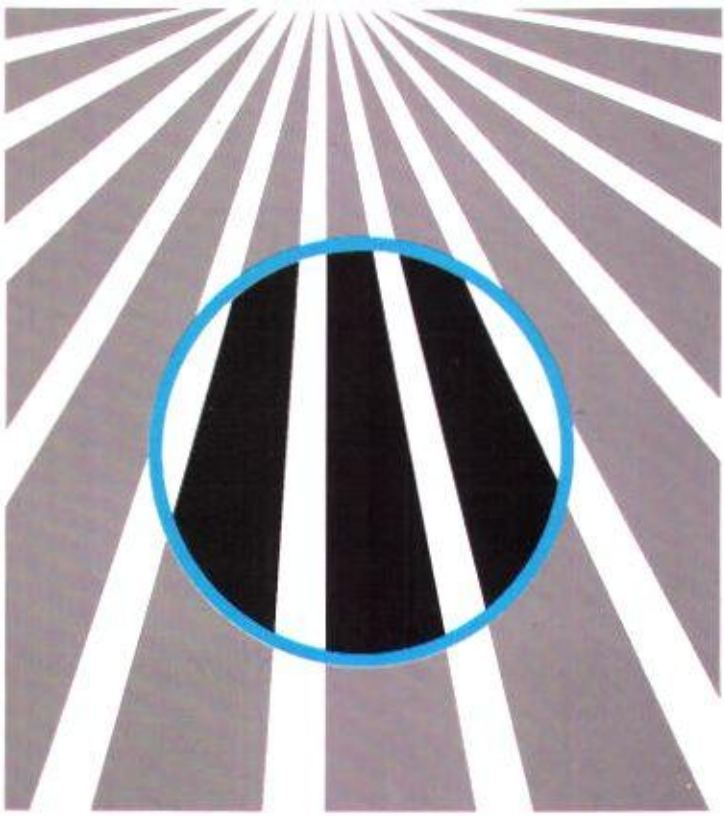
SMALL FARMERS AND AGRICULTURAL EXTENSION

SURVIVING ON A SMALL FARM IN THE NETHERLANDS AND POSSIBILITIES FOR AGRICULTURAL EXTENSION TO REACH A HARD-TO-REACH CATEGORY



B. M. SOMERS

STELLINGEN

1. Ten onrechte is het kleine-boerenvraagstuk in Nederland gereduceerd tot zijn technische en ekonomische aspekten (dit proefschrift).

2. Inspelen op de behoeften en situatie van kleine bedrijven veronderstelt de ontwikkeling van een skala aan bedrijfsstrategieën binnen het drieluik OVO.

3. Lokale voorlichtingsprojekten voor kleine bedrijven sorteren relatief weinig effekt als daarnaast geen sterkere beleidsinstrumenten centraal worden ingezet (dit proefschrift).

4. Een effektieve doelgroepenbenadering door de landbouwvoorlichting is gebaat bij een integratie van technische en sociaal-ekonomische voorlichting (dit proefschrift).

5. Voor de revitalisering van de relatief kleinschalige landbouwstruktuur in oostelijk Europa is de vorming van een OVO-drieluik onontbeerlijk, mits daarin de aspekten uit de vorige drie stellingen zijn verwerkt.

6. De hoeveelheid kennis die in Nederland aanwezig is omtrent kleine boeren en voorlichting in ontwikkelingslanden is omgekeerd evenredig aan de aandacht die de Nederlandse landbouwtop heeft voor dit onderdeel binnen de eigen landsgrenzen.

7. Regionale, historische en culturele konteksten spelen een rol in de zo homogeen geachte Nederlandse agrarische sektor (dit proefschrift). Het verdient daarom aanbeveling het begrip "bedrijfsstijl" in de voorlichtingskunde te hanteren op de wijze waarop prof. Hofstee het in al zijn zeggingskracht heeft benut.

8. Het aanwenden van akkerbouw herstruktureringsgelden voor lokale initiatieven is tegenstrijdig met de aard van het akkerbouwprobleem, dat een grootschalige en diepgaande aanpak vraagt.

9. Uitgaande van het kriterium van arbeidstijd van het bedrijfshoofd bestaat ongeveer een kwart van de Nederlandse agrarische bedrijven uit deeltijdbedrijven (Spierings, 1991: 38). Uitgaande van het kriterium van inkomen van het huishouden bestaat wellicht de helft van de Nederlandse agrarische bedrijven uit full-time bedrijven.

10. Alhoewel het bedrijfsleven een belangrijke rol is toebedacht in de financiële haalbaarheid van kinderopvangvoorzieningen, worden zij afgeschrikt door de warwinkel van lokaal geldende verordeningen, kostprijzen, contractbepalingen en huisregels die het gevolg zijn van de decentrale uitvoering van het kinderopvangbeleid.

11. Decentrale uitvoering van het kinderopvangbeleid legt een te grote claim op de relatie tussen gemeente enerzijds en uitvoerende instantie anderzijds.

12. "Het verkrijgen van een titel veronderstelt deskundigheid, maar deskundigheid resulteert zelden in een titel" (zo sprak de oude dorpeling).

B.M. Somers, Small Farmers and Agricultural Extension
Wageningen, 9 oktober 1991

SMALL FARMERS

AND

AGRICULTURAL EXTENSION

surviving on a small farm in the Netherlands and possibilities for agricultural extension to reach a hard-to-reach category

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SMALL FARMERS AND AGRICULTURAL EXTENSION

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PROEFSCHRIFT

ter verkrijging van de graad van doctor
in de landbouw- en milieuwetenschappen
op gezag van de rector magnificus,
dr. H.C. van der Plas,
in het openbaar te verdedigen
op woensdag 9 oktober 1991
des namiddags te vier uur in de aula
van de Landbouwuniversiteit te Wageningen.

FOR MY FATHER AND MOTHER

CONTENTS

ACKNOWLEDGMENTS

On its way downwards, the number of farmers who have their main occupation in agriculture has passed the magical line of 100,000. Undoubtedly, several farmers whom we visited during the project "Employment in agriculture and Extension" have quit farming in the meantime, or found a main occupation outside agriculture. I thank them, and the ones who were able to hold on to farming, for sharing with me their feelings and learning me appreciate their ways of living and working. The project would have been a failure without their friendliness and hospitality. The same counts for the agricultural extensionists who expressed their feelings and opinions about small farmers and possibilities for extension to reach a hard-to-reach category.

Many persons contributed in one way or the other to this book, and several of them I want to mention here. The support group gave me valuable advices in the first stage of the project: Nol Bauwens, Frans Daniëls, Ellen Kok, Cees Oomen, Jan te Raa, Klaasje Eisses-Timmerman, Ans van Velzen. They helped me to define the problem and to set up the exploratory research and the qualitative survey.

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Much I owe to four persons who were there all the six years the project lasted and critically read several versions of the book: Debby Wechsler, correcting my English; Ad Nooij, attending to methodological and theoretical issues; Niels Röling, always so helpful and inspiring; Jan van den Brand, helping me believe I could realize the project. In the last stage of the project I found Arie van den Brand, Vera Berntsen en Janet Rodenburg willing to discuss the conclusions of the book, and Krijn van Driel to design its cover.

ABSTRACT

This dissertation reports the results of the research project "Employment in Agriculture and Extension". Primary aims of the project were: a) to identify categories of farmers who are homogeneous in their survival strategies and b) to indicate ways agricultural extension could help farmers optimize their survival strategies. The project focussed on those farmers with a small farm, who have generally little or no contact with extension.

