



Socio-Economic Dimensions of Agricultural Diversification in Västerbotten, Northern Sweden

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Abstract: Over recent decades economies of scale, rationalisation and specialisation have generally taken place within industry. In agriculture, similar processes have resulted in the enlargement of farms but large reductions in the numbers of farms and employment opportunities, thereby contributing to the reduction in the rural population as a whole. Diversification offers an alternative business strategy to specialisation. This paper presents innovative on-farm diversification as a possible survival strategy for farmers and, based on a recent investigation in the county of Västerbotten in Northern Sweden, it analyses the motivations for diversifying agriculture together with its socio-economic consequences for farm households. The low level of economic returns suggests that other less tangible values play compensatory roles, such as quality of life and lifestyles.

Keywords: agricultural diversification, innovative on-farm diversification, rural survival, rural lifestyles, Västerbotten

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Contents

Foreword	7
Introduction	9
Conceptual aspects and recent research	9
Agriculture and diversification in Västerbotten	12
Where are our farmers and diversifiers located?	14
When did the diversified activities start up?	15
Who are the diversifiers? Which farms diversify?	17
Why farm and why diversify?	19
Effects of diversifying	20
Diversifiers	21
Overall results of diversification and its social aspects	24
Conclusions	27
Acknowledgements	29
References	31

Foreword

During the past three years CERUM has been engaged as the Swedish partner in the collaborative research project entitled “*Innovation, Diversification and European Agricultural Situations (IDEAS)*”, financed by the Fourth Framework Programme of the European Commission (FAIR6-CT98-4228). Four countries (UK, France, Spain and Sweden) have worked in parallel using the same methodologies, each investigating innovative significant on-farm diversification in a selected region. The Swedish questionnaire was completed by interviewing 125 farmers in the county of Västerbotten. Of these farms, 85 were diversified while the remaining 40 were non-diversified and served as a control group for comparative purposes. The questionnaire contained almost 100 open and closed questions, which were analysed statistically to produce a regional profile document of tables and commentaries.

The farm questionnaire was largely carried out by Erik Sondell, and Linda Rislund completed the quantitative analysis and regional profile. Aurora Pelli was responsible for the subsequent in-depth interviews with twelve selected innovative diversifiers and produced a qualitative analysis, while Linda Rislund carried out the follow-up interviews with eleven key institutional actors and analysed the farmer-institutional interface (both to be published in forthcoming CERUM Working Papers). This present paper by Linda Rislund and Ian Layton summarises aspects of the regional profile and utilises the qualitative material to help explain farmers’ social and economic motivations for diversifying in Västerbotten.

Umeå, April 2002
Ulf Wiberg
Chairman for CERUM

Introduction

Conditions for agriculture as a viable means of livelihood in Sweden have altered greatly during the past half-century. Technological changes, globalisation and the emergence of international economic organisations such as the European Union (EU) have led to increased competition for markets and the need for new agricultural policies. Some farmers have managed to adjust their forms and methods of production and have sustained farm incomes and employment through rationalisation and specialisation. Another strategy has been *diversification*, whereby farmers seek new markets and produce new commodities or services that may or may not be directly related to their traditional agricultural production and activities. In this diversification strategy, farmers have had to come up with new ideas and/or implement techniques that are often unfamiliar. For them, the introduction of a new product, process or activity, on the farm represents an *innovation*, whether it is highly original or simply the local application of something that has already been tried and tested elsewhere.

As with any cross-section of a community the goals of farmers vary from individual to individual – but common aims are the sustainment/improvement of income, employment and life-style, or the survival of the farm, either in the short term (the working life-span of the farmer) or in the long term (for future family generations). When economic returns from farming and diversification are disappointingly meagre, social and psychological criteria appear to compensate – for example, way-of-life, personal values and place loyalty. The future of the farm and its family household is such an integral part of the future of the local community that the survival of rural employment, services, infrastructures and cultural landscapes, will largely depend on a successful policy for agriculture and small businesses in country areas.

Conceptual aspects and recent research

This paper adopts the following definition of agricultural diversification, as meaning:

“... change in the traditional services, activities and products engaged in or produced on farm holdings, usually in response to changing policy, political, market and farm household influences” (Clark, Jones and Schoen, 2000, p. 26).

The processes behind agricultural diversification and *innovation* are shown to have similarities. In the context of the IDEAS project¹, these processes involve farmers' task to identify problems, to construct novel solutions to the problems, to “try the solutions out” by starting a project and eventually implementing the solutions on-farm if it turns out to be successful. These processes, defined as socio-cultural and/or behavioural, are initiated by and intertwined with interactions between the farm business and the external business environment (i.e. the micro- and macro

¹ “Innovation, Diversification and European Agricultural Situations (IDEAS) is a project financed by the Fourth Framework programme of the European Commission (FAIR6-CT98-4228). The IDEAS project has three main objectives: (1) to identify examples of innovative significant on-farm diversification in four EU member states (England, France, Spain and Sweden) with emphasis on employment opportunity creation and the qualitative nature of that employment; (2) to select a variety of localities within four major agricultural regions of Northern and Southern Europe in order to analyse how innovative, significant forms of on-farm diversification are incorporated within the suite of existing on-farm activities; and (3) to evaluate how innovative forms of diversification have been sustained in these localities and, in particular, how local/regional institutions and key political actors have interfaced with farmers in their support of innovative on-farm diversification (IDEAS Technical Annex, 1999, p. 3).

business environment). Initiatives by the farmer and/or the farm household put the farm business upon a “*decision continuum*” – a series of interrelated processes that over time might lead to different results, such as innovative agricultural diversification, non-innovative diversification, or simply no on-farm change at all. The IDEAS project is dealing with farmers considered to be involved in agricultural diversification, with a particular focus on *innovative agricultural diversification*. Although the terms are interrelated, the definition of the latter adopted is: “... *the creative, proactive exploitation by members of the farm household of the commercial potential of forms of agricultural diversification that are new or novel to the locality*” (ibid., pp. 28–29). Hence, innovative agricultural diversification is related to new products, practices and processes or significant alterations thereof, which are new to the locality, and which in the end turn out to be economically viable for the farm.

Agricultural survival is an integral part of rural survival, and the literature is extensive. For example, as a response to the globalisation of the farm sector Bowler (1999) discusses *endogenous agricultural development*, which he defines as “... a dependency on local resources, local control over development and the retention of the benefits of development within a locale” (ibid. p. 261). From this perspective, farm diversification serves as an example of this endogenous development and can be one option, among others, for European farmers to maintain or increase farm income.

Farm diversification is one of several “*paths of farm business development*” discussed by, for example, Bowler (1999), Bowler et al. (1996), Ilbery et al. (1998), and Damianos and Skuras (1996). Bowler et al. (1996) suggests that if the responses by the farm family to external and internal stimuli require changes for the farm business, in the form of capital accumulation or economic survival, there are different paths available. The active search by the farm family for adjustments/solutions to such stimuli might lead to paths of further specialisation, the continuation of traditional/conventional farm production and services, retirement or semi-retirement from farming, the taking on of off-farm work by farm household members and farm diversification.

The occurrence of farm diversification (and also the types of diversifying activities) varies spatially according to the constraints and opportunities of the local/regional environment, e. g. access to markets and possibilities for off-farm work by members of the farm household, and also on the human and capital/material resources available on the farm (Bowler 1999). Studies show that the occurrence of farm diversification and evidence of profitability from such activities are mostly dependent on farm size and the fundamental economy of the farm. Larger farms with the ability to invest and engage in large-scale projects are the ones most likely to achieve economical benefits from diversifying. Consequently, the farmers who are economically successful in diversifying might not be those who need alternative incomes the most (Ilbery 1991, Hjalager 1996). Another precondition for the occurrence of diversifying enterprises is shown to be the direction of the basic agricultural production on farm. Farmers involved in dairy-farming are less likely to engage in diversifying activities than those with extensive grazing of livestock such as sheep and beef, as dairy production is both time- and capital-consuming (Ilbery 1991).

