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## Local Natural Resource Dependency in Rural Boreal Sweden

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## Abstract

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Local natural resources (LNRs) have historically been crucial for human settlements and municipality development in the interior of northern Sweden. To investigate whether LNRs are still important, a sample population of local business enterprises was identified in a typical rural boreal municipality (Vilhelmina) and information on activities and engagement numbers was obtained using a questionnaire supported by telephone interviews. Respondents were grouped into 'forest and/or agricultural farmers' (FAF) and 'various'. Most respondents (78%) stated high dependency on LNRs and engagement estimates were higher than numbers available in official employment data. Respondents across both business categories maintained that local natural, cultural, traditional and social values are at least as important as economic factors for establishment of local business enterprises. Thus, results indicate that local qualities are critical for local society prosperity and welfare of inhabitants and that LNRs still are important for maintaining and developing rural boreal municipalities.

*Keywords:* employment, engagement, establishment, forest owner, life-mode, local society, small business

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## Natural resources and business in rural boreal Sweden

At the time of the industrial revolution in Sweden (during the latter half of the 19<sup>th</sup> century) rural boreal Sweden was considered to hold essential parts of the nation's natural resources (especially its mineral, hydro power and forest resources). Thus it was seen as the 'land of the future' with regard to the growing population it could support and the increases in taxable revenue it could yield the state (Sörlin 1988). During the 20<sup>th</sup> century it was sometimes regarded as crucial to Swedish success and prosperity. Sometimes it was viewed as a peripheral area with poorly developed business and infrastructure that depended for its survival on subsidies generated in more profitable areas. The latter case followed an ongoing process of modernisation, specialisation and scaling up of production within the primary, natural resources extraction industry that caused unemployment accompanied by societal and economical regression in the region (Persson 1998; Lisberg Jensen 2002). Nevertheless, in these areas the level of welfare is high from an international perspective (*cf.* "WISP-index"; Estes, 2003) and the economy of the rural boreal municipalities in Sweden is still partly dependent on exports of raw materials (Lindgren *et al.* 2000). However, as the employment in the primary industries has declined, the service sector has become more important (Johannisson and Bång 1992). Today, the official stand point is that the economies of rural boreal municipalities (Figure 1) in Sweden have diversified. Natural resources are important but not as widely as before. As an example; Lindgren *et al.* (2000) argue that forest farming, nowadays, merely plays a marginal role in the local socio economy. Instead the public service sector has become the major employer (Persson 1998).

So, why do people stay in these municipalities and are these lingering persons making a living out of local natural resources or are they depending on society as their employer?

Since the Industrial Revolution societal development has affected many of the factors that influence the quality of peoples' lives in the northern parts of Sweden. However, engagement in multiple occupations, the combination of employment or entrepreneurship and multiple uses of natural resources (for additional income, materials, and leisure) are cultural and traditional features that still persist in

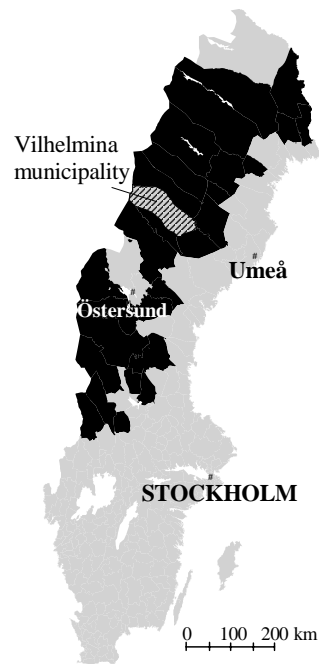


Figure 1. Swedish rural boreal municipalities (dark area). "Boreal" refers to the location within the circumpolar boreal forest (IBFRA 1997), while "rural" is explained by remote location and sparse population ("Glesbygd", Statistics Sweden 2007). The latter corresponds to Almås' (1985) definition of rural local societies.

some senses (Ekman 2002). Emery & Pierce (2005) puts forward a number of evidences, from the United States, of the existence of people, places, and natural resources in the first world capitalist system that are not entirely integrated into "the project of rationalizing and commodifying resource-based livelihood needs". These traits are nowadays seen as favourable attributes that may assist in the evolution of societies and the change towards a more technical, knowledge- and information-based society (Westholm 1996). The implementation in national and even local policy and decision making is however limited. Why is that? Is there a disinterest regarding these features or is our understanding of them simply not extensive enough?

### Natural resources and the human society

The way that natural resources are viewed varies between disciplines and cultures according to time and place (Hettne, 1980; Svedin, 1981; Eriksson *et al.*, 1983). A general definition of a natural resource is that it is a phenomenon and/or a state in nature that man, individually or collectively and in a certain

place at a certain time, can use to achieve some sort of human goal (Allwood, 1981; Månsson, 1993). de Groot (1992) uses the inclusive concept of (ecological) functions, which he divides into four categories; regulation functions, carrier functions, production functions and information functions. The functions of nature are prerequisites for natural resources as well as they are natural resources (both 'goods' and 'services') in their own right (Eriksson et al., 1983; Hjelm, 1980).

