

# Diversification as a Survival Strategy for Marginal Farms

## An exploratory research

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### Abstract

*One of the common strategies in rural development programmes is to support the adoption of new on-farm activities. The rationale behind this is that farm diversification is a way to assure an appropriate level of income for the farmers. Through interviews with 49 relatively small farmers, the possibilities for diversification as a survival strategy are assessed. The analysis is mainly based on a classification of development pathways by Bowler (1992).*

*Few forms of diversification appear to be successful as a survival strategy in case of economic problems. Only off-farm employment seems to be effective in this respect. The introduction of new activities on marginal farms is hampered by lack of financial and human capital.*

*On the other hand, diversification is often found on small farms without financial problems. This is an indication that on-farm diversification is able to stabilize the household income and to avoid financial problems when it is used as a preventive strategy.*

Key-words : farm diversification, poverty, farm strategies, rural development

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### 1. Introduction

Even in an urbanised region like Flanders, where the relative amount of farmers is very low and still declining, a lot of farm households face income problems (Van Hecke, 1999). Based on available figures, it is estimated that about 22% of farmers have a yearly income lower than € 20,000 per labour force unit. These farms can be roughly classified into two categories :

- farms that are too small or farms that have a structure that is insufficiently adjusted to modern standards and techniques ;
- farms getting into problems because of bad financial management and/or accumulation of debts

This distinction implies a different approach and possibly different strategies to reduce marginalisation and even poverty. Rural development programmes and accompanying measures of the CAP often focus on these marginalised farms by supporting on-farm diversification activities. As shown in Meert et al. (2001), strategies can be developed in the sphere of the market, redistribution or reciprocity. The first try to increase market participation, the second try to redistribute the overall economic growth and the third category is based on non-market exchanges.

The main question is of course if supporting on-farm diversification strategies can be succesful in alleviating financial problems and poverty. In this paper, the results of an explorative research on survival strategies of 49 households are reported and interpreted. The strategies can be classified into two groups : on-farm and off-farm strategies (Table 1).

**Table 1. Possibilities for survival strategies within the concept of economic integration.**

	Market		Redistribution		Reciprocity	
	On-farm	Off-farm	On-farm	Off-farm	On-farm	Off-farm
Within agriculture	e.g. intensification, diversification, crafts, innovative marketing, debt rearrangement, selling property,...	Payed labour on other farm	Investment support, other governmental support measures		Cooperation with other farmers, financial aid from others	Financial aid for non-agricultural activities
Outside agriculture	Recreational, educational or care supply	Non-agricultural employment, leaving the sector, household economy	Support measures linked to environmental measures	Support from public social services, caritative aid	Financial aid for non-agricultural on-farm activities	Social exchange within the local community, withdrawal from social networks, taking advantage of others

In this paper first the impact of the strategies on the household income and the sustainability of the farm itself are analysed. Next it is investigated if the adoption of new on-farm activities, eventually in combination with off-farm employment can assure an acceptable and stable income for marginal farm households. The research is mainly qualitative and explorative of nature, especially because of the small sampling size and way of sampling. However, this does not prevent to derive a number of interesting conclusions concerning the possibilities of diversification in rural poverty alleviation.

## 2. Methodology

The research methodology consisted of (2-3 hours) in-depth interviews with a number of farmers in 4 selected areas. The selected areas are situated in the peri-urban areas around Brussels and Ghent, two major Belgian cities. The sampled areas have a mixed rural-urban character and are comparable with respect to the dominant type of agriculture, which is (milk or beef) cattle breeding combined with arable farming. In a first stage, local key persons having a good knowledge about the agriculture in the region were contacted to review regional problems and to obtain reliable references about farmers with financial problems. This allowed to find in each selected area some good examples of marginal farmers. To be able to compare the situation of these farmers with farmers running equal-sized farms without financial problems, additional farms were visited, selected on the basis of

their economic size, expressed in Gross Standard Margin<sup>1</sup> (GSM). This parameter can be regarded as an indicator of a farm's potential to generate a certain level of household income. Three classes are considered :

- farms with a GSM < € 20,000. Small farms are theoretically too small to provide the income for one person, meaning that in order to survive, the income has to be supplemented with other sources ;
- farms with a GSM between € 20,000 and € 40,000. These are farms situated at the margin of survival, in particular when an entire family has to depend on the farm income solely;
- farms with a GSM > € 40,000 are farms able to generate sufficient income in agriculture.