The empirical basis of the project consisted of an exploratory research in Westfriesland, an evaluation of an extension project for small farmers in Gelderland, and a qualitative survey in a dairy and in an arable region.

The book contains two main parts. In the first part we investigate the character of the "small-farm problem" in various societal contexts, the solutions one proposed and the role of agricultural extension in alleviating the problem. We discuss the implementation and results of several extension projects for small-scale farmers in the 1970s and 1980s, especially the ways in which the various aspects of the instrument "extension" were used to improve the continuity chances for small farms. We concluded that for an effective target oriented approach the instrument extension has to be redirected in all its interrelated aspects.

The second part of the book deals with the actual strategies of small-farming families. Their goals and strategies seem to be determined by a) the composition of the household and the stage in the family-cycle, and b) regional patterns of farming which bear a strong normative connotation (farming style) or are prompted by the local formal and informal knowledge system (centre function).

People on small farms, so appears from the interviews, cherish specific norms and values about living and working in agriculture. They have a distinguishable perception of their profession. In general, small farmers experience that their professional image contradicts the professional image of large

farmers and extensionists. Moreover, they experience a disdain and demolition of their norms and values. The existence of these conflicting life-worlds hampers an effective target oriented approach of agricultural extension.

The ideological contradicitons that are highlighted in this book, are rooted in the structural marginal socio-economic position of small farmers. Therefore, a better utilization of the agricultural knowledge system by small farmers can not only be reached through alleviating problems of communication, but requires a general reconsideration of the valuation of small farms. This should mean that extension activities that aim to improve the small farmers' prospects, must be accompanied by stronger policy instruments.

SAMENVATTING

Dit proefschrift handelt over de bevindingen van het projekt "Werkgelegenheid in de landbouw en voorlichting". De doelstellingen van het projekt zijn:
a) identificeren van kategorieën boeren die homogeen zijn m.b.t. hun overlevingsstrategieën;
b) aangeven op welke wijze de landbouwvoorlichting boeren kan helpen hun overlevingsstrategieën te optimaliseren.
Het projekt richt zich op degenen met kleinere bedrijven, die over het algemeen weinig of geen kontakt met voorlichting hebben.

De empirische basis van het projekt bestaat uit een verkennend onderzoek in Westfriesland, een evaluatie-onderzoek van een drie jaar durend voorlichtingsprojekt in Gelderland en een kwalitatief survey in Zeeland en Salland.

Het proefschrift valt grofweg in twee delen uiteen. Het eerste deel bevat een onderzoek naar de aard van het "kleine boeren-vraagstuk" in uiteenlopende maatschappelijke kontekssten, de oplossingen die men voorstond en de rol van de landbouwvoorlichting daarin. In een bespreking van enkele voorlichtingsprojekten voor kleinere bedrijven wordt ingegaan op de wijze waarop het instrument voorlichting is ingezet om de kontinuïteitskansen van kleinere bedrijven te vergroten. Tevens komt naar voren het belang van een geïntegreerde benadering van de diverse aspekten van voorlichting voor een effektieve doelgroepbenadering.

Het tweede deel van het proefschrift handelt over de strategieën die door agrarische huishoudens worden gehanteerd om de kontinuïteit van het bedrijf veilig te stellen. Hun doelstellingen en strategieën blijken in belangrijke mate te worden bepaald door a) de samenstelling van het huishouden en de fase in de gezinscyclus en b) de regionale patronen van bedrijfsvoering die een sterk normatieve komponent in zich dragen (bedrijfsstijl) ofwel gevoed worden door lokale formele en informele kennissystemen (centrumfunktie).

Mensen op kleinere bedrijven, zo blijkt uit het onder-

zoek, hebben specifieke normen en waarden over leven en werken in de agrarische sektor. Zij hebben een karakteristieke normatieve invulling van het beroep boer. Over het algemeen ervaren mensen op kleinere bedrijven dat het door hen gehanteerde beroepsbeeld konflikteert met dat van kollega's op grotere bedrijven en voorlichters. Ergo: zij ervaren een minachting voor en een afbraak van hun normen- en waardenstelsel. Het bestaan van deze konflikterende "life-worlds" belemmert een effektieve doelgroepbenadering van de landbouwvoorlichting.

De ideologische tegenstellingen die in het proefschrift worden belicht, zijn verankerd in de strukturele marginale sociaal-ekonomische positie van kleinere boeren. Een betere benutting van het landbouwkennissysteem door kleinere boeren kan daarom niet slechts door betere kommunikatiemethoden van de voorlichting worden bereikt; het vereist een algehele herziening van de waardering voor kleinere bedrijven, wat zich vertaalt in de inzet van sterkere instrumenten dan voorlichting alleen.

CHAPTER 1: EXPLORING THE PROBLEM

1.1 Preface

This book reports the results of the research project 'Employment in Agriculture and Extension', for which the proposal was written in 1983. Primary aims of the project were a) to identify categories of farmers who are homogeneous in their survival strategies and b) to indicate ways agricultural extension could help farmers optimize their survival strategies[1]. The research would focus on the farmers with non-viable farms, a category that comprized roughly one-third of the total farming population. Until then these farmers had formed no target category for the extension services who were dedicated to encouraging farm development in the form of modernization and increased farm size.

The project was a product of its time. In those years, the Netherlands suffered from the lowest economic growth rate and the highest unemployment rate in the OECD. A crucial question, thus, was how small farming families struggled to safeguard their employment opportunity and how agricultural extension could help with this struggle. In this first chapter, we will touch on several aspects of the problem and explore the societal and theoretical contexts in which the problem can be placed.

1.2 Exploring the problem: its societal context

The societal context in which the project was initiated was characterized by a diminishing labor-absorbing capacity in the service sector, a growing number of unemployed and a growth of the 'underground economy'. Until 1984, the stagnant economy and increasing problems with financing the social security system gave rise to a flow of studies about survival strategies of low-income urban families, the development of a

hard-to-grasp grey and informal economic circuit and the successes and failures of small- and medium-sized business. In agricultural circles, research was done on employment projects for rural youth and extension projects for small farmers. Thus, the project 'Employment in Agriculture and Extension' formed no exception in those days.

Until the early 1980s, the service sector was able to absorb the surplus of labor from the agricultural and industrial sectors. As a consequence of the rationalisation of agricultural and industrial production after World War Two, a diminishing proportion of the labor force found work in those sectors. In 1965, 8.6% of the labor force was still employed in agriculture, but this figure declined to 5.8% by 1981 (Godschalk, 1985). The percentage of people working in industry declined from 41.9% in 1965 to 29.9% in 1981. Increased labor productivity in these two economic sectors was accompanied by a growing national prosperity, so that the excess labor could be absorbed by a rapidly expanding service sector. Employment thus shifted from agriculture and industry to the service sector, the latter employing 49.5% of the labor force in 1965 and 64.3% in 1981.

Two succeeding oil-crises in the 1970's caused the prices for energy and raw materials to increase tremendously. At the same time, environmental costs, taxes and wages rose. Many industries shifted their locations to low-wage areas in other parts of the world. But the service sector also felt the pressure of changing economic relationships. Because wages in this sector were coupled to wage trends in industry, the price of services increased constantly, while the services, generally labor-intensive, showed a lower growth in productivity than the industrial sector. Reorganisations and automation were deemed necessary to cope with those unfavorable price relations, but both interventions undermined the labor-absorbing capacity of the service sector.

