

THIEU LITCHI PRODUCTION IN THANH HA DISTRICT (HAI DUONG PROVINCE, VIETNAM): PRODUCERS AND EXTENSION SERVICES STRATEGIES

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Abstract

The Thanh Ha district (Hải Duong province, North-Vietnam) has a long history of traditional Thanh Ha Thieu litchis cultivar production. However, the price paid to the farmers for this traditional cultivation has been reducing significantly for more than 10 years. In this communication, recent evolution of Thanh Ha Thieu litchis production and strategies established by producers in order to face the fall in price are studied and a diagnosis of the agricultural extension services involved in Thanh Ha Thieu litchi production is drawn up. Primary data were collected in 2012 through personal interviews and focus groups with multiple stakeholders, authorities and extension organisms and a survey of producers' households made with semi-structured questionnaires.

Substantial reduction of litchis production participation in total household incomes was revealed. In parallel, Thieu litchis plantations superficies fall down being converted in favor of new fruit species or in favor of other litchis varieties depending on the production area operating a diversification process. Moreover, progressive abandonment of not converted plantations is marked by plantations cares reduction.

In the past five years, all agricultural extension sessions about litchis production have been initiated and organized by the authorities at province and district level collaborating with input supply private companies. Various inefficiency problems are highlighted such as disequilibrium in training session access, relative trainings uselessness or mismatch between producers' training demand and offer.

Key words: Vietnam, Thieu litchi, Diversification, Extension services, Decentralization.

Introduction

In 1986, the Vietnamese Communist Party, head of The Socialist Republic of Vietnam, launched a new economic policy called “Đổi Mới”. The objective was to convert planned economy into a socialist-oriented market economy operating many reforms. In agriculture, one attends the individual attribution of arable lands to farmers' households and the liberalization of activities between agro-food supply chain stakeholders (Pham Ngoc, 2007). A family agriculture is set up with the appearance of farmers' technical-economic autonomy (Vu Dinh, 2003).

Within this context, the State progressively proceeded to the retirement, dismantlement, reconstruction and decentralization of the agricultural support services previously integrated in State cooperatives. Great extent and speed of the reforms constitute a success. Nevertheless, reforms led to important support services access inequalities based on production speculations, regions and incomes and to creation of institutional gaps in support services provision (Lavigne Delville *et al.*, 2007). Moreover, support services decentralization process differs from one province to another depending on the interpretation

done of unclear competence transfer (Hoang Anh, 2006) and according to the private sector importance in support services provision (Fforde *et al.*, 2003).

This communication focuses on agricultural extension services involved in fresh Thieu litchi production in Thanh Ha district (Hai Duong province, North-Vietnam) in Doi-Moi reforms context.

In 2010, labor population in Thanh Ha, represented 56% of total (153645 inhabitants) of which 73% worked in agriculture, forestry and fishery sector (Thanh Ha Statistics Office, 2011).

The district presents adequate soils and climate for litchis production with one dry and fresh season from October to April and one wet and hot season from May to September. Litchi production is a risky culture, sensitive to climate variation and with high seasonality character due to its unique annual short harvest period (15 days from the end of April and the beginning of August in function of early or late cultivar varieties).

Especially the Thanh Ha Thieu litchi, late harvest variety, is historically recognized in all Vietnam for its organoleptic qualities and the traditional know-how of its producers (Tham Tram, 2005). Before 1993, plantations were limited to familial gardens. From that year, in the framework of Doi Moi reforms, farmers started to convert rice cultures into litchi plantations. At the beginning, this conversion allowed farmers to increase substantially their incomes and living standards. However, the price paid to the farmers for this cultivation has been reducing significantly for more than 10 years (from 14000 VND/kg in 1997 to 2000 VND/kg in 2011) with similar annual yields which is threatening the future of this production.

Municipalities in Thanh Ha district can be classified in four different principal litchis production areas in function of produced litchis quality (first, second or third class), cultivars structure (early, hybrid or Thieu litchis dominance), garden plantation ages (> 50 years, 35-45 years, 15-25 years) and conversion years from rice to litchis plantations (1995-1996, 1996-2000, 2000-2001). Litchis production areas characteristics are presented in table 1.

Table 3. Litchis production areas classification according to litchis quality, cultivar structure, garden plantation ages and conversion years.

| Production area | Municipalities | Litchis quality | Principal cultivar | Garden plantation ages | Conversion years |
|-----------------|--|-----------------|--------------------|------------------------|------------------|
| A | Thanh Son, Thanh Thuy, Thanh Xa, Thanh Khe and Thanh Xuan | First class | Thieu litchis | > 50 years | 1995-1996 |
| B | Phuong Hoang, An Luong, Thanh Hai, Tan An, Tien Tien, Thanh Ha Town, Cam Che, Lien Mac, Thanh An, Thanh Lang | Second class | Thieu litchis | 35-45 years | 1996-2000 |
| C | Hop Duc, Truong Thanh, Thanh Binh, Thanh Hong, Thanh Cuong, Vinh Lap | Second class | Early litchis | 35-45 years | 1996-2000 |
| D | Quyet Thang, Hong Lac, Tan Yen, Viet Hong | Third class | Thieu litchis | 15-25 years | 2000-2001 |

Sources: own elaboration; Lavigne Delville *et al.*, 2004; Nguyen Tien, 2005; Vu Dinh, 2006.