Because of reasons of comparison, the additional farms were mainly selected from the first two groups. The underlying idea was to detect survival strategies, which ought to be prominently present among very small farms.

In total 49 interviews have been realised equally distributed over the four regions. Although it was originally hypothesised that the region could have an influence on the strategies applied, this turned out not to be the case. Therefore in this paper no further distinction has been made between the different regions, although some of the variables may be related to the geographic situation of a farm (e.g. proximity to the city).

Two kinds of survival strategies were distinguished :

- survival strategies at household level : this covered mainly activities situated in the redistribution and reciprocity spheres, such as savings on the household expenses, dependance on social security and the withdrawal from social networks ;
- survival strategies at professional level : strategies mainly situated in the market sphere. They can be regarded as different development paths for small family farms.

In this paper we will mainly focus on the latter strategies. By relating the farm survival strategies with explanatory and descriptive variables, as well as to the global socio-economic context of the household, we will try to obtain insights in the importance of farm diversification for the security and the stability of the household income.

### **3. Income indicators**

One of the most difficult aspects of this kind of research is to have reliable data or indicators on income and financial problems. In particular because we had no access to it or because it concerned farms without an economic or fiscal accounting. This is due to the fact that in Belgium farms are exempted from keeping an accounting system because of the existence of a specific taxation system for agriculture. The declarations of the interviewed farmers on their income proved to be vague and unreliable. Also, housing condition, in poverty research often used as an indicator, was in this case no reliable indicator, depending on many other household characteristics than the income alone. Therefore different indirect indicators on the income are used in the empirical analysis :

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<sup>1</sup> The Gross Standard Margin is defined as the value – expressed in monetary terms – of the gross margin corresponding with the average situation of a certain region (Belgium is considered as one region) for every specific agricultural production.

A first indicator is based on how the farmers interpret themselves their financial situation and income. Four household categories are created (Table 2), by comparing the current and past (compared with 10 years ago) financial situation of the household:

**Table 2. Classification and categorisation of the farm households interviewed according to the interpretation and evolution of the financial situation (between brackets the number of cases encountered)**

		CURRENT SITUATION	
		Bad/problematic	Good financial situation
PAST SITUATION	Good financial situation	'In regression' (4)	'Established integration' (30)
	Bad/problematic	'Continuously problematic' (9)	'Problem solvers' (6)

