stop reconducting the lease only if the tenants do not pay or if the owners want to start farming by themselves. Rental prices evolve annually according to indexes calculated at regional level. Other countries in the European Union have a similar policy (Courleux, 2011).

3.2. United States

In the United States, public policies generally use the concept of « beginning farmer » rather than the one of young farmer. A beginning farmer has started farming less than 10 years ago (with no definition of age limit). The Farm Service Agency of the US Department of Agriculture proposes long-term loans to farmers (Dodson and Koenig, 2009; Kauffman, 2013). If the farmer and the farm project meet some criteria, this agency can provide up to 100% of the loan required to purchase land (up to US$ 200,000).

Several states of the United States implement complementary policies. In Iowa, farmers who sign a lease with beginning farmers can save on taxes (Freedgood and Dempsey, 2014). Tax incentives will be higher for farmers that sign a crop-share agreement (according to which they invest and share risks with the beginning farmers), compared to a fixed rental fee, which entails that the lessee bears alone the risks.

In the states of Vermont and Massachusetts, public and private funds buy land from farmers and sell it again on the market. They sell land with the obligation that afterwards the land should be sold at its agricultural value. The funds decide this agricultural value, considering that it is the amount farmers would be ready to pay, when competing with other farmers, to own the land for the purpose of operating a profitable farm business. The funds have the right to prior purchase of the land if they consider that the land will not be adequately used after purchase. This process aims to lower the price of agricultural land so that beginning farmers can access them (Plotkin, 2015). Thus this process is similar to the French SAFERs system, with the difference that in the US farmers selling land to these funds do it on a voluntary basis.

3.3. Other countries

In Korea, as part of the Farm Successor Fostering Program, young farmers can get 10-year loans (Ma, 2014). In Japan, a scheme provides pensions to farmers that retire between 60 and 65 and farmers get an additional amount if they transfer their farms to a successor (Uchiyama, 2014). This subsidy increases if the land is transferred to a successor less than 35 years old. Moreover, in order to prevent the fractioning of land when a farm succession takes place, if the farm is given to only one heir, the latter is exempted from heritage taxes (Uchiyama and Whitehead, 2012).

In several other countries, groups of young farmers are selected for support in the frame of pilot programs: they receive training and loans to start their activities. This takes place for instance in Taiwan (Kuo and Coa, 2014) and Botswana (Williams, 2012). In Tunisia, a public agency supports the agricultural projects of young people who obtained a diploma in agriculture. The agency provides long-term loans, accompanies the young farmers in the design of business plans and visits the farms during the first years to provide support (Tunisian Agency for the Promotion of Agricultural Investments, 2016). Several states of Canada and Australia also provide specific loans to young farmers (Murphy, 2012). Among all previously-mentioned countries, those of the European Union have implemented the widest – and also most costly – range of policies to support young and beginning farmers (Table 1).

Table 1. Policies implemented to support young and beginning farmers

Type of policy	European Union	United States	Japan	Korea
Older farmers receive public subsidies if they lease or sell land to young farmers or if they enter in partnership with them	Yes *	Yes *	Yes	No
Organizations make sure that land prices do not become higher than agricultural value	Yes *	Yes *	No	No
Loans specifically designed for young farmers	Yes	Yes	Yes	Yes
Initial grant to young farmers	Yes	No	No	No
Training	Yes	Yes	Yes	Yes
Guarantees with regard to the conditions and duration of land leases	Yes *	No	No	No

** In some states only*

3.4. Impacts and efficiency

There has been no comprehensive assessment of the policies to support young farmers in the European Union (Davis et al., 2013). In Korea, policies to support farmers were found to be insufficient to change the trends of aging farmers and the lack of installation of young farmers (Kang, 2010). The most studied measures to support the installation of young farmers are the Early Retirement Schemes, which have been often criticized as many studies found that a large number of beneficiaries would have retired anyway only few years afterwards (e.g., Bika, 2007; Fellman and Möllers, 2009). In all these studies, the Early Retirement Scheme measure was judged as largely ineffective because farmers had access to a complete pension system. However, the efficiency of this measure may not be the same in developing or emerging countries where such system is not in place.

