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Field afforestation in the context of rural development: a preliminary study of farmers' and rural advisors' perceptions

Seloste: Viljelijöiden ja maaseutuneuvojien käsityksiä
pellonmetsityksestä ja maaseudun elinvoimaisuudesta:
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The paper examines farmers' and rural advisors' perceptions of field afforestation in three districts of Finland. Etelä-Pohjanmaa Rural Business District (RBD) is characterised by arable agriculture and low amounts of field afforestation. Mikkeli RBD is characterised by small scattered dairy farms with extensive forests and non-industrial family forestry and the highest incidence of field afforestation in the country. Kuopio RBD is characterised by a mix of dairy farming and family forestry, and also has experienced considerable field afforestation.

The study shows that farmers accurately perceive the relative extent of field afforestation in their localities, as well as accurately perceive the effects of this land use change on the landscape.

Advisors seem to be less accurate than the farmers in their perceptions of field afforestation intensity. The majority of farmers (56%) are of the opinion that current levels of field afforestation are within acceptable limits, although in Mikkeli RBD 10% of farmers are of the opinion that there is too much field afforestation. Advisors are largely of the same opinion as farmers.

In each of the regions, there is a greater intolerance of natural regeneration of abandoned farmland than for field afforestation. A high proportion of advisors could not say what the effects of field afforestation on different branches of the rural economy might be.

Key words: Field afforestation, rural development, farmers, rural advisors

Tutkimuksessa tarkastellaan maanviljelijöiden ja maaseutuneuvojien näkemyksiä pellonmetsityksestä kolmen maaseutuelinkeinopiirin alueella. Etelä-Pohjanmaan maaseutuelinkeinopiiri on maatalousaluetta, jossa peltoja on metsitetty vain vähän. Mikkelin maaseutuelinkeinopiirille ovat tyypillisiä pienet, hajanaisesti sijoittuneet maitotilat, suuret metsäalat ja perhemetsätalous. Alueella on koko maan korkein pellonmetsitysintensiivisyys. Kuopion maaseutuelinkeinopiiriä kuvaavat sekä maitotilat että perhemetsätalous ja melko suuri pellonmetsitysintensiivisyys.

Tutkimuksen mukaan maanviljelijät olivat hyvin tietoisia sekä pellonmetsityksen laajuudesta kotipaikkakunnallaan että myös sen vaikutuksista maisemaan. Neuvojilla ei sen sijaan ollut yhtä tarkkaa kuvaa paikkakunnalla tapahtuneista metsityksistä.

Suurin osa maanviljelijöistä (56%) piti pellonmetsityksen määrää hyväksyttävänä, vaikka Mikkelin maaseutuelinkeinopiirin maanviljelijöistä 10% kokikin pellonmetsityksen alueella jo liian laajamittaiseksi. Neuvojien ja maanviljelijöiden näkemykset asiasta olivat hyvin yhteneväisiä.

Kaikilla kolmella alueella peltojen metsittämistä pidetään hyväksyttävämpänä kuin hylättyjen peltojen luontaista metsittämistä. Suuri osa neuvojista ei osannut arvioida pellonmetsityksen vaikutuksia eri maaseudun yritysalojen toimintaan.

Avainsanat: Pellonmetsitys, maaseudun kehitys, maanviljelijät, maaseutuneuvojat

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Preface

Grant-aided field afforestation has been practised in Finland for some 30 years, and its effects in some regions are considerable. Various aspects of field afforestation have been studied earlier by the Finnish Forest Research Institute, including the causes of regional variations in the intensity of field afforestation and farmers' and advisors' reconditions and objections to field afforestation. This report is the first in a new series of investigations that will try to assess the rural development implications of field afforestation activities, as well as place Finnish land use and rural policies in a broader, European perspective.

While the investigation owes much to the previous Finnish studies of field afforestation, it has its origins in a European Union FAIR project *Multifunctional forestry as a means to rural development* - MULTIFOR.RD, to which Ashley Selby was involved as an external advisor. Some of the experiences gained in that project are applied in the present investigation.

The present paper is only a preliminary report. Its aim is to assess how regional variations in field afforestation activities are perceived by farmers and their principal advisors. As such, the study will provide the basis for the detailed causal and localised analyses that will follow.

Acknowledgements are extended to the Ministry of Agriculture and Forestry's Information Centre - TIKE for assistance with the farm sample, and to Tapani Honkanen at the Forestry Development Centre TAPIO for making available commune level field afforestation reports, and to all those farmers and advisors who took the trouble to fill in and return our questionnaire, and especially those who sent us such a rich array of supplementary comments and material. Our colleagues Harri Hänninen, Heimo Karppinen and Jouni Siipilehto offered numerous constructive comments on the manuscript. Responsibility for any remaining errors or lack of clarity rests, of course, with the authors. Finally, acknowledgements are extended to the MULTIFOR.RD team for countless discussions on the meaning and content of rural development and the role of forestry in all our futures.

Helsinki, October 2002

Ashley Selby
Project coordinator

I Introduction

I.1 Thirty years of grant-aided field afforestation in Finland

Field afforestation has long been employed in Finland as a policy instrument for reducing the area of agricultural land. The first legislation in this respect being introduced in 1967 and the first major field afforestation programme began two years later with the introduction of a field reservation (set-aside) programme (Selby 1974, 1980). Since then, field afforestation has been a permanent part of a set of policy instruments for controlling and balancing agricultural production, as well as for encouraging farmers to retire. Many parallels existed between Finnish agricultural policy and that of the Common Agricultural Policy (CAP) of the European Union prior to Finland's accession to membership in 1995 (CEC 1993).

Since its introduction, grant-aided field afforestation activities have been characterised by strong regional variations. In eastern regions of Finland, which are characterised by poor socio-economic conditions, small farms and what Myrdal (1957) has termed socio-economic *backwash effects*, up to 20% of the 1969 area of fields have been afforested. In the south-western and western regions, which have better socio-economic conditions and larger more viable farms - Myrdal's regions with *growth and spread effects* - field afforestation since 1969 has accounted for less than 5% of the arable area (e.g. Selby 1980a, b, Selby and Petäjistö 1994).

There have also been considerable temporal variations in grant-aided field afforestation. After the introduction of grant-aid for field afforestation in 1969, there was an initial peak of activity which reached c. 12 000 ha in 1972 (Figure 1). Grant-aided field afforestation activities declined fairly quickly after the termination of the Field Reservation programme in 1974, although because field reservation contracts could be made for up to 15 years, some land was still being afforested under that scheme in 1989. Nevertheless, field afforestation declined to c. 2 500 ha/year by the mid-1980s. The introduction of a new field afforestation programme and associates premiums in the late 1980s was effectively neutralised by the introduction of a field clearance fee in 1987 (Selby 1990). A temporary increase in the afforestation premium at the beginning of the 1990s gave rise to a peak of activity that reached c. 17 000 ha in 1992, only to fall to 5 000 ha in 1994 with the premium's suspension. Finally, Finland's membership of the E.U. led to a new field afforestation programme aimed at achieving from 10 000 to 20 000 ha of afforestation a year for a ten-year period under the Council Regulation (EEC) 2080/92 funding. This was an optimistic programme that, given previous afforestation experience, had little chance of success. In the event, only 36 000 ha of the programme's planned 88 000 ha were afforested.

For a number of reasons, field afforestation as a land use policy instrument has not been unreservedly accepted by the rural community. This is true not only for Finland (where c. 80% of the land area is forested and only 8% of the land area is under fields), but also for many European countries (where as little as 10% of the land

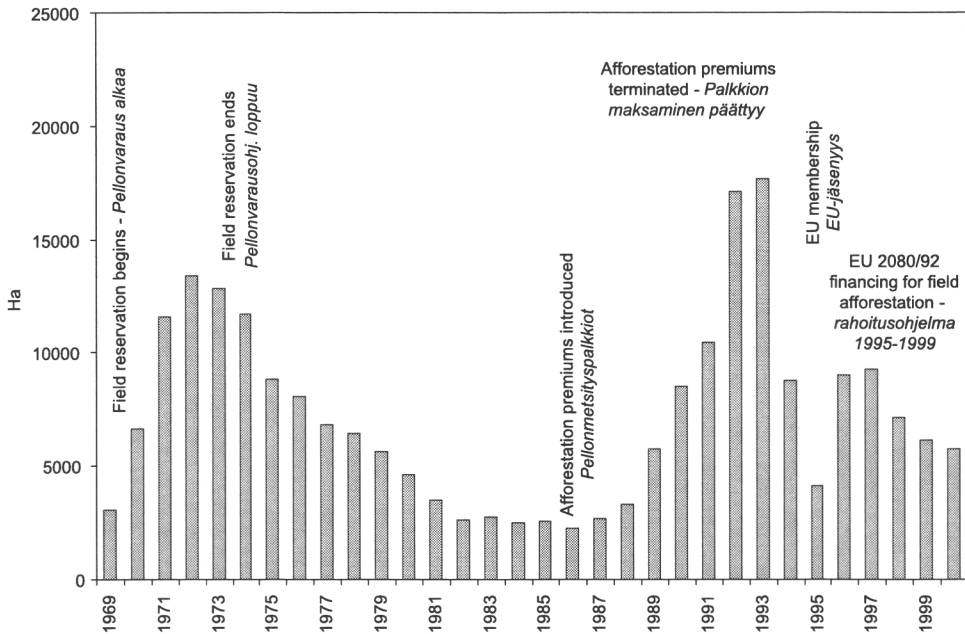


Figure 1. Temporal variations in field afforestation activities, 1969-2000.

Kuva 1. Pellonmetsityksen määrän vaihtelu vuosina 1969-2000.

surface may be under forests), even though the legislation supporting field afforestation ostensibly aims at the diversification of the rural raw material base in these countries (Selby and Petäjistö 1994, 2000). The limited success of the policy of grant-aided field afforestation in Finland has been examined in the context of some behavioural assumptions which are assumed to affect afforestation decision making by both farmers and the advisors (who are the *de facto* administrators of the policy instruments). These assumptions concern the bounded rationality of both farmers and advisors within their taken-for-granted worlds of place and space (Selby and Petäjistö 1994, 1995).

1.2 Previous field afforestation investigations in Finland

Early investigations into the mechanisms behind field afforestation demonstrated a clear and unambiguous relationship between poor agricultural and socio-economic conditions and the regions of greatest field afforestation intensity (e.g. Selby 1974, 1980a, b). Small farms of poor structure were not conducive to generation transfer agreements, and such farms were abandoned, or only the dwellings kept serviceable for recreational purposes. Fields were afforested by the retired or retiring farmer or by the heirs to such estates. Thus the poor structure was reflected in ownership disturbances, which were also a significant explainer of afforestation activities. Where farms remained active, distant and/or poor quality fields were afforested, sometimes in association with clearance activities elsewhere on the farm property, as part of farm structure improvement schemes.

Selby (1990) and Mustonen (1990) examined the contradictions and shortcomings of the policy programmes supporting field afforestation. In particular, it was found that clearance activities and field afforestation activities had effectively cancelled each other out during the 1980s, while the administration of the permit-system governing field afforestation was found to be subject considerable local variation. Petäjistö et al. (1993, 1994), Selby and Petäjistö (1994) examined the behavioural aspects of the decision-making surrounding field afforestation, both from the farmers' point of view as well as from the standpoint of local forestry, agricultural and commercial advisors. In addition to economic reasons for the acceptance or rejection of field afforestation by farmers, a number of emotional and value judgements were also observed in the afforestation decision making process. These included ties-to-place, and local-oriented values which led even professional forestry advisors to resist field afforestation in the own home area. Local advisory personnel's attitudes to field afforestation followed two separate processes. First, attitudes to field afforestation at the wider, national level, were clearly dominated by professional interests, e.g. foresters supported field afforestation, agriculturalists opposed it. At the commune level, however, this professional orientation of the foresters weakened considerably, and "ties-to-place" led to half of the forestry advisors rejecting field afforestation in their own commune.

Other field afforestation studies have included a major research project on the problems experience in establishing forest stands on former fields (e.g. Hytönen and Polet 1995), while a study by Karjalainen and Komulainen (1998) addressed the landscape effects of alternative approaches field afforestation with respect to scenic beauty. Related field afforestation studies have been made in other European countries, especially in the context of EU policy and the application of EU subsidies (e.g. Volz and Weber 1993) and in the context of the agricultural consequences of the likely expansion of the EU eastwards (e.g. Weber 2000). Closely related to the present investigation are two European research efforts that have addressed the rural populations' perceptions of forests and forestry in the context of rural development. These are Cost Action E3 - *Forestry in the context of rural development* (Terrasson 1998) and the EU/FAIR project - *Multifunctional forests as a means to rural development* (Wiersum and Elands 2002). The present investigation has its roots in these two European projects.

1.3 Aims

None of the above investigations have addressed the actual effects of field afforestation activities on the character of rural localities, or whether the effects of the changes wrought by field afforestation have effected rural vitality. Previous investigations have demonstrated that the causes of regional variations in field afforestation have been variations in socio-economic vitality (e.g. Selby 1980). Selby and Petäjistö (1994) also demonstrated that farmers (both active and passive) had a number of objections to field afforestation, but the effects of field afforestation on rural vitality were not examined. The question that now needs to be asked is, *Has field afforestation reached*

the stage where it is in itself a threat to the vitality and development of viable rural communities? As it is known that considerable regional and local variations in the intensity of field afforestation have occurred, a further question is, *What is the regional potential for more field afforestation activities in the future?* This question will seek to determine local people's acceptance of current levels of field afforestation and their tolerance towards more field afforestation in the future. These questions are addressed from the perspective of both farmers and rural advisors.

2 Material and method

2.1 Selection of study regions, communes and farms

Study regions

The regions for the study were selected on the basis of two main criteria: field afforestation activity and proportion of land under forest. An addition criterion was the division of agriculture into crop farming and animal husbandry. The sample design was modified from the EU/FAIR Multifor.RD project (Wiersum and Elands 2002, see also www.dow.wau.nl/multifor), in which each country selected two rural regions for study, one with a long tradition of forestry, the other in which afforestation has been a recent introduction. Such clearly contrasting regions cannot, be found in Finland, where forests form a dominant land-use element even in the most agricultural of districts, and farmers have long been the most important owners of productive forest land (e.g. Reunala 1974, Karppinen et al. 2002). Nevertheless, regional differences in farming are observable in Finland, and these have contributed to regional variations in field afforestation intensity (Selby 1980).

Three rural business districts (RBD) were selected for the study: Etelä-Pohjanmaa Rural Business District (RBD), Kuopio RBD and Mikkeli RBD. Etelä-Pohjanmaa RBD has the largest proportion of agricultural land of any district in Finland, and the primary agricultural land use is grain crops. Mikkeli RBD has the smallest proportion of agricultural land, as well as highest incidence of field afforestation. Kuopio RBD falls in between these two regions in terms of the proportion of agricultural land, but has a high proportion of field afforestation. Its agriculture is characterised by (labour-intensive) dairy farming rather than (capital intensive) crop farming. The ratios of forest area to field area in the three rural business are:

Etelä-Pohjanmaa RBD	2.63 : 1
Kuopio RBD	5.61 : 1
Mikkeli RBD	9.17 : 1

However, considerable variations in the forest-to-field ratio occur within each rural business district at the commune (municipal) level.

Study communes

The communes for inclusion in the study were selected on the basis of a commune typology that is currently employed by rural policy makers (Maaseutupoliittinen kokonaisuohjelma 2000, p.15). The typology consists of four classes, although communes belonging to the *towns & local urban centres*-class, are not included in this investigation:

- Towns and local urban centres
- Core rural areas
- Scattered (low density) settlement areas
- Urban-rural interaction areas

Table 1. Communes selected for the study.

Taulukko 1. Tutkimukseen valitut kunnat.