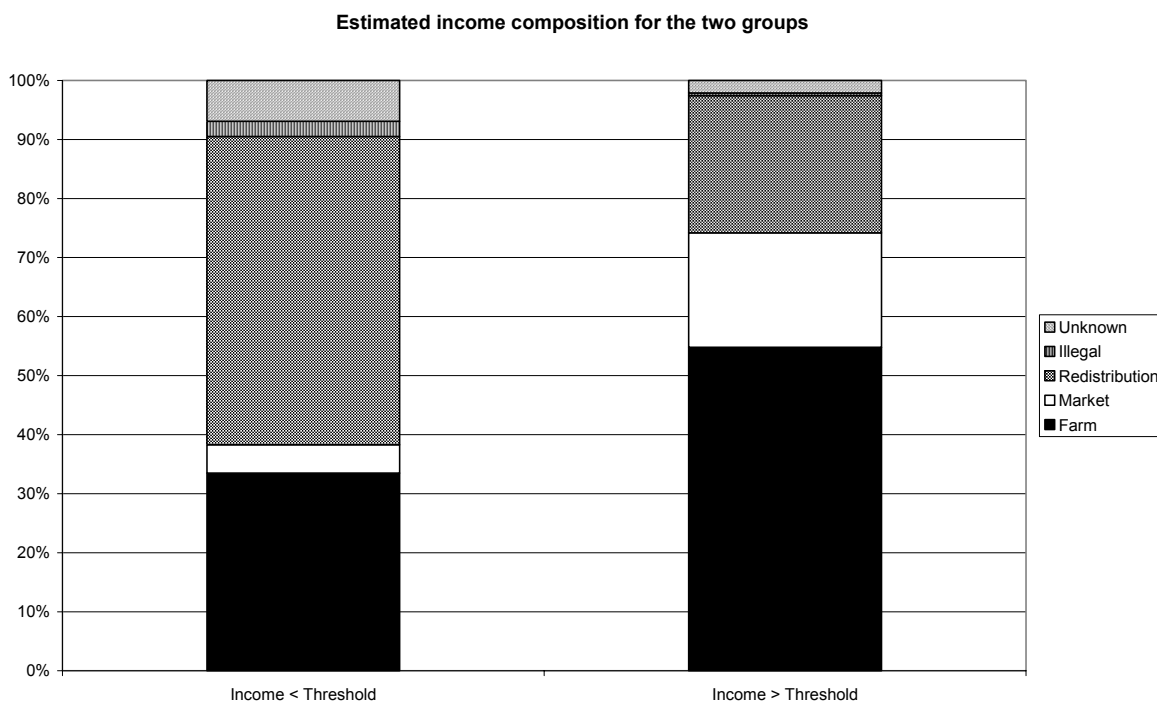
As can be seen from Table 2, about two third of all interviewed farms do not perceive their past and current situation as bad or problematic. These households can be categorised as well integrated. Apparently they have applied correct and successful strategies to survive on relatively small farms. Six households regard their actual situation as good, but admitted to have got serious financial problems in the past. They have been able to overcome the situation by applying adapted strategies and can be typified as problem solvers. For 13 households (about 25% of the interviewed cases), the actual situation is problematic. For 4 of them this is a decline in comparison with the situation in the near past, while the other 9 can be classified as continuously problematic.

These figures have to be relativised, because it was often difficult to interview the farmers who, according to the key persons have financial problems. In a number of cases this was even impossible. This explains why the group of farmers with a presently sound financial situation are in the majority.

A second indicator used to assess the financial situation is the estimated calculated household income. Based on the amount of animals and crops sold during the last season, and taking into account additional incomes and social payments, the household income is estimated. This income is reduced with payments on loans for farm (or other) investments and other costs are also taken into account. Household income is preferred to farm income, as in most cases no strict separation can be made between the firm and the household. On the basis of this estimated income (on which unavoidably large error exists), the households have been classified into two categories, comparing them with a perceived poverty income threshold (Van den Bosch, 1997). This threshold is adjusted for family composition and corrected for inflation. On the total of 49 farms, 32 farms are classified below this income standard if only the strict farm income is taken into account. However, when additional income sources are added, only 11 of the investigated households are estimated to have an insufficient income.

This indicates the importance of additional income sources. In Figure 1, a picture is given of the average composition of the total household income for both categories

distinguished. As can be seen poor households are often depending on redistribution systems.



**Figure 1. Average income composition for farmers with an income below and farmers with an income above the perceived poverty line.**

From the interviews, a database could be constructed with over 300 variables including characteristics on the households, the farm, the attitudes of the farmer, housing situation, social networks and the financial situation. On the basis of this database some explorative statistical analyses could be made with respect to diversification and farm income. However, because of the limited group of farmers and in particular because of the way they have been sampled, the results of these analyses should not be generalised but mostly regarded as indicative.