Even if many studies show that the main reason for establishing an alternative on-farm enterprise is financial (e. g. Ilbery 1991, Bowler et al. 1996), farm diversification does not necessarily lead to increased farm income. With rural tourism in Denmark as an example of farm diversification, Hjalager (1996) found that the revenues coming from new activities introduced on farm did not measure up to the actual workload put into these activities. The traditional agricultural production remained the most productive activity on the farm (ibid.). Although relative income contributions remain small on average, farm diversification can be a strategy for spreading the risk of income losses during years when agricultural production returns are low (McNally 2001). These findings are largely confirmed in our Väs-

terbotten study and prompt us to question why low economic returns from diversification are apparently acceptable.

Few authors have focused attention on non-economic motivations for agricultural diversification and living in the country, away from urban influences. Rural sociology embraces rural survival and survival strategies in general, but the research rarely relates directly to agricultural diversification. However, some relevant aspects have appeared recently; for example Eikeland (1999) has investigated pluriactive² smallholder households in Norwegian rural municipalities and periurban communities, confirming that a majority of entrepreneurs choose traditional rural adaptations and mixed sources of income rather than the easier option of 'ordinary' full-time paid work. New niches in the rural economy and modern gender relations in rural households form the basis for these preferred household strategies. In another qualitative Norwegian study, Villa (1999) demonstrates how attitudes to farming have changed during three generations of farmers, from being an occupation that one was obliged to pursue to being one option among many. These changes are explained in terms of general social development, increasing autonomy between generations on the farm, and farmers becoming a minority group in rural society. She employs interesting theoretical approaches based on 'life mode analysis' (emphasising the influence of cultural and economic structures on people's lives) and 'life course analysis' (taking more account of processes, changes and the impact of human agency). One interesting Swedish example of qualitative sociological research in this field investigates the way of life and lifestyle of owners of small rural firms engaged in tourism (Karlsson and Lönnbring 1999). The authors conclude that the setting up and running of a small firm "... is largely a question of choosing a lifestyle; a way of life that can be shaped into an ideal type that contains elements of creativity, that one starts out from a personal interest, independence, a lot of work, that there are unclear divisions between work and leisure, that the family is often involved in the activity, that one wants personal control over the activity, that one grows successively through practical work, that one has long working hours, short holidays and that in most cases one does not earn much." (ibid., pp. 412–413). These personal choices and values represent not only a lifestyle but also, in part, an older traditional agricultural mode of life that is characterised by independence (Jakobsen and Karlsson 1993).

Potter and Lobley (1996) contributed to the literature on the strategies employed by farmers to ensure succession with a study of over 500 family farms in Britain. They found that succession provided motivation as well as mobilising family labour, skills and entrepreneurial energy for developing the farm over the longer term. It is argued that this extra incentive helps to explain ongoing structural differentiation within the farming community. In Sweden, Djurfeldt (1996) seeks a more sociological ideal-type definition of family farming to counterbalance economically inspired concepts of the farm family business.

Oldrup (1999) studies how Danish farm women, often with a non-farming education and background and who work off farm, experience living on a farm and she concludes that they are actively reconstructing traditional gender identity in agriculture. These women must also be contributing their experience to the farm household's resources and, by implication, thereby increasing the possibilities for diversification. This is supported by studies in Greece, which have also shown that the spouse on the diversified farms often contributed to the establishment of the diversified enterprises, due to her experiences gained from off-farm work (Damianos and Skuras, 1996). This Greek study also shows that the diversified farms have larger numbers of children living on the farm, which suggests that farm diversification occurs at an early stage in the farm family life-cycle.

Most of these research findings tally closely with the results of our study of diversification in Västerbotten, which thereby increases their level of generalisation

2 Here, *pluriactive* means that a farm household obtains income from both on- and off-farm activities.

and relevance for other parts of Europe. The principal *aim* of this paper, however, is to analyse socio-economic aspects of innovative on-farm diversification and assess its role as a survival strategy for farmers in a sparsely-populated region. As part of the collaborative research project “Innovation, Diversification and European Agricultural Situations (IDEAS)”, the Swedish questionnaire was completed by 125 farmers in the county of Västerbotten. Of these selected farms 85 were diversified, while the remaining 40 were non-diversified and serve mainly as a control group for comparative purposes. The questionnaire (see appendix) contained almost 100 open and closed questions which were analysed statistically to produce a regional profile document of tables and commentaries. The Västerbotten profile provides the basis for this paper, together with qualitative material from in-depth interviews following up twelve of the region’s more successful innovative diversifiers.

Agriculture and diversification in Västerbotten

In this high-latitude and, in part, high-altitude region of northern Europe the conditions for farming vary between the coast and interior. Due to post-glacial land uplift the coast has more extensive and contiguous areas of fertile soils consisting of water-sorted sediments, whereas inland such soils are restricted to small areas along the rivers and most of the surface is covered by unsorted glacial material. Climatically, the higher inland terrain has cooler temperatures, longer snow cover and a shorter growing season, which makes grain production even more difficult than in coastal areas. Wheat is not grown and barley and oats dominate throughout the region. Hence, the region’s location and physical conditions severely restrict the variety of possible food crops. By long tradition, therefore, the majority of Västerbotten’s farmers specialise in grazing livestock (54% in the survey, Figure 1). This category includes specialist milk and meat production as well as combinations thereof. There are no major differences depending on where the farms are located. However, the farms in the periurban areas do contain a higher proportion of specialists in granivores (pigs and poultry) than elsewhere, which is probably related to their proximity to processing plant and urban markets. Horticulture appears more frequently in the coastal areas, whereas interior farms are proportionately more involved in forestry. The latter reflects the colonisation and enclosure policies, in particular during the nineteenth and early twentieth centuries, which recognised that Lapland settlers would not be able to subsist solely on agriculture in these marginal interior areas and therefore granted them large forest holdings.

Due to the small numbers of cases it is difficult to identify differences in the regional agricultural specialisations between the diversifiers and the non-diversifiers, and the breakdown into these two groups reveals few significant regional variations. The main contrasts are, however, that diversifiers embrace a far greater range of specialist activities throughout all of the three zones and that grazing livestock (for milk and meat) is accordingly less dominant (Figure 1). This is most noticeable in the periurban and coastal zones where there are more opportunities for marketing different agricultural products, for diversification, and especially for off-farm incomes. Non-diversifiers are almost entirely devoted to specialisation, involving either milk and/or meat production or granivores, particularly within the periurban and coastal zones. Other regional variations are generally insignificant, apart from the fact that milk and meat production has become somewhat less common inland, far from the major markets and the few remaining co-operative dairies and slaughterhouses.

Within the IDEAS project framework four typologies of different sorts of diversification enterprises have emerged and these have been commonly adopted by the four research teams. However, since the study regions vary greatly in their natural conditions for different types of agricultural and diversified activities, not all of the activities included in the four types are applicable in each area. In addition, the farms are categorised into these subgroups on the basis of the diversified en-

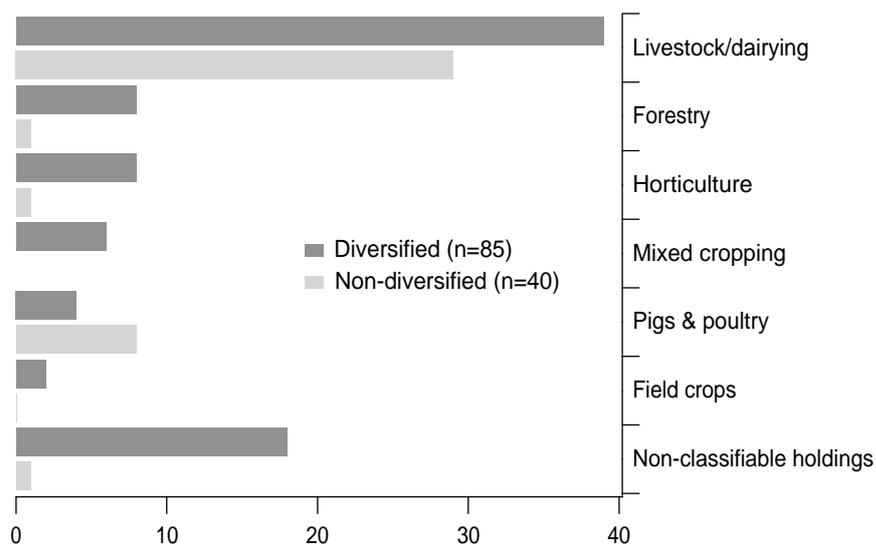


Figure 1: Agricultural focus of the selected diversified and non-diversified farms.

terprise that has the largest net income contribution to the farm (i.e. Enterprise 1). Many farms have more than one on-farm diversified enterprise, which might include other types of activity than that under which the farm is classified.

