STRATEGIES OF SOCIAL REPRODUCTION AND PLURIACTIVITY AMONG THE FAMILY FARMERS OF THE SOUTH OF BRAZIL

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Abstract

This study discusses the importance of non-agricultural income in the formation of total income of familiar-based agricultures in a region strongly characterized by pluriactivity of its rural producers. Besides that, it tried to identify the employed strategies in relation to the production system aiming at the maintenance of social-economic reproduction at the production units. The data employed in this study was obtained from a field research carried out with 57 familiar farmers from the cities Dois Irmãos and Ivoti, Rio Grande do Sul state, Brazil. [1]

Keywords: family farming, non-agricultural income, pluriactivity, reproduction strategies

Introduction

Lately researches carried out in Brazil have shown that traditional farming activities can't maintain the employment level in rural world. These works have detached that, in the two last decades, non-farming activities have been increasing in the Brazilian countryside. (Graziano da Silva, 1997; Del Grossi and Graziano da Silva, 1998). The socioeconomic dimension of these activities and their impact on the farming reproduction strategies – mainly on the family sector – is a reality that must be studied.

The chosen region in this study are the towns of Dois Irmãos and Ivoti, located at the North of Rio Grande do Sul, in the metropolitan area of Porto Alegre. Dois Irmãos has 62, 8 Km^2 and nearly 18.000 inhabitants (98% of them live in the urban areas and the others at the countryside). And Ivoti has 74 Km^2 and nearly 13.200 inhabitants (82% live in the urban area while 18% of them in the countryside). The farming sector of these towns, in virtue of the current urban-industrial reality, is little significant. Dois Irmãos has nearly 58 farmhouses (48 with less than 20 ha) and Ivoti has 160 (110 of them with less than 20 ha), or either, in these towns, there's an almost absolute predominance of the small family farm properties. The agrarian reality of these towns is too similar, and the industrial sector is based on leather-shoe industries. These industries have a remarkable influence in the farming sector, since they present a great capacity of attracting available workers in the countryside.

The family farm of this region has developed since 1824, when the first group of German immigrants arrived. From this moment on, the family farm has been based on a great diversity of activities until 1961, when milk became the main product of the region, due to the pasteurization process. In 1975, the milk production mainly enters in a period of decline in result of the process of diffuse industrialization of the leather-shoe sector. (Roche, 1969; Schneider, 1994, 1999).

From the end of the first half of the 70's, footwear industries of the region expanded their productive units among the small rural communities. This process of moving inward and of

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industrial decentralization - that started with the expansion of exportation (1970) – attracted great part of the rural workers, resulting in the disarticulation of the agricultural productive system and the colonial way of life.
The strategies of socioeconomic reproduction adopted by the family farm properties had followed this reality, adapting the implemented productive systems to each new reality. This paper tries to explain in which circumstances the non-agricultural incomes influence the strategies of socioeconomic reproduction of the family farm workers of Dois Irmãos and Ivoti.