#### **4. Farm development pathways and diversification**

The concept of 'diversification' applied in this study is based on the farm business development paths as proposed by Bowler (1992) and Whatmore et al. (1987). Based on their research, six possible pathways of development can be distinguished :

1. Extension of the industrial model of farm business development ;
2. Redeployment of farm resources into new agricultural products or services (such as new crops or new animals) ;
3. Redeployment of farm resources into new non-farm products or services (such as farm gate sales, tourism, dairy processing,...) ;
4. Redeployment of human capital into off-farm occupation (other gainful activity) ;
5. Maintaining traditional farm production but with reduced inputs or reduced income ;
6. Evolving towards mere hobby, part-time or semi-retired farming.

In our study, pathways 2, 3 and 4 are regarded as diversification. Since it is the income of the household that is of importance, all alternative income possibilities, including off-farm labour should be considered. Adopting the terminology used by Ilbery (1992 and 2001), these pathways can be described as agricultural diversification, structural diversification and income diversification respectively. The other pathways are further indicated by the terms 'industrial development' (pathway 1), 'reduced farm activity' (pathway 5) and 'semi-retirement' (pathway 6). Table 2 represents the different pathways that were detected, taking into account that on one farm, different pathways can be followed.

**Table 3: Paths of development encountered on the interviewed farms and the division over the GSM size classes (between brackets the number of farms taking into account only their most important development path).**

		GSM			TOTAL
		< € 20,000	€ 20,000 – 40,000)	> € 40,000	
Development pathways (Bowler)	<b>1 – Industrial development</b>	-	2 (1)	8 (5)	10 (6)
	<b>2 – Agricultural diversification</b>	1 (-)	5 (3)	4 (2)	10 (5)
	<b>3 – Structural diversification</b>	3 (1)	7 (2)	12 (5)	22 (8)
	<b>4 – Income diversification</b>	4 (2)	6 (3)	3 (-)	13 (5)
	<b>5 – Reduced farm activity</b>	5 (4)	8 (8)	2 (2)	15 (14)
	<b>6 – Semi-retirement</b>	11 (11)	1 (-)	-	12 (11)
	<b>Total number of farms</b>	18	17	14	49

It is remarkable that on 22 out of the 49 farms analysed, one or another form of structural diversification could be found. It is clearly the most popular pathway among the interviewed farmers (ranging from direct on-farm sales to the renting of parking space for caravans). If all forms of diversification are considered, diversification is clearly present on 25 farms. If the broader notion of 'pluriactivity' is defined as setting up any gainful activity other than the traditional agricultural production (therefore including pathways 2, 3 and 4), 29 out of 49 companies could be called 'pluriactive'.

The nature of pluriactivity is extremely diversified. The most popular thing to do, because of the low investments and few new skills needed as well as because of the general acceptability, is the direct selling of products such as potatoes, milk, fruit etc. Also frequently mentioned are the renting of land, houses or vacant buildings, and the on-farm processing of dairy products.

A number of possible diversification activities such as organic farming, farm tourism and even off-farm employment of the farmer's wife, are by many farmers considered as unacceptable and raised strong and emotional reactions, sometimes clearly fed by desinformation and prejudices.

Diversification of any kind is particularly popular among the medium sized farms. The very small farms are owned by either older farmers, for whom the farming business is merely an extra income on their retirement pension, or by socially marginalised farmers who do not have the social, financial or human capital to realise diversification. The very large farms on the other hand have enough resources to be able to focus on an efficient and specialised agro-industrial model.

The fact that a farm refocuses on diversified activities, doesn't automatically imply that the intensification and extension of the traditional agricultural activities is no longer pursued. Even on the smaller businesses, modest expansion is considered, e.g. by buying extra milk quatum or extra land. This is even the case for farmers who are planning to stop farming in the near future. It therefore demonstrates the importance of emotional and social factors when discussing the future of traditional family farms.

In rejecting certain diversification possibilities, not only the size of the farm is important, but many other reasons are mentioned. The most important and generally applicable arguments are:

- the considerable amount of capital that is needed to start up new activities;
- the high (perceived) risk of failure;
- the age of the farmer: farmers often consider themselves too old, in particular if they do not have a successor, to invest in new activities and in the future of the farm.