Etelä-Pohjanmaa RBD/MEP	Commune type <i>Kuntatyyppe</i>	Kuopio RBD/MEP	Commune type <i>Kuntatyyppe</i>	Mikkeli RBD/MEP	Commune type <i>Kuntatyyppe</i>
Alahärmä	Core rural <i>Ydinmaaseutu</i>	Karttula	Interaction commune <i>Vuorovaikutus-alue</i>	Enonkoski	Scattered settlement <i>Harvaan asuttu maaseutu</i>
Evijärvi	Core rural <i>Ydinmaaseutu</i>	Maaninka	Core rural <i>Ydinmaaseutu</i>	Hirven-salmi	Scattered settlement <i>Harvaan asuttu maaseutu</i>
Jurva	Core rural <i>Ydinmaaseutu</i>	Nilsjä	Scattered settlement <i>Harvaan asuttu maaseutu</i>	Juva	Core rural <i>Ydinmaaseutu</i>
Kauhava	Core rural <i>Ydinmaaseutu</i>	Rauta-lampi	Scattered settlement <i>Harvaan asuttu maaseutu</i>	Kangas-lampi	Interaction commune <i>Vuorovaikutus-alue</i>
Kurikka	Core rural <i>Ydinmaaseutu</i>	Tervo	Scattered settlement <i>Harvaan asuttu maaseutu</i>	Pertunmaa	Scattered settlement <i>Harvaan asuttu maaseutu</i>
Laihia	Interaction commune* <i>Vuorovaikutus-alue*</i>	Vehmer-salmi	Scattered settlement <i>Harvaan asuttu maaseutu</i>	Pieksämäen mlk	Interaction commune <i>Vuorovaikutus-alue</i>
Lehtimäki	Scattered settlement <i>Harvaan asuttu maaseutu</i>	Vieremä	Core rural <i>Ydinmaaseutu</i>	Ristiina	Scattered settlement <i>Harvaan asuttu maaseutu</i>
Perä-seinäjoki	Core rural <i>Ydinmaaseutu</i>			Sulkava	Scattered settlement <i>Harvaan asuttu maaseutu</i>
Vimpeli	Core rural <i>Ydinmaaseutu</i>				

*Urban-rural interaction area - *Kaupungin ja maaseudun yhteinen vuorovaikutusalue*

Selected land-use variables were subjected to discriminant analysis to ensure that the rural business districts (used as grouping variables) created sufficient variance for the purpose of the investigation. Communes which were misclassified in the discriminant analysis were recorded but not replaced. Communes that formed severe outliers in the analysis were replaced by communes of the same class, and the analysis repeated. The communes finally employed in the investigation are shown in Table 1. Note that the study design does not aim to be representative of the whole country. The results are applicable only to the regions and communes in question.

Study farms

The farm sample was based on the Rural Enterprise Register of the Ministry of Agriculture and Forestry's department of statistics. A total population of 5 519 active farms should have been available for sampling, but some 2 400 farmers had used their legal right and forbidden the Ministry to give their information to third parties. This meant that only c. 3 000 farms were available for sampling. The planned sample size of 1 500 was maintained. Thus, the sampling ratio was 1:2.

The means of selected attributes of the study farms, by rural business district are given in Table 2. Average farm size is smallest in Etelä-Pohjanmaa RBD communes and largest in Mikkeli RBD communes. Variations in farm size are directly dependent on forest area. Thus, the average field area of the study farms is greatest in Etelä-Pohjanmaa RBD and smallest in Mikkeli. The youngest farmers are to be found in Kuopio RBD, although the average ages of farmers differed little from region to

Table 2. Means of selected farm-study attributes, by rural business districts.
Taulukko 2. Maatiloja koskevia keskiarvotietoja maaseutuelinkeinoipiireittäin.

	Etelä-PohjanmaaRBD <i>Etelä-Pohjanmaan MEP</i>	Mikkeli RBD <i>Mikkelin MEP</i>	Kuopio RBD <i>Kuopion MEP</i>
Farm area, ha <i>Tilan pinta-ala, ha</i>	65.0	92.7	80.7
Field area, ha <i>Peltoala, ha</i>	22.8	15.1	21.5
Cultivated area, ha <i>Viljelty pinta-ala, ha</i>	22.5	15.1	21.4
Forest area, ha <i>Metsäpinta-ala, ha</i>	36.6	73.7	56.1
Farmer's age, yrs <i>Maanviljelijän ikä, v</i>	48.4	48.5	45.8
Length of current ownership, yrs <i>Nykyisen omistussuhteen kesto, v</i>	19.9	19.2	18.2
Length of family ownership, yrs <i>Tilan omistussuhteen kesto samalla suvulla, v</i>	123.2	119.6	107.9

region. Similarly, the length of current ownership and length of family ownership is slightly less in Kuopio RBD.

2.2 Data collection from farms and advisors

Farm study

Data was collected by a mailed questionnaire in January-February 2002. A follow-up posting to non-respondents followed after two weeks, and a reminder postcard was sent to remaining non-respondents after a further week. Of the 1 500 questionnaires posted, 954 were returned, of which ten were rejected for technical reasons (returned by the post unopened, farmer deceased, etc.) giving 944 serviceable returns out of 1 490, or a return rate of 63.4%. The forms were completed extremely well; all being usable. Some 12% of the returned forms included supplementary information in the form of written notes and essays on concerns over trends in rural development, pamphlets concerning the farm enterprise, or air photos of the farms in question. The notes and essays were of considerable value and have been reported elsewhere (Koskela and Selby 2002).

Of the 546 non-returns, 55 (10%) were randomly selected for a short telephone inquiry, of which 41 succeeded. The differences in characteristics between the respondents and non-respondents were very slight. Differences occurred with regards to commune type, which was a product of the small telephone inquiry sample. As to the farm and farmer variables, the higher proportion of females in the telephone inquiry was assumed to reflect the fact that the phone calls were made during the day. The higher proportion of “farming” as the main use of the farm was a probably a result of the interview (not all the alternatives could be comprehended at once, as on a printed page). Perceptions of levels of afforested fields or naturally regenerated scrubland were slightly different between the two groups, with more non-respondents perceiving an unacceptable level of natural regeneration.

Questionnaire design

The design of the questionnaire (see Appendix) was guided by a theoretical frame that concerned the field afforestation process as understood from previous investigations (Selby 1980, Selby and Petäjistö 1994) and the processes involved in the reproduction of rural economy and society (e.g. Marmont 1990, Marsden et al. 1993, Wiersum and Elands 2002). This frame of reference will be presented as part of the project’s final report. The questions fall into five sections: a) rural characteristics, b) perception of field afforestation, c) use of the farm forest and the farm’s future development plans, d) attitude propositions, e) background questions concern farm structure and ownership. *Only the questions in section (b) are analysed and reported in the present publication.*

The set of questions in section (b) concern farmers’ perceptions of field afforestation activities in their locality and its effects, e.g. the intensity of field afforestation activity,

its effect on the landscape, whether the current levels are acceptable or not, and how field afforestation might have affected local livelihoods, as well as who should be represented in the field afforestation decision-making process. The latter question is considered to be important from the stand point of rural socio-economic development and rural re-construction (e.g. Marmont 1990, Marsden et al. 1993). The perception questions are a logical extension of earlier a previous study of field afforestation (Selby and Petäjistö 1994).

Rural advisor study

A questionnaire was also sent to selected officials in the same communes as the farmer study. The advisors were: the commune's agricultural secretary, the commune's trade and commerce secretary, the commune's managing director and finally the local manager of the forest owners' association. That is to say, officials who are involved with economic affairs and who should be aware of developments and problems in their commune. The communal officials varied slightly from commune to commune: some communes even employing a "rural affairs secretary". In other communes, some of the posts were combined.

The questionnaire design was partly identical to that sent to farmers with respect to questions concerning the characteristics of the commune, and the perception of various effects of field afforestation and natural regeneration on abandoned fields (sections (a) and (b) of the farmer questionnaire). Farm-related questions of the farm questionnaire were, of course, omitted and replaced with questions related to the commune's development and development potential. These were questions that farmers could not be expected to be able to answer accurately, but about which advisors should be able to express an informed opinion. About 90 forms were posted, and after a repeat posting and telephone calls, 61 forms were returned: a return rate of 71%.

3 Description of study areas

3.1 Study areas

The results presented in this report are preliminary. In other words, the analyses are descriptive rather than analytical. The descriptions are also mostly limited to the rural business district level. Causal analyses at the regional, commune and farm levels will follow later.

Each of the three regions has a strong rural in character, and relatively high proportions of their economically active populations engaged in the primary sector (Table 3). Communes in the Etelä-Pohjanmaa Rural Business District (RBD) exhibit the greatest proportion of industrial sector employment, and those in Kuopio RBD the lowest. The proportion of the economic active population in the service sector is highest in the Kuopio RBD communes, although the service sector is strongly

Table 3. Some demographic and economic indicators for the Etelä-Pohjanmaa, Mikkeli and Kuopio rural business districts. Means of the study communes.

Taulukko 3. Eräitä väestörakennetta ja taloudellisia tekijöitä kuvaavia lukuja Etelä-Pohjanmaan, Mikkelin ja Kuopion maaseutuelinkeinoalueissa. Luvut ovat kuntien keskiarvoja.

Indicator <i>Tekijä</i>	Etelä-Pohjanmaa RBD <i>Etelä-Pohjanmaan- MEP</i>	Mikkeli RBD <i>Mikkelin MEP</i>	Kuopio RBD <i>Kuopion MEP</i>	Total <i>Kaikki</i>
Number of case communes <i>Tutkimuskuntien määrä</i>	9	8	7	24
Population density, 2000, inh/km ² <i>Väestötiheys, v.2000 as/km²</i>	13	6.4	7.0	9.03
Population change 1990-2000 (1990=100) <i>Väestömuutos 1990-2000 (1990=100)</i>	92.6	90.3	91.9	91.6
Economically active population (EAP) in primary sector, 1998, % <i>Ammatissa toimiva väestöprimaarisektorilla, 1998, %</i>	18.0	23.7	27.3	22.6
EAP in industrial sector, 1998, % <i>Ammatissa toimiva väestöteollisuussektorilla, 1998, %</i>	30.9	23.1	15.3	23.7
EAP in service sector, 1998, % <i>Ammatissa toimiva väestö palvelusektorilla, 1998, %</i>	48.3	49.6	53.6	50.3

Source: Statistical Yearbook of Finland 1990, 2000 - *Lähde: Suomen tilastollinen vuosikirja 1990, 2000*

represented in all three regions. The rural nature of the regions is also reflected in low population densities (lowest in Kuopio RBD and highest in Etelä-Pohjanmaa RBD). Population loss through migration is also common to all but one commune (Karttula, which had a population gain of 4%).

Etelä-Pohjanmaa RBD communes are strongly characterised by farming (as predetermined by the sample design). Here, on average, nearly a fifth of the communes' land area is under fields. The corresponding figure for sample communes in Kuopio RBD is c. 9% and for Mikkeli RBD c. 5%. Conversely, Mikkeli and Kuopio RBD communes are strongly characterised by a high proportion of land under forests (75% and 69% respectively), while the Etelä-Pohjanmaa RBD communes have a relative low forest cover of 50%.

All sample communes have experienced a considerable reduction of active farms during the 1990s, but this has been associated with an enlargement of the field area of

Table 4. Some agricultural indicators for the Etelä-Pohjanmaa, Mikkeli and Kuopio RBDs. Means of the case communes.

Taulukko 4. Maatalouden rakennetta kuvaavia keskiarvolukuja kunnittain Etelä-Pohjanmaan, Mikkelin ja Kuopion maaseutuelinkeinoalueissa.

	Etelä-Pohjanmaa RBD <i>Etelä-Pohjanmaan MEP</i>	Mikkeli RBD <i>Mikkelin MEP</i>	Kuopio RBD <i>Kuopion MEP</i>	Total <i>Yhteensä</i>
No. of case communes <i>Tutkimuskuntien määrä</i>	9	8	7	24
Proportion of commune area under fields 2000, % <i>Peltopinta-alan osuus kunnan pinta-alasta v.2000, %</i>	19.0	5.2	9.2	11.5
Proportion of fields forested 1990-1995 ¹ , % <i>Peltopinta-alasta metsitetty 1990-1995¹, %</i>	1.9	8.9	6.3	5.5
Change in no. of active farms, 1990-2000, 1990=100 <i>Aktiivitilojen määrän muutos 1990-2000, 1990=100</i>	66.1	52.0	60.6	59.8
Change in area of fields, 1990-2000, 1990=100 <i>Peltopinta-alan muutos 1990-2000, 1990=100</i>	103.1	83.0	92.6	93.3
Average held size of active farms, 2000, ha <i>Aktiivitilojen keskimääräinen peltopinta-ala, 2000, ha</i>	26.1	18.2	22.9	22.5
Change in size of active farms, 1990-2000, 1990=100 <i>Aktiivitilojen keskimääräisen koon muutos 1990-2000, 1990=100</i>	156.4	164.8	152.7	158.1
Dairy farms, 2000, % <i>Maitotiloja v. 2000, %</i>	27.9	44.4	50.0	39.9
Other livestock farms, 2000, % <i>Muita eläintuotantotiloja v. 2000, %</i>	14.4	16.4	12.2	14.4
Grain crop farms, 2000, % <i>Viljatiloja v. 2000, %</i>	40.7	14.8	12.5	23.9
Other plant crops, 2000, % <i>Muita kasvinviljelytiloja v. 2000, %</i>	12.1	14.8	19.1	15.0
Average age of farming population, 2000 <i>Maanviljelijäväestön keskimääräinen ikä v. 2000</i>	43.4	45.2	42.8	43.8
Annual working unit/farm, 2000 <i>Henkilötyövuosien määrä/tila v. 2000</i>	1.2	1.4	1.6	1.37
Proportion of land under forest 1998 ² , % <i>Maapinta-alasta metsää 1998², %</i>	50	75	69	-

¹Indicative sample of five years. Source: Forestry Development Centre TAPIO.

¹Otos viiden vuoden ajalta. Lähde: Metsätalouden kehittämiskeskus TAPIO

²Statistical Yearbook of Finland 2001 - ²Suomen tilastollinen vuosikirja 2001

active farms. The largest increase in farm size has occurred in the Mikkeli RBD communes. Despite this increase, Mikkeli RBD farms still remain the smallest (c.18 ha of fields) compared with 26 ha in Etelä-Pohjanmaa RBD communes and 23 ha in the Kuopio RBD sample communes.

The type of farming also differs considerably between the regions (Table 4). In the Kuopio RBD communes, dairy farms account for 50% of the total, and arable (grain) farms only 12%. Other crop farming (mainly hay) account for 19% of all farms. The farm structure in Etelä-Pohjanmaa RBD communes is rather different, with arable (grain) farms accounting for 41% of the total and dairy farms only 28%. The structure of farming in the Mikkeli RBD communes is closer to that of Kuopio than Etelä-Pohjanmaa RBD communes.

Field afforestation during the period 1990-1995 accounted for 2% of the 1990 field area in the Etelä-Pohjanmaa communes, compared to 9% in Mikkeli RBD communes and just over 6% in the Kuopio RBD communes.

3.2 Field afforestation in the study areas

Field afforestation activities in the study communes for the period 1990–1995 are shown in Table 5. The proportion of fields afforested during the five-year period was estimated on the basis of the 1990 field area. This figure is not entirely accurate as it ignores such activities as field clearances, the use of agricultural land for building and civil engineering, etc. However, any deviations are not significant for the purpose in hand.

Table 5 simply confirms the sample design, in that the lowest intensity of afforestation is found in the communes of Etelä-Pohjanmaa RBD where agriculture is dominant in the local economy, while the highest field afforestation intensities are found in Mikkeli RBD. Kuopio RBD communes fall in between.

Correlating some key economic and demographic indicators with the proportion of fields afforested, i.e. the intensity of field afforestation, produced the expected signs and levels of significance (Table 6). As found in earlier studies (e.g. Selby 1980a, b, Selby and Petäjistö 1994), the relationship between declining small-scale agriculture and field afforestation is strong. Similarly, an aging farming population and high labour inputs to farming signal high intensities of field afforestation. The latter result relates to the fact that dairy farms are more labour intensive than arable farms. The correlation between labour input (annual work units/farm) and the proportion of dairy farms in a commune is highly significant (0.684**), but with the proportion of grain farms in a commune it is negative and highly significant (-0.667**). An unexpected result is the non-significant correlation between the decline in population (1990-2000) and the intensity of field afforestation. Out-migration is a sign of a communes socio-economic decline, a factor that has in earlier investigation been show to lead to higher intensities of field afforestation.

Table 5. Field afforestation activities and field afforestation intensity, 1990-1995, by communes and rural business districts.

Taulukko 5. Pellonmetsityksen määrä ja osuus peltopinta-alasta kunnittain ja maaseutuelinkeinopiireittäin vuosina 1990-95.

Commune <i>Kunta</i>	Area of field afforestation, 1990-1995, ha ¹ <i>Pellonmetsityksen määrä, 1990-1995, ha¹</i>	Proportion of field area afforested, % <i>Peltopinta-alasta metsitetty, %</i>
<i>Etelä-Pohjanmaa RBD - Etelä-Pohjanmaan MEP</i>		
Alahärmä	92	0.6
Evijärvi	237	4.5
Jurva	90	1.3
Kauhava	62	0.5
Kurikka	91	0.7
Laihia	52	0.5
Lehtimäki	146	4.0
Peräseinäjoki	189	2.2
Vimpeli	113	2.6
Σ	1072	1.3
<i>Mikkeli RBD - Mikkelin MEP</i>		
Enonkoski	179	9.2
Hirvensalmi	221	7.1
Juva	661	6.6
Kangaslampi	241	14.5
Pertunmaa	281	7.4
Pieksämäen mlk.	458	8.4
Ristiina	343	7.6
Sulkava	446	10.5
Σ	2830	8.2
<i>Kuopio RBD - Kuopion MEP</i>		
Karttula	234	9.1
Maaninka	276	3.1
Nilsjä	571	5.7
Rautalampi	294	5.8
Tervo	269	9.0
Vehmersalmi	353	9.4
Vieremä	233	2.3
Σ	2230	5.1

¹Source: Forestry Development Centre Tapio - ¹Lähde: Metsätalouden kehittämiskeskus Tapio

Table 6. Relationship between the intensity of field afforestation 1990-95 and selected factors that effect field afforestation (Spearman rank correlation) All communes (N=24).