The right to own and/or use natural resources is, as revealed by rural boreal municipality history, important to both individuals and society. Contentment and well-being (physical and mental) in many ways depend on access to the various 'goods' and 'services' provided by nature. (Hytönen 1995; Ekman 2002). Previous studies have shown that although work opportunities guide many peoples' choice of place to reside, local features such as nature, space, tranquillity, cultural atmosphere and family traditions are very important factors (Nordström and Mårtensson 2001; Ericsson and Sjölander 2003). Moreover, developments in the infrastructure and production systems of societies have been, and will probably continue to be, influenced by the accessibility to various kinds of natural resources (Westholm 1992; Karlsson 2007). Property rights are, in Sweden, primarily controlled by national laws and regulations. The property rights and any changes to them can significantly affect the use of natural resources and thus directly affect the economic and social structures of a local society. Regulations regarding when, how and where natural resources can be used; certifications, limitations to the ownership rights, extended "free" rights, etc., affect the possibilities for businesses to conduct their activities. It affects the ways in which people can choose to live their lives and to support themselves (Bengtsson 1999; Thellbro 2006).

### **Businesses, life mode and the local society**

*Life mode analysis* (Højrup 1983) has been shown to be a useful approach for assessing the motives of small business, that is; 95% of all businesses (Glesygdverket 2005), for starting and pursuing commercial activities. *Life mode theory* is based on the premise that people live their everyday life in different cultures and socio-structural life modes with diverse preconditions and thus they have different opinions of the good everyday life and how to achieve that (Gillberg and Stenberg 2002; Bergqvist

2004). Many small business entrepreneurs are living 'the independent life-mode'; even though financial factors are important, people who establish small businesses do so with some sense of independence as the primary goal. This "non-capitalistic" rationality is also an important element of small business "variability" in adapting to market demands. Small business entrepreneurs conduct the activities and work the number of hours that are needed to enable them to continue living as "independent" (Bergqvist 2004).

Policies to support and improve the establishment of new businesses have to take into account of the state of the society in which they are based and the local business structure, as well as the motives and attitudes driving local business development (Johannisson and Bång 1992; Glesbygdverket 2005). The underlying motives and strengths of individuals, in addition to local geographical, social and economic conditions, have been identified as key factors for the development of new businesses (Johannisson and Bång 1992; Glesbygdverket 2005). Local social networks have also been shown to be important forces in determining the establishment and success of new local business enterprises (Vennesland 2004). The importance of local natural resources are, however, not extensively explored nor considered in official business statistics, which mainly focuses on size, economic turnover and standardized activity type (Statistics Sweden 2006).

In Sweden non-industrial private forest (NIPF) owners – owners of relatively small-scale forest holdings – are generally not considered to be entrepreneurs (here; cf. Bergqvist 2004; people who run business enterprises). Regarding taxation they are, however, registered as operating businesses (Ingemarsson 2004; Wiersum *et. al.* 2005). Further, the NIPF owners today are a numerous and socially very heterogeneous group. Nevertheless, they have been shown to share many of the same motives as other types of small business entrepreneurs (Törnqvist 1995; Lidestav and Nordfjell 2005). Many farming families depend on external employment, especially within the public service sector, to provide additional income (Holmgren 2004; Arvidsson 2005). However, their main priority is to fulfil desires for a firm identity and to experience freedom of action and independence, whether it really exists or is merely experienced through their (forest) land ownership (Törnqvist 1995).

To conclude this introduction; we find it important

to analyse the current importance of local natural resources for the local society through their importance to the local small businesses.

### **Hypothesis and objectives**

History has shown the importance of natural resources and of traditions for society. A central notion in the study presented here is that society depends on a “locally” defined ‘natural resource field’ (Hettne 1980; Eriksson et al. 1983). The basic hypotheses underlying this study are that:

- Local natural resources (LNRs) are critical to the socio economy and the development of the contemporary local society as well.
- Commercial activities, individuals and society are closely connected. The use and value of LNRs to a local society and its inhabitants are therefore reflected and indicated by their importance to local commercial activities and by the numbers and extents of engagement opportunities rose from these activities.

A case study approach was adopted to exam these hypotheses in more detail. The municipality of Vilhelmina, in the interior boreal region of northern Sweden, was chosen for the study. The municipality is a suitable local level in Sweden because it is the primary governmental level in Sweden, with a legally regulated and sector-based responsibility for the maintenance and development of the infrastructure within its geographical borders (Kommunallag 1991:900; Hjelmqvist 1994). Moreover, historical development and current situation in Vilhelmina is similar as in other boreal municipalities (Persson 1998; Johannisson and Bång 1992).