Along with the number of unemployed, the number of low-income households increased in the first half of the 1980s: from 313.000 in 1981 to 650.000 in 1984. (In addition to the

unemployed, these were mainly retired people and divorced women with children who depended on social security payments.) And the fixed costs for maintaining a household - house-rent, energy costs and community taxes - still increased. Changes in the tax system and reductions in the social security payments nibbled even more from the already low incomes.

Low-income households coped in different ways with their deteriorating situation, depending on their family situation and capabilities. They had to economize on food, clothing, subscriptions and gifts. Social isolation and deteriorating nutritional status were the most serious consequences of these kinds of strategies (Minina zonder marge 1984: Engbersen a.o., 1986). Another way of coping with a low- income situation was producing one's own food and clothing and performing as many tasks as possible oneself. In some cases, repairing household fixtures and appliances, maintaining the house and garden, and other activities were no longer restricted to the household, but spread in a sort of informal communal economy (Pahl, 1980). Although these informal production networks obviously satisfied the needs of those directly concerned, there were many detrimental consequences from a macro-economic point of view. More and more unemployed entered the so-called "twilight"-zone, the economic production that lies outside public control and that flows over in the "black" circuit. Here one pays "cash" for productive services, without paying (full) taxes or premiums. Although the "black" circuit of unemployed or those who otherwise received social payments formed only a small part of the total "black" circuit, their activities could lead to a diminishing of similar activities in the formal economy (Godschalk, 1985). Therefore the "twilight"-zone could not be considered an important source of future employment, but more an indication of societal problems (Renooy, 1984).

That the unfavorable employment situation would have its drawbacks on agriculture could be expected. The unemployment rate in the agricultural sector had risen to 15% by 1984, while interest in working in this sector still grew, according

to the inflow of adolescents into agricultural vocational schools. Although a direct relationship was never proved, it was assumed that the renewed interests of adolescents in taking over the parental farm could be a reaction to the generally unfavorable employment situation outside agriculture (Van der Linden, 1985). Especially in areas with a feeble economic structure, succession seemed like the only choice available, because of the lack of alternative employment (Spierings en Wolsink, 1984). On the average, the succession rate increased from 36% in 1980 to 43% in 1984. Many problems were foreseen by the fact that, although the number of successors on smaller farms did not increase, still 5000 successors were to be found on farms that were considered too small to be viable[2].

Increasingly, farming families on relatively small farms experienced problems coping with deteriorating incomes. The income situation on many farms was not very favorable. In 1984 more than 30.000 farmers applied for an allowance for self-employed, which was actually granted to nine out of ten applicants. It could be expected that farming families, especially on the smaller farms, needed more and more to economize on household expenditures and to combine on- and off-farm sources of income, thereby sliding into the "grey" circuit. It is in this general context that some research efforts were directed towards the employment situation in agriculture, towards survival strategies on small farms and the possible role of the agricultural extension services in the optimization of these strategies[3]. Several extension projects were implemented in regions where small farms were expected to play a role in keeping up the level of local employment (see chapter 3).

1.3 The problem in its changed societal context

The economic recovery from 1984 onwards - influenced somewhat by lowering oil prices, but more by increased consumer spending - seems to have pushed the interest in small-scale farming to the background. The social and political climate has changed. Though the Netherlands still must reckon with a structurally high unemployment rate, the employment argument seems no longer to be a valid argument for supporting small-scale farming. Yet, we saw sufficient reasons to continue the project 'Employment in Agriculture and Extension'.

Nowadays, small farms are considered a burden rather than a potential for employment and income opportunity. The persistence of a category of too-small farms hampers the necessary structural adaptations in agriculture (see also chapter 2). Lowering the costs of production through rationalisation and scale increase is deemed even more necessary in these times of stagnating sales and EC budgetary problems. The latter forced the European Commission to economize on expenses for the common market- and price policy; a nominal decrease in prices for agricultural products was established. But the structural adaptation of agriculture itself is said to be hampered by the slowing down of the rural exodus: the persistence of many small- and medium- sized farms would pose a strain on the developmental possibilities of other farms. Thus, we can observe a friction between the wish to rationalize the agricultural sector on the one hand and the reality of stubborn farming families, trying to make a living on a small farm, on the other. It is quite fascinating to observe that, despite technological and market forces, small farming families have managed to earn an income and to safeguard their employment opportunity.

Research of the category of small farmers seems even more necessary when we consider the friction between arguments of economic efficiency and arguments of morality and equity. Dutch agriculture is praised for its modernity, its

productivity and competitive forces. Agricultural incomes depend for 65% on export, which makes producing "competitively" a main issue in agricultural policy (Structuur-nota Landbouw, 1990). That such an efficient agriculture creates its own marginal groups is often overlooked, or brushed off with the argument of transition: farmers who are not willing or not able to develop (read: modernize or enlarge) their businesses are an atavism and will be forced out in due time. The general opinion is that the small-farm problem will solve itself, that is, as long as no special measures are taken to support small farmers, they will gradually be eliminated by the ongoing forces of technological development and market relationships. Yet small farmers comprise roughly one-third of the farming population; they can reasonably expect the farmers' organizations of which they are members, to defend their interests; they can reasonably expect the research and extension apparatus to help solve their technical problems. But it is precisely in these areas that small farmers feel marginalized, as we will see later in this book. The social aspects of the small-farm problem often fade away in the light of economic arguments, and it is precisely on this ground that small farmers deserve more attention than they get.

Here we need to mention that small-scale farming has drawn more attention from local governments and local committees of the farmers' organizations than from national policy makers. We can observe an unwillingness in the higher echelons to develop policy instruments on behalf of the continuity of small farmers; yet regional efforts (by regional departments of farmers' organizations, extension services and local administrationd) have been undertaken to support small farms. This observation is very much in line with the statement of Cuddy and O Cinneide, that

> the desire to achieve social objectives intensifies, the concern for economic efficiency weakens and the short-term view tends to become increasingly dominant at regional and local levels (Cuddy and O Cinneide, 1990).

From a local point of view it is often emphasized that small-scale farming can satisfy some societal needs that will possibly grow more important in the future. Small farmers can play a role in maintaining the viability of predominantly rural areas, as is shown, for instance, in the activities of the National Association for Small Villages (LVKK). They can possibly play a role in a growing demand for rural tourism in a diversified and well kept landscape. We can not overlook these seemingly short-term objectives, nor can a solidary society overlook the problems of a category that feels marginalized in economic and social-cultural domains. For these reasons, learning about small-farming families, their ways of working and living, and their perceptions, has remained a priority of the research project 'Employment in Agriculture and Extension'.

1.4 Regional inbalances and agricultural development

The notion that small and also part-time farms can play a role in keeping up a social and economic infrastructure in peripheral areas, is more alive in other European countries than in the Netherlands. Also the possible role of agricultural extension in maintaining a farming population in peripheral areas seems to have crystallized more fully elsewhere. Foreign ways of thinking and experiences may help clarify the problem we are dealing with; for this reason we will mention some of them below.

Large differences exist in the per capita income, the employment situation and productivity between the member countries of the EC and even between regions within countries. The harmonious development of the whole, one of the fundamental goals of the EC, is hard to find. The inhabitants of some regions have a disposable income equal to only one fifth of the disposable income of inhabitants of the most prosperous regions. Levels of employment and economic activity in the most prosperous regions are five times as high as in

the poorest ones. Although we must be very cautious in comparing indicators as per capita income and unemployment rates (Molle, 1986), the figures give a rough insight into the existing regional problems.