Taulukko 6. Pellonmetsitysintensiteetin (vuosina 1990-95) suhde eräisiin pellonmetsitykseen vaikuttaviin tekijöihin (Spearmanin korrelaatio). Kaikki tutkimuskunnat mukana (N=24).

Attribute <i>Tekijä</i>	Coefficient <i>Kerroin</i>	Explanation <i>Selitys</i>
Change in the number of active farms, 1990=100 <i>Aktiivitulojen määrän muutos, 1990=100</i>	-.728**	A decrease in the number of active farms is strongly related to an increased in the intensity of field afforestation <i>Aktiivitulojen määrän lasku on vahvasti sidoksissa pellonmetsitysintensiteetin kasvuun</i>
Change in the average area of fields on active farms, 1990=100 <i>Keskimääräisen peltopinta-alan muutos aktiivituloilla, 1990=100</i>	-.800**	A increase in the area of fields is strongly related to a low intensity of field afforestation <i>Peltopinta-alan kasvu on vahvasti sidoksissa vähäiseen pellonmetsitysintensiteettiin</i>
Proportion of commune under fields, 2000, % <i>Peltopinta-alan osuus kunnan pinta-alasta, 2000, %</i>	-.898**	The greater the proportion of a commune's area under fields, the less is the likelihood of field afforestation; and vice versa. <i>Mitä suurempi osa kunnan pinta-alasta on peltoa, sitä pienempi on pellonmetsityksen todennäköisyys ja päinvastoin.</i>
Proportion of dairy farms, 2000, % <i>Maitotilojen osuus, 2000, %</i>	.556**	The greater the proportion of dairy farms in a commune the greater is the intensity of field afforestation <i>Mitä suurempi osuus tiloista kunnassa on maitotiloja, sitä suurempi on pellonmetsitysintensiteetti</i>
Proportion of grain farms, 2000, % <i>Viljatilojen osuus, 2000, %</i>	-.648**	The greater proportion of grain (arable) farms in a commune the less is the intensity of field afforestation <i>Mitä suurempi osuus kunnan tiloista on viljatioja, sitä pienempi on pellonmetsitysintensiteetti</i>
Commune population density, 2000, inh/km ² <i>Kunnan asukastiheys, 2000, as/km²</i>	-.733**	The lower is a commune's population density, the greater is the intensity of field afforestation <i>Mitä pienempi on kunnan asukastiheys, sitä suurempi on pellonmetsitysintensiteetti</i>
Population change 1990-2000, 1990=100 <i>Väestönmuutos 1990-2000, 1990=100</i>	-.265	(Non-significant) A falling population is only weakly related to an increase in the intensity of field afforestation <i>(Ei merkitsevä) Väestömäärän pienentyminen on vain heikosti yhteydessä pellonmetsitysintensiteetin kasvuun</i>
Average age of farming population, 2000, years <i>Viljelijäväestön keskimääräinen ikä, 2000, vuotta</i>	.436*	The higher is the average age of the farming population the greater is the intensity of field afforestation <i>Mitä korkeampi viljelijäväestön keskimääräinen ikä, sitä suurempi on pellonmetsitysintensiteetti</i>
Annual average working unit in agriculture/farm, 2000 <i>Maatalouteen käytetty henkilötyövuosien määrä, keskim./tila, 2000</i>	.446*	The higher is the farm labour input (AWU) the greater is the intensity of field afforestation <i>Mitä korkeampi tilan työvoimapanos, sitä suurempi on pellonmetsitysintensiteetti</i>

** = Significant at the 0.01 level - *Merkitsevä 0,01 tasolla*

* = Significant at the 0.05 level - *Merkitsevä 0,05 tasolla*

4 Field afforestation as perceived

4.1 Perceptions of field afforestation intensity

Farmers

The investigation addresses the question: *Has field afforestation reached the stage where it is in itself a threat to the development of viable rural communities?* To answer this question is necessary to determine how local farmers perceive the level of field afforestation in their locality, and that is the primary task of this preliminary report.

The farmers' were asked about the frequency of field afforestation, natural regeneration on fields, and land clearance activities in the locality of their farm. Table 7 shows clear differences in the responses between rural business districts. In Etelä-Pohjanmaa RBD, only 9% of the farmers perceive field afforestation to be common, whereas field afforestation is perceived to be common by 22% of farmers in Kuopio RBD and 38% of the farmers in Mikkeli RBD. Thus, farmers in Kuopio and Mikkeli RBDs are perceiving greater field afforestation activity just as they should, as field afforestation is more common. At the commune level, a greater variance in perceptions occur (Figure 2). However, the reasons for these variations in perceptions at the commune levels are largely dependent upon the intensity of field afforestation: the Spearman rank correlation between the average responses of farmers per commune concerning their perception of how common is field afforestation and the actual intensity of field afforestation in their commune is very high at 0.865 (significant at the .000-level). This correlation result indicates that farmers' possess a good knowledge of their environment and are making accurate observations.

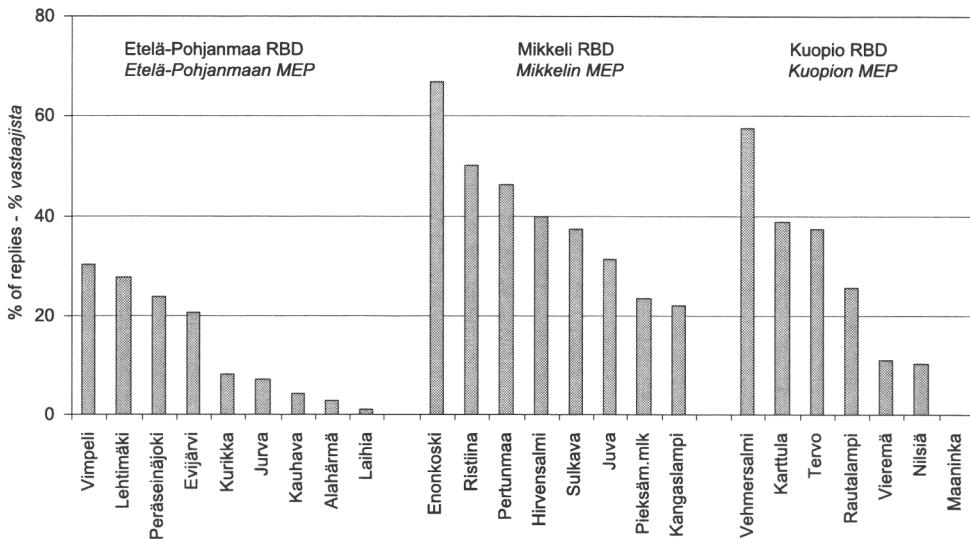
Concerning natural forest regeneration on former agricultural land, 21% of the farmers in Mikkeli RBD report that this activity is common, figures for Etelä-Pohjanmaa and Kuopio RBDs being 12% and 17% respectively. Nearly half of the

Table 7. Farmers' opinions on how common field afforestation is in their locality. Percentages by rural business districts and communes.

Taulukko 7. Maanviljelijöiden näkemys pellonmetsityksen yleisyydestä kotipaikkakunnalla. Vastaukset prosentteina maaseutuelinkeinoireittään.

RBD <i>MEP</i>	Common <i>Yleistä</i>	Uncommon <i>Melko harvinaista</i>	Nonexistent <i>Olematonta</i>	Cannot say <i>Ei osaa sanoa</i>	Total <i>Yhteensä</i>	N <i>N</i>
Etelä-Pohjanmaa	8.9	50.2	37.8	3.0	100.0	436
Mikkeli	37.6	54.3	6.8	1.3	100.0	234
Kuopio RBD	22.2	57.8	18.9	1.1	100.0	270
Total - <i>Yhteensä</i>	19.9	53.4	24.7	2.0	100.0	940

$\chi^2 = 133.9$ df. 6 p = 0.00



$\chi^2 = 293.3$ df. 69 p = 0.00

Figure 2. Proportion of farmers who consider that field afforestation in their vicinity is too common, by communes and rural business districts.

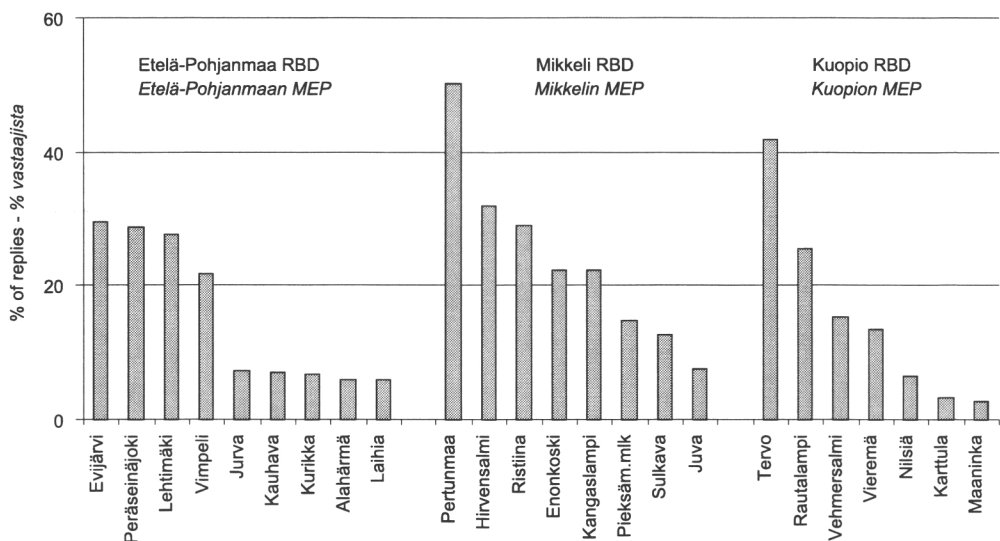
Kuva 2. Maanviljelijät, joiden mielestä pellonmetsitys on omalla lähiseudulla liian yleistä, % kaikista vastanneista maanviljelijöistä kunnittain ja maaseutuelinkeinoireittäin.

farmers in Etelä-Pohjanmaa RBD report that process is either uncommon (42%) or non-existent (42%). In Kuopio RBD, the majority of farmers consider that natural forest regeneration on former fields is either uncommon (46%) or non-existent (35%), and in Mikkeli RBD 47% and 28% respectively. That said, there are considerable commune-level variations in perceived natural regeneration on abandoned fields, even in Etelä-Pohjanmaa RBD, where from 20 to 30% of farmers in the communes of Evijärvi, Lehtimäki, Peräseinäjoki and Vimpeli report that natural regeneration on abandoned land is common (Figure 3). In the Mikkeli RBD, 50% of the farmers in the Pertunmaa sample report that the natural afforestation of abandoned land is common, over 30% in Hirvensalmi, and over 20% in Enonkoski, Kangaslampi and Ristiina. In the Kuopio RBD, the farmers perceive natural regeneration of abandoned farmland to be common in Tervo and Rautalampi.

Advisors

Because the number of advisors at the commune-level was unavoidably restricted, meaningful cross-tabulation analysis and the calculation of percentages could not be made. Such figures can best be presented at the rural business district level, where aggregation permits a larger number of observations. Table 8 shows that, on average, 42% of advisors perceive that field afforestation activities are common in their commune. The greatest number of advisors that perceive field afforestation to be common is found in Kuopio RBD communes, and the least in Etelä-Pohjanmaa RBD communes.

A comparison of the figures in Tables 7 and 8, indicates that farmers are less likely to perceive field afforestation to be “common” (average 19% for farmers compared to 42%



$\chi^2 = 185.5$ df. 69 $p = 0.00$

Figure 3. Proportion of farmers who consider that natural regeneration of abandoned fields in their vicinity is too common, by communes and rural business districts.

*Kuva 3. Maanviljelijät, joiden mielestä hylättyjen peltojen luontainen metsätyminen on omalla lähiseudulla liian yleistä, % kaikista vastanneista maanviljelijöistä kunnittain ja maaseutuelinkeino-
piireittäin.*

for the advisors). The Spearman rank correlation between a commune's actual afforestation activities (proportion of fields afforested) and advisors' perceptions is 0.473 (significant at the .05-level), which is rather lower than the correlation for farmers (which was significant at the .000-level). In other words, farmers seem to have more accurate perceptions of the intensity of field afforestation in their locality than do their advisors. Testing to see whether this relative lack of accuracy of perception might be due to advisors' lack of experience (i.e. short time in professional post), led to low Chi-square values: that is to say, there was no significant relationship between perception and experience.

Table 8. Advisors' opinions on how common field afforestation is in their locality. Percentages by rural business district.

*Taulukko 8. Neuvojen näkemys pellonmetsityksen yleisyydestä työpaikan sijaintikunnassa, maaseutuelinkeino-
piireittäin.*

RBD MEP	Common Yleistä	Uncommon Melko harvinaista	Nonexistent Olematonta	Cannot say Ei osaa sanoa	Total Yhteensä	N N
Etelä-Pohjanmaa	31.8	50.0	13.6	4.5	100.0	22
Mikkeli	45.0	55.0	0.0	0.0	100.0	20
Kuopio	52.6	36.8	10.5	0.0	100.0	19
Total - Yhteensä	42.6	47.5	8.2	1.6	100.0	61

$\chi^2 = 6.1$ df. 6 $P = 0.41$

That advisors perceptions of the intensity of field afforestation are not very accurate has implications for rural development in such cases where advisors base their recommendations on misconceptions of the level of field afforestation in their area. The cause of this difference in perception will have to await further analysis. The result is not entirely surprising, however, given that advisors are themselves interested parties in the rural political economy and perceive the rural space according to their own personal and professional commitments (e.g. Lefebvre 1974). This has been demonstrated in a previous study of advisors attitudes to field afforestation (Selby and Petäjistö 1995, Petäjistö et al. 1994b).

4.2 Perceptions of the landscape effects of field afforestation

Farmers

Rural vitality is partly dependent upon the ability of rural inhabitants to perceive opportunities for making their living both now and in the future. If such opportunities are not perceived because they are missing, or at least not readily observable in the rural environment, then rural vitality can be considered to be compromised. Rural vitality also depends upon people wishing to live in the countryside: an attribute that is at least partially independent of having a rural livelihood, but also relates to people's desire to live in an attractive and rich environment. Thus the quality of the rural environment, and especially the landscape, can play an important role in contributing to rural vitality. Extensive field afforestation can lead to significant changes in the rural landscape (Karjalainen and Komulainen 1997), and such changes may not be acceptable to local inhabitants (Komulainen 1998). Often, people will accept a given landscape, even if visually flawed, but dislike *changes* to familiar landscapes. It is this mechanism that leads to opposition to land use change, and especially to afforestation, in many regions of Europe (Wiersum and Elands 2002).

Farmers' in the present investigation were asked to assess the degree of landscape change brought about by field afforestation and the natural regeneration of abandoned farmland. With respect to field afforestation, few farmers (2.3%) perceive *very noticeable changes* in the landscape (Table 9). *Noticeable changes*, on the other hand, are readily perceived, especially in Mikkeli RBD, where 20% of the farmers reported such effects. Nearly a quarter of the farmers in Mikkeli RBD perceive noticeable or very noticeable changes in the landscape resulting from field afforestation. *Noticeable changes* are perceived by few farmers in Kuopio RBD (8%) and even less by farmers in Etelä-Pohjanmaa RBD (5%). The communes with the greatest perceived changes are Evijärvi and Lehtimäki in Etelä-Pohjanmaa RBD, Enonkoski and Kangaslampi in Mikkeli RBD, and Tervo and Vehmersalmi in Kuopio RBD (Figure 4). To a large extent, the results concerning the landscape effects of the natural regeneration of abandoned fields (Table 9) are similar to those for field afforestation.

Table 9. Farmers' perceptions of landscape changes resulting from a) field afforestation and b) natural regeneration on abandoned fields, by rural business districts.

Taulukko 9. Maanviljelijöiden näkemys a) pellonmetsityksen ja b) peltojen luontaisen metsityksen aiheuttamasta maiseman muutoksesta, maaseutuelinkeinoireittäin.