In the Västerbotten study area, the Type 1: *Non-conventional primary products* refers to diversifying activities that mainly involves non-conventional breeds of livestock (cattle, sheep, ostriches, rabbits, pigs and poultry) and crops, but also summer plants and apiculture. In this group the main diversifying activity of one selected farm is water-powered electricity production, based on the notion that the flow of water across the farm holding is part of its primary resource base. T1 diversifiers form the smallest group in the Västerbotten sample, comprising only six respondents.

Type 2: *Traditional diversification* is the largest group in the Västerbotten sample with 46 respondents. Almost half of these diversifiers have the processing of agricultural crops or livestock as their main diversifying activity, which includes value-added processing of agricultural crops and livestock and also the direct marketing of these products. Contract work and hiring out agricultural and forest machinery are other activities often pursued by the traditional diversifiers. This usually includes services for other farmers such as plastic baling of silage and transportation, etc. Other T2 activities relate to the processing of forestry products (e. g. sawing, planing, joinery) and changes in production branch (e. g. the change-over from milk production to integrated meat production).

Type 3: *Non-agricultural services and production* is the second largest group of diversifiers in our sample and the 24 cases embrace a wide variety of activities. The two most frequent activities are however tourism and different kinds of entrepreneurial activities. The winter and/or summer tourism activities mainly relate to accommodation and catering, 'Live on a farm', farm shops, and different kinds of 'experience tourism' such as organised fishing and wilderness trips. One diversifier also utilises the Västerbotten fauna and runs a moose farm for tourism purposes. The entrepreneurial activities relate mainly to earth-moving work, building construction, transport and snow-clearance services. Other examples of T3 activities include equine services, the manufacture of plastic halters for livestock, peat-cutting, electrical sales and services, hairdressing, book-keeping and a golf club.

Finally, Type 4: *Agri-environmental practices* includes ecological production of meat, milk, potatoes and vegetables (9 cases). More extensive forms of animal production often result in considerable reductions in labour. This group also contains

Table 1: Types of enterprises by total numbers and Enterprise 1

	All enterprises		Enterprise 1	
	n	%	n	%
T1. Non conventional primary products	7	4	6	7
T2. Traditional diversification	90	51	46	54
T3. Non agrarian services and production	67	38	24	28
T4. Agri-environmental practices	13	7	9	11
Total	177	100	85	100

examples of diversifiers who are involved in landscape preservation and the production of natural fertilisers.

The Västerbotten survey of 85 diversifiers includes 177 different enterprises in all, and almost 90 per cent of these are forms of either traditional diversification (T2) or non-agrarian services and production (T3) (Table 1). Only 7 of these enterprises are categorised as dealing with non-conventional primary production (T1) and only 13 are forms of agri-environmental practice (T4). There are 27 households concentrating on one enterprise, 24 households have two enterprises and 34 households have three or more enterprises, so that multiple diversification is most common. The combination of enterprises on the individual farms follows the same pattern as described above, i.e. the most frequent combinations are among those categorised as traditional diversification and non-agrarian services and production. It should be noted from the table that, by selecting Enterprise 1 in order to classify the 85 farms, the proportions of the four types are not significantly different from those of the total population of enterprises.

Where are our farmers and diversifiers located?

The 125 selected farmers in the Swedish survey have been grouped into three types of region (Figure 2). The principal division is above and below the so-called 'Lapland boundary'. In the mid-1700s this administrative border was drawn in order to separate coastal farming areas from interior areas used by the Sami people for hunting, fishing and reindeer grazing. The Lapland boundary has been retained by municipal boundaries and separates what are traditionally called the *Coastal* and *Interior* municipalities in the county of Västerbotten. Within the coastal area we have identified a further *Periurban* category, which includes farms located within 30 kilometres of the two largest towns, Skellefteå (c. 32 000 inhabitants) and Umeå (c. 70 000). Table 2 reveals that the proportions of the selected farms decrease with distance from these two urban centres, which reflects the regional variations in the densities of both population and farm-holdings in Västerbotten.

Table 2 also reveals that diversified farms are more characteristic than non-diversified farms in both the interior and the coastal areas, whereas the non-diversified farms are more highly concentrated in the periurban areas. This reflects the concentration of farms and villages to the best farmland around the mouths of the major rivers, where the two towns were established as gateway ports. Good soils, climate and proximity to the major local markets must be regarded as the best conditions for non-diversified farms. From our sample, it appears that diversification becomes relatively more significant with increased distance from the urban centres.

Table 2: Areas where the farm households are located (see also map).

Areal divisions	Diversified		Non diversified		Total	
	n	%	n	%	n	%
Interior	22	26	7	17	29	23
Coastal	28	33	11	28	39	31
Periurban	35	41	22	55	57	46
Total	85	100	40	100	125	100

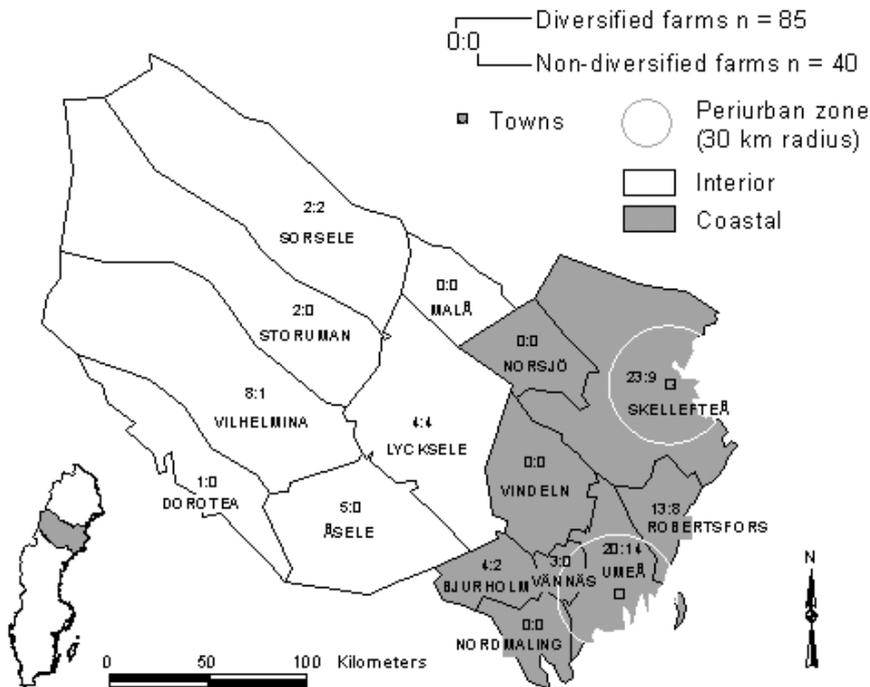


Figure 2: The Västerbotten study area showing the numbers of the selected diversified and non-diversified farms by municipality.

When did the diversified activities start up?

The frequency of new enterprise establishment has increased steadily since the 1970s and the numbers (both of all the enterprises and of *Enterprise 1*) follow virtually the same progression and relationships, whether viewed annually, decennially or quinquennially (Figure 3). Throughout the past three decades, the *Enterprise 1* cases represent approximately half of the total numbers; this close correspondence strengthens our assumption that conclusions drawn from the study of the 85 *Enterprise 1* examples (i.e. each farmer's most significant diversified enterprise) can be regarded as typical even for the total enterprise population (n=177).