Another key issue in the successful implementation of the Early Retirement Schemes is that elder farmers may not accept to stop farming, for instance because of the social status attached to farming. This issue is important in particular in Japan (Uchiyama, 2014). Duesberg et al. (2017) interviewed old farmers that had no identified a successor in Ireland. They showed that these farmers were reluctant to sell their land, because being farmer was part of their lifestyle. These farmers were much more interested in entering in partnerships with young farmers.

In the European Union, the share of young farmers in the farming population is relatively high in countries like Germany, France or Poland (Zagata et al., 2015, see also Figure 1). The proportion of young farmers in France and Germany is similar, although the German government spends much less money on young farmer programs than the French government (Zagata et al., 2015). Actually, the large proportion of young people in these countries may be explained not only by public policies, but also by the fact that the average farm size is larger in these countries compared to others, such as Portugal, where the aging process has been strong (Zagata et al., 2015). Young people may find it more interesting to take over farms of retiring people that can already offer a good income.

This difference in size can be explained by historical differences in farm size, but also by the strong decrease of the number of farmers over the past 50 years (e.g., in France) and the related continuous increase of the average farm size. Similarly, in Japan, one key difficulty for young farmers to start farming is the very small size of farms (typically less than 2 ha, Uchiyama, 2014). In many cases, young people cannot get a sufficient income from farming only on such small farms. These elements call for a detailed evaluation of the impacts of these policies and also of the importance of the size of the farms that young farmers can start working with.

4. Considering possible policies in Thailand

4.1. Taking into account the diversity of potential young farmers

In France, in the 1960s, the public policy that was designed focused on one main type of young farmer. In order to get support, young farmers were required to have an agricultural diploma and to propose a business plan that showed the financial sustainability of the project. This meant often that the farmer was supposed to work fulltime on the farm. However, in the past years, many new types of young farmers have emerged in France, which do not comply with these criteria. For instance, some farmers do not have an agricultural diploma, some start farming when they are above 40, some want to start organic projects on a small-scale that initially does not enable an income above the required threshold – and they also do farming on a part-time basis. Moreover, the administrative process to get public subsidies is complex. As a consequence, only one third of young farmers installed in France in 2009 got access to the full package of subsidies described above (Rogerieux, 2011; French Agency for Services and Payments, 2012).

The same diversity of situations exists in Thailand. There is a diversity in farm size : some young farmers work part-time on less than 0.15 ha and others take over the farms of their parents on much larger areas (Cochetel et al., 2017). But there is also a diversity in the projects of these farmers: some mostly see farming as a business, while other pay specific importance to their engagement in sustainable modes of production and in rural life (Ibid.). The public policies that may be designed should cater for this diversity of situations.

4.2. A need for further research to inform policy design

This review has shown the wide diversity of policies implemented to support the installation of young farmers in various countries. These policies are diverse in the types of actions and the budget involved, but also, more deeply, in terms of their general objectives. In most countries, policies are set up to help young farmers start a business, but in others, these policies are part of a broad vision of the type of farming structures that should be promoted. Finally, above-mentioned policies differ in terms of the financial and human resources dedicated and the number of young farmers supported.

To further this discussion, there is a need to better understand the situations and mindsets of young people. Cochetel and al. (2017) found that Thai young farmers had generally a secured land access when they started farming (in particular thanks to their parents). Thus, there is also a need to understand the constraints of young people that may be interested to start farming, but were not able to begin, e.g., because they did not get access to land or to financial resources. There is also the need to assess what kind of income (obtained from farming as a unique activity or as part of multiple activities, e.g. combined with rural tourism) may lead a sizeable number of Thai young people to consider it worthwhile to stay in rural areas compared to moving to urban areas. These two types of investigations are all the more important that young farmers are not yet organized in formal unions that could have a voice in public policy design. These investigations would be key to support a discussion about what kind of policies may be implemented in Thailand, not only to decrease the trend of aging farming population, but also to cater for the diversity of projects of young famers and to make sure that the agricultural sector remains competitive and an important component of the economy and of rural life.