RBD MEP	Major change <i>Erittäin suuri muutos</i>	Noticeable change <i>Suuri muutos</i>	Minor change <i>Lievä muutos</i>	No observable change <i>Olematon muutos</i>	Cannot say <i>Ei osaa sanoa</i>	Total <i>Yhteensä</i>	N <i>N</i>
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a) Field afforestation - *Pellonmetsitys*

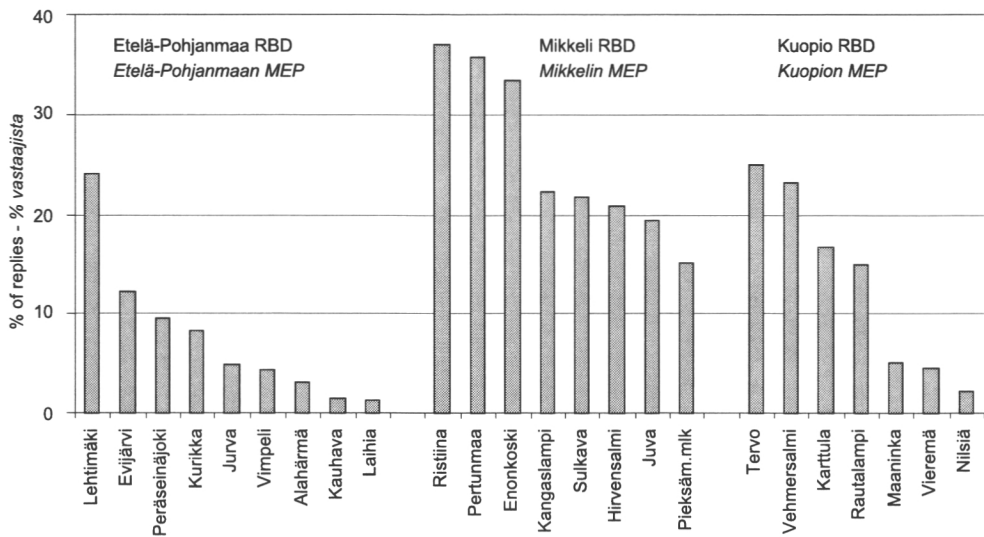
Etelä-Pohjanmaa	1.4	4.6	32.7	58.7	2.6	100.00	431
Mikkeli	3.9	20.8	50.6	21.6	3.0	100.0	231
Kuopio	2.2	8.1	56.7	31.9	1.1	100.0	270
Total - <i>Yhteensä</i>	2.3	9.7	44.1	41.7	2.3	100.0	932

$\chi^2 = 131.0$ df.8 p = 0.00

b) Natural regeneration on abandoned fields - *Luontainen metsittyminen*

Etelä-Pohjanmaa	1.6	3.7	32.9	58.0	3.7	100.0	431
Mikkeli	2.2	11.3	47.6	34.2	4.8	100.0	231
Kuopio	1.9	10.4	46.3	39.6	1.9	100.0	270
Total - <i>Yhteensä</i>	1.8	7.5	40.5	46.8	3.4	100.0	932

$\chi^2 = 52.6$ df 8 p = 0.00



$\chi^2 = 269.1$ df. 92 p = 0.00

Figure 4. Proportion of farmers who perceived noticeable or very noticeable changes in their local landscape due to field afforestation, by communes and rural business districts.

Kuva 4. Maanviljelijät, joiden mielestä pellonmetsitys on aiheuttanut huomattavia tai erittäin huomattavia muutoksia kotipaikkakunnan maisemassa, % kaikista vastanneista maanviljelijöistä kunnittain ja maaseutuelinkeinoireittäin.

Advisors

On average, nearly one fifth of the advisors perceive that at least a *noticeable change* has occurred in the landscape as a result of field afforestation activities (Table 10). The greatest proportion of advisors perceiving such changes is found in Mikkeli RBD (30%) and the lowest in Etelä-Pohjanmaa RBD (4%). The proportions are considerably higher than in the case of farmers.

When considering field afforestation intensity, the accuracy of farmers' and advisors' perceptions as measured by Spearman rank correlation, was found to differ considerably. In the case of landscape change brought about by field afforestation, the commune mean scores of the farmers' and advisors' perceptions both correlate highly significantly with the actual intensity of field afforestation. The Spearman rank correlation is .805 for farmers (significant at the .000-level) and .651 for advisors (significant at the .001 level). Both groups are therefore accurately perceiving landscape changes brought about by field afforestation.

4.3 Tolerance of field afforestation

Farmers

The analyses above have shown that in the communes of the Mikkeli RBD, and to some extent the Kuopio RBD, levels of field afforestation have been accurately perceived by farmers to be high, and to have had significant affects on the rural landscape. However, from the standpoint of rural vitality, it is pertinent to know to what extent farmers consider field afforestation levels have reached the *boundaries of acceptability*. Farmers were therefore asked to what extent they would accept

Table 10. Advisors' perceptions of landscape changes resulting from field afforestation, by rural business districts.

Taulukko 10. Neuvojien näkemys pellonmetsityksen aiheuttamasta maiseman muutoksesta, maaseutuelinkeinoalueilla.

RBD <i>MEP</i>	Major change <i>Erittäin suuri muutos</i>	Noticeable change <i>Suuri muutos</i>	Minor change <i>Lievä muutos</i>	No observable change <i>Olematon muutos</i>	Cannot say <i>Ei osaa sanoa</i>	Total <i>Yhteensä</i>	N <i>N</i>
Etelä- Pohjanmaa	0.0	4.5	45.5	50.0	0.0	100.0	22
Mikkeli	0.0	30.0	55.0	15.0	0.0	100.0	20
Kuopio	0.0	21.1	68.4	10.5	0.0	100.0	19
Total <i>Yhteensä</i>	0.0	18.0	55.7	26.2	0.0	100.0	61

$\chi^2=12.3$ df. 4 p = 0.015

more field afforestation in their locality, or whether the current levels were acceptable or not (Table 11). On average, 9% of the farmers in both Mikkeli and Kuopio RBDs consider that current amounts of field afforestation are *too high*. In the Etelä-Pohjanmaa RBD communes, where field afforestation is less common, only 4% of the farmers consider the amounts to be too high. Variation again occurs with the region, and 9% of the farmers in Jurva consider that the amount of field afforestation is too high (Figure 5). In Mikkeli RBD, nearly one quarter of the farmers in Enonkoski consider the amount of field afforestation to be too high - although some care has to be taken in this interpretation because of the low number of observations (n=9). In the Kuopio RBD, Karttula (n=18) farmers also showed notable intolerance to current levels of field afforestation

Nearly two thirds of the farmers in the Mikkeli and Kuopio RBD communes considered current levels of field afforestation to be *within acceptable limits*, while in Etelä-Pohjanmaa RBD the figure was somewhat less (47%) because in this district 22% of the farmers would be ready to accept *more field afforestation* in their vicinity. Conversely, in the Mikkeli and Kuopio RBD communes, only 14% and 17% of farmers respectively would be prepared to accept more field afforestation. A very similar set of results is obtained with respect to farmers' tolerance of the current levels of natural regeneration of abandoned fields (Table 11).

Nearly one quarter of the farmers could not give an opinion as to the acceptability of the levels of field afforestation that have taken place. This contrasts markedly with the other results in this survey, in which farmers' opinions have been very clear, with the "cannot say" option rarely selected. This uncertainty is not due to lack of knowledge of the current levels of field afforestation, as the above correlation analyses have demonstrated that farmers are very aware of their environment. It may be, as found in earlier studies (e.g. Selby and Petäjistö 1994), that while there is often resistance to field afforestation in the farming community, the abandonment of productive land is also regarded with disapproval.

Advisors

Advisors' tolerance of field afforestation is shown in Table 12. Proportionally more advisors in Mikkeli RBD consider that current levels of field afforestation are too high, and fewer of these same advisors are of the opinion that more field afforestation would be acceptable. Advisors in Kuopio and Etelä-Pohjanmaa RBDs are more amenable to more field afforestation in their regions. The figures are very similar to those for farmers.

The Spearman rank correlation between the proportion of fields afforested and the commune means of the farmers' and advisors' tolerance of field afforestation shows very similar results: .69 for farmers (significant at the .000-level) and .561 for advisors (significant at the .004-level). Thus, the higher the proportion of fields afforested in a commune the stronger the opinion that enough is enough.

Table 11. Farmers' acceptance of the current levels of a) field afforestation and b) natural regeneration on abandoned fields, by rural business districts.

Taulukko 11. Maanviljelijöiden näkemys a) pellonmetsityksen ja b) peltojen luontaisen metsittymisen määrän tämän hetkisestä laajuudesta kotipaikkakunnalla, maaseutuelinkeinoireittain.

RBD MEP	Too much <i>Liian suuri</i>	Within acceptable limits <i>Sopivuuden rajoilla</i>	More would still be acceptable <i>Vielä lisättävissä</i>	Cannot say <i>Ei osaa sanoa</i>	Total <i>Yhteensä</i>	NN
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a) Field afforestation - *Pellonmetsitys*

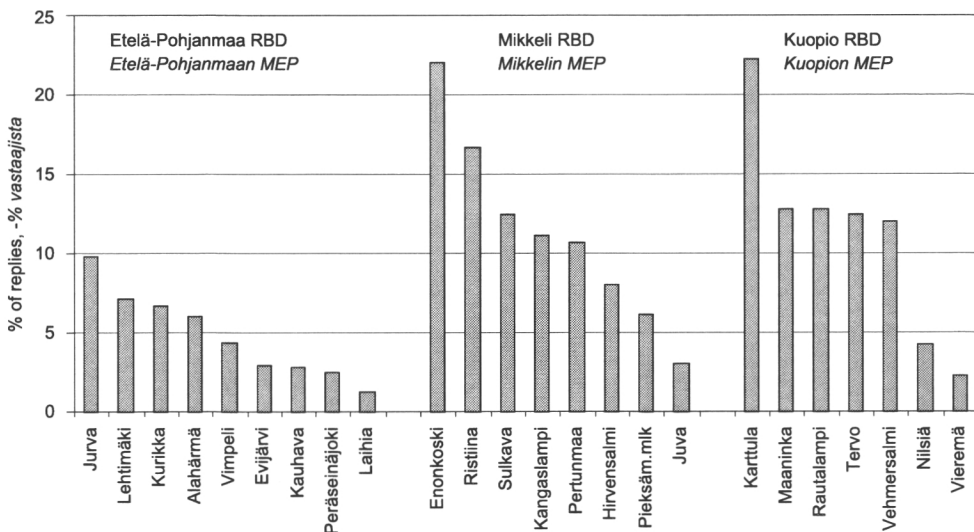
Etelä-Pohjanmaa	4.4	47.0	22.4	26.2	100.0	428
Mikkeli	9.1	64.5	13.9	12.6	100.0	231
Kuopio	9.3	62.5	17.5	10.8	100.0	269
Total - <i>Yhteensä</i>	7.0	55.8	18.9	18.3	100.0	928

$\chi^2 = 51.9$ df 6 p = 0.00

b) Natural regeneration on abandoned fields - *Luontainen metsittyminen*

Etelä-Pohjanmaa	8.2	44.6	16.7	30.5	100.0	426
Mikkeli	12.9	57.9	10.7	18.5	100.0	233
Kuopio	11.2	56.1	11.9	20.8	100.0	269
Total - <i>Yhteensä</i>	10.2	51.3	13.8	24.7	100.0	928

$\chi^2 = 26.5$ df 6 P = 0.00



$\chi^2 = 123.95$ df. 69 p = 0.00

Figure 5. Proportion of farmers who consider that the current level of field afforestation in their farm's vicinity is too high, by communes and rural business districts.

Kuva 5. Maanviljelijät, joiden mielestä nykyinen pellonmetsityksen määrä on oman tilan ympäristössä liian suuri, % kaikista vastanneista maanviljelijöistä kunnittain ja maaseutuelinkeinoireittain.

Table 12. Advisors' acceptance of current levels of field afforestation, by rural business districts. *Taulukko 12. Neuvojen näkemys pellonmetsityksen laajuuden tämän hetkisestä tasosta työpaikan sijaintikunnassa, maaseutuelinkeinoireittäin.*

RBD <i>MEP</i>	Too much <i>Liian suuri</i>	Within acceptable limits <i>Sopivuuden rajoilla</i>	More would still be acceptable <i>Vielä lisättävissä</i>	Cannot say <i>Ei osaa sanoa</i>	Total <i>Yhteensä</i>	N <i>N</i>
Etelä-Pohjanmaa		45.5	40.9	13.6	100.0	22
Mikkeli	10.0	70.0	15.0	5.0	100.0	20
Kuopio	5.3	52.6	42.1		100.0	19
Total <i>Yhteensä</i>	4.9	55.7	32.8	6.6	100.0	61

$\chi^2 = 9.2$ df.6 p = 0.16

4.4. Effects of field afforestation on rural development and enterprise

Farmers were asked to assess the extent to which field afforestation in their vicinity had effected the development of farming, forestry and enterprise. The question may appear to be rather naïve in its basic form, as reported here, but it is nevertheless difficult to answer as it implies a level of information that farmers cannot be expected to have unless they actively follow developments in their commune.

Many farmers consider that field afforestation is detrimental to agriculture (Table 13); a not unexpected result as, by definition, the two land uses are mutually exclusive. Indeed, it is already understood that field afforestation is a response to weaknesses in agriculture (e.g. Selby 1974, 1980, Selby and Petäjäistö 1994). Nevertheless, between every fifth and sixth farmer consider field afforestation to have been beneficial or very beneficial for farming. Without further analysis it can only be assumed that the reason for this is the benefits considered to accrue to active farms (the target of the sample) from the rationalisation of agricultural typified by the closure (and afforestation) of non-viable farms. That said, one third of the farmers are unable to say whether field afforestation has been beneficial or detrimental. The result is interesting, given the farmers' clear opinions, and proven accuracy of observation, concerning other aspects of field afforestation in their vicinities.

Field afforestation is seen to be beneficial to forestry, with almost no detrimental effects (Table 13). This is understandable, given that field afforestation will enlarge the forest estate. That said, over one quarter of the farmers remain unsure about any effects. The reason for this is not clear at this juncture, but may relate to known problems concerning the establishment of forest stands on former fields, both with respect to the success of the planting or with respect to the doubtful timber quality achieved (see Hytönen and Polet 1995, Siipilehto 2001).

Concerning the perceived effect of field afforestation on other enterprises in the vicinity of the respondents' farms, over three quarters of the recipients remain uncertain and did not give an opinion. Clearly, farmers are not aware of, or have not come across, or have not thought about the consequences of field afforestation outside of forestry or farming. Every seventh farmer nevertheless consider field afforestation to have had positive effects on rural enterprise. Whether these farmers have linked field afforestation to their own supplementary enterprises (e.g. in association with nature-based tourism, or whether these farmers plan to develop into a forest-farm), a fact that might influence their opinion, is not analysed at this juncture.

When asked to consider whether or not field afforestation, as it has been practised, is in conflict with the aims of rural development policies, farmers' answers were very mixed. Just over half of the farmers (54%) consider that no conflict exists, while the remaining farmers are split between perceiving a conflict (21%) and not being able to give an opinion (24%). Farmers in Etelä-Pohjanmaa RBD are least aware of any conflict; an expected result given that afforestation is less extensive in that district. Otherwise, the difference between districts was small, and non significant. This result is surprising, given the extensive field afforestation in the communes of Mikkeli RBD.

Table 13. Farmers' assessment of the affects of field afforestation on a) farming and b) forestry, by rural business districts.

Taulukko 13. Maanviljelijöiden arvio pellonmetsityksen vaikutuksesta a) maatalouteen ja b) metsätalouteen, maaseutuelinkeinoireittäin.

RBD <i>MEP</i>	Very beneficial effects <i>Erittäin myön- teinen</i>	Positive beneficial <i>Myönteinen</i>	Detrimental effects <i>Kielteinen</i>	Very detrimental effects <i>Erittäin kielteinen</i>	Cannot say <i>Ei osaa sanoa</i>	Total <i>Yhteensä</i>	N <i>N</i>
a) Farming - <i>Maatalous</i>							
Etelä- Pohjanmaa	2.1	20.7	38.6	5.6	32.9	100.0	425
Mikkeli	0.9	13.0	48.7	3.9	33.5	100.0	230
Kuopio	2.2	17.5	41.0	6.3	32.8	100.0	268
Total - <i>Yhteensä</i>	1.8	17.9	41.8	5.4	33.0	100.0	923
$\chi^2 = 11.7$ df.8 Pp = 0.167							
b) Forestry - <i>Metsätalous</i>							
Etelä- Pohjanmaa	8.9	55.3	3.8	0.9	31.1	100.0	425
Mikkeli	12.2	61.3	3.0	0.4	23.0	100.0	230
Kuopio	17.3	58.3	2.6	0.4	21.4	100.0	266
Total - <i>Yhteensä</i>	12.2	57.7	3.3	0.7	26.3	100.0	921
$\chi^2 = 19.1$ df.8 p = 0.015							

Of the farmers who report a conflict between field afforestation, most regard the conflict to be minor, and less than 10% consider the conflict to be major. While the variance between districts is non significant, the variance that exists is interesting, as Etelä-Pohjanmaa and Kuopio RBDs have a larger share of farmers reporting major conflicts (8% and 9% respectively), whereas in Mikkeli RBD only 3% report major conflicts. It may be that conflicts between field afforestation and agricultural policy are more readily perceived in the two districts in which agriculture is more important than in Mikkeli RBD where agriculture is subservient to forestry. A full explanation will have to await further analyses.