There is little room here for any detailed explanation of the peak years for starting up enterprises, but there does appear to have been a clear response to exogenous factors, especially new legislation and assistance programmes at both national and EU levels. For example, many farmers in Västerbotten took advantage of the special 'Programme of Measures for Agriculture in Northern Sweden' (1987–1992) which, among other things, aimed to stimulate the growth of combination enterprises involving agriculture and also offered farmers better educational opportunities within both traditional farming and complementary activities.³ One of these

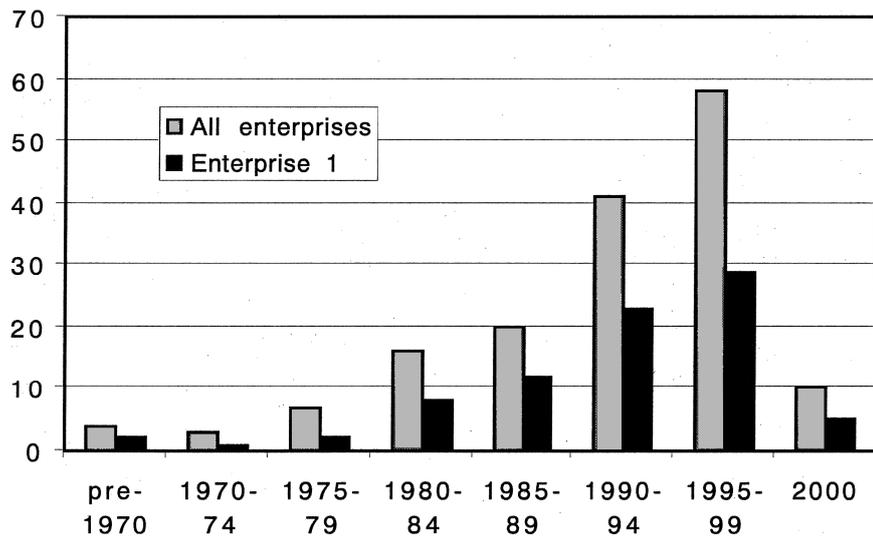


Figure 3: The frequency of starting up diversified enterprises during the past three decades

measures was a programme entitled 'Live on a Farm', designed for the development of agricultural tourism, and among our five examples of farm-based tourism at least two of the farmers participated and obtained financial support.

The year 1990 represents a watershed in Sweden's agricultural policy. Previously it had been characterised by subsidies and other protectionist measures aimed at self-sufficiency in food supplies, acceptable levels of income for farmers and acceptable food prices for consumers. As in many other industrialised countries, this had resulted in surpluses of agricultural products, reduced farm incomes and increasingly negative environmental impacts through intensive farming (note the appearance of T4 enterprises utilising ecological and more extensive methods in 1987 and the 1990s). GATT agreements stemming from the Uruguay Round of renegotiations between 1986 and 1993 (during which there emerged a growing concern for the environment and pressure for further reductions in tariffs and non-tariff barriers, such as internal farm subsidies) and the OECD guidelines of 1987 led to a consensus among member countries on the need to liberalise trade in agricultural production and trade.⁴ Sweden thus designed a programme to reform food supply policy by lowering production subsidies and attempting to adjust outputs to relate better to actual market requirements.⁵ The threat and actual loss of subsidies clearly prompted many farmers to seek other sources of income, off-farm or through on-farm diversification. This reform process was not fully implemented, however, as Sweden had to modify these aims in order to adapt her policies prior to seeking EU-membership.

Another example of exogenous stimuli is Sweden's entry into the EU in January 1995 with the full implementation of the Common Agricultural Policy (CAP), which must have contributed to the striking peak in farm-based diversification. Undoubtedly there are many other reasons for sudden increases in the numbers of new enterprises, especially in relation to Swedish and EU policies encouraging the establishment of small firms in general. For example, policy changes among the

3 Åtgärdsprogrammet för jordbruket i norra Sverige. Jordbruksverket Rapport 1994:4, Jönköping.

4 GATT (the General Agreement on Trade and Tariffs) was replaced in 1995 by WTO (the World Trade Organisation). OECD: the Organization for Economic Cooperation and Development.

5 SOU 1992:87, p.22.

big forest companies in northern Sweden involved the contracting out of felling and other forestry work rather than employing their own labour, thereby opening up new opportunities for forest contracting inland. The widespread change-over from milk to meat production, particularly since 1994, is yet another case of agricultural adaptation in response to exogenous events and decisions.⁶ The relatively few cases of T1 enterprises in our study first appeared in 1987 and the T4 activities commenced in 1990 (with sudden increases in 1995 and 1999). Both the survival of unusual and early breeds of farm animals and birds and the return to less intensive and more environmentally-friendly methods of farming are thus in keeping with current ecological thinking. Economic survival clearly involves the continuous adaptation of production by farmers in order to adjust to consumer demands as well as external economic and agricultural policy changes.

Who are the diversifiers? Which farms diversify?

Most of the respondents in the Swedish farm survey (usually the farm operator) were men, showing that farming is primarily a male responsibility. However, the diversified farms have a higher proportion of women respondents (7%) compared to the non-diversified farms (2.5%). In the survey, 86 per cent of the respondents were married or lived with a partner. The average numbers of working age individuals (over 16) in the diversified and non-diversified households are exactly equal at 2.7, but the non-diversified farm households are slightly larger on average, with over one third in the group 5–persons (cf. 3–persons for the diversifiers). The largest group of respondents on both the diversified and non-diversified farms are between 35 and 54 years old. The non-diversified farms, however, have larger proportions of under-35s than the diversified farms and include more young children of (and under) school age. Often the older children of the diversified households have already moved away to places of tertiary education and other employment, thus accounting for the difference in household size. The average education level of both respondents and their spouses on the diversified farms is lower than for those on non-diversified farms; but this is largely a reflection of the age differences, as younger cohorts tend to have stayed longer in the education system. Agrarian education is slightly more common among the non-diversified farmers and their spouses, especially within the older and youngest age groups. In the case of the diversified farmers and their spouses, the two younger age groups have more agrarian education than the rest. Very few farmers have had an agrarian tertiary education.

More than half of the farmers in the survey had work experience from outside the farm and only one respondent had been unemployed before taking over responsibility for the farm. Quite a few had also been working at the farm on which they currently were living. The non-diversifiers had slightly more experience of working on or running another farm, whereas the diversifiers had the higher percentage of work experience in other lines of work (74% cf. 62.5%). The majority of all farmers in the survey have been in the farming profession for a long time and in general there are only marginal differences between diversifiers and non-diversifiers. One calculation of particular interest reveals that, when starting up the 159 diversified enterprises that could be reliably dated, the average age of the diversifier was only 35 years. This indicates that *diversification usually takes place at an early stage in the farm household life cycle* (cf. Damianos and Skuras, 1996). It also suggests that diversifiers were already experienced, but sufficiently young, energetic and adaptable to start something new.

Approximately 60 per cent of the 125 holdings in the survey are cultivating more than 50 hectares of arable land, but this is made up of 88 per cent of the non-diversifiers and only 48 per cent of the diversifiers. Hence the diversified holdings in

6 In Västerbotten the number of dairy enterprises halved between 1985 and 1995, from 1961 to 879 (Broström 1996, Table 3:4).

Table 3: Total area farmed (tilled arable land, including rented land). Note: Percentages in this table and those that follow have been rounded off to avoid decimals and may not always total 100.

Hectares	Diversifiers		Non diversifiers		Total	
	n	%	n	%	n	%
less than 10	5	6	1	3	6	5
10 to less than 20	13	15	1	3	14	11
20 to less than 50	26	31	3	8	29	23
50 to less than 75	15	18	8	20	23	18
75 to less than 100	12	14	7	18	19	15
100 or more	14	17	20	50	34	27
Total	85	100	40	100	125	100

this survey are generally smaller and more than half of them till less than 50 hectares of arable land. Only five of the forty non-diversified holdings work less than 50 hectares, but fully half of them till over 100 hectares (cf. 17% of the diversified. Table 3). If this is compared with the tilled area which the farmers themselves legally own, the majority actually own less than 50 hectares and nine farmers are entirely dependent on tenancy.