The main objective of this research was to address the commercial activities of this typical rural boreal municipality in order to answer the following questions:

- To what extent are commercial activities depending on local (within the municipality) natural resources (LNRs)?
- How many engagement (see below) opportunities can be related to LNR dependency and LNR use?
- Which are the motives for starting a LNR dependent business and for the choice of geographical location?
- Which are the future survival/development prospects for LNR dependent businesses?

The terms ‘engagement’ and ‘employment’ are closely related but in this paper a difference is suggested; ‘employment’ implies official labour and a financial reward, while ‘engagement’ could indicate labour not registered in official statistics i.e. different types of volunteer workers, apprentices, black labour etc. as well (cf. ‘anställd’ and ‘sysselessatt’; NE Multimedia Plus 2000).

## **Research materials and methods**

### **The case study rural boreal municipality of Vilhelmina**

The case study rural boreal municipality of Vilhelmina is located in the county of Västerbotten. It ranges from the Norwegian border in the north-west, running through high and low mountain ranges down to lowland mires and forests in the south east, where the community centre is situated (Vilhelmina kommun 2000). Approximately 70% of the inhabitants live within a 30 km radius of the community centre and the remainder resides in villages or scattered settlements (Vilhelmina kommun 2000). Geographical and infrastructural characteristics within Vilhelmina along with municipality statistics on population and economy (Table 1) are very much the same as for rural municipalities within the boreal region as a whole.

### **Initial choices, demarcations and collection and quality of the material**

It was initially hypothesised that the municipality’s commercial activities would reflect the utilization of LNRs by both individuals and the wider society. Furthermore, the level of importance of LNRs for commercial activities was also expected to reflect their level of importance in the local society because the commercial activities are closely connected with both individuals and society. Because it was deemed practically impossible to foresee which types of commercial activities would, to some degree, depend on some sort of LNR or type of LNR access, all types of commercial activities were initially considered in the study.

A questionnaire was designed to analyse business owners’ perceived importance of LNRs with regard to their own commercial activities. Supplementary information regarding the respondents’ personal motives and concerns, as well as economic factors, was sought through the questionnaire as well. The

Table 1. *Statistics on the rural boreal municipality of Vilhelmina in comparison to the regional averages (Statistics Sweden 2007)*

Variable	Vilhelmina	Rural Boreal Region
Land Area (km <sup>2</sup> )	8 120	167 052
Population	7422	210 478
Inhabitant/km <sup>2</sup>	0,9	1,3
Population Decrease (% since 1968)	18	24
Average Age (yrs)	43	44
Working Population (%)	39	41
Forestry, Agriculture, Fishery, Reindeer herding (%)	6	5
Construction/Processing (%)	17	24
Public & Private Services (%)	74	68
Unknown (%)	3	2

definition of and degree of dependence on natural resources were thought to be difficult concepts for questionnaire respondents to manage. Therefore relevant (local) physical and non-physical natural resources, types of land use and general varieties of access were listed based on the notion of ecological functions (Bengtsson 1999; Vilhelmina kommun 2000; Regional Forestry Board of Vilhelmina 2002), for the respondents to value on a scale. Respondents were further given an opportunity to add their own comments. Based on the answers gathered, the adopted approach was considered satisfactory for the purposes of this study.

It is difficult to identify and locate the most complete and correct record on business enterprises in specific local societies (Glesbygdsverket 2005). In order to collect information about local commercial activities, we decided to focus on workplaces within the Vilhelmina municipality. Statistics Sweden (2006) defines a workplace as an address, building or group of buildings where a commercial activity is carried out. With the help of Statistics Sweden's 'record of workplaces', workplaces in Vilhelmina were identified. Further, the record provided information on these workplaces, in terms of the numbers of individuals employed, type of legal entity, and the nature of activities undertaken etc.

Because commercial activities with the same official personal/organisational identification number can be based in more than one address, the workplaces were initially aggregated according to

their personal/organisational numbers to identify discreet businesses (Glesbygdsverket 2005), hereafter entitled as "unique workplaces" (UWps). All types of limited (joint-stock) companies were included (except those that had gone into bankruptcy and six companies clearly located within the municipality because they are state-controlled and not because of any definable LNR dependency *i.e.* the pharmacy, three post offices, the Swedish Motor Vehicle Inspection Co. – "AB Svensk Bilprovning" – and the company for the sale of wines and spirits – "Systembolaget"). In addition, all economic associations, trading companies, limited and unlimited partnerships, foundations/funds, and private firms were included. State, municipality and county council bodies, non-profit making associations, housing co-operatives and religious communities were excluded from the analysis.