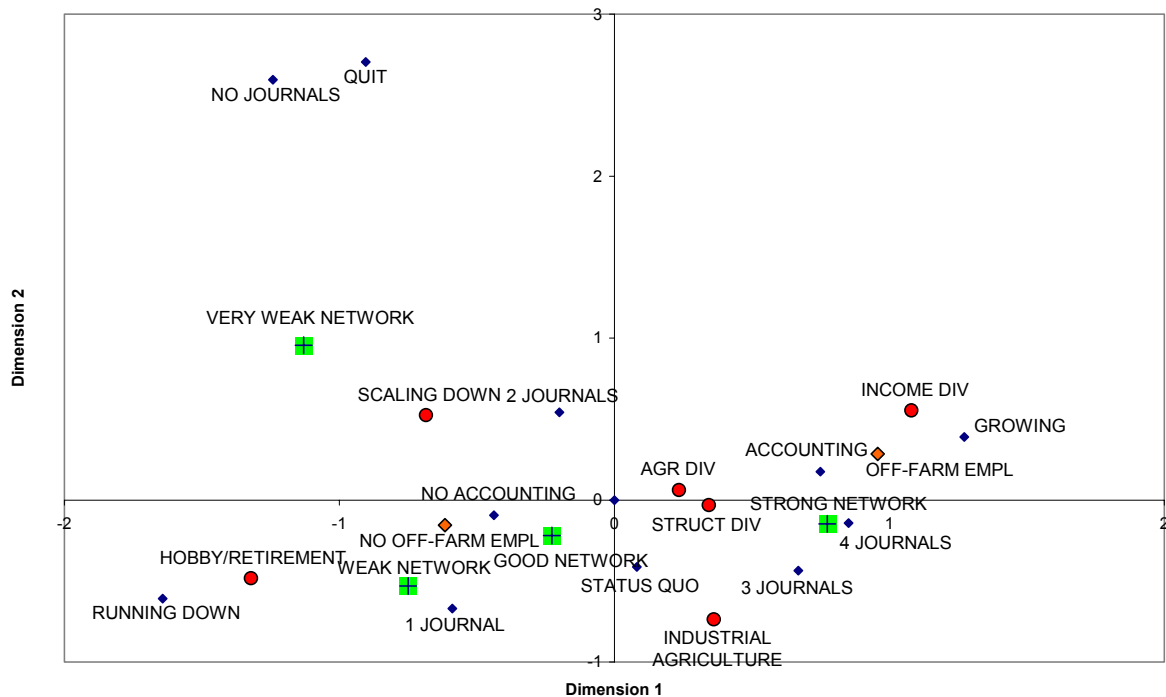
A remarkable observation is the joint presence of off-farm employment and on-farm diversification. From the 13 farmers with a non-agricultural occupation, 9 have developed new activities on their farm. This is certainly linked with the social attitude of the farmer, as is illustrated in Figure 2 that has been obtained using homogeneity analysis<sup>1</sup>.

In this figure variables related to the social network of the household are checked for correlation with the pathways of the farms: the number of journals to which they subscribe, the strength of the social network (an aggregated variable) and some attitudinal variables (having an accounting or not, the vision on the future of the farm).

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<sup>1</sup> Homogeneity analysis (sometimes referred to as 'dual scaling') is a generalised optimal-scaling technique to more than two variables. Rather than trying to obtain a multidimensional geometry of categories – like in multiple correspondence analysis – homogeneity analysis tries to obtain new scales for each categorical variable, that are as closely related as possible. The interpretation of the figures is comparable to factor analysis (Greenacre and Blasius, 1993).





**Figure 2. Homogeneity analysis of development pathways (circles), social networks of the farm household (+) and some attitudinal variables (diamonds).**

As can be seen, farmers diversifying their activities are characterised by good or strong social networks. Most of them stated that the interaction with other farmers was a crucial factor in their decision to start something new. For off-farm employed family members, the social contacts outside the farm are often a main reason to maintain the off-farm activities.