1. Definitions on Pluriactivity in the Brazilian Agriculture

The influence of the farming activities on the income and occupation of rural families has been reduced. This is due to the fact that the non-farming jobs are providing more income as well as a greater spent time each day for these families. This phenomena has been defined without much difference by the specialized studious as pluriactivity or as part-time agriculture. (Kageyama, 1998).
The study of the Organization for Cooperation and Economic Development (OCDE, 1996) shows a distinction between part-time and pluriactivity. Part-time workers are those owners that work less than a man-work unity per year, no matter how profitable their activities may be. The farm owners who have a part-time work in agriculture and have, at the same time, other profitable activities, are considered pluriactives.
In Brazil, the “part-time” and “pluriactivity” concepts are not clear because some studious of the subject can’t distinguish clearly the two terms. Thus, it’s important to check the most usual definitions in the Brazilian academic environment.
For Graziano da Silva (1997), the part-time farmer is the farm owner or cattle raiser that doesn’t work integrally with these activities, but is the one who combines them with other non-farming activities, inside or outside his estate, becoming, this way, an autonomous worker that combines various forms of occupation. Thus, his characteristic is the pluriactivity that combines farming activities with non-farming ones. Or rather, for the author, part-time farmer and pluriactivity are conceptually equals.
Del Grossi and Graziano da Silva (1999) defined the pluriactive families as being those in which at least one member executes a farming activity and other member executes a non-farming one, or yet when at least one of them executes double farming activity (principal and secondary occupation), that’s to say, he doesn’t execute necessarily a non-farming activity. This way, we can observe that the concept of pluriactivity isn’t the same used before.
A more enclosed definition, adopted inclusively in the RURBANO Project, considers also Pluriactivity the occurrence of secondary occupations in the own farming activity (for example, the small farmer that is also the waged temporary worker in other property). Therefore, it’s not necessary to have a non-farming activity to characterize pluriactivity.
Concluding, “… the concept of pluriactivity allows us to join the farming activities with other activities that provide monetary and non-monetary incomes, independent of being internal or external to cattle raising exploitation. This permits to consider all the activities executed by every member of the houses, inclusively the autonomous occupations, the waged and non-waged work exercised inside and/or outside the cattle raising exploitations. This way, the concept of part-time agriculture is enclosed inside the concept of pluriactivity.” (Del Grossi and Graziano da Silva 1998, p. 636).

2. Methodology

This research is based on the use of the systemic approach in the study of rural reality. This approach allows to explain the internal mechanisms that guide and direct an agrarian reality,

which often not only depends on the properties of constituent elements, but they depend over all on its Inter-relations.
For a better comprehension, a system is defined as a set of elements in dynamic interaction, organized in function of an objective. (Wünsch, 1995).
The productive unit, seen as a system, consists of a set of elements in inter-relations and interaction (streams). These elements are: 1) the raw materials (intermediate consumption); 2) the products, services and by-products; and 3) the means of production. Thus, depending on the purpose designated by the system agent (farmers and their families), the elements will be organized and framed to work as good as way they can.
The characterization of the main productive systems that had been put in practice by the farmers of Ivoti and Dois Irmãos was made using a proper instrument for the systemic analysis that is the typology of the productive systems. The elaboration of the typology of the productive system had as basis the availability of the production factors, the diverse qualitative information, as well as the use of certain parameters of evaluation of economic and agronomic matrix.

2.1. Theoretical reference and the index of agroeconomic performance

The concepts used for the characterization and analysis of the agrarian reality of the region in study had been the following ones:

- Agrarian system: it's the association of productive activities and techniques used by a society aiming at to satisfy its needs. (Mazoyer and Roudart, 1997).
- Productive system: it's the fairly coherent combination, in space and time, of certain amount of labor force (familiar, wage-earning workers, etc.) and of distinct means of production (land, machines, seeds, etc.) with the intention to get different agricultural, vegetal or animal productions (Dufumier, 1996).

The productive systems practiced on the farming estates had been analyzed based on the following agroeconomic index: a) total surface (ST) is the total area of the property that consists of the used areas in the production and the areas of preservation; b) useful agricultural surface (SAU) is the used area to create the farming product (SAU ≤ ST); c) unit work man (UTH) is the index quantifies the labor per unit [Besides the normal UTH, it was used: UTHagrF (Work Unit Man used in the Family Farm); UTHÑagr (Work Unit Man used in Non-agricultural family activities)]; d) aggregate value (VA) is used to evaluate to evaluate the productive activity of the unit of production; e) intermediate consumption (CI) is the value of raw materials and acquired services of other economic agents destined to the production process; f) agricultural income (RA) is the part of the VA that is with the farmer to remunerate the family work and/or to increase the family estate; g) income of non-agricultural activity (RNA) is the sum of financial resources proceeding from the retirement, wages, leases, etc.; h) income of non-agricultural activity (RAÑA) is the deriving income of non-agricultural activities; i) total income (RT) is the sum of the agricultural income with the non-agricultural income; j) retirement income (Rapos) is the deriving income of the retirements: l) depreciation (D) corresponds to the fraction of the value of the acquired means of production of other agents (machines, equipment, etc.) that are not totally consumed during a production cycle. They are goods that become worn out, either for the use, either for the obsolescence, in elapsing of the productive process.