Advisors

In the context of the quantity of field afforestation and its effects on the landscape, advisors' show moderate tolerance of the levels of field afforestation currently achieved (see Table 12). Some 55% are of the opinion that current levels are within acceptable limits and nearly one third are prepared to accept more. Examining advisors' views from the standpoint of public funding for field afforestation (grant-aid and premiums) yields a very different picture, however (Table 14). Over two thirds of the advisors are of the opinion that public funding for field afforestation should be *subject to conditions*, with only 10% believing it should be unconditional. Nearly one quarter of the advisors are against the public funding of field afforestation altogether. In Mikkeli RBD, where forests are extensive and where the levels of field afforestation are very high, 30% of the advisors take a prohibitive view of grant-aid for field afforestation and the remaining 70% believe it should be conditional. In the more agricultural districts of Etelä-Pohjanmaa and Kuopio RBDs, more advisors believe grant-aid should be unconditional, while in Etelä-Pohjanmaa, significantly fewer advisors take a totally negative position.

The figures revealed in Table 14 are significant because advisors are strongly of the opinion that they wield strong influence over farmers in their field afforestation decision-making process. Some 70% of the advisors consider that their influence is considerable or very considerable, with little difference between the three rural business districts (Etelä-Pohjanmaa 77%, Mikkeli 65%, and Kuopio 68.5%).

Most field afforestation in Finland has been carried out by farmers or other private landowners using public funds. Various public funds were available for field afforestation during the period 1969–1995, after which public funding was administered from EU funds. Few restrictions prevailed, and so applications for permits to afforest fields were rarely rejected (Mustonen 1990). However, as the effects of field afforestation become increasingly noticeable, the need for broadening the preconditions for field afforestation began to be considered, especially from the standpoints of the rural landscape (e.g. Olin 1992, Antikainen and Tolonen 1994, Karjalainen and Komulainen 1997) and local development (e.g. Selby 1990, Komulainen 1998). A previous study of advisors' attitudes to field afforestation (Petäjistö et al. 1994, Selby and Petäjistö 1995) revealed a strong local dimension in advisors commitment to or rejection of field afforestation (most advisors were less keen on field afforestation in their own commune), but rural development issues were

Table 14. Advisors' opinions as to whether farmers should receive grant-aid for field afforestation. Percents, by rural business districts.

Taulukko 14. Neuvojien näkemys maanviljelijöille maksettavista palkkioista tai muista tuista peltojen metsitykseen. Prosentteina maaseutuelinkeinopiireittäin.

RBD <i>MEP</i>	Should not be paid <i>Ei tulisi maksaa</i>	Yes, with preconditions <i>Kyllä, mutta ei ehdoitta</i>	Yes, no preconditions <i>Kyllä, vapaasti</i>	Total <i>Yhteensä</i>
Etelä-Pohjanmaa	13.6	72.7	13.6	100.0
Mikkeli	30.0	70.0	0.0	100.0
Kuopio	26.3	57.9	15.8	100.0
Total - <i>Yhteensä</i>	23.0	67.2	9.8	100.0

$N=61$, $\chi^2 = 4.7$ d.f. 4, $p = 0.50$

not discussed at that time. The present investigation therefore asked advisors their opinions on whether or not preconditions should apply to permissions for grant-aided field afforestation.

The high proportion of advisors supporting preconditions in the various fields is perhaps the most striking result revealed by Table 15. The differences between the rural business districts are also surprisingly small (none are statistically significant). The general concern over the future of agriculture and forestry is understandable, given that these are the traditional basis of rural society and economy. That such a high proportion of advisors place landscape preconditions on field afforestation is both surprising and interesting. First, the result is not fully consistent with advisors' perceptions of the landscape effects of field afforestation (Table 10), although it does reflect their perception of the local level of field afforestation (Table 8). Advisors concerns over the future of the rural landscape as a result of field afforestation is, however, not in question. There is much less concern over the effects of field afforestation on biodiversity, with only a quarter of advisors believing that their should be preconditions in this area.

Concerning the effect of field afforestation on local business development, somewhat more than a quarter of the advisors believe that this must be considered when deciding on the public funding of field afforestation. That said, advisors' understanding of the effects of field afforestation on enterprise in specific branches of the rural economy proved to be variable. As in the case of farmers, advisors consider that field afforestation must benefit forest farms and detract from farming (Table 16). However, the negative effects on farming are perceived to be much greater in Etelä-Pohjanmaa RBD than in the more forested areas of Mikkeli and Kuopio RBDs. Advisors in the latter two regions would appear to recognise the need for and benefits from the local rationalisation of the farm structure that has taken place, as well as the economic role that is played by forests and forestry in those regions.

Advisors also recognise the benefits to forest service enterprises, e.g. enterprises offering felling, planting, and other forest contracting services and tree nurseries,

Table 15. Advisors' opinions concerning whether preconditions should apply to grant-aided field afforestation. Percentage of advisors agreeing with preconditions, by rural business district. *Taulukko 15. Niiden neuvojien osuus (%), joiden mielestä seuraavat seikat tulisi ottaa huomioon myönnettäessä lupia yhteiskunnan rahoituksella tapahtuvaan pellonmetsitykseen.*

Area of precondition <i>Vaikutusalue</i>	Etelä-Pohjanmaa RBD <i>Etelä-Pohjanmaan MEP</i>	Mikkeli RBD <i>Mikkelin MEP</i>	Kuopio RBD <i>Kuopion MEP</i>	Total <i>Kaikki</i>
Future effect on local agriculture <i>Vaikutus paikallisen maatalouden tulevaisuuteen</i>	72.7	89.5	66.7	76.3
Future effect on local forestry <i>Vaikutus paikallisen metsätalouden tulevaisuuteen</i>	45.5	47.4	44.4	45.8
Future effect on local biodiversity <i>Vaikutus alueen biodiversiteettiin</i>	22.7	22.2	27.8	24.1
Future effect on local rural landscape <i>Vaikutus alueen maaseutumaisemaan</i>	63.6	84.2	61.1	69.5
Future effect on local business development <i>Vaikutus yritysten kehitysmahdollisuuksiin paikkakunnalla</i>	31.8	26.3	22.2	27.1

from field afforestation activities and the concomitant increase in the forest domain, as well as heating enterprises, i.e. enterprises that service wood-based heating systems (harvesting and chipping small-sized timber and maintaining the heating appliances). Nature-based enterprises and tourism are, on the other hand, considered to suffer from field afforestation activities. In particular, advisors in the Mikkeli RBD seem particularly concerned about the negative effect of field afforestation on tourist enterprises.

A very large proportion of advisors claim not to be able to say what effect field afforestation has on enterprise in their area. Nearly 70% of the advisors could not say whether field afforestation concerns nature-based enterprise development, while nearly 80% could not say whether field afforestation affects tourism. What makes this result noteworthy is the fact that many advisors (32%) considered that more field afforestation

Table 16. Advisors' assessment of the affects of field afforestation on selective branches of enterprise, by rural business districts.
Taulukko 16. Neuvojien arvio pellonmetsityksen vaikutuksesta seuraaville yritysaloille, maaseutuelinkeinoiireittäin.

	Positive or very positive effect <i>Myönteinen tai erittäin myönteinen</i> (a-d)				Negative or very negative effect <i>Kielteinen tai erittäin kielteinen</i> (e-h)				Cannot say <i>Ei osaa sanoa</i>	Total <i>Yhteensä</i>
	(a)	(b)	(c)	(d = a+b+c) All	(e)	(f)	(g)	(h = e+f+g) All	(i) All	(j = d+h+i) Total % (N)
Enterprise <i>Toimiala</i>	(a)	(b)	(c)	(d = a+b+c) All	(e)	(f)	(g)	(h = e+f+g) All	(i) All	(j = d+h+i) Total % (N)
Agricultural enterprise <i>Maatalousyrittäjät</i>	40.9	25.0	36.8	34.4	18.2	55.0	31.6	34.4	31.1	100.0 (20)
Forest farm enterprise <i>Metsätalousyrittäjät</i>	54.5	80.0	73.7	68.9					31.1	100.0 (61)
Forest service enterprise <i>Metsäpalveluyrittäjät</i>	59.0	70.0	63.2	63.9					36.1	100 (61)
Heating enterprise <i>Lämpöyrittäjät</i>	36.4	45.0	36.8	39.4					60.7	100.0 (61)
Nature-based enterprise <i>Luontoyrittäjät</i>	38.1	15.0	21.1	25.0		10.0	10.5	6.7	68.3	100 (60)
Tourism enterprise <i>Matkailuyrittäjät</i>	18.2	10.0	10.5	13.1		25.0	5.3	9.8	77.0	100.0 (61)

would still be acceptable (Table 12), and nearly a fifth report that noticeable landscape changes already been brought about by field afforestation (Table 10). This apparent lack of advisors' understanding of the effects of field afforestation on other sectors of the local economy must be a cause for concern. It could be argued that advisors who lacked professional experience were not able to give accurate replies. Testing the relationship between length of experience and advisors' assessments produced low Chi-square values and probability figures between 0.5 and 0.8 depending on the branch of enterprise, i.e. there was no significant relationship.

4.5 Local representations concerning field afforestation

A noticeable trend in rural development policy in Europe is the encouragement of bottom-up initiatives. This trend is clearly observable in Finland's latest rural development programme (Maaseutupoliittinen kokonaisuohjelma 2000–2004). Similarly, forest policy is undergoing devolution from the national to the regional level. This can be observed, at least partially, in Finland's National Forest Programme. This has opened forest policy, with its rural development implications, to the representations of a wider range of participants and interested parties than was previously the case (Hänninen and Ollonqvist 2002).

As field afforestation affects the land use and landscape of a locality, and therefore may affect future livelihoods, the issue of representation in the field afforestation decision making process becomes pertinent. Thus, farmers and advisors were asked to give their opinion concerning the importance of local representation during the field afforestation planning and permission process. The responses were very similar for each region, and the differences between rural business districts were not statistically significant. Consequently, only the total figures are presented in Table 17.

Both farmers and advisors are largely of the same opinion concerning who, or which interest groups, should be involved in the field afforestation decision-making process. The very close agreement between farmers and advisors concerning the content of this representation is interesting, if somewhat surprising given that advisors can be expected to have professional interests that might not necessarily agree with those of farmers. A previous study of advisors' attitudes to field afforestation (Selby and Petäjistö 1994, Petäjistö and Selby 1994) showed that co-operation between local officials and farmers was poorly developed, and that each professional group sought to advance the "political space" in which his/her profession operated. Now, in 2002, it seems that the majority of both farmers and advisors are of the opinion that various representations are necessary in the field afforestation process. Village action committees (only 30% and 23% of farmers and advisors respectively), and the Ministry of Agriculture and Forestry (29% and 20% respectively) were the only two parties whose representation was not thought to be very important. The latter may be understandable, given its distance from such grass-roots decisions, and its lack of a localised organisation, but that village action committees are seen to be unimportant is disappointing from the local development standpoint. Village action committees and associations bring together local development ideas, and they can be an important

Table 17. Farmers' and advisors' opinions concerning representation in the field afforestation planning and permission process. Percentage of farmers and advisors.

Taulukko 17. Maanviljelijöiden ja neuvojen näkemykset seuraavien tahojen osallistumisesta pellonmetsityksen suunnitteluun ja pellonmetsityslupien myöntämiseen, % maanviljelijöistä ja neuvoista.

Representative from: <i>Taho:</i>	a) Should be included in decision process (Farmers) <i>a) Tulisi olla mukana päätöksenteossa (Maanviljelijät)</i>	b) Should give a written statement (Farmers) <i>b) Tulisi antaa lausunto (Maanviljelijät)</i>	c) Sum of representation (Farmers a+b) <i>c) Tulisi olla mukana tai antaa ainakin lausunto (Maanviljelijät a+b)</i>	d) Should be included in decision process (Advisors) <i>d) Tulisi olla mukana päätöksenteossa (Neuvojat)</i>	e) Should give a written statement (Advisors) <i>e) Tulisi antaa lausunto (Neuvojat)</i>	f) Sum of representation (Advisors d+e) <i>f) Tulisi olla mukana tai antaa ainakin lausunto (Neuvojat d + e)</i>
FA applicant's neighbours <i>Lavan hakijan naapurit</i>	33.6	17.2	50.8	1.7	58.3	60.0
Village action committee <i>Kylätoimikunta</i>	7.6	22.9	30.5	5.0	18.3	23.3
Forest owners' association <i>Metsänhoitoyhdistys</i>	39.3	45.4	84.7	35.0	55.0	90.0
Agricultural producers association <i>Maataloustuottajayhdistys</i>	14.0	24.9	38.9	6.9	31.0	37.9
Commune agricultural secretariat <i>Kunnan maataloussihteeri</i>	26.3	41.3	67.6	36.7	55.0	91.7
Commune trade secretary <i>Kunnan elinkeinoasiamies</i>				3.4	6.8	10.2
Local rural business district <i>Maaseutikeskus</i>	18.7	30.8	49.5	8.3	25.0	33.3
Local forest centre <i>Metsäkeskus</i>	27.2	36.4	63.6	36.7	40.0	76.7
Local environment centre <i>Ympäristökeskus</i>	14.3	31.4	45.7	1.7	35.6	37.3
Ministry of Agriculture and Forestry <i>Maa- ja metsätalousministeriö</i>	13.3	15.6	28.9	16.7	3.3	20.0

link in the “bottom-up” development process. Further, members of village action committees often represent a wider base than just agriculture and forestry.

An extensive public debate has taken place in Finland concerning environmental policy and its implementation, especially in agriculture and forestry. It is therefore interesting that just under half (45%) of the farmers (most of whom are also forest owners) supported the notion that the local environment centre (SYKE) should be actively involved in the field afforestation permission process. This view received somewhat less support from advisors, presumably for professional reasons (see Selby and Petäjistö 1994). However, the more positive attitudes to representation observed in Table 17 suggests that a devolution of power and an increase in bottom-up participation is occurring in rural regions. This will be examined in the context of field afforestation decision making in a separate study.

5 Farmers' field afforestation plans

Farmers were asked about their plans for the development of their farm in the near future. Answers to this question give an idea of future afforestation trends in the localities in question, but they also give an indication as to the rationale behind farmers' views on field afforestation: for example, their own plans concerning field afforestation can be expected to influence their attitudes towards and perceptions of field afforestation in their vicinity. Farmers' tolerance of field afforestation in the vicinity of their farms (see section 4.3) and their own afforestation plans is shown in Table 18. The table shows that farmers who consider that field afforestation is *too common* are those who are *less likely* to afforest their own fields. Similarly, where levels are afforestation are considered to be tolerable, or could be increased, those farmers are *more likely* to afforest their own fields. The relationships are statistically highly significant. The figures in Table 18 are for the whole data, and not by rural business districts, because the same pattern is revealed in each district, as demonstrated in Figure 6. In the figure, the percentage of farmers who are of the opinion that field afforestation levels could be increased in their vicinity are shown according to whether or not they themselves plan to afforest fields in the next five years. Personal values are clearly shown to influence attitudes. Note that the overall figures for “*could be more afforestation*” are lowest in Mikkeli RBD (where field afforestation levels are highest) and highest in Etelä-Pohjanmaa RBD (where field afforestation levels are lowest) (see Table 11, section 4.3).