Another fact visualised by Figure 2 is the more ‘professional’ approach toward farming among farmers with some form of diversification. Most of the diversifying farmers are keeping accounts about their farm (which is no legal obligation) and their other activities and are very well informed about new developments in the sector, reading three or more professional journals.

Another remarkable observation is that farmers diversifying are still aiming to expand and certainly to maintain the current size of their farming activity. Contrary to what is often put forward in literature, for the farmers in our research, diversification is not considered as a first step towards abandoning agricultural activity.

On the other hand, in the cases where the farm activities are being reduced or preparations are made to stop farming to take up either another activity or retirement, no additional investments are being considered. The existing pluriactivity on these farms consists of the continuation of activities that have been started up before (often already long ago). The combination of both observations leads to the conclusion that starting up new on-farm activities may be considered on small farms as a good indicator of the future will of a farmer to keep on farming.

## 5. Diversification and household income

Similar to the previous analysis, in Figure 3 the associations between development paths and the economic situation of the 49 farms are visualised.



**Figure 3. Homogeneity analysis applied to development pathways and income indicators**

The clear separation between successful and unsuccessful farms clearly demonstrates that financial household problems mainly prevail on those farms that have already diminished their agricultural activity or combine it with retirement pensions. Diversifying activities have been present before, but have been abandoned.

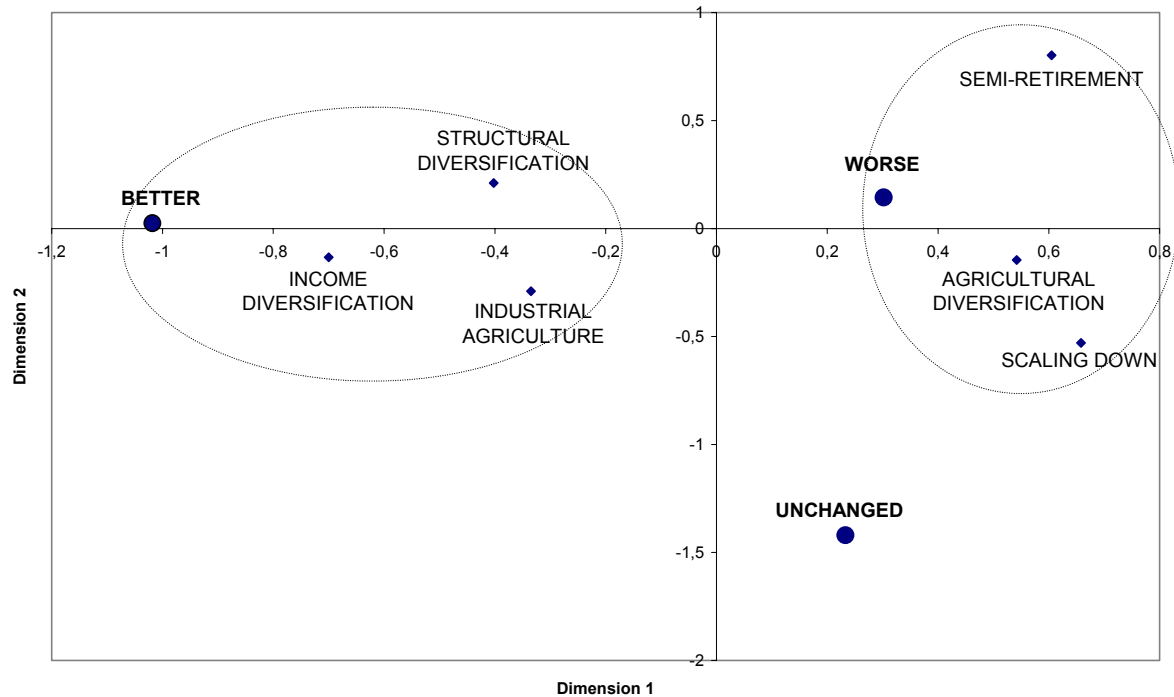
The important presence of problems in this group of elder farmers implies that solutions for these farmers are not to be found in sectoral or rural development measures, but in social provisions (see further).

