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The long road to becoming a farmer: Thai agricultural students' plans

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Abstract

In past decades, young people in newly industrialized Asian countries have become progressively less involved in farming. In Thailand, providing support to young people to start farming is one possible way to ensure that some farms will continue to innovate and play an active economic role in the future. This study investigated if and how Thai agriculture students plan to become farmers. We interviewed a total of 187 agriculture students taking vocational courses or working towards a university degree focused on training future farmers. Among these students, 61% planned to become full-time farmers at some point in the future and 32% planned to farm part-time as a secondary income-generating activity. Most of the students aimed to set up farms that were diversified, knowledge-intensive and capital-intensive. Therefore, although many students came from a farming family and would be able to access some of their parents' land in the future, most considered that they did not have yet the necessary resources, such as capital and farming skills, to become farmers. Consequently, many students planned to spend time, often up to 10 years and sometimes more, acquiring these resources before starting a farm. Public policies could provide support to shorten this period if graduates in agriculture are to be among young people who engage in farming.

Keywords

Agricultural students, setting up a farm, Thailand, vocational training, youth aspirations

Introduction

In most newly industrialized countries in Asia, the number of young people getting involved in farming has been decreasing over at least the two last decades. This process has been reported in the Philippines (Moya et al., 2015), China (Ji et al., 2017), Thailand (Rigg et al., 2012; Suphannachart, 2017) and Indonesia (Susilowati, 2014). Among the many explanations put forward for the decreased engagement of young people in farming in these newly industrialized countries, one key reason is the increasing availability of non-farming jobs. Indeed, in 2018, in these countries, the agricultural sector represented less than 13% of the gross domestic product (GDP), whereas industry and manufacturing represented at least 50% of GDP (World Bank, 2019b). In particular, young people constitute a large share of labour force in the industrial sectors in Thailand, the Philippines and Indonesia (Jha, 2008).

Another reason is the difficulty for young people to obtain an income from farming that would be comparable to what they could earn in non-farming jobs. Most farms are small and remain so despite the reduced importance of agriculture in national economies (Rigg et al., 2016). Many young people opt for long studies to build a future away from farming (Lee and Malin, 2013). The declining engagement of young people in farming is partly

responsible for the decrease of the agricultural labour force, which is regularly declared to be too big for the needs of the agricultural sector in these countries (e.g. Suphannachart and Boonkaew, 2019). However, the decreasing engagement of young people, along with the ageing of the whole population, is also contributing to the rapid ageing of the farming population.

All these changes are particularly apparent in Thailand, which is among the main exporters of agricultural products including sugar, cassava, products of aquaculture and rice (Office of Agricultural Economics, 2017a). However, in 2018, the agricultural sector in Thailand represented a small share of the national economy – around 8% – although it more or less stopped decreasing after 1993 (World Bank, 2019a). In Thailand, the decline in the

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number of young people becoming involved in farming is particularly striking among those who work on their own farm or who collaborate on family farms. According to agricultural censuses, farm owners aged less than 45 decreased from 2.6 million to 1.4 million in the decade 2003–2013.

The two reasons mentioned above for the decline in young people's wish to start farming are especially relevant in Thailand. In particular, the profitability of the many small-scale rice farms has dropped considerably in recent years. Many young people from farming families in Thailand thus opt for non-farming jobs as their main source of income, leaving their elders to take care of the farms (Rigg et al., 2014, 2019). These older farmers tend to be less willing or less capable of improving their farming system, particularly when it comes to increasing farm profitability (Kaewanan, 2016). They increasingly produce for home consumption. A 'dormant' agricultural sector, in which most farmers would be elderly, is one option for the future of the agricultural sector in Thailand. The Thai government did not choose this option as, in several strategic documents published in recent years, it has repeatedly claimed its willingness to support young people who want to start their own farm (e.g. Office of Agricultural Economics, 2017b). However, to date, programmes to organize such support have been very limited (Faysse et al., 2019).