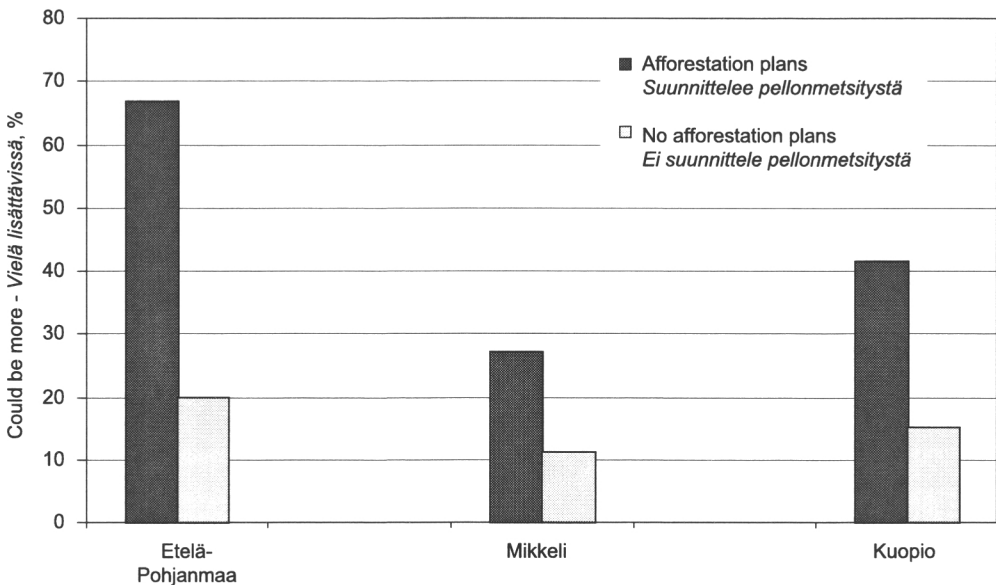
One of the most noticeable features of farmers' plans is their intention to acquire more land (Table 19). This is revealed by their plans to purchase both agricultural and forest land, their intentions to rent fields from others, as well as their intentions to clear land for fields. Conversely, selling fields is rarely considered. In the face of reductions in agricultural production, farmers clearly prefer to rent out their fields (c.15% of all responses). Afforesting fields or leaving fields uncultivated is also options rarely considered by (active) farmers. Afforesting *all* fields is not an option, whereas the afforestation of some fields (or parts of fields) is considered by some farmers,

Table 18. Relation between farmers' plans to afforest some or all of their fields in the next five years and their tolerance of the amount of field afforestation in their locality.

Taulukko 18. Maanviljelijöiden aikomus metsittää pellot kokonaan tai osittain seuraavan viiden vuoden aikana suhteutettuna näkemykseen kotipaikkakunnan pellonmetsityksen tämänhetkisestä laajuudesta, % maanviljelijöistä.

	Too much afforestation	Tolerable level	Could be more	Cannot say	Total	N
	<i>Pellon- metsityksen määrä on liian suuri</i>	<i>Sopivuuden rajoilla</i>	<i>Vielä lisättä- vissä</i>	<i>Ei osaa sanoa</i>	<i>Yhteensä</i>	<i>N</i>
Afforestation plans <i>Suunnittelee</i>	2.3	46.0	41.4	10.3	100.0	87
No afforestation plans <i>Ei suunnittele</i>	7.4	57.0	16.3	19.3	100.0	820
Total - <i>Yhteensä</i>	6.9	55.9	18.7	18.4	100.0	
N	63	507	170	167		907

$\chi^2 = 34.4$ df 3 p = 0.00



Etelä-Pohjanmaa: $\chi^2 = 26.4$ df. 3 p = 0.00; Mikkeli: $\chi^2 = 8.2$ df. 3 p = 0.04; Kuopio: $\chi^2 = 14.0$ df. 3 p = 0.00

Figure 6. Proportion of farmers who consider that the level of field afforestation in their vicinity could be increased, by personal afforestation plans and rural business districts (%).

Kuva 6. Maanviljelijöiden omien pellonmetsityssuunnitelmien riippuvuus arviosta, onko pellonmetsitysten määrä kotiseudulla vielä lisättävissä, maaseutuelinkeinoireittäin.

Table 19. Farmers' development plans for their farms over the next five years. The proportion (%) replying that such plans are "probable" or "very probable", by rural business districts.
Taulukko 19. Tilojen kehityssuunnitelmat seuraavien viiden vuoden aikana. Sellaisten maanviljelijöiden osuus (%), joilla seuraavien suunnitelmien toteuttaminen on "todennäköistä" tai "erittäin todennäköistä", maaseutuelinkeinoalueittain.

Planned development <i>Vaikutusalue</i>	Etelä-Pohjanmaa RBD <i>Etelä-Pohjanmaan MEP</i>	Mikkeli RBD <i>Mikkelin MEP</i>	Kuopio RBD <i>Kuopion MEP</i>	Total <i>Kaikki</i>
Re-orientation of agricultural production <i>Maataloustuotannon uudelleen suuntaaminen</i>	14.7	23.0	23.6	19.3
Forest-farm orientation <i>Metsätalouteen suuntautuminen</i>	14.0	39.1	16.8	24.0
Purchase of fields <i>Pellon ostaminen</i>	26.4	13.0	22.4	21.9
Purchase of forest land <i>Metsän ostaminen</i>	19.0	30.6	30.9	25.4
Clearance of fields <i>Pellon raivaus</i>	12.0	9.0	20.4	13.6
Sale of fields <i>Pellon myynti</i>	4.0	1.3	0.0	2.8
Renting out fields <i>Pellon vuokraaminen muille</i>	14.1	15.7	15.3	14.8
Renting fields from others <i>Pellon vuokraaminen muilta</i>	32.3	37.6	31.5	31.5
Afforesting some fields or parts of fields <i>Peltoalan osittainen metsittäminen</i>	3.7	15.3	5.9	7.2
Afforesting all of fields <i>Koko peltoalan metsittäminen</i>	0.7	0.8	1.5	0.9
Leaving fields uncultivated <i>Peltojen viljelemättä jättäminen</i>	1.2	3.9	1.1	1.8
Developing farm services, e.g. farm tourism <i>Palvelujen tarjonta, esim. maatilamatkailu</i>	5.7	9.9	6.3	6.7
Seeking work off-farm <i>Työnhaku maatilalan ulkopuolelta</i>	39.7	35.9	35.5	35.5
Retirement <i>Eläkkeelle siirtyminen</i>	28.1	27.4	23.8	26.6
Other (unspecified) <i>Muu (ei eritelty)</i>	41.2	41.7	46.7	43.1

especially in Mikkeli RBD (15%), although much less so in the other two districts. The development of farm-based services is considered by c.10% of the farmers in Mikkeli, but only half as many in the other two districts. However, seeking off-farm work is planned by over one third of farmers in all three districts. Retirement, on the other hand, is planned by c. 25% of the farmers replying to the questionnaire. A large number of farmers indicate that they have other, unspecified plans. Regrettably, these plans remain unspecified. The size of the class nonetheless leads to the suspicion that it has been used by respondents as a surrogate for “cannot say”, as no known major development direction has been omitted from alternatives given.

Farmers were asked more specifically about their field afforestation plans, together with the reasons. A total of 89 farmers (9.7%) admit to having afforestation plans. Farmers that plan field afforestation activities are more likely to be located in Mikkeli and Kuopio RBDs than in Etelä-Pohjanmaa RBD, as expected. The main reasons given for the decision to afforest were *rationalisation of farm structure* (68% gave this an important or very important reason), the *creation of a forest farm* (46%) and the *reduction of agricultural production* (43%) and *retirement or generation transfer* (34%).

The re-orientation of agricultural production is often linked with plans to orientate farms towards forestry production (the creation of a forest-farm). For example, the correlation (Pearson) between plans for *forest-farm orientation* and *farm production reorientation* is 0.242 (significant at the .01-level) and that between *forest-farm orientation* and *purchase forests* is 0.189 (also significant at the .01-level). Farmers' plans to *afforest some fields* also correlates very strongly with their plans for *forest-farm orientation* (0.322, significant at the .01-level). This forestry re-orientation activity is much more prevalent in Mikkeli and Kuopio RBDs than in Etelä-Pohjanmaa RBD.

6 Summary and conclusions

This report has examined how farmers and rural advisors perceive field afforestation and its effects. It also gives initial answers to questions as to whether field afforestation has, in certain districts, reached levels at which it threatens rural vitality, or whether in other areas, more field afforestation would be acceptable.

The data employed was collected from c. 950 active farmers in 24 communes in three contrasting regions of Finland: the rural business districts of Etelä-Pohjanmaa, Mikkeli and Kuopio. Forestry, agricultural and commercial advisors in same communes also answered a similar questionnaire form. The return rate for farmers was 63% and 71% for advisors. The results presented here are, because of the design of the sample, representative of the regions in question rather than the country as a whole. However, given that many communes in southern Finland exhibit very similar characteristics to those employed here (as demonstrated by the commune classification employed in the current rural policy document (Maaseutupoliittinen kokonaisuusjelmä...)

2000), inferences for other areas of southern Finland may be drawn from the results with minimum risk.

The study shows that field afforestation is common in communes with small farms, in communes dominated by forests, in communes where dairy farming is predominant, in communes where the average age of farmers is high and in communes where the population density is low. The same communes are also associated with more natural regeneration of forests on abandoned farmland. The results fully support earlier investigations into the causes of regional variations in the intensity of field afforestation (e.g. Selby 1980a, b) where the main reasons for field afforestation were low levels of socio-economic development (a circular and cumulative process), small and declining agricultural holding with generation transfer problems, and poor farm structures (small, isolated and poor quality fields).

The study shows that farmers accurately observe the relative extent of field afforestation in their localities, as well as accurately perceive the effects of these land use changes on the landscape. This result is very encouraging when considering the policy implications of the results of the investigation as a whole. The result is also important from the standpoint of further analyses that depend on the assumption that farmers can make accurate observations concerning developments in their socio-economic environment.

Advisors seem to be less accurate than the farmers in their perceptions of field afforestation intensity. The correlation between perceived intensity and actual percentages of fields afforested at the commune level is statistically highly significant for the farmers, but less significant for the advisors. Advisors seem to be slightly more accurate in their assessment of the landscape changes brought about by field afforestation, but the correlations between actual areas afforested and perceptions of landscape change are highly significant for both farmers and advisors. This result is not entirely unexpected. In a previous investigation, Selby and Petäjistö (1995) found that advisors' attitudes to field afforestation were strongly dependent upon the sector in which they were employed.

Farmers are, generally speaking, of the opinion that current levels of field afforestation are within acceptable limits. That said, both in Mikkeli and Kuopio RBDs, nearly 10% of the farmers consider that present levels of field afforestation are too great. The corresponding figure in Etelä-Pohjanmaa RBD, where field afforestation intensities are generally low, was 4%. Nearly a quarter of farmers in Etelä-Pohjanmaa RBD consider that more field afforestation would be acceptable, the figures for Mikkeli and Kuopio RBDs being 14% and 17% respectively. In each of the regions, there is a greater intolerance of natural regeneration of abandoned farmland than for field afforestation.

Farmers find it difficult to assess the effects of field afforestation on local livelihoods. Even for farming, some 33% of the replies were ambivalent, however, field afforestation is generally seen to be detrimental to farming in each of the regions. Even in Etelä-Pohjanmaa RBD, where field afforestation has been least intensive, over 40% of the farmers consider its effects to be detrimental. Not surprisingly, farmers consider that field afforestation was generally beneficial for forestry, with

very few farmers reporting detrimental effects. However, a quarter of farmers, and nearly one third in Etelä-Pohjanmaa RBD, cannot say whether field afforestation is an advantage or disadvantage to forestry in their locality. With respect to the effects of field afforestation on enterprise in other sectors, farmers are generally unable to express an opinion (77% cannot say). Of the remaining, the majority are of the opinion that in some way field afforestation benefits enterprise in other branches.

Over half of the farmers (55%) consider that field afforestation policies are not in conflict with rural development policies, but one fifth of the farmers feel that there is a conflict, and one quarter are unable to say. Of those who feel a conflict exists, two thirds consider the conflicts to be slight, just over a quarter consider the conflicts to be quite significant and 7 percent consider the conflicts to be very significant.

A high proportion of advisors cannot say how field afforestation could effect enterprises in various branches of rural business. About one third of the advisors cannot say how field afforestation affects agricultural and forestry enterprises, while two-thirds or more cannot say how field afforestation might effect heating, nature-based or tourist enterprises respectively. The majority of the remaining advisors consider field afforestation to have positive effects on the selected enterprise branches. Field afforestation is considered by advisors to be detrimental to agriculture, as well as to nature-based enterprise and tourism.

It was assumed at the outset that advisors would, or should, be aware of the socio-economic situation in their domain, and that this would effect their assessment of field afforestation. In the event, *the high proportion of advisors who could not say what the effects of field afforestation on different branches might be gives some cause for concern.* It is advisors who are responsible for extension work and the spread of afforestation-related information. They are also instrumental in issuing the permits for grant-aided field afforestation. A high level of understanding of the consequences of their decisions might therefore be expected, but this is clearly not the case.

Within the EU, rural development is increasing becoming a bottom-up, endogenous process. In this process, interest groups and individuals should be represented in the local planning and decision-making process (even if the policies themselves are exogenous in origin). In the present investigation, farmers and advisors were asked who should be represented in the field afforestation decision-making process. A list of ten local interest groups and interested parties were provided, ranging from neighbours and village action committees to local government officials and the Ministry of Agriculture and Forestry. *The majority of farmers and advisors consider that most of these groups should be represented in the field afforestation decision-making process.* Conversely, representation by village action committees and associations is not considered to be very important. This is regrettable given the increasing bottom-up nature of local development and the fact that such action committees often represented a broader section of the rural community than just agricultural and forestry interests.

With respect to their own farms, only 9% of the farmers have plans to afforest some fields in the next five years. The greatest proportion of farmers planning to afforest farm land are found in Mikkeli RBD (15%) followed by Kuopio RBD (11%), with

the least (5%) in Etelä-Pohjanmaa RBD. The pattern is the same as it has been since the outset of grant-aided field afforestation began in 1969 (see Selby 1980, 1990).

The analyses reported here are restricted to simple, two-way relationships. Causal relationships will be revealed in further analyses. As noted in section 2.2, the farm questionnaire contains five sets of questions, of which only two sets have been partially examined in this paper. Of particular importance in subsequent analyses will be first to establish measures for describing the basic characteristics of rural areas (as perceived by farmers and advisors), as well as the perceived role that forests and forestry is expected to play in each communes future development. Farmers' own multifunctional forest utilisation typologies, as well as their farm development plans, will also be determined in order to assess their positions with regards to forestry as a means for rural development and, especially, with respect to their perceptions of and attitudes towards field afforestation as an opportunity for or a threat to rural development. Similarly, only a limited number of questions from the rural advisor questionnaire have been examined in this report. Advisors' own concepts of rurality and rural development will be determined on the basis of their profession interests, and their views of forestry as a means to rural development, and the role of field afforestation in particular, will be assessed accordingly.

Finally, the data for two communes, one exhibiting a high degree of afforestation in an area dominated by forests and one from a commune with a predominance of arable agriculture, will be compared with similar data collected by the MULTIFOR.RD project for specific regions in nine European countries: Austria, Denmark, France, Germany, Greece, Hungary, Ireland, The Netherlands and Spain. This analysis should enable Finland's forest-based rural development opportunities to be placed in a broader perspective.

Seloste: Viljelijöiden ja maaseutuneuvojen käsityksiä pellonmetsityksestä ja maaseudun elinvoimaisuudesta: alustava tutkimus pellonmetsityksen vaikutuksista maaseudun kehitykseen

Tässä käsillä olevassa raportissa käsitellään maanviljelijöiden ja maaseutuneuvojen käsityksiä ja mielipiteitä pellon metsityksen merkityksestä maaseudulle. Lähtökohdiana on ollut se, että pellonmetsitysten laajuus on joillakin alueilla mahdollisesti jo saavuttanut tason, jolla voi olla vaikutusta alueen elinvoimaisuuteen. Tutkimusraportissa esitetään alustavia tuloksia aluetasolla. Tutkimus liittyy EU-hankeeseen, jossa käsitellään maaseutuväestön käsityksiä metsien roolista tulevaisuuden maaseudulla yhdeksässä Euroopan maassa. Metsäntutkimuslaitoksessa pellon metsitystä on tutkittu myös aiemmin. Aiemmissa tutkimuksissa on todettu esimerkiksi pellon metsityksen alueellisen vaihtelun riippuvan alueen kehitysasteesta (esim. Selby 1980). Myös maanviljelijöiden ja neuvontaorganisaatioiden edustajien asenteita peltojen metsitystä kohtaan on Metlassa selvitetty jo aiemminkin (Petäjistö ja Selby 1994b).

Tutkimuksen aineisto kerättiin postikyselyllä aktiivimaanviljelijöiltä ja neuvontaorganisaatioiden edustajilta kevättalvella 2002. Maanviljelijöiden osalta vastausprosentti oli 63 ja neuvontaorganisaatioiden edustajien vastausprosentti oli 71. Sen lisäksi 12 prosenttia vastanneista maanviljelijöistä oli kirjoittanut omia mielipiteitään asian tiimoilta (Koskela ja Selby 2002).

Tutkimusalueet Suomessa valittiin samalla periaatteella kuin EU-hankkeen tutkimusalueetkin. Siellä etsittiin toisaalta alueita, joilla metsätalous on ollut perinteisesti vahvaa ja toisaalta alueita, joilla metsätalous on suhteellisesti nuorta. Suomessa vastaavia alueita ei ole löydettävissä, mutta alueet valittiin maatalouden rakenteen perusteella. Etelä-Pohjanmaan maaseutuelinkeinopiiri valittiin mukaan, koska siellä on suhteellisesti eniten peltoa. Mikkelin maaseutuelinkeinopiiri valittiin mukaan, koska siellä on paljon metsää ja koska siellä on metsitetty suhteellisesti eniten Suomessa. Kuopion maaseutuelinkeinopiiri otettiin mukaan tutkimukseen niin kutsuttuna välimuotona.

