

## **Influence of social factors on resources allocation.**

### **Application to Cay Gao village (Vietnam)**

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#### **1. Introduction**

The Unit of general Economics of the Faculty of Agronomical Sciences of Gembloux (Belgium) is developing a farming systems research project in three provinces of South Vietnam. As part of this project, twelve villages are surveyed. The undertaken approach is multidisciplinary and integrates agronomical, economical and social aspects.

The in-depth survey of farming systems is preceded by some socio-economical inquiries among family farms. The purposes of these inquiries are the identification of the target population and the understanding of the organization. Held to 10 % of the households of each village, the investigation concerns the composition of the family, the education level of its members, the type of house, production factors, complementary activities and external resources and access to credit.

Among the selected villages, Cay Gao (Dong Nai province) reveals a specific interest because of the diversity of crops and the social composition of its population. In fact, in most farms, annual food crops (rice, maize and peas) and also annual industrial crops (soyabean and tobacco) are cultivated. Perennial crops as coffee, banana and cashew are also well developed. Cay Gao village has also the particularity to have a multi-ethnic population. Among the 125 households interviewed during our investigation, 65 are of Vietnamese origin and 60 of Chinese origin.

The preliminary contacts with Cay Gao population forebode different farming organizations depending on the ethnic appartenance. Some crops seem to be specific to Viet farms. For the Chinese family, farming is essential and a large part of the resources are devoted to it. These findings have been verified by the results of our investigations ; in addition, these results reveal some other significant differences between Vietnamese and Chinese households.

#### **2. Historical and social context**

Before 1975, a vast forest covered the present territory of Cay Gao village. As part of the establishment of New Economical Zones in 1976, the Administration gave each new arrived family a piece of land, the area depending on the size of the labour force. Almost all the first settlers in Cay Gao came from Northern provinces, particularly from the Red River Delta. For most of them, trees had to be cut and the land prepared in order to be cultivated.

The inquiries held in Cay Gao revealed that the first families arrived in the village were the Chinese ones. On an average, Chinese households settled in Cay Gao in 1977 whereas Vietnamese families arrived at the beginning of the '80s. As a result, the householders from Chinese origin are, on an average, older than Vietnamese ones ; their respective ages are 54 years old for Chinese and 48 years old for Vietnamese householders.

Chinese families have, on an average, nearly one member more than Vietnamese households have. They're respectively constituted by 7.3 and 8.1 members. That difference occurs among adults, who are in a higher number among Chinese households.



Some differences related to the education level also appear. Chinese families are inclined to have a lower instruction level than Vietnamese families. For Vietnamese households, among the members who are older than six, four received or are receiving a primary level education and two received or are receiving a secondary level education. For Chinese families, the figures are five and one, respectively. In addition, one person is illiterate.

Despite a more numerous family, Chinese have, externally, the same type of habitation than Vietnamese have. Moderately comfortable, the house of the average family is built in wood, with a roof of sheet metal and a cemented proof ; it comprises one to two rooms. On the other hand, Chinese households are inclined to be better provided with audiovisual equipment. The radio, more common in Vietnamese households, is replaced by the television in Chinese families ; it's even sometimes accompanied by a videorecorder.

In all of the families, Vietnamese or Chinese ones, one to two bicycles are used as transportation means. On the other hand, when motorbikes are owned by one out of three Vietnamese families, they're recorded in half of the Chinese households.

### **3. The farm**

In Cay Gao village, the total area of typical Vietnamese farms is nearly one hectare. It is divided into two blocks of plots, among which the nearest is located at 500 meters far from the house and the furthest may be situated at more than one kilometer. Chinese farms are twice as large as Vietnamese ones. These two hectares of land, mostly all in one block, are located at 600-700 meters far from the habitation.

#### **3.1. Annual crops**

The cultural seasons are marked by the rhythm of the rainfalls. The first cultural season begins with the arrival of the rain, at the end of April ; harvesting happens at the end of July. Immediately after, the second cultural season begins ; it ends with the come back of the dry season, at the beginning of November. The third cropping season corresponds to the dry season. Only tobacco cultivation and irrigated crops are possible. The latter are not widespread in Cay Gao.