Helping young people become farmers first requires identifying young people who may be interested. Agriculture graduates could a priori be in this population group. However, several studies in emerging Asian countries showed that, when students following general curricula at higher agricultural education institutions plan to work in the agricultural sector later on, they intend to get a job as an expert in the public sector, or in a private company, but generally do not intend to become farmers (de Rooij et al., 2016; Masood, 2012; Niranjan et al., 2018). It may thus be more efficient to try and identify young people interested in becoming farmers among graduates from educational institutions where becoming a farmer is one of the possible careers for which students are trained.

Studies of agriculture students in Asia mostly investigated the intentions of these students in terms of future professional activities along two dimensions. The first dimension is their intention to get involved in the agricultural sector (Bednaříková et al., 2016). The second dimension is the type of work that agriculture students aim to do in the agricultural sector. Pouratashi (2015) showed that education played a major role in supporting agriculture students' intentions to become entrepreneurs in the agricultural sector, especially thanks to improving the students' perception of their own capacities. In newly industrialized countries in Asia, very few studies have analysed the career aspirations of agricultural students with respect to becoming farmers. Dhakre (2016) surveyed agriculture students in India, who were willing to become farmers but who felt they still needed more training to be able to do so. Several studies assessed the willingness of young people to become farmers and identified some of the factors that influence this willingness (for instance, Bezu and Holden, 2014; Yeboah et al.,

2017). However, these studies focused on young people' views based on the resources available to them at the time of the study and did not assess how these young people possibly planned to obtain the resources they would need to start farming on a farm they would be ready to farm.

The present study investigated if and how Thai agriculture students plan to become farmers (or not) in the future. In doing so, it aimed to provide evidence for linkages between students' willingness to farm and the farms they would like to have, their assessment of the difficulties they would face when starting such a farm and the timeline they envisaged to obtain the resources they would need to overcome these difficulties. The study was mainly based on a survey of agriculture students enrolled in the two types of academic institutions where farming is one of the possible careers for which students are trained: vocational schools and universities proposing bachelor's degrees officially focused on training future farmers.

Methodology

Agricultural educational institutions in Thailand

In 2018, 24 higher educational institutions and 47 vocational educational institutions offered curricula related to agriculture in Thailand. First, higher education institutions with curricula in agriculture are mainly universities and institutes of technology. In the 2010s, three universities introduced bachelor's degrees officially aimed at training future farmers. Approximately, 50 students sign up for each of these bachelor's degrees each year. Second, schools of agriculture and technology offer vocational training. Vocational education in agriculture was originally established to meet the need for agriculture workers during the green revolution. It later evolved to prepare students for a broader range of employment opportunities (Traimongkolkul and Tanpichai, 2005). Schools of agriculture and technology do not have a formal list of careers for which they train students, but preliminary interviews in some of the schools showed that they train not only future farm employees but also future farmers. For instance, the curricula concerned with agriculture include student management of a small-farming project, including production, marketing and accounting.

Most of these schools offer two qualifications: (1) a vocational education certificate (*Bor Wor Chor* in Thai), obtained after 3 years (grades 10–12, i.e. when students are 15–17 years old) and (2) a technical diploma (*Bor Wor Sor* in Thai), obtained after 2 years (grades 13 and 14, i.e. when students are 18 or 19). According to Pimpa and Suwannapirom (2008), vocational education suffers from a 'second-class' reputation compared to higher education. Moreover, relatively few students in vocational education choose agriculture as a major. In 2016, only 3598 vocational students graduated in agriculture and aquaculture (1533 with a *Bor Wor Chor* certificate and 2065 with a *Bor Wor Sor* diploma), compared for instance with 63,600 in industry (unpublished data from the Vocational Education Commission, 2018).

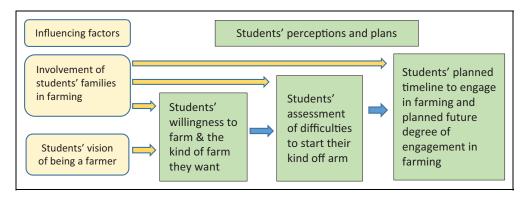


Figure 1. Conceptual framework.