Tarkastelujen pääpaino on siinä, millaisena maanviljelijät ovat kokeneet peltojen metsityksen vaikutukset oman tilansa lähialueella. Toisaalta tarkastellaan myös neuvontaorganisaatioiden edustajien käsityksiä pellon metsityksen vaikutuksista neuvontaorganisaatioiden toiminta-alueella.

Tutkimus osoitti, että maanviljelijät ovat hyvinkin tietoisia tapahtuneista peltojen metsityksistä. Neuvontaorganisaatioiden edustajilla ei sen sijaan ollut yhtä tarkkaa kuvaa tapahtuneista metsityksistä. Toisaalta neuvojilla oli tarkempi käsitys pellon metsitysten aiheuttamista vaikutuksista maisemaan kuin maanviljelijöillä itsellään. Kuitenkin myös maanviljelijät olivat maisemallisista vaikutuksista hyvin tietoisia.

Kun tarkasteltiin pellonmetsitystoimintaa tähän mennessä, oli suurin osa maanviljelijöistä sitä mieltä, että pellonmetsitysten nykyinen laajuus oli vielä hyväksyttävää. Kuitenkin joka kymmenes maanviljelijä sekä Kuopion että Mikkelin maaseutuelin-

keinopiirissä katsoi, että peltoja oli metsitetty jo liikaa. Toisaalta Etelä-Pohjanmaalla, jossa peltojen metsitys on alhaisemmalla tasolla, vain neljä prosenttia maanviljelijöistä katsoi, että peltoja oli metsitetty liikaa. Lähes neljännes maanviljelijöistä Etelä-Pohjanmaalla hyväksyi pellonmetsitystoiminnan lisäämisen. Vastaava osuus Mikkelin maaseutuelinkeinopiirissä oli 14 % ja Kuopion maaseutuelinkeinopiirissä 17 %. Kaikkien maaseutuelinkeinopiirien sisällä oli kuitenkin suuria eroja eri kuntien välillä. Itse kullakin alueella sekä maanviljelijöiden että neuvonantajien oli vaikeampi hyväksyä hylättyjen peltojen luontaista metsittymistä, jota kutsutaan myös pusikoitumiseksi.

Maanviljelijöiden oli vaikea arvioida pellonmetsityksen vaikutusta maaseudun elinvoimaisuuteen. Jopa kolmannes ei kyennyt ottamaan asiaan kantaa. Kuitenkin peltojen metsitys katsottiin haitalliseksi maatalouden näkökulmasta ja Etelä-Pohjanmaan maaseutuelinkeinopiirissä yli 40 % maanviljelijöistä katsoi sen haittaavan maanviljelytoimintaa. Luonnollisestikin peltojen metsittämisen katsottiin hyödyntävän metsätaloutta. Kuitenkin neljännes kaikista ja kolmannes Etelä-Pohjanmaan maanviljelijöistä ei osannut ottaa kantaa pellonmetsityksen metsätaloudelle tuottamiin hyötyihin tai haittoihin. Maanviljelijöiden käsitykset pellonmetsityksen vaikutuksista muihin toimialoihin (esimerkiksi yritystoimintaan) olivat vielä epävarmimmalla pohjalla.

Yli puolet maanviljelijöistä oli sitä mieltä, että pellonmetsitys ei ole ristiriidassa maaseudun kehittämistavoitteiden kanssa. Joka viides maanviljelijä näki kuitenkin, että ristiriitoja oli ollut olemassa ja seitsemän prosenttia oli sitä mieltä, että ristiriidat olivat jopa merkittäviä.

Myös neuvontaorganisaatioiden edustajien oli vaikea arvioida kuinka pellonmetsitys voi vaikuttaa maaseudun yritystoimintaan kunnan alueella. Pellonmetsityksen katsottiin tuovan mukanaan haittoja maataloudelle, luontoyrittämiselle ja matkailulle. Suuri osa neuvontaorganisaatioiden edustajista katsoi, että peltojen metsityksiin saatava mahdollinen julkinen tuki tulisi sitoa paikalliseen maatalouden rakenteeseen ja siihen kuinka pellonmetsitys voi vaikuttaa maisemallisiin arvoihin. Noin kolmannes ei pysynyt sanomaan vaikuttaako pellonmetsitys maatalouteen ja kolmannes ei kyennyt myöskään arvioimaan sen vaikutusta metsätalouteen. Kaksi kolmesta ei osannut arvioida pellonmetsitystoiminnan vaikutuksia lämpöyrityksiin, luontoyrityksiin tai matkailuyrityksiin.

Neuvontaorganisaatioilla on keskeinen rooli kunnan kehittämistoimenpiteistä. Peltojen metsittämisen sosiaalitaloudelliset vaikutukset saattavat olla kauaskantoisia. Tutkimusasettelussa oletettiin neuvojien omaavan kohtalaisen hyvät tiedot kunnan sosiaalitaloudellisista olosuhteista. Koska näin ei tutkimustulosten perusteella kuitenkaan näyttäisi aina olevan, on syytä kiinnittää huomiota siihen että pellonmetsityspäätöksiä on ilmeisestikin tehty tuntematta metsitysten kokonaisvaikutuksia.

Sekä Suomessa että EU:ssa sekä maa-, metsä- että maaseutupolitiikka on muuttumassa yhä enemmän aluekohtaiseksi prosessiksi. Esimerkkejä tästä ovat Suomen kansallinen metsäohjelma ja maaseutupoliittinen kokonaisuohjelma. Aluekohtaisen prosessin kautta pyritään ottamaan huomioon paikkakuntatason intressiryhmien näkökulmat. Tällainen prosessi voi päteä myös pellonmetsityksen suunnittelussa. Tästä syystä tutkimuksessa kysyttiin, minkä intressiryhmien tulisi olla pellonmetsitysky-

symysten päätöksenteossa mukana. Kysymyksellä pyrittiin kartoittamaan kymmenen eri ryhmän (naapurista maa- ja metsätalousministeriöön) mukanaolon tarpeellisuutta päätöksenteossa. Suurin osa sekä maanviljelijöistä että neuvonantajista oli sitä mieltä, että suurimman osan kysytyistä tahoista tulisi olla päätöksenteossa mukana. Vain maa- ja metsätalousministeriön ja kylätoimikunnan edustusta ei pidetty aina välttämättömänä. Tulos ministeriön osalta ei ole yllättävä, koska ministeriö on kaukana päätöksentekoprosessista. Toisaalta voi katsoa, että asenteet kylätoimikuntaa kohtaan ovat valitettavia, koska kehitysprosessit usein alkavat kylätoimikunnan aloitteesta.

Vain 9 % maanviljelijöistä suunnitteli itse metsittävänsä peltojaan seuraavien viiden vuoden aikana. Osuus vaihtelee alueittain. Mikkelin maaseutuelinkeinopiirissä se oli 15 % ja Kuopion maaseutuelinkeinopiirissä se oli 11 prosenttia, mutta vain viisi prosenttia Etelä-Pohjanmaan maaseutuelinkeinopiirissä.

Jatkotutkimuksissa on tarkoituksena selvittää maanviljelijöiden ja neuvojien käsitteitä maaseutualueiden nykyisestä kehitystasosta ja -suunnasta käyttämällä samaa tutkimusmenetelmää kuin EU-hanke jossa on tarkasteltu laajasti metsän roolia maaseudun kehittämisprosessissa (Wiersum and Elands 2002). Tässä yhteydessä selvitetään pellon metsityksen merkitystä metsätaloudelle ja maaseudulle.

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APPENDIX 1: FARM QUESTIONNAIRE

MAA- TAI METSÄTILANNE SIJAINNISEUDUN KUVAUS

A1. Maa/metsätilanne sijaintikunta _____

A2. Asuuko vastaaja/omistaja tilalla

- ¹ Vakinaisesti ³ Tilalla ei asuta lainkaan (esimerkiksi metsätila)
² Osan vuotta (esim. lomilla, viikonloppuisin tms.) ⁴ Tilalla asuu joku muu

A3. Jos ette asu vakinaisesti tilallanne, missä asutte

- ¹ Muualla haja-asutusalueella
² Taajamassa/kirkonkylässä
³ Kaupungissa

A3a. Asuinpaikkanne etäisyys tilalle on _____ km

A4. Kuinka tärkeitä seuraavat elinkeinot ovat maatilanne lähiseudulla? (Yksi rasti jokaiselle riville)

	Hyvin tärkeä	Melko tärkeä	Ei kovin tärkeä	Ei merkitystä	En osaa sanoa
a) Maatalous	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
b) Metsätalous	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
c) Kauppa	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
d) Matkailu	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
e) Suurteollisuus	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
f) Pienteollisuus	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
g) Käsiyöalat (esim. savipajat tms.)	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
h) Palvelut	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>

A5. Mikä tai mitkä seuraavista vaihtoehtoista (enintään kolme vaihtoehtoa) kuvaavat parhaiten seutua, jolla maatilanne sijaitsee? (Merkitkää sopivin vaihtoehto numerolla 1, toiseksi sopivin numerolla 2, kolmanneksi sopivin numerolla 3)

Sijaintiseutu on.....

- a) voimakkaan maatalouden aluetta _____
b) voimakkaan metsätalouden aluetta _____
c) aluetta, jolla on merkittäviä luonto- tai erämaakohteita _____
d) syrjäistä haja-asutusaluetta _____
e) kaupungin läheistä maaseutualuetta _____
f) maaseudun ympäröimää teollisuus-, palvelu- tai yritystaaajama-aluetta _____
g) rakenteeltaan kaupunkimaista aluetta _____
h) aluetta, joka on suosittu matkailukohde _____
i) muunlaista aluetta (esim. kaivostoimintaa tms.), millaista _____

A6. Miten hyvin mielestänne seuraavat yksityiskohtaisemmat ominaisuudet kuvaavat Teidän maatilanne lähiseutua? (Yksi rasti/rivi)

Kuvaus sopii

	täysin	osittain	ei kovin hyvin	ei lainkaan	en osaa sanoa
a) Seutu on rauhallista eikä liikenne häiritse	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
b) Seutu on luonnonkaunis ja ainutlaatuinen	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
c) Seutu on hyvin harvaan asuttua	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
d) Seudulla on runsaasti ulkoilumahdollisuuksia	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
e) Seudulla on hyvät palvelut (esim. julkinen liikenne, kaupat, koulut)	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
f) Ilma, vesi ja maaperä ovat puhtaita	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
g) Seudulla on paljon metsää	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
h) Seudulla on rikas kasvi- ja eläinlajisto	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
i) Seudulla vaalitaan tiivistä yhteenkuuluvaisuutta	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
j) Seudulla vaalitaan vahvasti historiaa ja perinteitä	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
k) Seudulla luontomatkailun merkitys on kasvussa	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
l) Seudulla asuu paljon pienituloisia	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
m) Seudulla on huonot työllistymismahdollisuudet	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
n) Seudulla on runsaasti autoituneita tiloja, joiden pellot on metsitetty	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
o) Seudulla on ristiriitoja eri maankäytön muotojen välillä (esim. rakentaminen, turismi, maatalous)	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
p) Seutu ei ole tarpeeksi vetovoimainen houkutellakseen nuorisoa	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
q) Asukkailla ei ole mahdollisuuksia osallistua alueen kehittämiseen	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
r) Seudulla on liikaa turisteja	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
s) Seudulla on liikaa uutta teollisuutta	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
t) Seudulla on paljon rikollisuutta	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
u) Seudulle on rakennettu liikaa asuintaloja	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
v) Seudulla on rakennettu liikaa kesämökkejä	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>

A7. Valitkaa seuraavista vaihtoehtoista kolme tärkeintä keinoa, jotka mielestänne sopisivat maan tilanne lähiseudun kehittämiseen? (merkitse tärkein keino numerolla 1, toiseksi tärkein numerolla 2, kolmanneksi tärkein numerolla 3)

- a) Tehokkaan maataloustuotannon lisääminen _____
- b) Luomutuotannon lisääminen _____
- c) Matkailun kasvattaminen _____
- d) Teollisuustuotannon lisääminen _____
- e) Uusien asuintalojen rakentaminen _____
- f) Työllisyysmahdollisuuksien lisääminen _____
- g) Metsäpinta-alan lisääminen _____
- h) Luonto- ja erämaa-alueiden lisääminen _____
- i) Palvelujen lisääminen _____
- j) Maiseman hoitaminen (esim. peltojen maisemointi) _____
- k) Asukkaiden sosiaalisen yhteenkuuluvuuden ja yhteistyön merkityksen korostaminen _____
- l) Muu keino, mikä _____

A8. Miten suureksi arvioitte metsien merkityksen tilanne lähiseudulle tulevaisuudessa?

(Yksi rasti/rivi)

	Erittäin suuri merkitys	Melko suuri merkitys	Vähän merkitystä	Ei lainkaan merkitystä	En osaa sanoa
a) Metsät ovat ulkoilukohteita asukkaille	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
b) Metsät tarjoavat mahdollisuuden metsästämiseen	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
c) Metsät tarjoavat mahdollisuuden marjastukseen ja sienestykseen	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
d) Metsät tuovat työpaikkoja paikallisille asukkaille	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
e) Metsät tuovat tuloja paikallisille asukkaille	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
f) Metsät tuottavat raaka-ainetta paikkakunnan pienteollisuudelle	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
g) Metsät ovat luontoyrittäjyyden perusta	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
h) Metsiä tarvitaan runsaan kasvi- ja eläinkunnan ylläpitämiseen	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
i) Metsät tekevät maisemasta kauniin	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
j) Metsät ovat tärkeitä ilman, veden ja maaperän puhtaudelle	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
k) Metsät parantavat alueen asumisviihtyvyyttä	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>

PELLON METSITYS

B1. Kuinka yleisiä ovat käsityksenne mukaan olleet seuraavat toimenpiteet tilanne lähiseudulla viime vuosikymmeninä? (Yksi rasti/rivi)

	Yleisiä	Melko harvinaisia	Olemattomia	En osaa sanoa
a) Peltojen metsittäminen	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
b) Heitteille jätettyjen peltojen luontainen metsittyminen	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
c) Metsien raivaus pelloksi	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>

B2. Ovatko peltojen metsittäminen tai luontainen metsittyminen aiheuttaneet tilanne lähiseudulla maisemassa muutoksia? (Yksi rasti/rivi)

Muutokset ovat...

	erittäin suuria	suuria	lieviä	olemattomia	en osaa sanoa
a) Peltojen metsitys	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
b) Heitteille jätettyjen peltojen luontainen metsittyminen	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>

B3. Mitä mieltä olette peltojen metsittämisen ja luontaisen metsittämisen määristä tilanne lähiseudulla? (Yksi rasti/rivi)

Nykyinen määrä on...

	liian suuri	sopivuuden rajoilla	vielä lisättävissä	en osaa sanoa
a) Peltojen metsitys	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
b) Heitteille jätettyjen peltojen luontainen metsittyminen	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>

B4. Missä määrin seuraavien tahojen tulisi mielestänne osallistua pellonmetsityksen suunnitteluun ja lupien myöntämiseen? (Yksi rasti/rivi)

	Tulisi olla mukana päätöksenteossa	Tulisi antaa lausunto	Ei ole tarpeen osallistua	En osaa sanoa
a) Kylätoimikunta, tms.	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
b) Metsänhoitoyhdistys	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
c) Kunnan maataloussihteeri	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
d) maataloustuottajayhdistys	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
e) Maaseutukeskus	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
f) Metsäkeskus	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
g) Ympäristökeskus	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
h) Maa- ja metsätalousministeriö	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
i) Muu taho, mikä _____	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>

B5. Onko pellonmetsityksen käytännön toteutus tilanne lähiseudulla ollut mielestänne ristiriidassa maaseudun kehittämiseen tähtävään politiikan kanssa?

₃ kyllä ₂ ei ₁ en osaa sanoa

B6. Jos kyllä, ovatko ristiriidat olleet ₁ lieviä ₂ melko suuria ₃ suuria

B7. Mistä syystä riistiriitoja on esiintynyt?

- 1) _____
 2) _____
 3) _____

B8. Millainen yleisvaikutus mielestänne peltojen metsityksellä on ollut seuraaville aloille?