So, the farming systems applied by the farmers are three seasons systems. The first season is dominated by maize crop, the second one by the soyabean whereas the third is a tobacco season. In addition, peas crop is exclusively applied during the second season and tobacco is solely cultivated during the third season. In reality, tobacco is a crop which encroach upon two cultural seasons, since it's sown one month before the end of the rainy season and is haversted in the dry season.

The differences of agricultural pratices between Chinese and Vietnamese occur at several levels. Beside larger sown areas, Chinese farmers are inclined to concentrate on only one main crop per season whereas Vietnamese farmers are working on several crops at the same time. In general it's the matter of intercropping, among which maize-soyabean, maize-peas and soyabean-peas are the most common associations.

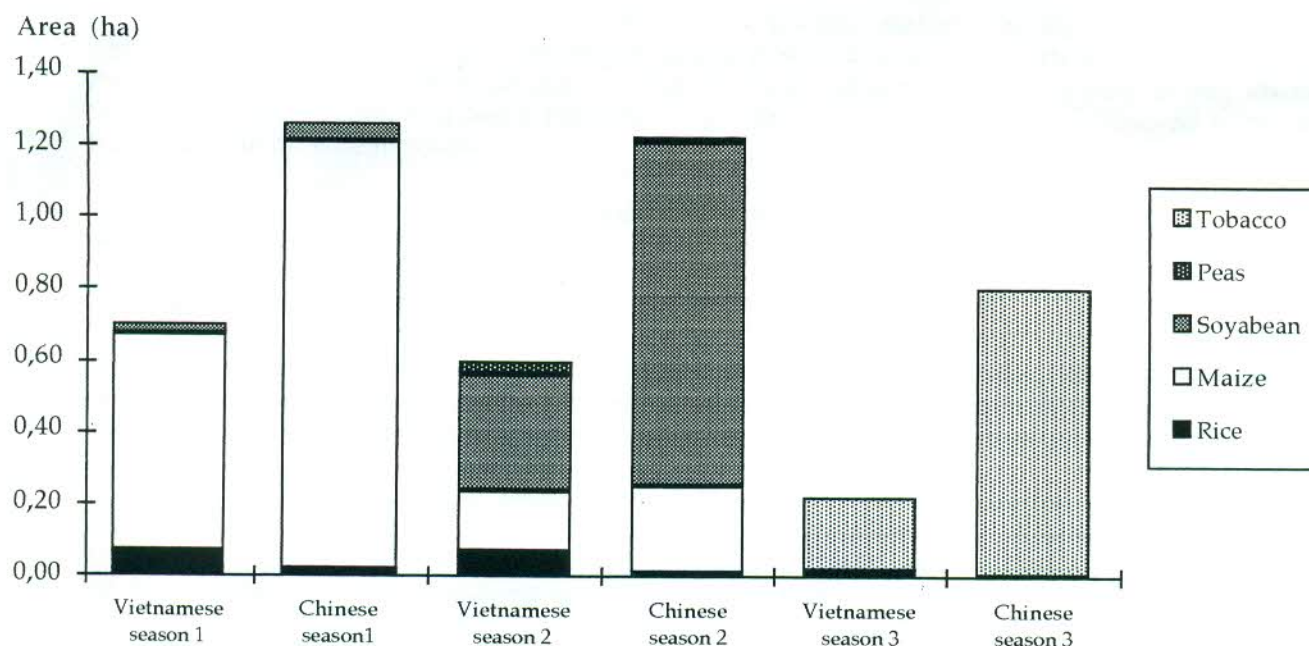
During the first cropping season, maize represents 95 % of sown area among Chinese farms, against 85 % for Vietnamese. This trend is more obvious during the second season, where soyabean represents 80 % among Chinese farms and only 50 % for Vietnamese. During the third season, Chinese only cultivate tobacco whereas Vietnamese continue to grow some more rice and maize in the same way.

The difference between agricultural pratices of the two ethnic groups also occurs in relation to the choice of crops. Vietnamese cultivate rice during three cropping seasons. Sown areas are sufficient to secure the family's selfconsumption, even if sometimes, complementing the third season harvesting by some purchase of rice is necessary. In the same way, three maize seasons are applied ; that maize is mainly used to feed the pigs, which are more numerous in Vietnamese farms.