2.2. Field research

In order to set out the study on the productive systems practiced by the producers and farmers of Dois Irmãos and Ivoti, it was necessary to create a database on the basis of information gotten through a field research. The attainment of the data occurred from September to October 1999 (during January and February 2000, questionnaires were applied with the

purpose of quantifying the families' self-consumption), with application of semi-structured questionnaires, in 57 family farm estates (26,15% of the total agricultural estates in the two towns). The choice of the properties was made in a non-random way.

3. The agrarian reality of Dois Irmãos and Ivoti

Based on data obtained from the field research, we could identify eight distinct types of productive systems implemented by three social groups of family farmers. These groups present strongly different behaviors. The first one – dynamic social – it searches for specialization in the agricultural activity and is composed of three different types of productive systems that are characterized by the high technological level of their farming activities and by the absence of incomes of other activities. The second group – intermediary social – is constituted by three different types of productive systems, which are characterized by a representative participation of the non-agricultural incomes in the total incomes. The third group – motionless social – is composed in two types of productive systems that are characterized for presenting a decline process or a representative participation in the income of the property, formed by the remuneration of agricultural retirements.

3.1. Dynamic social group

The dynamic social group – representing nearly ¼ of the farmers of the region – is characterized by an important availability in equipment/plants (Field Research, 1999). These farmers use tractors and/or micro-tractors, irrigation system, greenhouse, trucks and sheds (Table 1). It can also be pointed out the use of external labor and the lack of incomes from non-agricultural activities. Besides using the family work in its agricultural activities, this group tries to complement its labor necessities, either fixed or temporary.

3.1.1.Productive system based on the production of fine grapes

The productive system based on the culture of fine grapes is characterized by a high technological level (cultivated in greenhouses) and is carried out in properties of 4ha to 6,5ha of total area. This productive system is exclusively put in practice by Japanese farmers, responsible for the introduction and development of the culture of fine grapes in this region. These farmers have an exclusive devotion to commercial agriculture, since they don't carry out any subsistence culture and any raising activity. There's also an intensive use of land as well as of man labor, due to the "craftsmanship" work necessary to this culture, resulting in a product of high quality and excellent price.

As to the use of external labor, there's an important fact. The Japanese are distinguished not only by the technological level and the quality of their products, but also by the concern with their descendants' education. Such situation compels these farmers to contract external workers in order to supply their properties labor necessities.

As a result, the sequence of agricultural units of production has often difficulties or is really made impossible by the absence or by their descendants disinterest, whose majority have university degree not linked to agriculture. Therefore, it's important to call the attention to the evidence of an increasing participation of the retirement incomes among some of these farmers (of 15% to 30% of the total income [RT]).

3.1.2. Productive system based on flowers production

Flowers culture, for cut and/or for vases, is located mainly in the town of Ivoti. As in the previous system, this is also characterized for being exclusively developed by Japanese farmers and their descendants. This system is also characterized by (1) presenting an intensive use of land and man labor, (2) by the high applied technology, (3) by the commerce within wholesale centers (CEASA), (4) by the use of contracted workers, and (5) by the high values

of the index of economic performance. (Table 1). Despite the raised costs (with raw materials, mainly), this productive system can be considered the one that offers the best income return for the land remuneration (RA/SAU) as well as for the man labor (RA/UTHagrF). Another advantage has to do with its non-seasoning character, that's to say, its production occurs during the whole year, in contrast with the production of fine grapes. Anyway, this situation can explain the success and the increasing development of the flowers culture in this region.