The total number of UWps in the record was 1 202. After excluding UWps unsuitable for the survey (see above) a total of 1 077 remained. To get a manageable sample half of these (539) were randomly selected to represent the target population. They were surveyed, between July and November 2004. Due to the size of the questionnaire and the complexity of the issues raised, the survey was supported by telephone interviews. For preparation a paper copy was sent by mail to the respondents, but the answers were collected during a telephone call. The total number of UWps approached was subsequently reduced to 424, due to the lack of contact information. Ultimately, the total number of participating UWps was 207 or 48.8%. Because some respondents represented more than one workplace, the actual number of responses was however 197 (46.5%).

Regarding drop outs; 26.4% of the potential respondents were unavailable (did not answer any of three telephone calls during the survey period) and 24.8% were unwilling to answer or stated lack of time. Regarding the latter group the explanation may be disinterest or LNR non-dependency due to the inclusive choice of target population and/or simply by physical lack of time.

The fact that roughly as many as half of the contacts had to be regarded as drop outs indicates a difficulty in studying local economic activity as attempted here. Based on the information available in the workplace record there were, however, no clear indications of biased representation in the respondents, either within or between the participating UWps, non-participating UWps, those that did not

appear to exist and/or could not be reached: Representation with respect to activities (corresponding to FAF versus 'various' as well as overall), legal status, number of employees *etc.* appeared to be the same in all three groups. Thus, the final sample population of business enterprises is considered to be reasonably representative of business activity in the municipality as a whole.

Roughly half of the respondents stated that their main activity was some sort of forest and/or agricultural farming (FAF) activity, while the other half consisted of a wide variety of business categories. For that reason these two categories were initially separated because potential homogeneities within the FAF activity group were otherwise, if the two groups were treated together, thought to cover overall heterogeneities. In Vilhelmina farming activities of various types and scales are mainly associated with forestry because the possession of agricultural property in Vilhelmina primarily implies forest ownership. However, there are also a few cattle breeding and/or dairy farmers. All the FAF businesses addressed in the survey lived within Vilhelmina since the statistical records of workplaces used for sampling solely covered workplaces within the municipality.

## Results

Data from the case study reveal that the majority of business enterprises (UWps) comprise private firms (70%) or limited companies (26%), which typically engage between 1 to 4 people. The forestry and/or agricultural farming (FAF) sector accounts for approximately 45% of the UWps, with the remaining 55% covering a multitude of varied business enterprises including, for example, services such as hairdressing. The latter group of enterprises is categorised in the study as 'various', as opposed to the other main category of forestry and/or agricultural farming (FAF). 95% of the head quarters are located within the municipality. While the FAF UWps are relatively evenly distributed within the municipality, the 'various' UWps are either pursuing their activities in the immediate proximity to the community centre or in that area combined with one or more other areas within or outside the municipality borders. Of the FAF UWps, 96% have been located to Vilhelmina for more than 10 years, 25% are owned by women and the average age of the respondents is 55 years. Among the 'various'

UWps, 71% have been located to Vilhelmina for more than 10 years, 22% are owned or (in a few cases) led by women and the average age of the respondents is 49 years.

### Local natural resource dependency

Overall, 78% of the UWp respondents stated that they were highly dependent on one or more of the local natural resources (LNRs) and/or types of LNR access listed in the questionnaire, and/or their availability. Among the FAF UWps 89% of the respondents stated that they were dependent on LNRs and/or their availability. (The remaining 11% of the forest owners in Vilhelmina have properties located outside the municipality's borders their forestry activities are not based on the LNRs as defined in this study.) The proportion of 'various' UWps stated to be dependent on LNRs was 69.5%.

### Entrepreneurship and establishment now and in the future

Respondents to the questionnaire were asked to explain their reasons for starting their business. The responses show that economic activities within rural areas can be explained through a combination of factors, many of which are less tangible (and consequently more difficult to measure) than others. The main reason for individuals entering the FAF sector was "overtake" of the farming enterprise from another person usually through inheritance from a parent (Figure 2). However, farmers' decisions to continue the family work on the land include a strong personal interest in the enterprise ('interesting activity') and self-fulfilment ('be my own boss'). Among LNR dependent 'various' UWps, the desire to be their own boss is the most frequent stated reason. Other common reasons are self-fulfillment ('self development', 'will to start business' etc.) and personal interest ('interesting activity') in the activity (Figure 2). The same pattern is found among the LNR non-dependent UWps concerning 'various' as well as FAF businesses.