Diminishing trade barriers has not improved the situation in less favored areas much. On the contrary, free market forces can cause very negative effects. The intended mobility of the production factors - labor, capital, services - remains restricted to labor alone. Thousands left their villages in poor regions for areas with more intense economic activity, thereby depriving their places of origin of an important potential for development. Capital also failed to flow in the desired direction: the less developed areas failed to attract sufficient investment. Thus, the regions which already had a lead have profited most from the free movement of production factors. Additionally, the common prices of agricultural products were based on more modern farms and included a yearly percentage increase for an expected growth in productivity. The fact that these prices were not calculated for less developed farms or farms in less favored areas further increased the differences in income (EFRO, 1985).

The above-mentioned lack of balance violates the fundamental Treaties of the EC in two ways. First, the functioning of a really free market, with a free movement of persons, products, capital and services, is hampered. Second, the injury to the weaker areas is hard to accept in the light of the commitment to solidarity. These reasons form the basis of arguments to justify support of less-favored areas.

Obviously, the threatened economic efficiency was a main argument. The total European economy suffers from regional imbalances since full profit can not be realized from the existing potential. Development of the lagging areas, it is argued, increases total prosperity, reduces social security allowances, creates new employment opportunities and enables those regions to participate in the economic and trade circulation. Second, large groups of the population perceive

the unevenness as socially unacceptable and morally unjustified. Thus, without a more balanced division of prosperity and economic activity over the European regions, economic integration is very problematic. Moreover, the functioning and cohesion of the Common Market itself is jeopardized. Yet, it is the creation of a democratically and politically stable Europe that formed an important reason for establishing the EC (Van den Noort, 1986).

Through a European regional policy it became possible to take financial measures on behalf of certain problematic areas. This policy intends to focus on the own development potential of these areas ("endogeneous development"), on strengtening the position of small- and medium-sized business, on stimulating new activities in the service sector and tourism, and on the symbiosis between agriculture and other activities. Though an integrated approach is desired, the actual emphasis is on agriculture, as the main source of unexploited potential for development. This emphasis seems logical, when we realize that in countries such as Italy, the Irish Republic and Spain, over 10% of the total labor force is employed in agriculture, and in Greece and Portugal even over 20%. Regionally, these percentages can be still much higher.

According to Zurek (1985) agriculture in problem areas can fulfill several functions. It directly provides jobs for these areas; it secures jobs in related areas of the economy; it releases labor for industry (people involved in farming as a secondary occupation); it can be combined with small business in crafts and tourism, so that many people who would otherwise have been forced to leave the area have a opportunity to stay on; and, finally, it secures a minimum level of population density and a local source of consumption, thereby contributing to regional demand.

Although agricultural development has taken place in all member countries of the EC, the development patterns differ greatly by country and even within countries. When analysing the various tables concerning the agricultural structure in Europe (Eurostat, 1988), we can discern three groupings:

1. a group consisting of the United Kingdom, the Netherlands, Denmark and Belgium where agriculture is characterized by a relatively low percentage of small farms, a low percentage of part-time farmers and a low contribution by part-time farmers to the total agricultural economy, a large economic size per holding and a high labor-productivity. In the eyes of a "southerner" like De Benedictis, these are countries with a rather homogeneous agricultural structure, i.e. the input of means of production as well as the productivity of those means is relatively homogeneous (De Benedictis, 1983).
2. a group consisting of the Mediterranean countries Greece, Italy, Spain and Portugal, characterized by a relatively high percentage of small farms, a high percentage of part-time farmers and a high contribution of part-time farming to the total economic size of agriculture (with the exeption of Italy), a low economic size per holding and a low labor-productivity. Moreover, these Mediterranean countries have a relatively heterogeneous agricultural structure.
3. a group consisting of the Federal Republic of Germany, France, Luxembourg and Ireland, which takes an intermediate position between the two preceding groups. The agricultural structure of these countries posess a certain degree of heterogeneity.

The picture above suggests uneven patterns of agricultural development between countries and regions in countries. Often, an interplay of different local variables lies at the root of the observed diversity. De Benedictus, for instance, discerns variables such as the physical environment; the institutional and social structures that determine the organisation of production (family farms versus capitalist holdings, tenure and ownership relations, relations between farms and supply and processing industries); the stage of technological development; the structure and functioning of the inputs and sales markets; and, finally, the employment situation outside agriculture (ibid.).

Throughout Europe, processes of adaptation to local situations have caused a great variety of agricultural

systems. In spite of this diversity, post-war national and EC policies were tuned to only one type of farmer: the one who is willing and able to develop his farm and who has the mental capacities and the circumstances to do so, i.e. to adopt modern technologies and raise agricultural production. The fact that only one dominant model of development lies at the root of the implemented policy measures, apparantly has perpetuated or even sharpened regional differences. Becoming conscious of this interplay between local and national/supra-national policies in France, Germany and Italy, has lead to debates concerning the implementation of the instrument 'agricultural extension' in these countries. A short review follows in the next section.

1.5 Agricultural extension in a heterogeneous agricultural structure: the cases of Italy, Germany and France

The case of Italy

Examining the role of agricultural extension in Italy, De Benedictis points to the great variation in levels of production caused by climatological and topographical differences (De Benedictis, 1983). Moreover, in Italy, as in other Mediterranean countries, feudal relationships concerning tenure and property of land still exist. Small, peasant-like holdings can be found alongside large capitalist ones with often an absentee landowner. Technological innovations mainly benefited the larger farms in favorable natural environments. The fact that farmers differ from each other concerning their possibilities for farm development is however not taken into account by national and supra-national agricultural policies. This has even sharpened the uneven development pattern.

De Benedictis observes that, despite existing differences, public intervention in agriculture is not oriented towards providing equal opportunities, but more to reaching national goals, such as a certain volume of

production (see also Röling, 1982). What is lacking is the possibility to intervene with an adequate combination of policy instruments on behalf of discernable categories in a small region. A decentralized extension apparatus should be one of those instruments. Organized on a regional basis, such an apparatus would be able to investigate the needs of rather homogeneous groups. Through well established relationships with agricultural research institutes, technology could be developed which would be more appropriate to farmers who would otherwise have to use obsolete techniques or adopt excessively complex and expensive equipment. Moreover, a regionally-organized extension apparatus would not only have insights into potential agricultural development, but also into non-agricultural sources of income.

In dealing with the question how to adapt extension to stages and patterns of agricultural development - in stead of adapting farmers to make them "develop" their holdings - De Benedictis focusses on the organisational aspect of extension. His emphasis can be explained by the existence of a very bureaucratic and centralized extension apparatus, an inheritance from Italy's fascist past. Administrative work prevails at the detriment of extension work. Because official extension failed in its proper tasks, the supply and processing industries dedicated themselves to modernizing Italian agriculture. Needless to say, commercial interests were crucial for them, so that groups of farmers who were not willing or able to adopt the offered innovations were excluded.

The case of Germany

In Germany, where official extension functions well, the problem of diversity draws much attention. For example, Albrecht (1983) points to the important societal function of small and part-time farmers (see also Zurek, 1986). The percentage of part-time farms amounts to 40 or 50%, and especially in peripheral areas, these farms provide a certain

social and economic infrastructure. In other areas a traditional and stable symbiosis between industry and part-time farming has developed, which dates back to the early years of industrialization in Germany.