Table 1: Dynamic Social Group

Productive Systems Index	Production of Fine Grapes	Flowers Production	Legumes Production
SUP. TOTAL (ha)	4,0 to 6,5	4,0 to 5,5	6,0 to 32,0
SAU (ha)	1,0 to 3,5	0,5 to 1,0	5,5 to 15,0
UTH	2,0 to 8,5	4,5 to 5,0	2,0 to 7,0
UTHagrF	2,0 to 5,0	3,5 to 4,0	2,0 to 5,0
UTHÑagr	0,0	0,0	Up to 1,0
SAU/UTH	0,3 to 1,0	0,1 to 0,3	2,5 to 5,0
SAU/UTHagrF	0,5 to 1,5	0,14 to 0,35	2,75 to 5,0
Technological level	- greenhouse, irrigation, tractor, truck, stonemasonry shed	- greenhouse, irrigation, tractor, truck, stonemasonry shed	- tractor, irrigation, truck, stonemasonry shed
Agricultural Activity	- fine grape and/or lettuce (hydroponics) and/or kiwi fruit and/or tomato and/or flower	- flower cut and/or in vase	- legumes, sweet cassava, corn, bean
Raising Activity	-	-	- cattle (milk), chickens, swine
Non-agricultural Activity	-	-	-
RA/SAU (R$)	4.000,00 to 16.400,00	45.000,00 to 79.300,00	920,00 to 3.200,00
RT/UTH (R$)	3.000,00 to 8.200,00	8.700,00 to 12.600,00	2.600,00 to 6.700,00
RA/UTHagrF	3.500,00 to 8.600,00	11.100,00 to 15.200,00	2.600,00 to 6.000,00
RAÑA/UTHÑagr	-	-	-
RA/RT (%)	70% to 100%	94% to 100%	80% to 100%
RAÑA/RT (%)	0%	0%	Up to 5%
Rapos/RT (%)	Up to 30%	Up to 6%	Up to 20%

Source: Field Research, 1999/2000.

3.1.3. Productive system based on legumes production

The legumes producers are of German origin and develop agricultural activities in a technical way, but with a lower level than that presented by the precedent productive systems. Besides vegetable production, these producers cultivate corn and sweet cassava for trading. The availability of a heavy vehicle of transportation allows these farmers to trade directly their outputs. This situation provides the best selling prices, if compared with farmers who can't afford transportation and are obliged to commercialize their products with intermediary agents, as it happens in the pluriactive productive systems. This productive system presents activities devoted to the self-consumption of great importance, for human consumption and also for the feed of animals, mainly to the milk cattle and swine. Comparing the economic index related to the land productivity, it's clear that the values are inferior to those presented by the two previous systems. This is due to the fact that raising activities and the cultivation of corn and sweet cassava are more extensive and provide a lower profitability than the grapes

and flowers production. Another important aspect is the absence of incomes from non-agricultural activities and the small retirement participation.

3.2. Intermediate social group

The intermediate social group is characterized mainly by presenting a complement between agricultural incomes and non-agricultural ones. Therefore, this is the group that better presents the influences of the leather-shoe sector in the family farm of this region. This group is in evidence for presenting three productive systems, which approximately represent the half of the farm properties of both towns. The two-pluriactive productive systems are characterized by a low-leveled technical agriculture with precarious installations and, mainly, for the use animal traction. Another outstanding aspect is the great importance of the culture of black green-wattle acacia, a situation not identified in the previous systems.

3.2.1. The pluriactive productive system with major agricultural income

The implemented agricultural activities in this productive system are characterized mainly by the cultivation of legumes, sweet cassava, irish potato, sugar cane, onion, bean and black green-wattle acacia. The commercialization of agricultural products occurs through intermediary agents or in the local market. Animal raising has the purpose of providing the property with meat, milk and eggs. The properties normally commercialize small quantities of milk for the regional dairies. The system farmers have superior SAU/UTHagrF than that presented by the legumes system, meaning a more extensive agriculture. This situation results from the need to release workers to non-agricultural activities. In this way, the productivity of family labor can be considerably increased. This allows these producers to get a total income equivalent to the income of more technical farmers.

Therefore, this procedure consists in a strategy that searches in non-agricultural incomes compensation for the low technological capacity they possess in the agricultural activities and for the low prices received from the farming products.

As to the total profitability regarding the total labor of the properties (RT/UTH), it's observed that the pluriactive productive system with major agricultural income has profitability similar to the legumes productive system. This is due to the compensation power those incomes of non-agricultural activity have, that's to say, the extra-agricultural activity may recover the income level of the lesser technical properties in relation to the properties with a better technological standard, as noted before.