By far the most commonly cited reason for establishing business enterprises in Vilhelmina was that the respondents' families lived there – 'lived in VMA (Vilhelmina)' (Figure 3.). However, relatively large numbers of FAF respondents also cited the location of the 'property in VMA', and/or inheritance (marked 'other' in figure) as major factors, while the 'various' respondents mentioned the importance of access to 'markets/customers' and

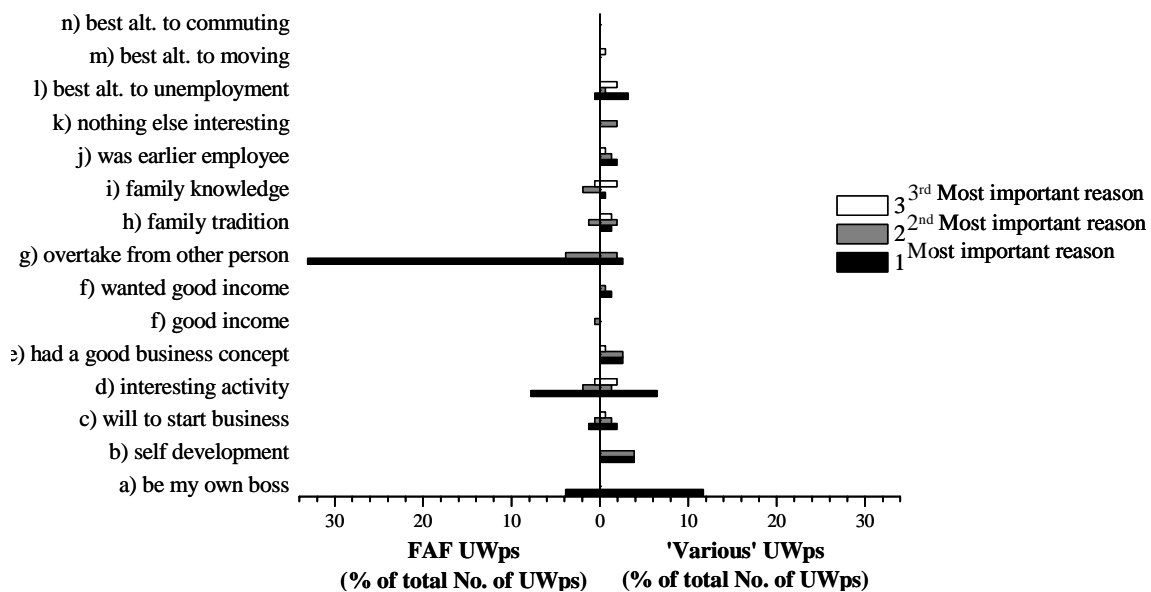


Figure 2. The three most important reasons for becoming an entrepreneur in or registering a local natural resource (LNR)-dependent unique workplace (UWp) in Vilhelmina.

the local 'environment/ surroundings' or 'raw materials'. Like the motives for being an entrepreneur, the pattern is the same regardless of whether the UWps are LNR-dependent or not.

Respondents to the questionnaire were asked a range of questions regarding their plans for the future, 78% of the UWp respondents stated that they were planning to stay in business, and in Vilhelmina, during the next five years, 7% were planning to move and 13% to close down, citing old age or adverse local business conditions and/or local developments as main reasons for doing so.

With respect to the development of present activities, 61% of the respondents who were planning to stay in business in Vilhelmina had a positive outlook (while 18% had a neutral and 21% had a pessimistic outlook); they generally "believed in the past and trusted in the future". Concerning the development of new activities the outlook was generally negative among 43% of the respondents while 24% were neutral and 32% had a positive outlook. In general, the 'various' UWp respondents seemed to be slightly more optimistic (60%) than the FAF UWp respondents concerning future prospects. Concerning the development of present activities the neutral outlook was dominated by FAF UWp respondents (70%).

Considering solely the LNR-dependent UWps, the patterns regarding future prospects were the same as for all the respondents, even though the FAF UWps seemed to be more pessimistic than the 'various' UWps with respect to the development of present activities.

### Local engagements

In this section survey results regarding people engaged in UWps in Vilhelmina are presented in relation to Statistics Sweden's record of workplaces regarding people employed (*cf.* the stated differences between 'engagement' and 'employment' above) and their municipality statistics (Statistics Sweden 2006) regarding the wage-earning population (Figure 4).

The respondents were asked to report the number of people engaged within their UWp during the last 12 months. These numbers most likely include paid as well as unpaid labour, self- and seasonally engaged, part-time engagements of any extent and people of "all" ages *etc.* The number of people engaged within UWps in Vilhelmina was assessed to be 2 946; 65% within LNR-dependent UWps. The assessment was based on the following rationale; The 424 respondents approached represent the target population of 851 UWps. These are represented by the 197 respondents, rendering a multiplier of 4.32. The LNR-dependent UWps, accounting for 78% of