The importance of part-time farming is expected to increase. Due to the current problematic situation in agriculture (restricted possibilities for farm adaptation and decreasing prices for agricultural products), many full-time farming families will search for additional sources of income. But the possibilities for off-farm jobs are also limited, especially in the peripheral regions. Until now, so argues Albrecht, small and part-time farms have not been very attractive to extension workers. Since these farms are clearly disadvantaged by the market-, price-, and structural policies, and are having such a difficult time, extension has the obligation to provide support and assistance. Extension must be there for everybody, is also the argument of Pahmeyer (1987). For this reason, unrequested extension for hard-to-reach groups is performed in several areas.

Both Albrecht and Pahmeyer point to the importance of a suitable methodology for reaching small and part-time farmers with extension. First, you must know very well how these families live, work and think. In general, their educational level is relatively low, they feel a bit inferior and they are inclined to postpone difficult decisions. These are the main reasons for the fact that they do not consult the advisory service actively: extension itself must take the initiative.

In a review of several projects for small farmers, Albrecht concludes that the real problems concerning the hard-to-reach are not caused by attitudes, motives, knowledge and capacities of the small farmers, but by the methods used by extension itself. Albrecht proposes new methods, which however require a re-education of extension workers: methods that are roughly comparable with the so-called "global management approach" (Van Beek, 1987). Especially the need to analyse and deal with the entity 'farm-family-household' requires extension workers to be generalists rather than specialists.

With the increasing specialisation of extension workers within the services, team-work and co-operation with other organizations and services are becoming more important.

The case of France

In France, the post-war focus on one specific model of agricultural development has been criticized from the late 1970s onward. This critique is partly caused by the economic crisis in which France's highly intensive and specialized agriculture finds itself (Ritz-Stoessel and Woehl, 1986). Also, doubts have arisen about how realistic a goal of imposing one model of development on a diverse agriculture can be (Gerbauw et Muller, 1983).

Moreover, it is extension itself that deserves criticism. The history of French agricultural extension, unlike that of other countries, has been marked by a constant struggle between government and professional organizations (Dauce et Houee, 1983; Gerbaux et Muller, 1983; Rolland, 1983). Despite the efforts of the governmental service to implant "the" method of the professional organisations - group extension - in its procedures, the service appeared not to be able to establish itself as one of the strong agents of development. That role seems to be reserved for locally organized groups of farmers. These, however, do not include many farmers in peripheral areas or "less-developed" ones in favorable regions.

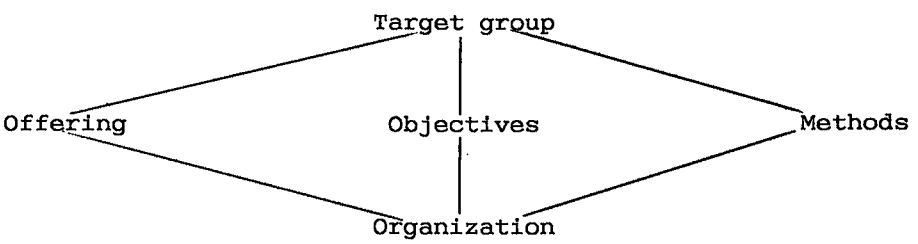
Petit (1983) summarizes the main problems of the governmental extension service, which seem to lie in the domain of institutional relationships. Among others, he mentions a lack of co-ordination between the several institutions and between governmental institutions and professional organizations. Would an improvement in the latter relationships also favor the farmers who were until now excluded from development? The question remains open. Petit is more outspoken in his analysis of extension methods. He develops a model of the adaptive behavior of farmers in which

the environment as a whole is taken into account as well as the (subjective) interpretation by the farmer of his situation. As a consequence, extension workers must change their ways of working: the main function of the extension worker is not to give a solution for a defined problem, but to help analyse the situation in which the farmer finds himself. Only when the situation has been clarified, the extension worker can give advice. Moreover, Petit proposes to develop a diversity of extension methods in order to serve better a diversified agriculture.

Discussion

As we have seen above, in countries with a more or less heterogeneous agriculture, the necessity is recognized to adapt agricultural extension to the needs of marginal categories of farmers. Several authors have pointed to different individual aspects of extension that need adaptation. Yet, for instance Röling (1982) has stressed that adaptation to new target categories requires the integral transformation of all aspects of extension. Re-targetting the instrument extension requires adaptations in organization, objectives, methods and offerings of extension, as is expressed in "Royen's mill" (see figure 1.1). "Royen's mill" not only emphasizes the interrelationship of the different elements, but also takes into consideration the influence of the nature of the target category on each element.

Figure 1.1: "Royen's mill"



Source: Royen, 1972, quoted in Röling, 1982.

"Royen's mill" provides us with a checklist that can be helpful in starting or evaluating extension projects for hard-to-reach categories. We actually used this checklist in our evaluation of several projects for small- and medium-sized farmers in the Netherlands (see chapter 3). Another checklist, focussing on the adaptation of extension methods to a specific target category, is presented by Kok (1985) (see figure 1.2).

Figure 1.2: Model of behavioral change through extension

1.	Attention	<-------	selectivity
2.	Understanding	<-------	comprehensibility
3.	Change in attitude	<-------	advant./disadvantages
4.	Change in intention	<-------	social norms
5.	Behavioral change	<-------	(im)possibilities
6.	Behavioral retention	<-------	feedback, custom

Source: Kok, 1985: 74

The first step in Kok's model implies that in order to establish contact with the target category, extension must carefully search for a method that suits the world of experience of the target category. Second, the target category must understand the meaning of the given information. If you have gained their attention and packaged the message in an understandable form, the members of the target category should be able to weigh the advantages and disadvantages of the desired and undesired behavior (step 3). Therefore, the source of information must be credible for the target category. Only then can a change in attitude be reached. A change in attitude can lead to an intention to change behavior (step 4). Extensionists must be aware that social values can influence the inclination to change, according to Kok. Behavioral change only comes about when the possibility exist to carry out a changed intention: when people not only want, but are also able to change (step 5). Extension must provide for

alternatives that are realistical. Finally, the model points to the importance of feedback in order to make the behavioral change lasting (step 6).

The essence of Kok's model is that it is not the target category that must adapt itself to existing extension practice, but extension that must adapt its methods and content to the target category (see also the argument of Albrecht in the previous section). This argument is of crucial importance for the research project "Employment in Agriculture and Extension" and we will come back to it several times later in this book.

Yet the question can be raised whether the above approaches to improve the communicative interventionist power of extension would sufficiently improve the circumstances of marginal categories. They certainly help to improve the efficiency of communication vis-a-vis specified target categories, but to what extent will they actually improve the conditions in which hard-to-reach categories live and work? Examining this aspect, Röling (1982) ascertains that the above mentioned approach is still too much "top-down". A "bottom-up" strategy would be necessary to develop real perspectives for small farmers. Targetting extension to hard-to-reach categories by improving the efficiency of communication is no more than a way-side station in the development that have taken place within extension science. In the next section we will trace the global lines of these developments.

1.6 Exploring the problem: theoretical developments in extension science

The recognition and acceptance of differences in types and tempi of agricultural development is the first step in extension's possible role in creating equal opportunities for the farming population. Next, many institutional barriers must be overcome, including extension workers' current ways of thinking and working. Extension managers and field workers in

the above-mentioned countries, as well as in the Netherlands, have experienced difficulties in overcoming these barriers when they decided to redirect their attention to small farmers. This redirection is also reflected in extension science, where targetting the instrument extension in all its aspects to specified categories has increasingly become a source of concern.