3.2.2 – The pluriactive productive system with major non-agricultural incomes

The pluriactive productive system with major non-agricultural incomes presents the same features of the previous productive system regarding the farming and raising activities, as well as in the ways of trading the production. What distinguishes it from the previous one is the composition of the total income, considering that, in this system, the non-agricultural incomes represent more than 50% of the total income. The part of the man labor used in agricultural activities is inferior to that present in the non-agricultural activities. Due to the reduced use of man labor in agriculture, this system presents a more advanced extensive process than the one presented in the previous productive system. (Table 2).

This productive system presented two distinct subsystems, according to participation of the retirement incomes. In the first subsystem, the retirement incomes take part with up to 10% of total income and, in the other one, they take part with 15% and 45% of the total income. Then, it's considered that the second subsystem is in a more advanced deterioration process and, probably, it'll result in the productive system of the retirees of the motionless social group.

Table 2: Intermediate Social Group

Productive Systems Index	Pluriactive with major Agricultural Income (RA)	Pluriactive with major non-agricultural income (RNA)	Based on milk production
SUP. TOTAL (ha)	8,0 to 21,0	6,0 to 28,0	10,0 to 37,0
SAU (ha)	4,0 to 16	6,0 to 15,0	8,5 to 35,0
UTH	3,0 to 9,0	2,75 to 6,5	2,0 to 3,0
UTHagrF	1,55 to 4,0	0,8 to 2,75	1,25 to 2,5
UTHÑagr	0,2 to 6,0	1,0 to 4,0	Up to 1,0
SAL/UTH	1,25 to 5,0	0,8 to 4,0	7,0 to 11,0
SAU/UTHagrF	2,5 to 7,0	2,0 to 9,0	15,0 to 17,5
Technological Level	- animal traction and/or micro-tractor, precarious irrigation, wooden shed	- animal traction animal or tractor rent, precarious irrigation, precarious wooden shed	- tractor and animal traction or micro-tractor, milking machine, shed for material
Agricultural Activity	- vegetables, sweet cassava, corn, bean, black green-wattle acacia	- vegetables, sweet cassava, corn, bean, black green-wattle acacia	- corn, sugar cane, sweet cassava, black green-wattle acacia, oats
Raising Activity	- dairy cattle, chickens, swine	-dairy cattle, chickens, swine	-dairy cattle, chickens, swine
Non-Agricultural Activities	- shoes, town hall, etc	-shoes, construction, etc.	-shoes, services, etc.
RA/SAU (R$)	1.100,00 to 2.350,00	400,00 to 900,00	400,00 to 500,00
RT/UTH (R$)	4.800,00 to 10.200,00	2.100,00 to 8.700,00	3.500,00 to 9.100,00
RA/UTHagrF	4.500,00 to 8.200,00	1.800,00 to 4.700,00	2.000,00 to 8.000,00
RAÑA/UTHÑagr	3.000,00 to 7.000,00	2.400,00 to 6.300,00	3.900,00 to 12.000,00
RA/RT (%)	50% to 75%	15% to 48%	40% to 65%
RAÑA/RT (%)	15% to 48%	32% to 70%	20% to 60%
Rapos/RT (%)	Up to 20%	Up to 45%	Up to 45%

Source: Field Research, 1999/2000.

3.2.3. The productive system based on milk production

Producers who have in the milk activity their main productive activity characterize the productive system based on milk production. These producers face difficulties principally in regard to commercialization because they are submitted to the prices practiced by the only two milk enterprises of the region. The milk breeding is restricted, at most, to 13 heads of cattle that produce between 100 liters to 150 liters a day. The farming activity in this productive system is characterized by the production for the family subsistence and for the milk breeding. The silage production is a common practice among farmers, besides pasture and sugar cane cultivation in order to complement the animals' ration.

Another important aspect has to do with the strategies these producers use to finance the milk activity. These strategies consist of the use of the incomes from non-agricultural activities and/or from the retirements in order to finance the genetic and technological improvement of the activity.