The first objective of this paper is to identify recent evolution of litchis production and strategies established by producers in order to face the fall in price and improve their incomes.

The second objective is to draw up a diagnosis of the litchi production-related agricultural extension services structure.

Materials and methods

After literature researches and secondary data analyzes, important fieldwork has been done in 2012 in order to collect primary data. Fieldwork focused on three municipalities representative of the A, B and C production areas: Thanh Son, Thanh Binh, Cam Che. The fieldwork did not focus on the D production area because litchi production in this area is historically insignificant.

First fieldwork consisted in field observation in the study area.

Secondly preliminary and complementary interviews were made with multiple stakeholders through personalized open interview guides. This permitted to obtain an overview of the litchi production operations, the stakeholders involved in extension services so as links between all actors.

Thirdly, a survey of 30 producer households has been carried out in the three aforementioned municipalities. In each commune, 10 households were interviewed. The 30 interviewed families were classified according to their litchis plantations size (< 2 sao³² / between 2 and 7 sao / > 7sao; 1 sao = 360 m²). 3 or 4 families of each size class were interrogated in each commune. The questionnaire was semi-structured. First part of the questionnaire (closed questions) concerns ultimate litchi production tendencies and households' characterization. Second part (closed and open-ended questions) focuses on agricultural services characterization. This survey allows assessing of strengths and weaknesses of the extension services from the recipients' perspective.

Results and discussion

Agriculture importance in surveyed households' activities

The 30 surveyed households' total population is 121 persons, representing an average of 4 members per household. The mean age is 37 years. On average, 2.9 persons per household practice remunerated activities representing 87 persons. Among those working people, 42% perform only agricultural labor, 30% combine agricultural work with another remunerated activity and 28% do not participate in agricultural activities. In 2011, agricultural incomes and more specifically litchis production incomes represented respectively 58 % and 32% of total households' incomes.

For 83% of households, perennial fruit cropping constitute the principal agricultural income-generating activity. For the remaining 17%, this is animal husbandry that constitutes the principal agricultural income-generating activity. In Thanh Son, fruit cropping constitute the exclusive agricultural income-remunerated activity. In Cam Che and Thanh Binh, respectively, 45% and 30% of households have fruit cropping as exclusive agricultural income-remunerated activity, 22% and 0% combine fruit cropping only with animal husbandry, 33% and 60% combine fruit cropping with animal husbandry and food crops and 0% and 10% combine fruit cropping only with food crops.

Recent litchis production evolution

Below there are some of the main results of the survey carried out.

A. In 2012, the mean size of owned agricultural land is of 12.1 sao³³ per household with a mean of 11.6 sao in Thanh Ha, 13.5 sao in Cam Che and 11.3 sao in Thanh Binh. In Thanh Ha, Cam Che and Thanh Binh the mean size of owned litchis plantations is

³² Vietnamese unit of area, 1 sao = 360 m².

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respectively 5.7 sao, 5.5 sao and 8.9 sao. Between 2007 and 2012, Thieu litchis plantations superficies have fallen down being converted in favor of new fruit species in Thanh Son and Cam Che or in favor of early litchis varieties in Thanh Binh.

In Thanh Son and Cam Che, Thieu litchis plantation superficies per household have decreased by, respectively, 5.9 sao (51% less from 11.6 to 5.7 sao) and 3.6 sao (40% less from 9.1 to 5.5 sao) between 2005 and 2012. Thieu litchis plantations conversion have been mostly done in favor of kumquats superficies in Thanh Son (more 5 sao from 2005 to 2011) and in favor of guavas superficies in Cam Che (more 2.7 sao from 2005 to 2011). Proceeding to such a production diversification permit to households incomes not to depend almost exclusively of litchis production that constitutes a risky culture (one short annual harvest period and high climate variation sensibility) with low selling prices. However such a diversification means a great producers know-how lost and the very high quality Thieu litchis superficies diminution.

In Thanh Binh, according to the Municipality Agriculture Office Director, litchis plantations superficies remained constant since 2000 but the cultivar structure has changed. Thieu litchis superficies have fallen down from more than 70% of total litchis superficies to less than 50% in favor of early litchis varieties that now cover more than 50% of total litchis superficies. However, during the fieldwork, some Thieu litchis production parcels in Thanh Binh were observed in conversion phase in favor of guavas. That could be the beginning of a diversification process similar to the aforementioned municipalities Thanh Ha and Cam Che.

B. In parallel, substantial reduction of litchis production participation in total household incomes was revealed. This reduction comes from a diminution of both agricultural activities incomes in total households incomes and litchi production incomes diminution in total agricultural households incomes. The households incomes structure for the 2007 and 2011 years is presented in table 2. Even if agricultural activities still represent the major incomes source, agricultural incomes decrease from 67% to 58% of total incomes between 2007 and 2011 in parallel with non-agricultural practices share increase. In the same time lap, litchis production incomes decreased from 75% to 55% of agricultural incomes (from 50% to 32% of total incomes).