Conceptual framework

The study focused on three main topics. First, we analysed students' willingness to farm and the farm they would like to own. Hereafter, the term 'farming' means being the owner of the farm capital and being involved in making decisions concerning the farm, either independently or as part of a group, in particular the family. Young people's aspirations are often understood either as the plans they have given the resources available to them or their 'hopes or dreams' (Leavy and Smith, 2010; Ruiz Salvago et al., 2019). The present study focused on the farms that the students would like to acquire. Students may not be able to acquire the kind of farm they would like to have in the short term. However, these farms are not necessarily unrealistic: students described the farms they would actually setup, if they managed to get the resources they needed as planned. Second, we analysed students' assessment of the difficulties they thought they would face starting the farm they would like to have. Third, we analysed their planned timeline to engage in farming (if they planned to do so) and whether they planned to farm part- or full-time.

Studies investigating the aspirations of young rural people found evidence for two types of factors influencing these aspirations. The first type includes the family structure and assets, and the family and social networks in which young people are embedded (Flynn and Sumberg, 2017). Young people from families who only earn a low income from farming may not perceive farming as a 'realistically desirable occupational choice' (Leavy and Hossain, 2014). A second type of factors includes the perception of these young people about themselves and their visions of possible future activities, in our case, farming (Mwaura, 2017; Sumberg et al., 2017). In the present study, one factor from each type was considered as possibly influencing students' willingness to farm and their plans: whether the parents of students were involved in farming (and in that case the characteristics and profitability of parents' farms) and the vision that students had of being a farmer. Figure 1 shows the links between the different elements of the conceptual framework.

Data collection

First, we visited five schools of agriculture and technology (randomly chosen among those located in the Northeast and East Regions of Thailand) as well as two of the three universities offering bachelor's degrees officially aimed at training future farmers. We met staff members of each school and university and then selected the educational institutions that had a sufficient number of agriculture students to conduct a survey. The institutions selected were three schools of agriculture and technology located in Chachoengsao, Sa Kaeo and Roi Et Provinces, and the Faculty of Natural Resources and Agro-Industry of Kasetsart University located in Sakhon Nakhon Province. The latter offered a bachelor's degree in agricultural resources and production management.

A survey was conducted of 187 students studying in the four educational institutions. Bor Wor Sor students are older than Bor Wor Chor students and may have thus more definite plans about what they would like to do after obtaining a vocational diploma. For this reason, we focused on Bor Wor Sor students and interviewed 137 of them in the three above-mentioned schools of agriculture and technology. This represented 88% of Bor Wor Sor students in the three schools and 6.6% of all the students who graduated from Bor Wor Sor schools in Thailand in 2016. We also interviewed 50 students in the third or fourth year of the bachelor's degree in agricultural resources and production management at Kasetsart University. Students were selected at random in each academic institution. The students interviewed were aged between 18 years and 22 years and 45% of them were female.

The interviews of the students were structured in four phases, which addressed the different elements of the conceptual framework. We first asked students whether their parents were farmers and, if yes, to list the main characteristics of their parents' farm. Second, we asked them for their opinions concerning key socio-economic constraints to becoming a farmer and drawbacks to being a farmer. These constraints and drawbacks were taken from Ruiz Salvago et al. (2019) who analysed the vision that young rural people had of farming in Thailand. The constraints and drawbacks were high-risk activity, high needs for investment capital, low profitability, limited opportunities to increase farm incomes in the future, difficulty in accessing land, low social status and hard work. The interviewees were asked to say whether they considered each of the seven topics to be a major impediment to farming, in the

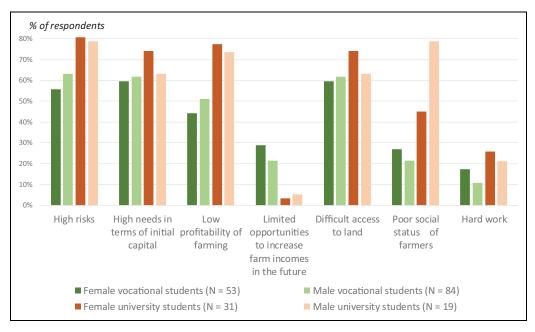


Figure 2. Students' views of the constraints to becoming a farmer and the drawbacks of being a farmer.