This productive system presents the lowest land productivity among the systems of the intermediate social group due to the demands of the milk activity for larger areas for the cattle and for the animal subsistence culture. However, the man labor productivity is similar to that presented by the pluriactive productive systems. (Table 2).

3.3. Motionless social group

The motionless social group is characterized by the high participation of retirements or the charcoal production in the total income. They are properties that present a very low technological level and a basically subsistence agriculture. This group represents 1/3 of the farming properties of both towns. (Field Research, 1999).

3.3.1. The productive system with the retirement incomes predominance

The properties that use this productive system carry out extensive farming activities due to man labor limitations. Observing Table 3, it can be detached some considerable index in the characterization of this system, such as: 1) UTH from 0,75 to 2,0.
This is the lowest UTH level if compared with other systems. And this means that there aren't more than three dwellers in these properties; 2) the milk production (from 5 to 20 liters a day) is the only commercial activity; and 3) the retirement incomes represent from 40% to 70% of the total income.
Thus, the retirement incomes represent a mechanism of compensation to the deficiencies of productive capacity the elderly man labor present. An important aspect has to do with these properties' history. Most of the inhabitants had never dedicated to other activities, but almost all of their children are shoe industries workers and, as time goes by, move out to the city. Therefore, this productive system is considered the last stage a family farm estate of Dois Irmãos and Ivoti can reach due to the direct influence of non-agricultural activities. Such situation, on account of the emphatic development of the pluriactivity, represents the family farm disintegration.

3.3.2. The productive system based on the charcoal production

The productive system based on the charcoal production is found only at Ivoti town. Its main feature is the cultivation of black green-wattle acacia for the charcoal production in the own estate. The plants and the technological level applied to the farming activity and to the coal production are too precarious, which characterizes an advanced process of stagnation. Observing Table 3, it's clear this productive system almost don't get retirement incomes, that's to say, they are estates composed of individuals of a lower aged group than those of the previous productive system (3.3.1). Another important aspect is the use of trucks in the income generation by means of freights.
As to the total labor productivity (RT/UTH), the productive system is more efficient than the systems of the intermediate group. It's largely due to the fact that the man labor average age in these farming estates is lower than that in the estates of other productive systems.
It's also important to point out that high aggregate value obtained from the charcoal production shows that the craftsmanship agro-industry may be an important instrument of income generation in the rural world.

Table 3: Motionless Social Group

Productive Systems Index	Retirement Incomes Predominance	Charcoal Production
SUP. TOTAL (ha)	9,0 to 19,0	4,5 to 8,0
SAU (ha)	4,0 to 6,0	4,0 to 9,0
UTH	0,75 to 2,0	2,0 to 5,0
UTHagrF	0,75 to 2,0	0,5 to 2,2
UTHÑagr	0,0	0,5 to 2,4
SAU/UTH	2,5 to 3,0	1,5 to 5,5
SAU/UTHagrF	2,5 to 3,0	1,0 to 5,5
Technological level	- animal traction or tractor rent, precarious wooden shed	- tractor or animal traction or tractor rent, truck, coal furnace, wooden shed
Agricultural Activity	- corn, sweet cassava, bean, black green-wattle acacia	- black green-wattle acacia, corn, sweet cassava, bean
Raising Activity	- dairy cattle, swine, cattle, chickens	- dairy cattle, cattle, swine, chickens
Non-agricultural Activity	-	- coal – shoes - freight (truck)
RA/SAU (R$)	260,00 to 1.510,00	300,00 to 1.200,00
RT/UTH (R$)	1.850,00 to 8.780,00	1.800,00 to 8.500,00
RA/UTHagrF	925,00 to 4.735,00	1.500,00 to 3.000,00
RAÑA/UTHÑagr	-	6.500,00 to 8.500,00
RA/RT (%)	30% to 56%	10% to 35%
RAÑA/RT (%)	0%	65% to 82%
Rapos/RT (%)	40% to 70%	Up to 9%

Source: Field Research, 1999/2000.