For a long time, attention to strategies for progressive farmers dominated extension science. Progressive farmers would adopt innovations relatively early and it was assumed that the opinion leaders among these earlier adopters would pass along the new ideas they had learned to their followers in a kind of "trickle down" process. But, as Rogers showed,

> (...) most interpersonal network links connect individuals who are alike or similar in adopter category and socioeconomic status. So innovations generally "trickle across" rather than "trickle down" in the interpersonal communication structure of a social structure. By adopting innovations relatively sooner than others in their system, innovators and early adopters achieve windfall profits, thereby tending to widen the socioeconomic gap between these earlier adopting categories versus laggards. Thus the earlier adopters get richer, and the later adopters' economic profit is comparatively smaller (Rogers 1983: 392).

Röling also points to the widening of socioeconomic gaps in social systems as a consequence of the progressive farmers' strategy. In his inaugural address he mentions a "built-in tendency" of extension workers to engage themselves with progressive farmers (Röling, 1984). Since progressive farmers are much easier to convince, have easier access to resources than the average farmer and are sooner inclined to take risks, extension workers can gain more credit from their work when interacting with progressive farmers, according to Röling. Progressive farmers actively ask advice and information, and extension workers can learn much from them as well.

Extension workers who have relatively much contact with an upper layer of well-educated, resource-rich, progressive farmers, can be blind to the fact that many of the technologies they introduce are only relevant for this upper

layer. They can be blind to the heterogeneity of social systems with regard to the appropriateness of technology. Therefore they are not able to correct the process of technology development or to give accurate feed-back to research institutes. It is just this interplay between the ways extension intervenes in heterogeneous social systems and the restricted relevance of much of the introduced technologies that causes the widening of socioeconomic gaps between categories of farmers.

One of the proposed methods for preventing such harmful side-effects, is a more market-oriented approach by extension (Röling, 1985). In such an approach extension's offering is adapted to the needs and characteristics of discernable target categories. Especially for marginal categories it seems important to finetune the methods and content of extension to the personal characteristics as well as the more structural circumstances of their lives (Elbers en Tissen, 1986; Van der Beucken et al, 1986). But Röling suggests that more is needed in order to actually improve backwards people's situation with extension: bottom-up strategies.

Farming Systems Research (FSR) is such a bottom-up strategy. This method aims to involve farmers in technology development, thereby enhancing the appropriateness of recommended technologies. Farmers are involved in all research stages. Their voice is heard among others in the exploratory stage - whether or not supplemented with a formal survey. Based on this "description" stage, the researchers try to define relatively homogeneous sub-categories of farmers. The farmers' natural and economic circumstances must be similar to the extent that a given technology will be relevant to each farmer within the category. Next a few sets of improved practices for testing at the farm level are designed. Testing takes place in on-farm trials, "under the circumstances of representative farmers and with feedback from year to year and experiment station research (...)" (Winkelmann and Moscardi, 1982).

Thus the objectives of the farming family are directly incorporated into the research process. FSR taps the pool of existing knowledge and recognizes the location specificity of the technical and human elements. Contrary to the top-down approach, the process of FSR is recognized as dynamic and iterative with interaction in both directions between farmers, research workers, and funding agencies (Norman and Gilbert, 1982). It recognizes that farmers are not only passive receivers of information and technology, but also sources of knowledge and innovations.

FSR seems to be of great value in situations in which the links between farmers, extension and research institutions are weak, which is the case in many underdeveloped countries. In such situations, research and development of new technologies have not usually been suited to the majority of farmers. The question, however, is whether it is a proper method in situations where a well-integrated institutionalized agricultural knowledge system exists, in which certain groups of farmers actually influence processes of technology development and information generation. Röling characterizes such a situation as follows:

> No longer was it possible to assume that such change agencies [extension and research, S.] could easily be re-targeted at different categories of utilisers. Instead, research, extension and utilisers seemed locked into social systems interconnected through mutual control and adaptation, leading to convergence of interests and to the exclusion of other categories of potential beneficiaries (Röling, 1985).

In such a system the generation of information and the development of technologies are usually not attuned to the needs of those who are not involved or hardly involved in the system and thus fail to give any feedback. The only solution for such marginal categories is to form "active user constituencies" that "pull services down", according to Röling. Extension could help these categories to develop a "countervailing power". Five steps are essential in order to create an active utilizer system: 1. mobilization, 2. organization, 3. training, 4. technical support and 5. system management (Röling, 1988). Is it realistic however to expect

that small farmers can develop a "countervailing power" in a well-integrated system and that extension workers are willing to dedicate themselves to such a task?

What we need in order to answer these questions is a more detailed investigation into the dynamics of the knowledge and information system. More specifically we need to define the relationship of small farmers to the system. According to Röling, a knowledge and information system

> comprises all components in a social system, and their interrelations, that are involved in knowledge-related processes in a certain domain, such as agriculture. Depending upon the level of aggregation, the components can be institutions, collectivities, networks or individuals (Röling and Engel, 1990).

Such a system is characterized by a specific structure through which the interactions between components take place, and by specific mechanics of the basic knowledge processes. The system includes "prime movers towards synergy" but also "incentives to entropy" (ibid). A well-integrated system is an effective system. Therefore, especially of interest is the study of linkage mechanisms, the specific arrangements that organize a link, or interface, and the management of these mechanisms.

What interests us here is the "downstream-end" of the knowledge and information system. The "upstream-end" of the system consist of policy-makers at the national level, national research and R&D, national information services, or even supra-national components (Engel, 1990). In the "downstream-end", or "Primary Agricultural Knowledge System" (PAKS), all actors involved keep relatively close contacts with the farming community. A PAKS is

> a set of networks, organizations and/or institutions, including their interrelationships, involved in the transformation of agricultural knowledge within a certain domain of primary production" (Engel, 1990).

Components of the PAKS are: farmers' organizations and their specialized services, farmers' cooperatives and commercial agro-industrial companies, government and private extension agencies, government and private applied research stations,

the agricultural press and other mass media, agricultural vocational schools and all kinds of informal networks (ibid).

How can we now define the relationship of farmers with components of the PAKS? A primary aspect of a linkage is that it comprises social processes. According to both Röling and Engel, links between components in the system concern the exchange of resources, such as information, labor, money, materials or legitimacy between units and subunits. These exchanges are conceived as structural characteristics of the system rather than as the outcomes of conscious behaviors of social actors. Moreover, both Röling and Engel are interested in managing these linkage mechanisms to enhance the system's integration.

This rather mechanistic view is critized by Long. He defends an actor-oriented approach in interface-studies (Long, 1989b). Instead of systems he prefers to talk about social networks. Yet, in the assumptions of both Röling and Engel as well as in Long's, the interactions between network (or system) and individual behaviors are not examined.

A second aspect of a linkage is its contribution to the system's performance. Röling and Engel are inclined to study interventions in linkages in order to create better system integration. Long, on the contrary, argues that interface studies should be primarily concerned with the analysis of discontinuities in social life. His point of view is based on his recognition of a multiplicity of knowledge networks

> through which certain types of information are communicated and legitimated, and between which there is often a critical lack of communication (Long, 1989b).

At social interfaces these different, often-conflicting "life-worlds" or social fields intersect, according to Long.