sense that due to this constraint, starting farming would be difficult, not desirable or not possible, at least immediately after graduation. Third, the interviewees were asked about whether they planned to farm in the future. We asked those aiming to become farmers to describe the farm they wanted and what difficulties they thought they would face. Fourth, we asked those aiming to farm how they saw their future timeline in terms of when they planned to engage in farming (immediately after graduation, in the following 10 years, or later on) and whether, at each stage, they aimed to farm either full-time or as a secondary incomegenerating activity. The interviews lasted between 45 min and 60 min.

Four workshops were also organized in Roi Et and Chachoengsao vocational schools to discuss and validate the preliminary analyses. Two workshops were organized with 21 teachers and two other workshops with 49 *Bor Wor Sor* students (among whom 20 were female). The workshops lasted one hour and half on average. All the interviews and the workshops took place between September 2018 and January 2019.

Results

Family involvement in farming and students' vision of being a farmer

In 85% of the students' households, at least one person farmed on a family farm (in 33% of cases, two parents only farmed, in 39% of the cases, they had a complementary source of income and in 13% of the cases, farming was a secondary activity). The average size of parents' farm was 4.0 ha, out of which 3.2 ha belonged to them. This is slightly larger than the average farm in Thailand (3.1 ha according to the 2013 agricultural census). The most frequently grown crops were rice (on an average of 2.0 ha per farm), cassava (0.4 ha per farm), sugarcane (0.4 ha per

farm) and fruit trees (0.4 ha per farm). Among the farming families, 17% bred fish and shrimp. Despite the diversity of agricultural products, the parents' farming systems generally focused on producing only one or two crops. The profitability of crop farming or livestock breeding was highly variable: rice farming generally provided the lowest income per hectare while fish and shrimp breeding provided the highest income.

Figure 2 shows how many students considered each of the seven pre-identified constraints and drawbacks to be a farmer as a major impediment to farming. Students mainly put forward economic issues, such as the need for considerable starting capital, the low profitability and the risks involved in farming. Differences according to students' level of education were larger than gender differences. Vocational students generally did not consider the working conditions or the social status to be impediments to becoming a farmer. University students gave more importance to the constraints and drawbacks of becoming a farmer than vocational students. This was particularly the case concerning the social status of farmers. University students wanted to have a 'modern' farm, which, in their view, should clearly differ from those in a farming society they considered as traditional and with which they did not want to be associated.

Willingness to farm and the kind of farms the students would like to have

All the students interviewed had already considered a possible future as a farmer. Only 6% of the students did not aim to become farmers any time in the future. The others (94% of the sample) aimed to do so at some stage, either parttime or full-time. Students aimed to have medium-scale farms applying knowledge-intensive farming practices and growing diversified crops. None of them aimed to have large-scale farms focused on one crop only. If they were

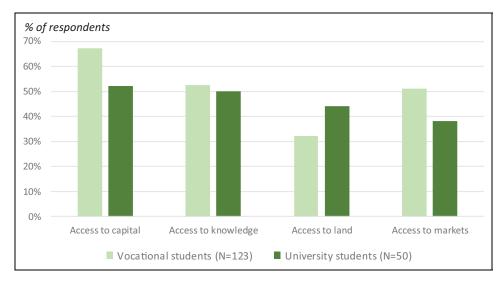


Figure 3. Difficulties students thought they would face in becoming a farmer.

able to solve the issues related to land access, students whose parents were farmers would prefer a farm of 3.2 ha on average (i.e. less than the average size of the farm their parents farmed). However, they described much more intensive farming systems. Their kind of farm they would like involves both plant and animal production (91% of students). The students mentioned a variety of products, including fruit (75%), vegetables (56%), fish (52%) and chickens (49%). In most cases, the farm they would like to have would differ from their parents' farms in two main ways: only 20% of the students wanted to produce two or more of the same crops or animals on their farms as their parents. For instance, only 3 of the 22 students, whose parents only grew rice, planned to only produce rice. What is more, 12% of them aimed to do organic farming, although none of their parents did so.