5. Conclusion

As a conclusion, it's important to recall the purpose of this work, which tries to understand and explain the strategies of socioeconomic reproduction implemented by the family farmers of Dois Irmãos and Ivoti. And these strategies have the purpose of adding non-agricultural incomes into the total income of their farming estates.

Farmers of the dynamic social group have shown certain indifference to the possibility of job and occupation that shoe industries provide to the dwellers of the region. However, it was evident that the different productive systems of this social group present very distinct strategies of socioeconomic reproduction. In the productive systems of grape and flower culture, the indifference to the economic possibilities represented by the non-agricultural activities can be explained by two reasons: 1) the two productive systems are characteristic of the Japanese colony, and this can be explained by a cultural question, in which their children's education is the most important thing; and 2) the two systems have a high economic profitability, that's to say, there's no need to search in the extra-agricultural activities a complementation of the income. In the legumes productive system the reason is also based on the high economic profitability this productive system provides the farmers. The analysis of the results presented by the productive systems implemented by the farmers of the dynamic social group shows clearly these productive systems have capacity to absorb the totality of family man labor. And this proves their efficiency to promote the permanence of the youngest part of the population in the rural world, and to assure the socioeconomic reproduction of the farm productive units.

The productive system of the intermediate social group is the most influenced by the non-agricultural activities. The pluriactive productive systems have as strategy of socioeconomic reproduction the extensive process of agriculture, allowing, thus, the family labor release for non-agricultural activities, compensating the low technological level available. The milk productive system seeks in the non-agricultural incomes the finance of the genetic and technological improvement of the cattle raising activities. It's important to point out that the pluriactive productive systems can guarantee the socioeconomic reproduction in the short and medium term, assuring it the long term. Such situation allows to assume that the pluriactive productive systems may, in the long term, become productive system of the retirees, which belongs to the motionless social group.

At last, the motionless social group represents the resultant productive systems of the most advanced process of making extensive the farming activities, already identified in the intermediate social group. In this case, the retirement incomes compensate, on one hand, the lack of workers and, on the other hand, the incomes from the charcoal agro- industry compensate the small quantity of capital available. The retirees' production may be, in this way, considered as a result of the disintegration process carried out by the pluriactivity on the family farm of this region. In the same way, it's important to point out that the retirement incomes are a palliative instrument to struggle against the rural poverty. In the coal productive system, it's noted that the charcoal agro industry has, to this region, an important mechanism of income generation in the rural world, due mostly to the small technology and capital necessary to its accomplishment. Therefore, what make the socioeconomic reproduction of these two systems possible are the retirement incomes and the incomes of the charcoal agro industry.

In a general way, the strategies of social and economic reproduction can be classified in two types. The first one is related with the productive systems that don't include the non-agricultural activities in the composition of the strategies of reproduction, that's to say, they include the estates with a high technological level, presenting adequate equipments in the farming activities (irrigation, green-house, mechanical traction, etc) raw materials of good quality (seeds, fertilizer, etc.), technical knowledge (manner of production and technical assistance) and heavy vehicle of transportation for the direct commerce of production. The second type presents production systems that don't have the same technological pattern of the first one. The lack of financial capital, infrastructure and technical know-how (factors that influence the market competition) lead the family farmers to add non-farming activities in their strategies of reproduction.

These two types of strategies are directly connected to the characteristics of the region. The region is situated near great urban centers (peripherical urban area) that allow a range of advantages (economic, geographical, etc.) due to this location. This location facilitates the access to the consumption market and to the labor market. Thus, farmers belonging to the productive systems that don't use non-agricultural activities in their strategies of reproduction can sell their farming products more easily and by a higher price, since they don't need to sell their products for intermediaries. By the other hand, family farmers that use non-agricultural activities to promote socioeconomic reproduction of their families see in the proximity of urban centers the possibility of entering in the urban labor market and of increasing the family income. Therefore, it's important to make a deep study of pluriactivity in other regions where there aren't any proximity of urban centers, since the strategies of social and economic reproduction will be possibly distinct from the ones described in this paper.

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