The problematic relationship between farmers and extension may well be described in terms of conflicting "life-worlds". In this sense we can conceive of a PAKS not only as networks of system components or actors, but also as cognitive networks containing intrinsic symbolic values on knowledge. These symbolic values find their expression in actual social

relationships and at the same time help to shape these relationships. A characteristic of the relationship between farmers and extension workers seems to be the different professional orientations which form the context for their strategies. Especially the relationships between small-scale farmers and extension workers, in the light of the knowledge system's characteristics, form an important part in the research project "Employment in Agriculture and Extension".

1.7 The facets of the problem

Now we have explored the societal and theoretical context in which the research project 'Employment in Agriculture and Extension' was initiated, it is possible to define some avenues of exploration. The research project has the function to clarify several facets that are related to the problem; its character is therefore rather explorative and descriptive. More emphasis will be given to defining hypotheses than to testing them.

Chapter 2 will highlight the small-farm problem in the Netherlands as it has been perceived during the last hundred years. As we have seen, the perception and valuation of small-scale farming can change drastically between one period and the other. In a bird-eye's view we will discern several of those periods within the last century. Chapter 3 then deals with very concrete extension efforts to reach 'hard-to-reach' farmer categories. The projects that will be discussed took place in the second half of the 1970s and first half of the 1980s, a decade in which the concept of farm-development was first criticized and the arguments involving employment became crucial. From countries with a more-or-less heterogeneous agricultural structure we can learn that extension can play a role in agricultural development in backward areas, but only after considerable adaptations in its traditional methods and philosophies. In chapter 3 we deal with the questions of to what extent and with what results the different aspects of

extension were directed towards small-scale farming.

Chapter 4 leads into a shift in point of view. Until then we looked at small-farming families from an extensionist point of view, but in chapters 5, 6 and 7 we will deal with how small-farming families themselves perceive their situation. These three chapters are based on the results of an explorative research and a so-called qualitative survey research, for which the approach - methodologically as well as theoretically - is set out in chapter 4. Also some general information concerning the samples are given in this chapter.

In chapters 5 and 6 we deal with the actual survival strategies of small-farming families. Is what happens in small-farming families comparable to the situations of poor urban families to which we referred in section 1.1? Can we discern specific patterns in the survival strategies of small-farming families? What are their goals and motivations? What factors influence their survival choices? Chapter 5 is mainly restricted to household strategies and strategies in agricultural production. In chapter 6 we will elaborate on combinations of agricultural and non-agricultural, on-farm and off-farm activities.

While we deal with some problems concerning the interface between small-scale farmer and the knowledge system seen from an extensionist's viewpoint in chapter 3, in chapter 7, the problems with the interface are examined by farmers themselves. We could establish a kind of classification in the main grievances and bottlenecks and were able to translate the results to some current sociological theories about professionalization and marginalization.

In chapter 8, the concluding chapter, we will gather together the main results of the previous facet-studies. As a conclusion we will set out some lines for further discussion of the problem at hand. Hopefully, this book will not only give an account of a vanishing farming category in the Netherlands, but it will stimulate decision makers on local and national levels to reconsider their valuation of small-scale farming in a modern society.

CHAPTER 2: SMALL FARMERS IN CHANGING CONTEXTS

2.1 Preface

In the past 100 years the existence of the category small (later considered too small) farmers was a structural feature of Dutch agriculture. Within this period, however, the persistence of such a category has been judged differently at various times. Analysis of the small-farm problem within discernable time periods yielded divergent conclusions concerning causes and solutions. Also the possible role of extension towards this category was judged differently at different times. In this chapter we will present an overview of the changing contexts and valuations of the small-farm problem during the past 100 years.

In general, the basic theme of Dutch agricultural policy - maintaining the important contribution of agricultural export to the national balance of payments - seems to have undergone practically no changes during the past 100 years. Yet this theme has supported as well as condemned small-scale farming. Specific socioeconomic circumstances, together with the current state of technological development, seem to have influenced researchers and politicians in their evaluation of small-scale farming. At the same time, the viability of small farms depended on these socioeconomic and technological circumstances and on the eventual governmental support measures. In this respect, the agricultural crisis of the 1880s forms a significant turn-about; and for that reason we will start in this period.

2.2 The 1880s as turning point in agricultural history

In two main respects, the agricultural crisis of the 1880s was a turning point in agricultural history. First, the government realized that the policy of 'laissez-faire', that

it had followed until then, was not tenable anymore in an era in which the governments of other leading exporting countries no longer stood aloof from developments in agriculture. The agricultural crisis marks the beginning of an active governmental intervention in agriculture and of the dissemination of science-based knowledge through research centers, agricultural advisors and schools. Second, circumstances after the crisis were favorable for the growth and viability of a category of small farmers, who undoubtedly profited from both the favorable economic circumstances and the spread of new insights and innovations.

Yet, both Van der Poel (1983) and Van Zanden (1985) warn us not to exaggerate the contrast between the period before and the period after the agricultural crisis, as is usually done. Before the crisis: a backward agriculture, whose shortcomings were clearly visible at the 1884 grand agricultural exhibition in Amsterdam. After the crisis: a modern, competitive agriculture, consisting of farmers with minds open to innovations and changes. Van der Poel showed that beginning in the 1850s, the regional Associations for Agriculture actually experimented with mechanization, and that certain innovations, such as improved plows, were applied not only by the large landlords who made up the rank-and-file of the Associations, but also by common farmers. Also, according to van der Poel, discussions about improving the quality of butter, in order to keep up with Denmark, did not start after 1884, as is often mentioned by historians, but had already started in the preceding decade. Dutch farmers were not backward, but several practical and institutional hindrances hampered a rapid modernization of Dutch agriculture[4].

Van der Poel based his conclusions on the developments in the sea-bordering provinces and especially in the province Groningen. Van Zanden showed that in the eastern sandy soil district agricultural development also took place. In the decades before the agricultural crisis, the peasant-like farms had developed into export-oriented holdings, with arable farming in the service of livestock farming. As Van Zanden

argues, the agricultural crisis was no profound turning point, but instead speeded up developments that were already started previous to 1880, precisely because many innovations were already so far developed that they could be applied on a large scale.

Thus, both Van der Poel and Van Zanden are inclined to discount the impact of the agricultural crisis. But they agree that it caused a break in the prevailing governmental attitude to agriculture. In 1886 a governmental commission to analyze the problems was established - the crisis and the pressure of the farmers' organizations convinced the government that it could no longer keep aloof from agriculture as it had done until then. The recommendations of this commission were of the greatest importance for the development of what we know today as the triptych "research-extension-education". The commission recommended the establishment of governmental agricultural teachers, who in addition to teaching in vocational schools and wintercourses, should lead experiments on experimental plots, teach in teacher-training schools and give lectures throughout the country (Zuurbier, 1984). Using government subsidies, the farmers' organizations also appointed dairy advisors in dairy regions and crop advisors in arable regions. The first contours of an institutional knowledge system appeared around the turn of the century.

2.3 Preconditions for viable small-scale farming after the agricultural crisis of the 1880s

Small farmers undoubtedly benefitted from the new, science-based knowledge of plant physiology, of the role of bacteria in butter and cheese making, etc., but these new insights would not have benefitted anybody when prices for fertilizer stayed high, and butter and cheese prices low. The introduction of new insights through research and extension had a favorable economic wind from the back. Increasing prices for agricultural products gave farmers the financial scope to

experiment with innovations, a scope that small farmers lacked until then. Moreover, the main innovations and the land-saving technologies upon which the agricultural knowledge system focussed, favored the viability of small-scale farming.