The six farms typified as ‘problem solvers’ are heterogeneous with regard to structures and strategies, but for most of them the adoption of diversification was at least partially the solution to their financial problems. One farmer had started up an ambulatory vegetable shop and saw his business expanding rapidly when other shops disappeared from the small villages. However, most of these farms have followed a combination of two or more different development pathways, and diversification of activities is accompanied by e.g. planting new crops or the spouse taking up a regular job.

Households with a stable and sufficient household income are generally characterised by one or more forms of diversification. The group of farms that have followed an industrial pathway are mainly characterised by their much larger size, enabling them to gain enough out of pure traditional agricultural activities.

This image is refined when we compare the development pathways with the opinion of the farmers on how their income has evolved during the last 10 years (Figure 4). This subjective interpretation differs from Table 2 and does not mean that the

farmers who consider their income having decreased are indeed in a problematic situation.



**Figure 4. Homogeneity analysis applied to development pathways and income indicators**

Although only 25% of the farmers observed is classified as being in a financially marginal situation (Table 2), a majority of the farmers (35 out of 49 respondents) consider their income being reduced over the last 10 years.

However, Figure 4 indicates that in particular structural diversification and the combination with off-farm employment are the most successful strategies. But as already demonstrated in Figure 2, for most of these farms, the non-farm activities are not a stage of leaving agriculture, but rather a search for additional income to be able to continue the farming activities.

Off-farm employment has become a necessity for many of the observed farms. When a regular job is taken up, it easily accounts for more than 50% of the household income (see Fig. 3). But the farmers interviewed with an off-farm income, kept on investing money in their agricultural activities, trying to establish some growth.

Bryden (1992) already emphasized some important factors that are linked with taking up off-farm employment. Some of these factors (such as e.g. the link with the situation on the local labour market) could not be tested because of the small amount of observations, but many others were confirmed by this test group. Off-farm employment is mainly hampered by :

- not being married (lack of labour and/or a strong dependence of the farm on one person) ;
- the low education of the farmer but even more the low education of his/her spouse ;

- the absence of a successor (off-farm labour is taken up to ensure the future of the farm in families with a successor) ;
- a closed structure with respect to property and decision power. A lot of smaller farms were almost completely owned by the farmer's family, tightening the personal attachment to the farm. External capital is often absent or avoided in investments;
- the older age of the farmer (although the presence of older children can compensate for this disadvantage) ;

Our observations confirm that off-farm employment often appears to be the 'easiest' solution for a farm household to keep the family income stable and sufficient. Most of the interviewed farmers that score positively on the criteria mentioned (especially young and better educated farmers) have in fact already made the decision and found a job outside the farm. Important prerequisites however seem to be a good social network (Fig. 2) and a sufficient labour surplus.

Fig. 3 also shows that diversification strategies associate with a sufficient and stable income. Farms interviewed applying income or structural diversification mostly belong to the 'established integrated' or 'problem solvers' group. However, one has to keep in mind that associative pattern techniques do not allow to unambiguously discern causes and consequences. Many forms of diversification require investments that can only be carried by economically well-functioning firms. In that respect we believe that diversification must rather be considered as a preventive rather than as a remediating strategy.

Off-farm employment (or more general 'other gainful activities') seems to be a more feasible pathway for a broader group of marginal farm households. The main constraint for this strategy is the average education of the farmer. Without additional education, some farmers do not possess the required skills to get a regular job.

Age is another very important factor. None of the three forms of diversification appear to be well suited for the older group, although they constitute the most vulnerable group concerning household income. For this group a better social security system seems the only solution. This is one of the adverse effects of a historically grown difference between retirement systems of self-employed and wage-earning persons. In particular for small marginal farms, with few own resources (land, knowledge,...) this can result in poverty at the moment of retirement, forcing them to supplement their pension by the continuation of farm activities.