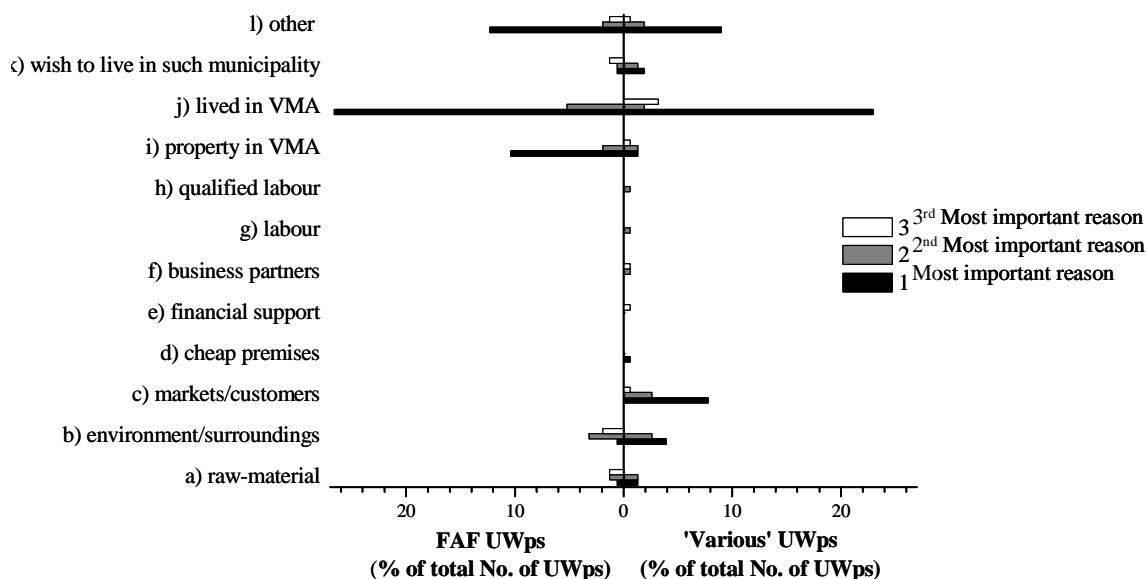


Figure 3. The three most important reasons for establishing a local natural resource (LNR)-dependent unique workplace (UWp) in Vilhelmina (VMA).

the total number of UWps, engaged 1 922 people.

Three-quarters of the total number of people engaged in LNR-dependent UWps were found in 'various' UWps (Table 2). Full-time permanent engagements were much more frequent among the 'various' UWps (51%) than among the FAF UWps (15%), whereas part-time permanent engagements dominated among the FAF UWps (61%). Part-time seasonal engagement frequencies were similar between the two groups; 16% among the 'various' UWps and 18% among the FAF UWps, while full-time seasonal engagements were twice as common among 'various' than among FAF UWps (12% and 6%, respectively).

Comparing the numbers of people found in the study to be engaged in UWps in Vilhelmina (presented in Table 2), with Statistics Sweden's (2006) records of UWps, raise a number of problems. The workplace records refer to the "official labour" situation in August 2002, while the survey results reflect the "individual interpreted" situation almost a year later (*cf.* above). Furthermore, the employment data do not include self-employed individuals, employees who ended their employment during the preceding year, employees who earned less than a specified sum during the year and employees who earned a major part of their annual income elsewhere. In addition, official

statistics only include individuals between 20 and 64 years of age, while in this study no such age exclusions were imposed.

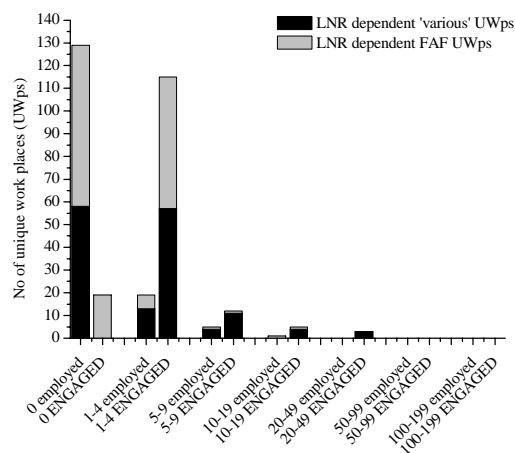


Figure 4. Numbers of unique workplaces (UWps) of different sizes in terms of **employed** (Statistics Sweden's record of workplaces) and **ENGAGED** people (survey results). (The respondents in this study were randomly selected from the Statistics Sweden's record of workplaces. In this record the number of employees within a workplace is reported in classes; 0, 1-4, 5-9, 10-19, 20-49, 50-99 and 100-199. Thus the survey results were treated in the same manner to make a visual comparison possible.)

Table 2. *People engaged, to varying degrees, in local natural resource (LNR)-dependent ‘various’ and forest and/or agricultural farming (FAF) unique workplaces (UWps) in Vilhelmina. Percentages show engagement associated with LNR dependency relative to the total number of people engaged within all UWps in the target population*

ENGAGEMENT EXTENT	People engaged in LNR- dependent ‘various’ UWps		People engaged in LNR- dependent FAF UWps	
	(No)	(% of total)	(No)	(% of total)
Full-time (all-year)	739	54	69	100
Full-time (seasonal)	173	52	30	58
Part-time (all-year)	307	68	289	87
Part-time (seasonal)	229	96	86	96

## Discussion

The local natural resources (LNRs) used to be crucial influences on the establishment and development of boreal municipalities (Sörlin 1988; Johansson 2002). Our results indicate that LNRs still are perceived to be important for most unique workplaces (UWps) in Vilhelmina. Small commercial activities are important to the local economy and its inhabitants (Taylor, Bryan and Goodrich 2004) therefore LNRs can be regarded important to rural boreal municipalities in Sweden. Similar findings are reported by Reed (2003) from what she calls ‘rural resource communities’ in Canada.