Most students we interviewed underlined a goal of developing integrated farming, that is, the joint production of crops and animals and the reuse of the residues of one agricultural production as nutrients for another one. This type of farming is being promoted by agricultural education institutions, linked with the self-sufficiency economy concept, which is a cornerstone of policies of the Ministry of Agriculture and Cooperatives for smallscale farms in Thailand (Schaffar, 2018). This type of farming was a clear departure from their parents' farm, which generally focused on a limited number of crops or animals. Students also said that the farms they wanted would involve limited production risks, for instance thanks to the installation of irrigation or the use of vaccines. To conclude, the farms described by students were not overly unrealistic but required considerable starting capital, technology and skills.

Difficulties involved in becoming a farmer

Students interested in becoming a part-time or full-time farmer in the future easily expressed their plans and the possible obstacles to becoming a farmer. Figure 3 shows the difficulties envisaged by the 173 students who planned to become farmers at some stage in the future. It gives the percentage of students who considered that, to get the farm they want, they would have difficulty obtaining the necessary capital, knowledge, land and access to markets. Lack of capital was the most frequently mentioned difficulty. The staff at the educational institutions mentioned that many parents would not be able to provide the starting capital needed to become a farmer. The students mentioned problems in accessing markets as they foresaw strong competition between farmers to sell products and difficulties in accessing market channels that they believed would give them fair prices.

Concerning access to knowledge, students mentioned that they would lack marketing skills (this was mentioned by 27% of the students who planned to become a farmer in the future), farming skills (18%) and accounting skills (16%). These students believed that they did not receive sufficient training in these topics during their academic training. Students who aimed to have a knowledgeintensive farming system also explained why some of them underlined the need to acquire knowledge outside the family sphere. Students chose their on-the-job training according to their future plans. Students who planned to become full-time farmers had already chosen a strategy to improve their farming skills. They spent longer as a trainee in farms (on average, 90 days) during their studies than students who planned to farm part-time (on average, 48 days) and than those who did not plan to farm at all (on average, 39 days). Students in the two latter groups preferred to spend part or all of their internships in companies or in public organizations.

Not surprisingly, the students' assessment of the difficulty accessing land was related to the characteristics of their parents' farms, if they had one. Among the 26 students who came from non-farming households, 22 planned to become farmers but expected to have difficulty accessing land. Twenty-two percent of the interviewees said that their family did not have sufficient land for them to work with

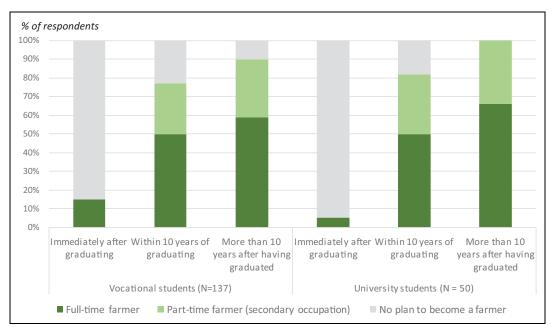


Figure 4. Students' plans to become farmers.

their parents or to start farming on their own on part of the family land, and 14% of the interviewees said that the family land had problems such as low soil fertility. For those who mentioned accessing land as a difficulty, it had generally an impact on their plans to start farming. Among the 66 students who thought they did not have access to sufficient land, 54 planned to settle on a farm > 10 years after having graduated.

Approximately, two-thirds of interviewed students did not see access to land as an obstacle to starting farming on their own. However, the average age of the parents of the students from farming families was 47, so they would probably continue to work on the farm for at least another 10–15 years. Consequently, the interviewees could not plan to take over their parents' whole farm in the short term. Many students also saw the shift from working with their parents to farming on their own as a progressive process. For instance, one student explained that 'I will work on my parents' farm, but I will grow my own crops. Then I will be able to support my parents on their farm but I will also grow crops in my own way on my own land'.