The differences between the non-diversified and diversified farms regarding formal ownership follow the same pattern as described earlier; the non-diversified farms usually owning a larger proportion of their farmed land than the diversified farms. More than 90 % of all holdings in the survey utilise rented farmland and thereby have a mixed form of tenure. A small proportion (8%) of the diversified holdings are wholly owned, whereas *all* of the non-diversifiers rent at least some of their farmland. This is largely the result of national programmes of farm rationalisation from the 1960s and into the early '80s, which encouraged working farms in northern Sweden to expand their scale of operations by either purchasing or leasing nearby farmland made available by farm closures.⁷ It should also be noted that the respondents generally own much larger areas, not just farmland but also much forest and 'impediment' (i.e. unproductive areas). Almost 70 % of all farms in the survey own well over 100 hectares of land when forest and impediment are taken into account (e.g. the largest farm in the survey owns a total of 1 063 hectares). It should be emphasised that ownership of forest is very important in Västerbotten (indeed throughout most of Northern Sweden), as felling can often provide direct investment capital for the farm and for agriculturally related diversification. Currently, however, it is not possible to transfer this capital untaxed to enterprises that are not directly related to the farm's production. Forests also provide fuel and building material, and harbour game animals and birds that can make significant contributions to the household economy and its degree of self-sufficiency.

It appears that non-diversified specialised farms need larger areas of arable land in order to remain profitable and to benefit from economies of scale and the fuller use of machinery. Diversified farms generally require less farmland but frequently depend more on their forest holdings. It is noticeable, however, that even our selected diversified farms also tend to be fairly large and many of them had previously expanded their scale of traditional farming through renting more farmland. That they have both expanded their farming activities and diversified would seem to imply that these farmers are more energetic and imaginative than most of the farming population.

⁷ As part of the policy of concentrated rationalisation (KR) that began in 1960 in the four most northernmost counties, farmland could not be sold on the open market before neighbouring farms were given the chance to buy or rent it and, even then, it could only be sold to persons with agricultural experience or training (Johnsson 1987). This latter was lifted in 1991.

Table 4: Additional reasons for continuing farming (other than income). (* Due to multiple answers, the total exceeds the number of respondents for each category. **% based on the number of answers by respondents and the number of respondents in each category. ***% irrelevant due to multiple answers.)

	Diversifiers		Non diversifiers		Total	
	n	**%	n	**%	n	**%
Lack experience in other sectors, therefore difficult to move out of farming	0	0.0	0	0.0	0	0.0
Interest, pleasure, lifestyle	70	82	33	83	103	82
Because of concerns for the environment	37	44	8	20	45	36
To keep the farm in the family	27	32	7	18	34	27
To stay in the area	25	29	9	23	34	27
To be able to run own company	19	22	8	20	27	22
Freedom and flexibility	31	37	18	45	49	39
Other	10	12	7	18	17	14
No response	1	1	0	0	1	1
*Total	220	***	90	***	310	***

Why farm and why diversify?

Almost all of the non-diversified farmers (93%) regard farming as the primary source of household income compared to only two thirds (68%) of the diversifiers. In both cases the remainder saw farming as a secondary source of household income, so that economic motivation is clearly the prime reason for engaging in agriculture. Nevertheless, farming was rarely the sole source of household incomes and off-farm work frequently provided a solution, especially for farms situated within easy commuting distances of towns. Diversifiers are more dependent on income from off-farm work and also, of course, from their on-farm diversified activities.

A majority of all the farmers in the survey (82%) continue farming because of an interest in the occupation and most regard it as a pleasurable lifestyle (Table 4). Many also see farming as the opportunity to run one's own company and like idea of being able to be in control of both working hours and the work results. Unexpectedly perhaps, diversifiers were far more concerned with the environment as a reason for continuing farming than were the non-diversifiers (44% cf. 20%). Diversifiers were also much more inclined to farm in order to keep the farm in the family and to stay in the area.

As in the case of farming, the main reason given for introducing the diversified Enterprise 1 was usually financial – for all of the different subgroups (Table 5). In contrast to T1 and T4, the two major subgroups also introduced the activity in order to retain or increase on-farm employment, especially for the respondent and the spouse/partner. Business management (including increased self-sufficiency, improved working conditions, competition and marketing) was also an important reason throughout. Quite a few of the respondents in the T2 and T3 enterprises introduced the activity in order to exploit external opportunities. As might be expected, T1 and T4 enterprises mentioned environmental and interest reasons almost as frequently as financial ones. Remarkably few diversifiers (only 7 of 85) included the long-term survival of the farm business as an important reason for diversifying, possibly because other economic reasons took precedence. This is rather unexpected in view of the fact that more than twice that number were certain that there would be a family successor to take over the farm.

A difficulty with the survey alternatives (Table 4 and 5) is that while a number of them tend to overlap some also embrace a wide range of unspecified personal interpretations. Behind several of the 'main reasons' one suspects that respondents

Table 5: Main reasons for introducing the diversified activity. (*% of total respondents in each subgroup of Enterprise 1. **% of total number of diversifiers (85). ***% irrelevant due to multiple answers.)

Type of Enterprise 1	T1		T2		T3		T4		Total	
	n	*%	n	*%	n	*%	n	*%	n	**%
Financial	2	33	35	76	15	63	6	67	59	69
Employment (job creation and retention)	0	0.0	11	24	11	46	0	0	22	26
To deploy under-utilised resources	1	17	3	7	0	0	0	0	4	5
Available on-farm resources (incl. knowledge/experience)	2	33	6	13	1	4	0	0	9	11
To exploit external opportunities (e.g. markets, finance, technological)	1	17	7	15	4	17	1	11	13	15
To ensure long-term survival of farm business	0	0	5	11	2	8	0	0	7	8
Pursuit of a hobby/challenge	0	0	1	2	0	0	0	0	1	1
Environmental reasons	2	33	2	4	0	0	6	67	10	12
Business management	2	33	12	26	5	21	2	22	21	25
Interest	2	33	4	9	5	21	3	33	14	17
Social reasons (work at home; due to health problems, small children etc.).	0	0	2	4	3	13	0	0	5	6
No response	1	17	0	0	0	0	0	0	1	1
Total	13	***	88	***	46	***	18	***	166	***

have made subjective value judgements and, consciously or unconsciously, they can have suppressed sensitive and emotive underlying incentives. Hence social reasons are likely to have been played down as being merely contributory rather than main factors.

More than 60 per cent of all farmers (both diversifiers and non-diversifiers) are uncertain about their *succession* plans for the farm. One reason for this uncertainty is that their children (if they have yet started a family) are often too young to be able to make decisions about their future and contemporary Swedish society generally respects the rights of children to choose for themselves. When comparing the two groups, however, the diversifiers express considerably less certainty that there *will not* be a family successor after the farmer and the spouse retire (only 19% cf. 33%). As almost a fifth of the diversifiers state that there will definitely not be a successor to continue running the farm after their retirement, we may assume that their diversification strategy is more aimed at easing the farm workload and enabling short-term economic survival until eventual closure. On the other hand, as the older diversifiers tend to have older children, they seem to have been able to state with more certainty that there *will* be a family successor (18% cf. only 5% of the non-diversifiers). This higher proportion of diversifiers motivated by succession plans suggests that diversification is generally regarded as a better strategy than agricultural specialisation by farmers wishing to ensure the long-term future of the family farm (cf. Potter and Lobley 1996).

Effects of diversifying

Eighty per cent of both diversified and non-diversified farms have stated an average taxable *household income* of between 15 000 and 45 000 Euros, the difference being that the majority of non-diversifiers (55%) are in the upper half of this income

Table 6: Diversification income dependency (from all diversified enterprises on-farm). (*Percentage of the total number of diversifiers.)

Income contribution	n	*%
Very high: more than 50%	11	13
High: between 25–50%	16	19
Medium: 10–24%	12	14
Low: less than 10%	29	34
No response	17	20

category and the diversifiers fall mainly into the lower half (41%). Only six of the 125 farmers have had an average income of over 45 000 Euros during the last five years and of these four are non-diversifiers and two are diversifiers. Some 44 per cent of all farmers fall within the income category of 30 000–45 000 Euros. These figures are supported by the Swedish official statistics, which show that the mean income for the Västerbotten farmer (including the spouses' contribution) is around 30 370 Euros or 270 300 SEK (exchange rate of 2001–02–09).