### Local natural resource dependency

In general terms, the business structure in Vilhelmina is similar to the Swedish business structure and business structures in other rural boreal municipalities. The stated LNR dependency rate of 78% found amongst business enterprises could thus be believed to be representative for other similar municipalities. The LNRs are stated to be considerably more important than available official employment and business statistics indicate (Statistics Sweden 2006). The fact that the FAF enterprises state a LNR dependency that is slightly higher than that of the ‘various’ category was expected because the FAF activities by definition involve use of or accessibility to some type of natural resource (Glesbygdverket 2005). It is not possible to define the ‘various’ category of business enterprises in a similar way. However, the study results indicate that a significant percentage of these enterprises also recognise a LNR related dependence.

In official statistics, commercial activities and employment data are often classified into sectors and categories, allowing different types of business enterprises to be compared on different societal levels. Because LNRs, according to the results presented, are considered to be of fundamental importance to many types of activities within a rural boreal municipality, despite of “activity category”, there seems to be a need to complement the official statistics, in order to emphasise the importance of local circumstances, preconditions and preferences for local commercial activities.

### Entrepreneurship and Establishment now and in the future

According to Vennesland (2004), the individual benefits associated with employment include payment, status, intellectual and emotional development opportunities and geographical location. With support from life mode theory (Persson and Wiberg 1995; Bergqvist 2004), the results of this study indicate that the choice of geographical location, through heritage of forest/farmland or a desire to live in the region, precedes a decision to create an engagement in Vilhelmina that can contribute to identity, independence, personal development and, to varying degrees, an income.

The prevailing economic conditions are important determinants for the establishment and survival of businesses (Hull and Hjern 1987; Glesbygdverket 2005). However, this study indicates that most of the LNRs dependent (small) businesses in Vilhelmina would not be there if the individuals had not chosen to reside in the locality because of personal, cultural and historical/

traditional aspects of life it offers (Nordström and Mårtensson 2001; Glesbygdverket 2005), which in our view implies a need for a more holistic perspective of matters regarding local business development.

Overall, the prospects for the small businesses in Vilhelmina in the near future seem to be as stable as in the past because most of the UWps are not planning to either move or close down. According to the results, development of the existing business activities is likely due to changes in demand (cf. small business “variability” according to Bergqvist 2004) or if other circumstances change through, for instance, inheritance of land. Growth through development of new activities within the UWps studied is less certain. It seems possible, but such development would be highly dependent on personal attitudes and choices. In concordance with the rationality behind the independent life-mode (Bergqvist 2004) many of the respondents seem satisfied with their circumstances, or do not see any scope for development, while others cite their age and/or lack of inheritors/people, or unfavourable societal systems and policies (both local and national) as constraints to future development. There is thus no reason to believe that the small businesses in Vilhelmina will decrease in number in the near future, but rather that increases in the number of businesses and/or developments within existing UWps are possible given that favourable conditions for and possibilities to establish the desired life-mode are at hand.

The more negative perception of future prospects among FAF UWps than among the ‘various’ UWps is difficult to explain. However, lack of suitable inheritors and the high average age of the FAF UWp respondents are potential reasons, as is the fact that forest ownership has traditionally mainly focused on timber production, with little concern for other activities, for commercial purposes, related to their estate (Ingemarsson 2004).

Official statistics on local economies do not generally consider the private forest owners. However, this study shows that 45% of the UWps in the target population in Vilhelmina are actually FAF firms, predominantly forest farming firms. FAF firms are small and most do not have the same type of ambitions with respect to economic returns, in terms of stability and spending etc., as other type of small businesses (Arvidsson 2005). Nevertheless, the high relative number of enterprises and the fact

that the entrepreneurs in them are sharing the general characteristics of small business entrepreneurs living the “independent life-mode” (Törnqvist 1995 and Bergqvist 2004), indicates that they may, like other small businesses, be important for the maintenance and welfare of local societies similar to the one studied.

### **Local engagement**

According to official municipality statistics 53% of the inhabitants, or approximately 3950 individuals, in Vilhelmina were of working age and close to 2950 individuals (75%) were actually working. Approximately 400 of the inhabitants were working outside the municipality, and about 200 people working within the municipality were living outside the municipality. About 1250 people were working in public administration and services, while 1500 were engaged in other types of sector-divided professions (Statistics Sweden 2006). This implies that twice as many people were engaged in the commercial activities included in this study than there were wage-earning people in the private sector, according to official statistics.