Chinese cultivate rice during two seasons only and sown areas are particularly restricted. The production is too low to satisfy the food needs of the family ; so the latter have to buy some more rice in complement. Maize disappear also from the farming system during the third season. Finally, generally speaking, peas crops are particularly restricted in Cay Gao. It's only grown during the second cropping season and the areas are especially low among Chinese farms.



So, taking the cultivated areas and the type of crops into account, it appears that Vietnamese farmers turn their crops into the family selfconsumption. The orientation is quite different for Chinese agriculturists, for whom the areas are larger and the crops more specialized. In that case, the choice of the production is motivated by their industrial outlets : animal feed factory of the province for the maize, small scale production of soyamilk and soyacheese, supplying of tobacco industries.



In short, the farming systems applied by Vietnamese on one hand and by Chinese on the other hand present some differences in relation to the cultivated areas, the organization of the crops during the year and the type of crops, chosen in accordance with their destination (selfconsumption or industrial productions).

### 3.2. Perennial crops

One particularity of Cay Gao is the settlement of a trading society of bananas in 1993. A Taiwanese firm concluded some contracts of production with many peasants. Unfortunately, this enterprise failed due to an inappropriate selection of banana varieties and a low marketed quantity. Nevertheless, it results that banana trees plantations are the most widespread in Cay Gao. Within the farms, they represent nearly the half of perennial crops areas. The Chinese devote about a half hectare to that speculation whereas Vietnamese banana plantations fill more restricted areas.

Among the Chinese, the second most important perennial crop is cashew trees. Coffee plantations are found in the third position. They are a particularity of Dong Nai province. As a matter of fact, after the province of Dak Lak, which is a little further in the North, Dong Nai province is the second coffee-growing province in Vietnam. Among Vietnamese farms, coffee crops take up a larger share than cashew crops, although, in real terms, the areas are not so wide than those of Chinese farms.

### 3.3. Animal husbandry

Generally speaking, animal husbandry is not well developed in Cay Gao village. The main animals which are bred in the farms are poultry (essentially chicken and ducks) and pigs.

The farms of Cay Gao keep about ten heads of poultry. Statistically, the size of Vietnamese and Chinese farms are identical. Pig breeding is nearly practiced at a small scale among all families. The number of heads vary between one and two pigs. That latter situation is rather typical among Vietnamese farms. The average farm area being half lower than those of Chinese, the time devoted to the animal husbandry can be more important.

Globally, poultry is essentially destined to selfconsumption whereas pigs are bred in order to be sold.

### 3.4. Traction power and equipments

In general, because of the lack of financial means, works are excuted with manual power among most of the families, and above all among Vietnamese. In other cases, the traction power used for field works and for harvesting transportation is mechanized. Farmers use motor cultivators or tractors.

Beyond a lack of financial means to buy the agricultural equipments, the low use of mechanized engines could be explained by the structure of Vietnamese farm itself. Those farms have a small size and tend to be cut into several blocks. In addition, in Cay Gao village, some enormous basaltic rocks, reaching up to one meter of diameter, outcrop in the surface. For that reason, it's not always easy to operate in the plots with some motorized engines.

The use of mechanization is more common among Chinese farms, where 22 % of the farmers own a motor cultivator and 7 % have a tractor. To hire agricultural equipments is not widespread in the village.

## 4. Complementary activities

For all the surveyed households, farming is the main activity. Nevertheless, in Vietnam, pluri-activity is common. It permits to ensure the household the complementary income necessary to reach a correct standard of living .

In Cay Gao village, families find their financial complements in hiring their manpower or in some small scale business activities. The agricultural paid work and the informal sector activities are more widespread among Vietnamese households.

## Conclusion

The research held in Cay Gao showed that, in a restricted territory, farming systems depend not only on local climatic and agro-pedologic conditions. In the concrete case of Cay Gao, the coexistence of peasants from different ethnic origins has some consequences on the organization and the objectives of the farms. Therefore, those social differences must be taken into account in order to define agricultural and rural development strategies in that region.