The *sources of income* vary considerably between the two groups of farms. As expected, the highest contribution for the non-diversifiers is from the on-farm agricultural income and agricultural subsidies, which together comprise 61 per cent of their income. Off-farm work by the farmer and his family contributes most of the remainder (22%). By comparison, the diversifiers only obtain 25 per cent from agriculture and related subsidies and they compensate with an additional 24 per cent from their diversified enterprises and a greater reliance on off-farm work, which on average accounts for 31 per cent of the household income. Other sources include forest-based incomes, which are almost three times as important for diversifiers than for non-diversifiers (13% cf. 5%).

Although the diversifiers are less dependent on agricultural income than the non-diversifiers, this does not automatically lead to a particularly high dependency on the income from the diversified activities (see Table 6). This may seem surprising as so many had stated that the reason for introducing the diversified enterprise was primarily financial, but the explanation lies in the higher incidence of off-farm earnings and larger incomes from the sale of timber.

Diversifiers

Within the different types of diversifiers, Type 4 *Agri-environmental practices* are the ones who benefit the most from their on-farm diversified enterprises. However, many of these farms run their entire agricultural production ecologically, which of course would account for the majority of their income. Half of the diversifiers in Type 1 *Non-conventional primary products* receive less than 10% of their household income from the diversifying enterprises.

Almost half of the diversifiers stated that their income level has remained the same over the last five years and only a third registered increases, most of which were only slight (Table 7). Among the factors that had contributed to a change over the last five years, were the positive changes that came from increased profitability and production (37%), and increased income from off-farm work for the farmer and/or other household members. Factors that for some diversifiers had contributed to a decrease in income were the same as mentioned above, with decreases in profitability and production mentioned by 18 per cent and reduced income from off-farm work by 6 per cent. These results seem remarkably meagre, so that the real benefits of diversification must lie elsewhere, probably in other non-economic fields of improvement, such as being able to work at home, varied and interesting work, wider social contacts and networks.

Table 7: Total household income changes for diversifiers over the last 5 years.

Income change	n	%
Increased a lot	2	2
Increased slightly	27	32
Remained the same	40	47
Fallen slightly	8	9
Fallen a lot	7	8
Refused /don't know	0	0
No response	1	1
Total	85	100

Table 8: Labour effects of on-farm diversification in terms of numbers of job opportunities. (*Excluding the agricultural machinery business (> 400 jobs) mentioned above.)

Types of employment	created	sustained	lost
Full-time permanent	39.5*	56.5	2
Full-time temporary	6	3	3
Part-time permanent	12	9	5
Part-time temporary	3	3	1
Seasonal	95	13	7
Total job opportunities	155.5*	84.5	18

In terms of the *numbers of jobs* created on our 85 selected farms, the overall effect of diversification is modest with 155.5 new job opportunities ranging from full-time permanent to seasonal (Table 8). The sustained jobs refer mainly to the farmer himself and naturally this is a positive achievement. But the creation of new full-time permanent employment opportunities cannot be regarded as particularly successful, in that there is only an average increase of about half-a-job per farm – usually designed for a member of the farm household. Many of these new jobs are related to a handful of larger enterprises that have been developed over a number of years and involve workers from outside the household (especially in the case of seasonal work), but generally they are taken up by the spouse and other members of the farm household as an alternative or complement to off-farm employment. We do have one notable exception, however, as the earliest diversifier in our questionnaire study started a uniquely successful on-farm business in 1949. Today it has two large ‘on-farm’ factories producing agricultural machinery (front loaders) and over 400 full-time employees. It has been excluded from our labour (and income) calculations as it would result in highly misleading values for the general effects of diversification. Nevertheless, it provides an example of how a particularly innovative diversified enterprise can take off and, in time, become a significant employer recruiting labour from a wide area.

One of IDEAS’ main objectives was to establish the level and scope of employment creation in terms of *working hours*. This however posed unanticipated problems. In general, it was very difficult for the respondents in the survey to state the numbers of hours they were working throughout the year. For the Västerbotten farmers, the on-farm activities are usually seasonally dependent and the long winter period requires less labour input than during the growing season, except for those who are dairy farmers. The diversifiers, who were asked to state their labour input both before and after they had introduced the diversified enterprises, had considerable trouble in recalling the labour input before diversifying since, in most cases, it had taken place many years ago. Even though the material in the survey does not allow for any clear conclusions, we can nevertheless point to some

common trends:

After diversifying, the *farmers* themselves are working fewer hours in both off-farm and agricultural activities, and most of this 'saved' time is put into running the new diversified enterprise (s). On average, the total workload for the individual farmer seems to have decreased slightly. When calculating the average annual number of hours worked on-farm by farmers before and after diversification, we found an overall decrease from 2 807 hours (73 answers) to 2 654 hours (78 answers). The same pattern is evident for the *spouse/partner*, with a reduction from 2 340 to 2 161 hours. Both partners worked less off-farm and less in agriculture, but more of course in the diversified enterprises. These reductions in farm work were largely the result of increased rationalisation, reorganisation, co-operation with neighbouring farmers, less labour-intensive methods and more mechanisation, but were also an effect of hiring substitute labour in order to have more time for the diversified activities. In view of these tangible reductions in working hours it may seem paradoxical that many diversified farmers complained that diversification has meant more work and more stress. Some forms of diversification, however, have often brought periods of intensive work, together with more planning and/or paperwork in the evenings, rather than routine farming chores carried out at a more constant pace.

The labour inputs by the rest of the *family* broadly follow a similar pattern. Among the enterprises that a farm might be engaged in, the farmer and his/her spouse have the highest labour input in the enterprise that contributes the most to the net household income. The labour input by other family members in the diversified activities seems to be rather low but increases slightly after diversifying.

The number of *workers employed throughout the year* (including full-time and part-time workers) has increased since the farms introduced the diversified enterprise that contributes most to net household income. Most of the employees work either in this enterprise or in the agricultural activities. When the workload becomes too great for the farm household and the regular employees, additional *seasonal workers* are often hired to help in the economically most important enterprise; hence the numbers of seasonal workers have increased five-fold after its introduction (from 18 to 94) and the number of hours worked increased by 4.5 times (although the average fell slightly from 220 to 195 hours). Diversification has had the result that the number of households with employees throughout the year has increased from 8 to 26, while the number of households hiring seasonal workers has also risen, from 10 to 28.

In comparison, the majority of the *non-diversified* farmers put almost all their efforts into agricultural activities (averaging 2 896 hours on-farm). This is 240 hours *more* than the diversified farmers and is difficult to explain in the light of the fact that rationalisation, mechanisation, and economies of scale, for example, ought to have resulted in the saving of labour. However, the lack of qualified labour and high costs of employing extra workers are such that it is generally cheaper for farmers to do the work themselves. In addition, many farmers have expanded their holdings through purchase or leasing, in order to qualify for certain subsidies and achieve economies of scale; hence, farmers have created more field work for themselves. Among the non-diversified farms in the survey, the spouses also contribute a great deal and do almost a full-time job on the farm (1 582 hours), often in addition to off-farm work. Clearly non-diversified households put in longer hours than diversified ones. However, in the light of their answers to the question on additional reasons for farming (Table 4) the majority mentioned 'interest, pleasure and lifestyle' and almost half added 'freedom and flexibility' as their motivation. Presumably they mix business with pleasure and enjoy the extra work and contact with animals required by milk production.

When it comes to having employees throughout the year, the difference between the diversifiers and the non-diversifiers is not very significant. However, almost half of the non-diversifiers employ seasonal workers compared to only one third of the diversifiers.

Other comparisons between diversifiers and non-diversifiers indicate that:

- ✗ the diversified farmer works less in agricultural activities than the non-diversified farmer;
- ✗ the diversifiers work more hours off-farm than the non-diversifiers; and
- ✗ the spouse on the diversified farm works less in agriculture and less off-farm than the spouse on the non-diversified farm, but they both participate in the farm activities to a large extent.