A smaller proportion of university students considered that they would have problems accessing capital compared to vocational students, because they thought they could easily get better-paid jobs after graduating. They also worried less about accessing markets, because they were more confident in their capacities to build social networks. The differences between students' assessment of the future difficulties involved in starting farming in terms of gender were limited and not significant (data not shown). Overall, 70% of the students who aimed to become a farmer sometime in the future thought they would face at least two of the four difficulties in Figure 3 and 42% thought they would face at least three of these difficulties.

Planned timeline and degree of engagement in farming

Because of above-mentioned difficulties, few students expected to become a farmer immediately after graduating (Figure 4). A total of 39% of the vocational students planned to get a bachelor's degree in agriculture after getting their technical diploma. They aimed to do so to acquire more agricultural knowledge and to have more job opportunities. According to the teaching staff, the students' parents usually encouraged their children to continue until they got a bachelor's degree. Among university students, 76% planned to work as employees in the agricultural sector immediately after graduating and to become a farmer later. Here again, there was no significant difference in the students' plans according to gender (data not shown).

A total of 32% of the students we interviewed planned to become a farmer as a secondary occupation in the long term. For students from farming families, the profitability of the family farm was a key factor in their intention to become a part-time or full-time farmer in the future. Students who aimed to become a part-time farmer came from families who earned on average 54,000 baht per household per year² from farming (based on average net crop incomes provided by the National Statistical Office). This is half the farm income earned by the families of students who planned to become full-time farmers (on average: 111,000 baht per household per year). Compared with the situation immediately after graduation, the number of students who planned to become a farmer within 10 years after graduation or >10 years after graduation progressively increased (Figure 4). For the interviewees, this period corresponded to the time needed to obtain the resources they would need to deal with the different difficulties involved in starting farming.

In the workshops, which were held separately for vocational students and teachers, the students thought the best age to become a farmer was between 20 and 30. However, the staff of agricultural educational organizations mentioned that, shortly after graduation, the main employment opportunities were in large-scale or industrial farms. Both students and staff considered that working there would help young graduates start saving capital and gaining experience. However, there is no guarantee that this way of acquiring resources would be successful or not too long. The staff of the agricultural schools reported that many agricultural graduates did not manage to solve the abovementioned difficulties within 10 years after graduating and that these graduates eventually became farmers more than 20 years after having graduated, when they took over their parents' farms. For instance, the director of a school of agriculture said 'I have worked here for the past 33 years. Only people who studied here during the first 10 years of my tenure now own a farm. The others are still employees working to save money and obtain knowledge'. Staff members also mentioned that several graduates found jobs in sectors not related to agriculture and thus did not increase their farming experience before taking over their parents' farms.

Discussion

Influence of students' situation

Many Thai students planned to obtain support from their families (e.g. to access land). Like other studies (e.g. Bednaříková et al., 2016; Bezu and Holden, 2014; Flynn and Sumberg, 2017), the present study shows the importance of family characteristics in shaping agriculture students' intentions to farm. In the present work, this influence was particularly apparent in the way family resources (having parents who were farmers, and in that case, the income the family obtained from farming) influenced the students' plans about when to start farming and whether they would farm full-time or part-time.

Overall, there were few differences between university and vocational students. University students had a vision of agriculture that involved higher expectations than vocational students, but at the same time, they felt more confident in their ability to find the resources they needed to start farming. Moreover, the students interviewed in the present study said that they would face fewer problems becoming a farmer than the young Thai rural people interviewed by Ruiz Salvago et al. (2019). In particular, a large proportion of them were children of farmers and thought they would not have any problems accessing land.

A (possibly too) long road ahead

The kind of farms many of the students interviewed in the present study would like to have required knowledge and capital they thought they would not be able to obtain in the short term. These students planned to progressively acquire these resources from various types of activities, so as to be able to start their kind of farm later on. This stands in

contrast with a study by Mwaura (2017), who characterized the plans of young graduates in Kenya who started farming to be able to obtain resources so as to move away from farming later. Students interviewed in the present study accepted the 'long road' to becoming a farmer, which may involve being an employee for a certain period. In contrast to the vocational students interviewed by Chea and Huimans (2018) in Laos and Cambodia, the students we interviewed were in no hurry to be self-employed.