## **6. Conclusions**

In this paper the possibilities of pluriactivity to solve income problems of small and medium-sized farms have been analysed. The importance of the additional income generated by new activities is highly diversified, but for an important number of the farms interviewed it is a key factor to survive or to avoid household poverty. Therefore, rural development programmes encouraging this kind of activities may be regarded as a good opportunity to avoid financial problems in agriculture. But diversification alone is insufficient to deal with marginalisation problems because for some groups. In particular those who are already in a problematic situation, such as single or older farmers lacking the necessary human and social capital resources, need other strategies (at household level or in social provisions) to survive.

Within the observed strategies, a clear difference has to be made between preventive and curative strategies. Both situations need a completely other approach. Possibilities for curative strategies are limited, mainly because capital-intensive activities are not feasible for households facing debts and in many cases lacking any savings. Apart from off-farm employment, which is a feasible strategy for a lot of households, good opportunities are the on-farm selling of farm products or the renting of land or buildings.

Preventive strategies are less limited, provided the necessary investment can be carried and the farmer is not too risk-averse. These strategies often are ensuring the future of the small farm business, which is contradictory to the sometimes postulated theory that alternative activities are a first step towards leaving agriculture. Rural development programmes could stimulate these preventive diversification strategies, not only through financial support for innovation, but also by increasing the access to information and education or by other transaction cost reducing activities.

Income diversification strategies (off-farm employment or the combination of farming with a non-farm business) seems to be the strategy which is most widely applicable. The additional income can in many cases constitute the basic and stable part of the household revenue, and form the basis for keeping the farm activity. A determining factor for off-farm employment seems to be the education of the farmer and his/her spouse. Therefore the promotion and support of additional training possibilities, aimed at the conventional labour market, should be an essential part of any policy dealing with rural development and poverty alleviation in agriculture.

## Bibliography

Bowler, I. (1992) 'Sustainable Agriculture' as an Alternative Path of Farm Business Development. In : Bowler, I.R., Bryant, C.R. and Nellis, M.D. (Eds) *Contemporary Rural Systems in Transition. Volume 1 : Agriculture and Environment*. CAB International, Wallingford, 237-253.

Bryden, J. (1994) Interactions between Farm Households and the Rural Community : Effects of Non-agricultural Elements in Farm Household Decision Making on Farming Systems. In : Dent, J.B. and McGregor, M.J. (Eds) *Rural and Farming Systems Analysis : European Perspectives*. CAB International, Wallingford, 243-254.

Greenacre, M. and Blasius, J. (1994). *Correspondence Analysis in the Social Sciences*. Academic Press, London, 370p.

Ilbery, B. (1992) State Assisted Farm Diversification in the United Kingdom. In : Bowler, I.R., Bryant, C.R. and Nellis, M.D. (Eds) *Contemporary Rural Systems in Transition. Volume 1 : Agriculture and Environment*. CAB International, Wallingford, 100-118.

Ilbery, B. (2001) Alternative Farm Enterprises on the Urban Fringe : Evidence from the UK. *Paper presented on the symposium 'Openruimtefuncties onder verstedelijkingsdruk'*, Gent, 19-21 september 2001.

Meert, H., Van Huylenbroeck, G. and Van Hecke, E. (2001) *Analysis of rural development policies based on different modes of economic integration*. Paper presented at the EAAE-congress 'Policy Experiences with Rural Development in a Diversified Europe', Ancona, June 28-30, 2001.

Van den Bosch, K. (1997), *Wat heeft een gezin nodig om rond te komen? Budgetnormen voor drie type-gezinnen*, <http://www.ufsia.ac.be/csb/bericht.htm>.

Van Hecke, E. (1999), *Boeren in de knel. Armoede in land- en tuinbouw*. Brussels: King Baudouin Foundation.

Whatmore, S., Munton, R., Little, J. and Marsden, T. (1987) Towards a Typology of Farm Businesses in Contemporary British Agriculture. *Sociologia Ruralis* 27 (1), 21-37.