5. References

Adamowicz, M., & Szepeluk, A. (2016). Support to Young Farmers as Part of Agricultural Policy of the European Union. *Problems of Agricultural Economics* 3(348), 106-127.

Ariyapruchya, K., Martin, S., Eduardo, M., Reungsri, T., & Luo, X. (2016). *Thailand Economic Monitor*. World Bank, Washington DC.

Barral, S., & Pinaud, S. (2017). Accès à la terre et reproduction de la profession agricole. *Revue Française de Socio-Économie,* (1), 77-99.

Bika, Z. (2007). The territorial impact of the farmers' early retirement scheme. *Sociologia Ruralis*, 47(3), 246-272.

British Department for Environment, Food and Rural Affairs (2006). *Agriculture in the UK 2006.* London, UK.

Cochetel, C., Phiboon, K., Faysse, N., Pinthukas, N. (2017). *The diversity of young farmers in Chiang Mai and Prachinburi Provinces, Thailand*. Unpublished document.

Courleux, F. (2011). Augmentation de la part des terres agricoles en location: échec ou réussite de la politique foncière? *Économie et statistique*, 444(1), 39-53.

Davis, J., Caskie, P., & Wallace, M. (2013). How Effective are New Entrant Schemes for Farmers? *EuroChoices*, 12(3), 32-37.

Dodson, C. B., & Koenig, S. R. (2007). Facilitating Beginning Farmers Purchase of Farmland*. Journal of the ASFMRA*, 72-84.

Duesberg, S., Bogue, P., & Renwick, A. (2017). Retirement farming or sustainable growth–land transfer choices for farmers without a successor. *Land Use Policy*, 61, 526-535.

Duric, K., & Njegovan, Z. (2015). Mechanisms of support for the young rural population in the european union. *Ekonomika Poljoprivrede*, 62(4), 1003.

European Commission (2015). *Young Farmers and the CAP.* European Commission, Brussels.

Faysse, N., Aguilhon, L, Phiboon, K., Purotaganon, M. (2017). *Relations between farm characteristics, agricultural production and water resources in Prachinburi Province, Thailand: Shaping the present, influencing opportunities for evolution*. Unpublished paper.

Fellmann, T., & Möllers, J. (2009). Structural Change in Rural Croatia—Is Early Retirement An Option? *International Advances in Economic Research*, *15*(1), 125-137.

Freedgood, J., & Dempsey, J. (2014). *Cultivating the Next Generation: Resources and Policies to Help Beginning Farmers Succeed in Agriculture*. American Farmland Trust. Unpublished document.

French Agency for Services and Payments (2012). *L'installation sans DJA Installation et devenir des agriculteurs sans la Dotation Jeunes Agriculteurs.* *https://www.asp-public.fr/etude/linstallation-sans-dja-installation-et-devenir-des-agriculteurs-sans-la-dotation-jeunes*. Accessed September 2017.

French Ministry of Agriculture, Food and Forest (2016). *Population active*. Downloaded from http://agreste.agriculture.gouv.fr/publications/graphagri/article/graphagri-france-2016. Accessed September 2017.

French Ministry of Agriculture, Food and Forest (2000). *Agricultural Census in 2000.*

Gregory, M. (2010). *State of play of CAP measure "Setting up of Young Farmers" in the European Union*. Presentation at the Seminar of the European Council of Young Farmers, 20th September.

Goure, C. (2008). *Michel Debatisse ou la révolution paysanne*. Desclée de Brouwer Editor, Paris.

Hennessy, T. (2014). *Common Agricultural Policy 2014-2020 Tools to Enhance Family Farming: Opportunities and Limits: In-depth Analysis*. European Parliament, Brussels.

Japanese Ministry of Agriculture, Forestry and Fisheries (2017). *2015 census of agriculture and forestry.*

Kauffman, N. (2013). Financing young and beginning farmers. *Main Street Economist*, 2, 1-7.

Kang, H. S. (2010). *Understanding farm entry and farm exit in Korea*. Doctoral dissertation, University of Birmingham.

Kuo, K. F., & Coa, E. Y. (2014). *One-stop service for young farmers in Taiwan*. Proceedings of the International seminar on enhanced entry of young generation into farming, pp. 163-173. Food and Fertilizer Technology Center, Jeonju (Korea), October 21-23.