Many students thought they would need more than 10 years to obtain the resources they needed to start farming, and the teachers we interviewed mentioned that it took often even longer. Support policies could thus be designed to facilitate the process by which young agricultural graduates obtain the resources they need to become farmers. In Faysse et al. (2019), agriculture students and young rural people discussed possible public policies to support the installation of young farmers in Thailand. Some of these policies match the needs expressed by students interviewed in the present study.

Regarding access to knowledge, students in educational institutions did only a few internships during their studies (and students in Bor Wor Sor students mostly worked on the farms belonging to the schools of agriculture). Students could have more options to do internships, particularly on farms belonging to innovating farmers (e.g. organic farming). Policies to support access to capital could include: (1) long-term loans at reduced rates, (2) subsidies to cover some of the costs of buying a piece of land and farm equipment and to cover some of farming costs during the first years and (3) subsidies that partially cover the costs of changing parents' farms to new forms of agriculture. Finally, many young graduates would need easier access to land, including those from a farming family so that they do not have to wait for their parents to retire. This could take the form of long-duration land lease contracts with a maximum limit on the land lease price, or the provision of incentives for farmers who agree to retire and pass on their farm to young farmers (Faysse et al., 2019).

Making such support available to young agriculture graduates could have good results since the students we interviewed generally had a well-defined farm in mind and since they had, from their initial training, already started to obtain the resources required to start these farms. However, many farms of Thailand face interrelated problems concerning access to land and water, agricultural extension systems, diversification or access to markets (Kasem and Thapa, 2011; Srisopaporn et al., 2015). Thus, helping young agricultural graduates to start farming will be effective insofar as the support is part of a wider strategy for the agricultural sector and which targets family farms.

Conclusion

Among the Thai students we interviewed who were engaged in vocational agricultural studies or taking a bachelor's degree aimed at training future farmers, the majority planned to become full-time farmers in the future. The possibility of getting support from their family

influenced students' plans, and they aimed to put the family resources (in particular land) that could be made available to start their farm to the best possible use. However, for most students, family support was not sufficient to enable them to start the kind of farm they want in the near future. Therefore, they had set themselves a timeline to obtain the resources they needed to start their kind of farm that in some cases was quite long.

This study shows that, although the resources available to young people influence their willingness to farm, young people do not look on these resources as a given when planning for the future. Studies of young people's goals to become farmers have generally either analysed pragmatic plans they had drawn up based on the resources available to them at a particular moment of their life, or the kind of farm they dream to have (often formulated in such a way that obtaining such a farm is unlikely or depends on changes beyond the reach of young people). Young people also have goals that are not necessarily immediately accessible but could become so in the future. Therefore, studies of young people's ambition to farm should also aim to understand how they plan their future trajectories to obtain the resources they need to be able to reach their goals.

In Thailand, only a limited number of young people graduate in agricultural studies in institutions where becoming a farmer is one of the career options (fewer than 4000 graduates per year) and many of these students do not become farmers. In contrast, according to national agricultural censuses, the number of farm owners aged less than 35 decreased by an average of 44,000 per year between 2003 and 2013. Supporting agriculture graduates to become farmers will therefore probably not be sufficient to slow the ageing of the farmers' population in Thailand. However, thanks to their farming skills, their interest in becoming farmers in the future and their proactive attitude, these young people may become fully fledged partners in identifying and testing innovative farm models able to provide sustainable livelihoods to a new generation of farmers and in identifying and testing policies that could be set up to support them in starting such farms.

In newly industrialized countries of Asia, to date, there is no clear sign that land is becoming more easily available for new generations of farmers. Changes in farming systems will be needed so that these new generations of farmers can earn enough from medium-sized farms, so they consider farming as a worthwhile component of their livelihoods, be it full-time or part-time. Thus, also in these countries, agriculture students could become promising partners in identifying and testing new family farm models.

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Notes

- 1 After discussion of the preliminary analyses of the survey, students were invited to assess possible policies to support young people starting farming (see Faysse et al., 2019).
- 2 In February 2019, 1 USD = 31.3 Thai baht.

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