(Yksi rasti/rivi)

	Erittäin myönteinen		En osaa sanoa		Erittäin kielteinen	
	5	4	3	2	1	0
a) Maatalous	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Metsätalous	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Muu yritystoiminta	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SEURAAVAT KYSYMYKSET KOSKEVAT OMAA MAATILAAANNE

C1. Kuinka tärkeinä pidätte seuraavia tavoitteita omien metsienne kannalta? (Yksi rasti/rivi)

	Hyvin tärkeä	Melko tärkeä	Ei kovin tärkeä	Ei merkitystä	En osaa sanoa
	5	4	3	2	1
a) Metsäni on sijoituskohde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Metsäni tarjoavat tuloja kulutukseen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Metsäni tarjoavat taloudellista turvaa pahan päivän varalle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Metsästäni saan kotitarvepuut	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Metsäni tarjoavat minulle marjastus- ja sienestysmahdollisuuden (omaan käyttöön)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Metsäni tarjoavat tuloja marjastuksen, sienestyksen ja luontomatkailun kautta	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Metsäni on perintö omaisilleni	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) Metsäni tarjoavat minulle metsästysmahdollisuuden	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i) Metsäni ovat minulle luonnonsuojelun ja luonnonhoidon kohde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j) Metsäni tarjoavat kauniin maiseman	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k) Muu, mikä? _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

C2. Aiotteko ryhtyä joihinkin seuraavista toimenpiteistä seuraavien viiden vuoden aikana?

(Yksi rasti/rivi)

	Hyvin toden- näköistä	Melko toden- näköistä	En osaa sanoa	Luulta- vasti en	En missään tapauksessa
a) Maataloustuotannon uudelleen suuntaaminen	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
b) Pellon ostaminen	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
c) Metsän ostaminen	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
d) Pellon raivaus	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
e) Pellon myynti	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
f) Pellon vuokraaminen muille	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
g) Pellon vuokraaminen muilta	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
h) Peltoalan osittainen metsittäminen	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
i) Peltoalan kokonaan metsittäminen	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
j) Peltojen viljelemättä jättäminen	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
k) Palvelujen tarjonta (esim. maatilamatkailu)	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
l) Työn hakeminen maatalan ulkopuolelta	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
m) Metsätalouteen suuntautuminen	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
n) Eläkkeelle siirtyminen	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
o) Muu, mikä? _____	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>

C3. Jos olette itse seuraavien viiden vuoden aikana lopettamassa tilan hoitoanne, onko tilallanne mahdollista jatkajaa?

- 4 En ole lopettamassa tilan hoitoa (Siirry kysymykseen C5)
- 3 Kyllä, tilalle on jatkaja (Siirry kysymykseen C5)
- 2 Tilalle on mahdollisesti jatkaja (Kysymys C4)
- 1 Ei ole jatkajaa (Kysymys C4)

C4. Jos tilallanne ei ole jatkajaa, mitkä ovat pääsyyt siihen? (merkitse tärkein syy numerolla 1, ja toiseksi tärkein numerolla 2)

- a) Minulla ei ole lapsia tai muita lähisukulaisia _____
- b) Maatalanpito ei kiinnosta lapsiani tai sukulaisiani _____
- c) Peltopinta-ala on liian pieni tarjotakseen toimeentuloa tulevaisuudessa _____
- d) Seutu ei tarjoa mahdollisuuksia lisätuloihin, jotka olisivat tarpeen tilan jatkamiselle _____
- e) Perilliset asuvat liian kaukana hoitaakseen tilaa edes osa-aikaisesti _____
- f) Tilan metsät eivät tarjoa tarpeeksi tuloja, jotta ne tukisivat riittävästi maataloustuloa _____
- g) Muu, mikä? _____

C5. Suunnitteletko peltojen osittaista tai kokonaan metsittämistä seuraavien viiden vuoden aikana? (Yksi rasti/rivi)

- ₁ Kyllä (Kysymys C6)
- ₂ En suunnittele peltojen metsitystä (siirry kysymykseen C7)
- ₃ Kaikki pellot ovat metsitetty (siirry kysymykseen D1)

C6. Jos suunnitlette peltojen osittaista tai kokonaan metsittämistä, mitkä ovat syyt siihen?

	En osaa sanoa	Hyvin tärkeä	Melko tärkeä	Ei kovin tärkeä	Ei merkitystä
a) Sivuelinkeinon (esim. maatilamatkailu) merkityksen kasvattaminen	<input type="checkbox"/> ₅	<input type="checkbox"/> ₄	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁
b) Maataloustuotannon supistaminen	<input type="checkbox"/> ₅	<input type="checkbox"/> ₄	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁
c) Maatilan tuotantosuunnan muuttaminen	<input type="checkbox"/> ₅	<input type="checkbox"/> ₄	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁
d) Maatilan rakenteen rationalisointi (syrjäisten, huonojen peltojen metsitys)	<input type="checkbox"/> ₅	<input type="checkbox"/> ₄	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁
e) Eläkkeelle jäänti/sukupolvenvaihdos	<input type="checkbox"/> ₅	<input type="checkbox"/> ₄	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁
f) Metsätalouteen suuntautuminen	<input type="checkbox"/> ₅	<input type="checkbox"/> ₄	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁
g) muu, mikä _____	<input type="checkbox"/> ₅	<input type="checkbox"/> ₄	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁

C7. Tulevaisuudessa metsitän peltojeni jos, (Yksi rasti/rivi)

	Hyvin todennäköistä	Melko todennäköistä	Luultavasti	Ei missään tapauksessa	En osaa sanoa
a) Maataloustuet pienenevät	<input type="checkbox"/> ₅	<input type="checkbox"/> ₄	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁
b) Metsityksestä maksetaan palkkiota	<input type="checkbox"/> ₅	<input type="checkbox"/> ₄	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁
c) Maatilalleni ei löydy seuraajaa	<input type="checkbox"/> ₅	<input type="checkbox"/> ₄	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁
d) Peltojen vuokraus/myynti ei ole mahdollista	<input type="checkbox"/> ₅	<input type="checkbox"/> ₄	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁
e) Muu, mikä? _____	<input type="checkbox"/> ₅	<input type="checkbox"/> ₄	<input type="checkbox"/> ₃	<input type="checkbox"/> ₂	<input type="checkbox"/> ₁

VÄITTÄMIÄ



D1. Seuraavassa esitetään pellonmetsitystä ja maaseutua koskevia väittämiä.

Valitkaa omaa mielipidettänne parhaiten vastaava vaihtoehto (Yksi rasti/rivi).

Väittämä	Täysin samaa mieltä	Osittain samaa mieltä	En osaa sanoa	Osittain eri mieltä	Täysin eri mieltä
a) "Peltoja ei pitäisi metsittää, koska ne ovat aikoinaan kovalla työllä raivattu"	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
b) "Pelot ovat merkki maaseudun elinvoimaisuudesta tulevaisuudessakin"	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
c) "Maanviljelyn tulisi keskittyä maassamme vain tuottaville ja hedelmällisille alueille"	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
d) "Maaseudulla on tärkeä rooli kansalaisten elämänlaadulle"	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
e) "Pellonmetsitystä tulisi säädellä tiukoilla ympäristö- ja maisemansuojelusäännöksillä"	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
f) "Seutu muuttuu metsityksen seurauksena asumattoman näköiseksi"	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
g) "On huolestuttavaa, että laajat metsäalueet eristävät maaseudun asukkaat toisistaan"	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
h) "Maa- ja metsätaloutta ja ympäristöpolitiikka ei pitäisi sotkea keskenään"	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
i) "Maatalousmaisema on keskeinen osa kulttuuriperinnettä"	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
j) "Hyvin hoidettu maaseutumaisema on merkki alueen elinvoimaisuudesta"	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
k) "Laajat metsät antavat paikkakunnalle takapajuksen ilmeen"	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
l) "Matkailu tuo välttämättömiä lisäansioita maaseudulle"	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
m) "Maanomistajat eivät metsitä peltoja, ellei siitä makseta metsityspalkkiota"	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
n) "Metsittyyn maisema ei houkuttele yritystoimintaa alueelle"	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
o) "Matkailijat ja maallemuuttajat odottavat hoidettua maaseutua"	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
p) "Luontomatkailu on uhka luonnolle"	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
q) "Maanviljelyn tehokkuuden nostaminen ja koneellistaminen on ainoa keino pelastaa Suomen maatalous"	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>

→ Jatkuu

Väittämä	Täysin samaa mieltä	Osittain samaa mieltä	En osaa sanoa	Osittain eri mieltä	Täysin eri mieltä
r) "Metsitettyjen peltöjen raivaaminen maaseutu- maiseman palauttamiseksi on suositeltavaa"	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
s) "Enemmän metsiä ja erikoisia luontotyyppialueita pitäisi suojella"	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
t) "Turistit tuovat mukanaan maaseudun perinteisiä arvoja vääristäviä vaikutuksia"	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
u) "Ravinnon- ja puuntuotannon ohella maa- ja metsätalouden tehtävänä on luoda yhteiskunnalle miellyttävä ja rauhallinen maaseutu ympäristö"	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>

TAUSTATIEDOT

E1. Vuonna 2001 tilan kokonaispinta-ala _____ ha, josta

- a) peltoa _____ ha, josta v. 2001 _____ ha viljelyssä
 b) metsää _____ ha
 c) muuta maata _____ ha
 d) peltoa oli vuokrattu ulkopuolisille _____ ha

E2. Tilamme käyttöön oli vuokrattu lisää pelto-alaa ulkopuolisilta _____ ha

E3. Harjoitetaanko tilalla pienyritystoimintaa (esim. piensaha, maatilamatkailu?)

1 ei 2 kyllä, toimiala _____

E4. Mikä on tilanne pääasiallinen käyttötarkoitus? (Yksi rasti)

- 1 maatalouden harjoittaminen 5 asuminen
 2 maa- ja metsätalouden harjoittaminen (tasapuolisesti) 6 metsästyksen harjoittaminen
 3 metsätalouden harjoittaminen 7 lomaviikko ja virkistys
 4 yritystoiminta 8 muu käyttö

E5. Tilan hallintatapa

- 1 omistan tilan yksin 4 Yhtymä
 2 omistan tilan puolisoni tai lasteni kanssa 5 Muu
 3 tilan omistaa perikunta

E6. Kuinka kauan tila on ollut nykyisen omistajan hallinnassa? _____ vuotta

E7. Kuinka kauan tila on ollut saman suvun hallinnassa? _____ vuotta

E8. Vastaaajan ikä _____ v.

E9. Sukupuoli

1 Mies 2 Nainen

E10. Mikä on ammattinne/ammattiasemanne?

¹ maa- tai metsätalousyrittäjä

³ palkansaaja

² muu itsenäinen yrittäjä

⁴ muu, mikä _____

⁵ eläkeläinen ja entinen ammattinne oli yllä olevan luokituksen mukaisesti ₁, ₂, ₃, ₄



Paljon kiitoksia yhteistyöstä

Halutessanne voitte vielä kirjoittaa mielipiteitänne tutkimuksestamme sekä maaseutukehityksestä ja kehityspolitiikasta.

.....

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.....

Jos haluatte ottaa osaa palkintojen arvontaan, tarvitsemme myös nimenne ja osoitteenne. Tämä osa toimii arpalipukkeena.

Vastaajan nimi _____

Osoite _____

	Täysin samaa mieltä	Osittain samaa mieltä	En osaa sanoa	Osittain eri mieltä	Täysin eri mieltä
Väittämä					
r) "Metsitettyjen peltojen raivaaminen maaseutu- maiseman palauttamiseksi on suositeltavaa"	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
s) "Enemmän metsiä ja erikoisia luontotyyppeille pitäisi suojella"	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
t) "Turistit tuovat mukanaan maaseudun perinteisiä arvoja vääristäviä vaikutuksia"	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>
u) "Ravinnon- ja puuntuotannon ohella maa- ja metsätalouden tehtävänä on luoda yhteiskunnalle miellyttävä ja rauhallinen maaseutu ympäristö"	5 <input type="checkbox"/>	4 <input type="checkbox"/>	3 <input type="checkbox"/>	2 <input type="checkbox"/>	1 <input type="checkbox"/>

TAUSTATIEDOT

E1. Vuonna 2001 tilan kokonaispinta-ala _____ ha, josta

- a) peltoa _____ ha, josta v. 2001 _____ ha viljelyssä
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E2. Tilamme käyttöön oli vuokrattu lisää pelto-alaa ulkopuolisilta _____ ha

E3. Harjoitetaanko tilalla pienyritystoimintaa (esim. piensaha, maatilamatkailu?)

1 ei 2 kyllä, toimiala _____

E4. Mikä on tilanne pääasiallinen käyttötarkoitus? (Yksi rasti)

- 1 maatalouden harjoittaminen 5 asuminen
 2 maa- ja metsätalouden harjoittaminen (tasapuolisesti) 6 metsästyksen harjoittaminen
 3 metsätalouden harjoittaminen 7 lomaviikko ja virkistys
 4 yritystoiminta 8 muu käyttö

E5. Tilan hallintatapa

- 1 omistan tilan yksin 4 Yhtymä
 2 omistan tilan puolisoni tai lasteni kanssa 5 Muu
 3 tilan omistaa perikunta

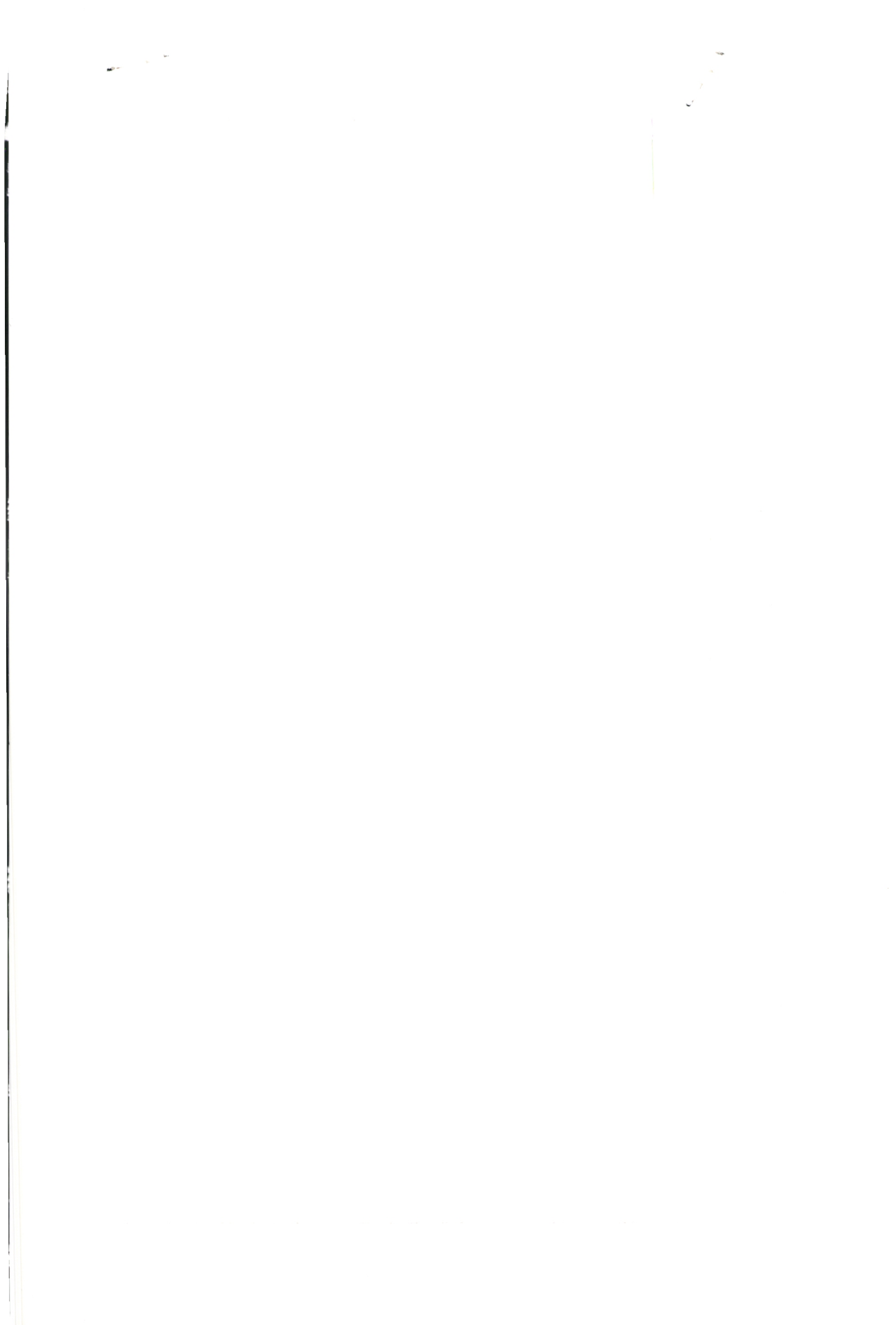
E6. Kuinka kauan tila on ollut nykyisen omistajan hallinnassa? _____ vuotta

E7. Kuinka kauan tila on ollut saman suvun hallinnassa? _____ vuotta

E8. Vastaja ikä _____ v.

E9. Sukupuoli

1 Mies 2 Nainen





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