Further analysis shows that according to the official records, most of the UWps within the target population (83%) did not have any employees. The survey responses in this study show a similar but displaced pattern (Figure 4). According to the respondents themselves, most of the UWps (72%) had kept at least one person more or less engaged during the last 12 months, regardless of whether or not they were LNR-dependent. This divergence is most likely a result of different definitions and presumptions of who counts as an engaged person.

Official employment statistics provide useful information on the economic performance of a region (Svenska kommunförbundet 2002; Europeiska kommissionen 2004). All statistical data, however, have certain limitations, which are often due to definitions and the manner in which they have been collected. Official employment statistics do, for example, not account for self-employed entrepreneurs, wage-earning individuals less than 20 or more than 64 years of age, and they further exclude additional/secondary engagements. The application of official statistics is therefore likely to result in an underestimation or even disregard of the various contributions that many entities can make to local societies (cf. Holmgren 2004; Taylor, Bryan and Goodrich 2004).

Engagement figures in this case study were

determined on a different basis than those in official statistics regarding employments. Thus, the scope for direct comparison between the study-based and officially derived employment statistics is limited. Notwithstanding this limitation, the study indicates that more people are engaged in the municipality than the employment numbers reported in official statistics can tell. This disparity may arise from the rural boreal tradition of combining various occupations and/or engagements, which arise on all-year full-time, part-time or seasonal (full or part-time) bases, aspects of which may be “invisible” in official employment statistics.

Regarding the two business categories FAF and ‘various’; the ‘various’ UWps engage more people and the engagements are generally more extensive than in the FAF UWps. The number of part-time all-year engagements were, however, stated to be as high among the FAF UWps as among the ‘various’ UWps. Because forest farming is generally a supplementary activity to some other kind of primary income-bringing engagement nowadays (Törnqvist 1995; Glesbygdverket, 2005), this finding implies that forest ownership, from a municipality perspective, is more or less as important as other types of “permanent” part-time engagements by means of constituting additional commercial activities. The forest farming activity is an example of the continuing tradition of pursuing multiple occupations in municipalities like Vilhelmina (Johansson, 2002), which provides both the individual and the society with additional engagement/income to some degree (Holmgren 2004).

Results obtained highlight the potential difference between employment (and unemployment) in rural as opposed to urban areas stated by Westholm (1996). In this context, he has postulated that unemployed individuals in rural areas often can secure wages to some extent through turning to an alternative means of engagement more easily than unemployed individuals in urban areas. This can be seen as important, from individual as well as rural society perspectives, as multiple engagements are likely to offer possibilities for people to stay within the municipality. Furthermore, on a related theme, it may be noted that the municipality’s traditions of entrepreneurship, combined with an ability to manage multiple and diverse forms of engagement tied to the LNRs, will open up opportunities for change and continued economic development for the rural boreal municipalities of the future, notably with respect to

transformation to a knowledge-based society (Westholm 1996; Glesbygdverket 2005).

## Concluding remarks

The prosperity of any local society depends upon a combination of various types of factors, some of which are harder to measure and assess than others. Critical for local society development are, however, the number and the physical and mental well-being of its inhabitants and health and robustness of its local business enterprises (Svenska kommunförbundet 2002; Taylor, Bryan and Goodrich 2004). The stated business stability in Vilhelmina can most likely be interpreted in a life-mode theory context; the establishment of LNR dependent small business enterprises is, as identified in this study, closely connected to individual, culturally and traditionally related, choices of place for long term residency. In turn, these enterprises generate life-quality as well as incomes to the inhabitants, which will have implications for the local society’s economic and social development as well.

Concisely, this study shows that it is important for the local government to understand the role and importance of LNRs and LNR access related to local commercial activities: The small but numerous, stable and diverse local commercial enterprises in Vilhelmina can be assumed to be closely linked to the individual preference of life mode. This is in turn influenced by local cultural and traditional factors and dependence on LNRs despite what official statistics might fail to show. Purportedly this is the case in other similar boreal municipalities as well. As a consequence it must be considered of great importance for the national as well as the local government to evaluate natural resource management policies and regulations more thoroughly. Changes in the availability of LNRs, as one example, must be evaluated from a socioeconomic perspective as well as from an ecologic point of view in order to facilitate development and economic growth. Based on the ideas of life mode theory it is crucial for local governments to plan and act based on existing and not on theoretical (economic) driving forces behind businesses. There is a need to develop accessible instruments to allow visualisation and evaluation of LNR dependency and LNR use in business enterprises on the local level. Further it is necessary, on national as well as on local level, to acknowledge and find a way to effectively handle local cultural

variations and the fact that the rationality behind businesses differs. Development and economic growth might not equal small business growing large but a growing number of small business entrepreneurs being satisfied.

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