Table 2. Households income structure for the 2007 and 2011 years.

| Year | 2007 | 2011 |
|---------------------------|------|-------|
| Total incomes | 100% | 100% |
| Agricultural incomes | 67% | 58% |
| <i>Litchis production</i> | 75% | 55% |
| <i>Other productions</i> | 25% | 46.5% |
| Non-agricultural incomes | 33% | 42% |

Source: survey results

In 2007, litchis production represented more than 60% of total incomes for 50% of the households. Between 2007 and 2011, this percentage falls down from 50% to 7%.

C. On top of that, progressive abandonment of not converted plantations is marked by plantations cares reduction. This can first be observed in many litchis plantations invaded by weeds and where trees are not pruned anymore. Moreover, 27% of producers say they spent much less time to litchis plantations cares in 2011 than in 2007; 27% less time, 23% the same time, 13% more time and 10% much more time. All producers that spend more or much more time to plantations cares come from Thanh Binh. Producers explain this time diminution by a diminution of the time dedicated to harvesting, weeding and pruning.

Diagnosis of Agricultural Extension

In the past five years, all agricultural extension meetings about litchis production have been initiated and organized by input supply private companies and by the authorities at province – Department of Agriculture and Rural Development and Center for Agricultural Extension – and district level – Agricultural Office and Center for Agricultural Extension District Unit. The role of the Department of Agriculture and Rural Development and of the Agricultural Office is limited to “state management” without getting involved in direct provision of extension services. They rely on the Centre for Agricultural Extension at province and district level to work on agricultural extension activities.

The Center for Agricultural Extension often also relies on private inputs supply companies in order to organize inputs application trainings. It seems that most of those trainings have more a business and publicity purpose than a real households’ empowerment purpose. It is possible to speculate that the provincial Center for Agricultural Extension has been partially privatized. Communal agricultural cooperatives sometimes help in the extension sessions organization but do not initiate them.

Extension services decentralization process seems to operate as a combination of both delegation (delegation of responsibilities within the state administrative system from province to district level) and deregulation process (delegation of task outside the state to private structures).

The mean of litchis production training session assistance is one per producer a year. However, not all but 50% of the producers have already assisted to one or more training sessions (from 1 to 6 a year) about litchis production. And only 13% of the surveyed producers share more than half of total training sessions’ participations. This shows an imbalance in access to training sessions.

For the year 2011 and until May 2012, the total number of training sessions’ participations was 32. And almost all training sessions (29 out of 32) concerned the application of inputs – fertilizers, pesticides, fungicides, growth regulators and herbicides. The remaining three training sessions were about VietGAP standards³⁴.

Among the producers that have recently (in 2011 and until May 2012) attended training sessions about inputs application (15 out of 30), 13% and 47% consider training sessions as, respectively, totally useless or pretty useless while 27% consider them as pretty useful and 13% as very useful. On top of that, 19% of those producers say they never changed their practices after attending training sessions, 56% not often, 19% often and 6% very often. It’s also important to mention that 40% of those producers have already rejected invitations to attend training sessions. It reveals a tendency to consider training sessions as useless. The three producers that have attended to GAP standards training sessions say it was pretty useless and they did not change their production practices after training sessions attendance.

A mismatch between producers’ training demand and what is offered is also highlighted. Instead of inputs application training sessions, they are interested in training sessions about, in order of importance, litchis preservation techniques (40%) in order to extend the harvest period, diseases prevention techniques (20%), litchis drying techniques (10%) and VietGAP standards (10%).

³⁴ Vietnamese Good Agricultural Practices standards (VietGAP standards) were developed in 2008 by the Ministry of Agriculture and Rural Development to promote high quality product supply chain. It refers to an official certification process used to insure that good agricultural practices are respected during production, harvesting and post-harvesting operations (MARD, 2008).

Conclusion

In a first time, the work focuses on identification of the recent evolution of litchis production and the strategies established by producers in order to face the fall in price and improve their incomes. Thieu litchis plantations superficies fall down being converted in favor of new fruit species or in favor of other litchis varieties depending on the production area operating a diversification process. In parallel, a substantial reduction of litchis production participation in total household incomes was revealed. Moreover, progressive abandonment of not converted plantations is highlighted.

In a second time, the work draws up a diagnosis of the litchi production-related agricultural extension services structure. In the past five years, all agricultural extension meetings about litchis production has been initiated and organized by the authorities at province and district level collaborating with input supply private companies according to a delegation and deregulation process. Various inefficiency problems are highlighted such as disequilibrium in training session access, relative trainings uselessness or mismatch between training producers demand and offer. Authorities have to work in order to solve those problems.

This paper focuses exclusively on agricultural extension services involved in litchis production. In a further work, all agricultural support services at all supply chain levels considering all interconnections will be analyzed.

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