Overall results of diversification and its social aspects

The objectives achieved by the farmers engaged in diversified activities are overall positive. Three quarters of the 85 diversifiers feel that their initial objectives are met to varying extents, and 40 per cent state that their objectives are fully achieved. A few also mentioned that it was too early to say, as they were still in an early phase of diversifying.

More than 85 per cent of the diversifiers have in some ways improved the economic viability of their farm business. Over 70 per cent have improved the total farm income through diversifying and almost as many feel that they have expanded the customer base and developed new markets. Many farmers believe that they are less vulnerable to fluctuations in markets (56%) and changes in the policy system (40%), and also that they are able to make more effective use their existing resources, such as machinery.

Moreover, diversification has led to a number of other additional benefits apart from economic ones. Many respondents stated that it has led to increased social contact, which implies that diversifying has led to increased networking. Realisation of personal goals and the acquisition of new skills through diversifying are also seen as additional benefits. The overall working conditions have improved for several farmers and some thought that it has made the daily work more pleasant and provided opportunities for being able to work at home to a larger extent. A few also mentioned that diversification made it possible to maintain an open landscape. More than half said that diversifying has enabled them to establish new marketing outlets for both their diversified and purely agricultural products.

On the other hand, there also seem to be disadvantages with engaging in on-farm activities other than the purely agricultural. What has been stated among the farmers is that it increases the workload for the household. This contradicts to some extent the above statements, but it might indicate that diversifying on the whole has improved the working conditions, even though it means a larger input of working hours. The main disadvantages from diversifying also seem to be increased stress and decreased leisure time for the farm household. A few also mentioned that it has led to inconvenient working hours and to an uneven distribution of income throughout the year.

Way (or mode) of life and personal lifestyle are not easily identifiable from the economically-biased structure of the survey questions dealing with the motivation for diversification and its effects, hence the twelve qualitative in-depth interviews take on added importance through probing deeper into the diversifiers' personal and social values, especially relating to family circumstances and life stage. As mentioned earlier, it was found that the average age of farmers when starting up new diversified activities was about 35 years, when they usually had a spouse/partner and were also starting a family. Diversification is undertaken most commonly during this early stage in the farm family life cycle, as exemplified in the following case history:

One interviewed couple, today both aged around 50, had bought a coastal dairy farm in 1984. The farmer had an agricultural education but no tradition of farming and, as the wife already had interests and tertiary qualifications in horticulture and greenhouse cultivation, after four years they began planning for growing tomatoes – something that was new in the county at that time (T₂). Being among

the absolute first in the field of local tomato production in the region gave them an initial advantage and they were able to get helpful advice and support from the county, even regarding initial loans for investing in the greenhouses, heating, irrigation system, etc. They commenced production in 1990 but soon had to abandon dairying and go over to rearing young livestock because, even when employing an extra worker for ten weeks, it was impossible to cope with the intensive greenhouse work summertime in addition to the labour-demanding milk production. They also have an Iceland pony stud, as both a hobby and an additional source of income, and a small sawmill. In 1995 they purchased a delivery van from their profits and went over from selling tomatoes to wholesalers to selling direct to shops and visitors. This gave them wider social contacts – i.e. a horizontal network, (Murdock 2000) – but support has been more psychological “encouragement” rather than of a practical nature. Their grown-up children, having helped out during their school summer holidays, are not interested in taking over the farm and the successful tomato business, so the couple’s vision has been:

“... to keep the farm going and keep the firm, so that we would be able to have employment here at home, preferably for both of us” and “... that someone [outside the family] would come here and take this over after us and continue to develop it further.” (translated from Swedish)

The economic result of diversification was that:

“... we had a much better economy. We were encumbered by an old, laborious and unprofitable farm and there was a great change, so that we now feel that we have a more secure economy and more money at our disposal.”

The alternative to diversification had most likely meant that the wife, at least, would have been employed full-time off-farm. In answer to the question about what might have happened to the farm, firm and family if they had not diversified the wife surmised:

“... then this would have become one of those ordinary, what shall we say, ‘moonlight farms’. We would probably both have had jobs outside the farm. And tried to manage to run the farm in our free time. This is a rather big farm, so that it would have been hard to keep it in the state that we can now. With keeping the landscape open and looking after the forest, clearing and planting, and the like.”

The *satisfaction* derived from working at home, and *pride* in building up a successful farm-based business, and keeping the farm in good working order, are apparent in this interview but not so easy to detect from the original questionnaire responses.

Other interviewees also mentioned the benefits of having an enterprise based on the farm. A T2 diversifier far inland took over his father’s farm and in the early 1980s started using an old smoke-house commercially for curing game, moose and reindeer meat, pork and beef. In 1994 he began rearing young bulls on his farm, purchasing the rest from neighbouring farms and other local suppliers. He slaughters the animals and cures much of the meat, mainly for direct sale to restaurants and shops. His wife takes care of the book-keeping and over the last two years he has expanded and taken on three employees in the smoke-house. When he buys up carcasses in the autumn moose-hunting season, he usually takes on two or three seasonal helpers from the neighbourhood; relatives also help out. This farmer’s *roots and family traditions* bind him to his farm and the locality, so that diversification has been important in that:

... it has created a job and [...] I have it here on the farm, so I have everything in one place. One is on hand for the family in that one is always at home, so to speak.”

Another inland diversifier had a forest holding and a small farm that was not large enough to support the family when the children arrived. The wife was at home all the time when the children were small and the farmer was engaged full-time in contract work in the forest together with one employee. Once the children were grown the wife wanted something to do, so in 1994 they started up soft thin-bread production in an old bake-house belonging to the family farm. Another bakery in the district had just closed down due to illness and they were able to purchase the machinery and, in part, take over their market. This could be regarded as an example of a ready-made niche for farm diversification, created by the absence/withdrawal of local services due to rural depopulation. They modified old family recipes, sold to local shops and a food chain and expanded the business so that the farmer cut down on his forest-based work in order to assist in the bakery. The wife is in charge of the bakery, orders and sales while the farmer is responsible for the farm and forest. Income from the bakery has removed some of the pressure on the profitability of the basic farm activities, so that the farmer finds more time for forestry. They, too, felt that the biggest advantage was that the farmer was able to:

“... be at home on the farm more. And be together with U—a for a greater part of the time so that [...] there is less working alone for me, as well.”... “And it’s the same for her. She... we are together more and work together. And she, too, has a meaningful occupation”

They did not employ any extra outside help, but in a crisis could rely on relations to step in. As many of them also had small businesses they were able to help each other on an informal basis. The notion that it was generally a good idea not to have all your eggs in one basket was widely acknowledged by these and other interviewed diversifiers, and was often expressed as ‘being good to have two (or more) legs to stand on’.

Another highly successful innovative diversifier (T3) now employs between 15 and 20 persons (equivalent to 12 full-time jobs) in a company providing services and products to pharmaceutical industry, researchers and biotechnological firms in Sweden. The focus has been mainly on virus and antibody production via eggs, goats and rabbits, and on research and development in the field (R & D). The farmer grew up on a smallholding in the district and bought his present farm in 1976 in order to live in the same area (in the coastal zone, just outside our periurban boundary). After three years, when in his late twenties with a wife and 2-year-old child, it became clear that he would have to take larger loans in order to expand milk production to a viable scale and that, consequently, he would find more difficulty in being able to manoeuvre as he wanted in the future and would also have more work. Hence he was open to finding either some complementary activity or a suitable change of direction. By chance, a childhood friend engaged in cell and molecular biology at the local university needed fertilised hen’s eggs for virus research and had supply problems. The farmer’s spouse was a qualified nurse and they were able to borrow equipment from the university and take more responsibility for the initial hygienic preparation of research material, at first on a small scale (20–100 eggs a week from their own hens) but finally buying large quantities of eggs on a regular basis from a local supplier. The virus research ended 2001 and the antibody production that began in 1984 has now taken over. Milk production ended in 1984, as the returns were incommensurate with the work involved and the diversified activity was yielding much better profits and taking up more time. Apart from the breeding of goats and rabbits for antibody and immunisation research this farmer has virtually ceased to farm, allowing a neighbouring farm to utilise his arable land in order to keep the landscape open. He regards himself as part of the local farming community, although there is only one full-time farmer remaining where there were ten before. Most of his neighbours now rely on off-farm employment and several of them work for him part-time, cleaning for example. Other workers and researchers with higher qualifications commute from a wider area, especially from

Umeå some 40 kilometres away. He himself says that he 'learned by doing' and that building up the business has been:

"...enriching. It has created a terrific number of contacts and new insights. Interesting, to meet many interesting people. Naturally I have a completely different contact net than what one would have developed as a farmer, where one goes to these LRF [Federation of Swedish Farmers] meetings and meets, so to speak, the same [type of people]. But it's a [...] broader spectrum of people, the research world, the business world, the pharmaceutical side and authorities [...] I think it's tremendously interesting. Just this, that one gets many ideas and yes, on the whole, it is a so much more creative and exciting world to be in than to bury oneself in farming, especially in EU subsidies! I could never have put up with that. Never!"