Lebourg, J. (2015). *La transmission des exploitations agricoles*. Agreste document n° 29. French Ministry of Agriculture, Food and Forest, Paris.

Ma, S. J. (2014). *How to encourage young generation to engage in farming: Korea's case*. Proceedings of the International seminar on enhanced entry of young generation into farming, pp. 20-24. Food and Fertilizer Technology Center, Jeonju (Korea), October 21-23.

Murphy, D. (2012). *Young Farmer Finance Schemes*. Nuffield Australia Farming Scholars. Moama, Australia.

National Economic and Social Development Board (2017*). Twelfth national economic and social development plan*. Office of the Prime Minister, Bangkok, Thailand.

National Statistical Office of Thailand (2013). *Advanced report 2013 agricultural census.* Ministry of Information and Communication Technology.

Nilsen, J. (2014). *Remittances and development: the impact of remittances on livelihood security. Evidence from Ko Kaeo sub-district, Thailand*. Master thesis, University of Agder, Kristiansand, Norway.

Plotkin, S. E. (2015). *Cultivating Opportunity: Land Transfer Tools to Support Land Access for Beginning Farmers.* MSc Thesis, University of Montana.

Ravenscroft, N. (2014). Securing land for farmers. *The Land*, 15, 39-42.

Ricks, J. I. (2017). Public Choice, Institutional Change, and Rural Subsidies: Politics and the Price of Rice in Thailand. *Journal of Contemporary Asia.*

Rigg, J., Salamanca, A., & Parnwell, M. (2012). Joining the dots of agrarian change in Asia: A 25 year view from Thailand. *World Development*, 40(7), 1469-1481.

Rogerieux, L.L. (2011). *Etude des financements accessibles aux porteurs de projet agricole hors DJA et à leurs structures d'accompagnemen*t. MSc thesis, Paris 11 University.

Sencébé, Y. (2012). La SAFER. *Terrains & travaux*, 1, 105-120.

Tapanapunnitikul, O., & Prasunpangsri, S. (2014*). Entry of Young Generation into Farming in Thailand. Enhanced Entry of Young Generation into Farming.* Proceedings of the International seminar on enhanced entry of young generation into farming, pp. 45-62. Food and Fertilizer Technology Center, Jeonju (Korea), October 21-23.

Tunisian Agency for the Promotion of Agricultural Investments (2016). *Prêts fonciers.* http://www.apia.com.tn/prets-fonciers.html. Accessed September 2017.

Uchiyama, T. (2014). *Recent Trends in Young People's Entry into Farming in Japan: An International Perspective. Enhanced Entry of Young Generation into Farming*. Proceedings of the International seminar on enhanced entry of young generation into farming, pp. 1-16. Food and Fertilizer Technology Center, Jeonju (Korea), October 21-23.

Uchiyama, T., & Whitehead, I. (2012). Intergenerational farm business succession in Japan. In Baker, J. R., Lobley, M., & Whitehead, I. (Eds.) *Keeping it in the family: international perspectives on succession and retirement on family farms*, pp. 55-73. Routledge, London.

United States Department of Agriculture (2014). *2012 US Census of Agriculture.*

Wang, J. H. (2015). *Recruiting Young Farmers to Join Small-Scale Farming: A Structural Policy Perspective.* . Proceedings of the International seminar on enhanced entry of young generation into farming, pp. 17-32. Food and Fertilizer Technology Center, Jeonju (Korea), October 21-23.

Williams, M. (2012). Contextualizing Youth Entrepreneurship: The Case of Botswana and the Young Farmers Fund . MSc Thesis, University of Guelph, Ontario, Canada.

Zagata, L., & Sutherland, L. A. (2015). Deconstructing the 'young farmer problem in Europe': Towards a research agenda. *Journal of Rural Studies*, *38*, 39-51.

Zondag, M. J., Koppert, S., de Lauwere, C., Sloot, P., & Pauer, A. (2015). *Needs of young farmers.* European Commission, Directorate-General for Agriculture and Rural Development, Brussels.