Clearly this farmer is somewhat exceptional in that his successful diversification has resulted in the phasing out of most of his farming, with which he was clearly *disenchanted*. He has, however, been able to remain in the country district of his choice and to provide rural employment, recruiting both locally and from the towns. He continues to ensure that his farm landscape remains open and is interested in sustaining the local rural economy. He is well integrated into the local community and operates in a *climate of self-help and informal co-operation*, often exchanging favours and services with friends and neighbours as well as employing local contractors. Thus he has been able to create a lifestyle that suits him and he obviously enjoys the *challenge* of building up and evolving a successful, dynamic company.

Other benefits from diversifying that were frequently mentioned were that it was more *interesting*, the work was more varied and carried out in different places, it gave more *flexibility*, it led to wider *social and business contacts*, one *developed as an individual*, one learned a lot that was new, it was more *fun*, more *challenging*, and gave greater *satisfaction*. These responses often came from farmers who maintained that their economic gains were small or even non-existent. For them, the real importance of diversification has been in enabling them to remain on their farms with some form of gainful and otherwise rewarding occupation, to keep their independence, to be free from fixed hours, commuting and working for someone else, to maintain a highly personal way of life and family lifestyle, and often to expand their social contact net far beyond the immediate district.

Conclusions

Comparing the quantitative motivations given for diversification and the farmers' evaluations of its successfulness gives rise to the proposition that there must be other, more personal, value judgements at work in the decision-making process; not only in the decision to try to diversify but also in the decision to continue in spite of modest or even disappointing returns on investments of capital, time, and effort. This idea is supported qualitatively by comments from in-depth interviews with twelve of the more successful and most innovative diversifiers.

Regarding the practical reasons for diversifying (income and employment), we find that diversification seldom leads to dramatic improvements. Although the diversifiers are less dependent on agricultural income than the non-diversifiers, this does not automatically seem to lead to a high dependency on the income from the diversified activities. The main differences between the diversifiers and the non-diversifiers are not only that the diversifiers get a substantial share of their income from the diversified activities, but also that they rely more on their off-farm work. Why is this? The answer may lie in the fact that as they are generally smaller and less specialised they are not able to survive solely on agriculture like the bigger

dairy farms. Less intensive farming leaves more time available for working off-farm. If off-farm employment is the easiest option (Eikeland 1999), what are the incentives to diversify? Many have stated that the main reason was financial, but why is that not more evident in the income data? Are the rather low financial returns from diversification compensated for by other benefits, such as meeting more people (wider 'horizontal' social networks) and/or more interesting and varied work? Clearly there are other value judgements in operation, judgements that have not been picked up in the questionnaire survey, other than by implication. Examples show that even a small income from some on-farm diversified activity can make it possible to work at home and avoid the cost, waste of time and stress of commuting. More time with family, especially when children are young, is another quality of life that is increasingly in demand and many couples appreciated being able to work together on the farm, even in later stages of their family life cycle.

As the survival of the traditional farm in Västerbotten is currently threatened by exogenous forces outside the control of the farmer (e. g. decreasing returns from price reductions, loss of subsidies), endogenous diversification appears to offer one of the more satisfying alternative paths of farm business development (cf. Bowler et al. 1996). Despite the fact that household incomes may be smaller, the advantages of on-farm diversification over off-farm paid work are widely appreciated. If the farmer or the spouse is highly educated and trained for a well-paid profession, then high off-farm incomes and interesting assignments may be difficult to resist, particularly within periurban areas or near other central places. In many cases however, the lack of advanced qualifications for well-paid jobs can mean that low economic benefits from off-farm employment are largely offset by the extra costs and inconvenience of commuting some two hours per day. Off-farm opportunities are fewer inland and outside periurban areas, so that the more remote a farm is from local central places the greater the likelihood of both partners working on-farm. Diversification appears to be most successful in creating on-farm jobs for the farmer and his/her spouse, enabling them to work 'at home' and be self-employed. In some highly innovative cases, however, the diversification is so successful that it takes over from farming in terms of income and working hours. Indeed, there are cases where the farming activity for economic gain has virtually disappeared, particularly where the enterprise has 'taken off' and expanded to create numerous new full-time jobs in a thriving business.

The great variety of forms of diversification can be regarded as a reflection of the wide range of individual interests, and 'interest' is one of the key reasons for starting a new enterprise. Challenge, satisfaction and social contact are other perceived advantages. Diversification is often seen as part hobby and part livelihood, so that diversifiers take pleasure in doing something of their own choosing and being independent and flexible. Freedom, variety of activities and increased social contact, either by travelling around to customers or through customers (e. g. tourists) coming to the farm, are positive aspects which also relate to lifestyle and personal values.

For many people today, country ways of life offer attractive alternatives to urban living, with its crowds, crime, pollution, traffic congestion, and stress. The countryside holds both romantic and tangible attractions regarding the physical and social environments. Greater freedom of movement exists for leisure activities and hunting, fishing, berry and mushroom gathering can also supplement food purchases. These and other apparent financial advantages, such as cheaper housing and lower fuel bills through the use of forest for firewood, wood-chips and pellets, are offset by the extra costs and problems of transport and services. For farmer households outside periurban areas, off-farm employment is restrained by practicalities such as the time and cost of commuting over long distances, so that alternative on-farm work becomes increasingly attractive – especially when children are small. In many smaller communities, rural depopulation has already reduced the numbers of potential customers/clients to below viable thresholds for retail and other services. Negative aspects of these trends have become increasingly evid-

ent through national and market policies of centralisation and rationalisation, resulting in losses of public and private services (buses, shops, schools, post offices, banks, doctors, hospitals, health and geriatric care, entertainment, sport facilities, etc.). One serious difficulty is that cutbacks in many of these areas may well have fallen well below 'tipping points', so that any swing back is unlikely.

Measures to halt this downward spiral and ease conditions for survival in rural areas are urgently needed inland and even in some coastal areas of Västerbotten. If European society (i.e. 'urban society') wants to maintain an attractive rural cultural landscape with services for tourism, then the long-term survival of farms and rural employment, rural communities and open landscape will all have to be facilitated and ensured. *Agricultural diversification therefore needs to be encouraged and supported as a useful survival strategy, not merely for individual farm households but also for rural communities and economies in general.* Farmers have voiced wishes for policies to be more flexible and for more financial help in starting up new enterprises on a *small scale* rather than as large-scale ventures. This is very important, as the great majority of Västerbotten's farms are themselves small and most vulnerable, and this group accounts for the bulk of the farm closures and rural depopulation. They would like fewer restrictions on the transfer of capital from farming and forestry to new diversified activities, especially to those that are without a direct agricultural basis. Counter-productive paperwork is also perceived as a barrier to the survival of farming and to the introduction of innovative diversification. Much financial, social and 'emotional' capital is tied up in family farms and rural places, so that moving away results in losses that cannot be measured solely in economic terms. If fundamental democratic principles are to be preserved, then the rights of individuals to choose their way of life and lifestyles should be upheld, and rural *economic* planning should devote more attention to the *social* and *life-cycle* needs of country dwellers. Hence, future support for agricultural diversification in sparsely-populated areas will need to take such social factors into account.

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