The case of fertilizer is a famous example of the possibilities given by the introduction of an innovation. Through the use of fertilizer, yields could be increased and the shortage of manure be overcome. By using fertilizer small farms could be farmed profitably without keeping cattle (which required additonal acreage). Moreover, the use of fertilizer speeded up the process of land reclamation from heathfields, which enabled many new small farms to be established on poor, sandy soils. Though large farmers were the pioneers in the use of fertilizer, small farmers were soon inclined to apply this innovation. After 1890, the price of fertilizer was low, compared to that of grain. The increasing availability of fertilizer as a result of establishing cooperatives, and the small farmers' increasing acquaintance with it through extension and education contributed to their fertilizer use (Van Zanden, 1985).

The integration of small farms in a network of supply and processing industries and credit institutions was another precondition for their viability. As their production intensified, more and more farm inputs, such as fertilizer and concentrated cattle fodder, had to be purchased, and the small farmers had to depend on trading associations and processing industries for the sale of their products. Everywhere credit, supply and marketing associations sprang up, with a wealth of legal forms, many of them on a co-operative basis. The off-farm processing of milk to butter and cheese also favored the economic existence of small farmers, since a better quality and therefore a better price could be realized. Both small and large farmers benefitted from the high prices; no distinction was made concerning quantity of the delivered milk. In the southwestern sea clay area, the establishment of co-operative sugar factories favored a changeover from growing cereals to growing sugarbeets, which were more remunerative.

Small farmers profited in another way from the growing industrialization of the country. Many of them became much more financially secure by working in newly-founded industries which required many laborers, such as the textile and machinery industries and the iron foundries in the eastern sandy area. Larger farmers, however, suffered from the growing scarcity of farm workers. (Mechanization was still hampered by scattered land parcelling and the unavailability of machinery that suited the farmers' purposes.) It were generally the best workers who left for an industrial job or who tried to start a farm of their own. In order to keep a labor reservoir on the land, small tracts of land were splintered off from larger holdings in order to lease them out to farm workers and crofters. This practise enabled farm workers to grow their own winter livestock feed for one or more hogs, and to save money. Through hard work and frugality, many of these laborers worked themselves up to be small farmers reliant on the work force of their family.

Small farms were more flexible than large farms not just in providing labor, but also in farming enterprises. On the eastern sandy soils, the emphasis had shifted towards mixed farms, with arable farming in the service of livestock farming. The region changed from a grain exporting area to a grain importing one and more and more fodder crops were grown on the farms (Staatscommissie, 1912). The input of bought fodder and fertilizer increased tremendously. Farms were more intensively worked and more profitable than ever. The off-farm processing of milk induced an expansion in milk production, which in its turn, induced an expansion in hog-keeping, since the skimmed milk, which was returned to the suppliers, could be fed to hogs. Small farmers started to raise several young pigs with the skimmed milk, selling them before fodder demands for fattening increased too much. In this way they intensified their farm plans and improved their financial basis. Breeding and fattening hogs for export grew in importance for the whole region, thereby providing new opportunities for small farmers. Small farmers also started to raise more laying-hens. A

specific type of highly diversified farm evolved (ibid.).

Large farms, on the contrary, lacked the flexibility to switch to more profitable types of farming, because of their large tracts of arable land, which were hardly suited to other than the traditional crops. In general, the intensity of the small- and medium-sized farms increased more than that of the large farms (ibid.).

Also in other parts of the country, small farmers distinghuished themselves from larger ones in type of farming. In the southwestern sea clay area, for instance, small farmers first specialized into the so-called "small crops" such as onions, seeds, and spinach. Later, they also started to grow the arable crops that were to be found on larger farms. In contrast to the larger farms, where dairy farming grew in importance as a result of the increasing demand in the near-by big cities, small farmers rarely kept dairy cows, except a cow for their own use, or perhaps a yearling or two bought in autumn for sale in the spring when pregnant. Small farmers lacked the equipment for dairying as well as the knowledge of cattle. Thanks to fertilizer, small farms could be farmed profitably without keeping cattle; here arable farming became the main occupation combined with small tracts of very labor-intensive horticultural crops, such as Belgian endive, chicory, onions, scallions, and seeds.

In short, the developments that took place led Van Zanden to the conclusion that a process of de-proletarization of the agricultural labor force and the growth of a viable category of small farmers was set into motion. He gives three main explanations for this phenomenon; 1. the scarcity of labor and increasing wages, which gave the small farm, which used family labor only, a relative advantage; 2. the direction of the technological developments, which strengthened especially the position of the small farmer (use of fertilizer, off-farm processing of milk, and the co-operative movement); 3. the specialization of small farms towards products for which demand was growing.

Actually, small farmers have shown an inclination to

modernization and innovative behavior, which mocks the 'natural' characteristics, such as stubbornness and traditionalism, that are generally ascribed to them. In specific historic situations, small farmers have shown their willingness and ability to make a small farm profitable. In the next section we will give another, more detailed illustration of how small-scale farming florished in a specific context. The description is derived from an exploratory research that we performed as part of the research project 'Employment in Agriculture and Extension' (see chapter 4). This exploratory research took place in "De Gouw", which is located in Westfriesland, in the province North-Holland.

2.4 The growth of small-scale farming and new farming practices: the case of "De Gouw"

"De Gouw" was from olden times an important dairy region, though in other parts of Westfriesland horticulture dominated. Westfriesland provided all Holland's cities with vegetables, cheese and butter. In 1871, prominent farmers had established an association, that aimed at improving agricultural production. Through experiments and contests, financed by the farmers themselves, the association tried to invent and introduce new technologies (Schey, 1956). Cheese-making particularly received attention, since only 10% of the farms produced cheese of superior quality. Danish and English cheese offered stiff competition.

The bloom of the association coincided with a period of unusual high prices for meat, wool and cheese, all important products for the region. Land prices however also sky-rocketed, reaching the fabulous prices of 4000 to 5000 guilders per hectare (Staatscommissie, 1912). The catastrophe came in 1886 and following years, when prices for cheese declined drastically, followed by the prices for beef and wool. The demand for land disappeared and land prices collapsed in 1897 to half their former value. The experiments

of the association lay idle. Malaise and stagnation prevailed but the once-wealthy farmers now lacked the financial means to make changes.

In 1889, on the instigation of the Association, a governmental experimentation station was established in the area and in 1895 the first dairy consultant for North-Holland was hired. The government now started to contribute to the costs for the experiments, such as those concerning the quantity and quality of the cheese. The Association stimulated as well the promotion of good hand-milking and vocational education in milk processing (Schey, 1956).

As a consequence of the financial problems which plagued many dairy farmers during the agricultural crisis, thrifty farm laborers got the change to buy a piece of land at public auctions. By growing vegetables and early potatoes, they could provide themselves and their families with an independent means of existence. In the first decade of this century they caused the rising of a new farm type alongside the existing farm types. The marketing of vegetables and early potatoes was no problem, since in the eastern and western side of the region, important trade centers already existed. Bulb-growing was also introduced on this new farm type, mostly in combination with growing early potatoes. The marketing of the bulbs however only flourished after a co-operative bulb auction was established in 1919.

The farm-management of dairy farms also changed. After the agricultural crisis, pressure to deliver a good quality cheese that would bring a good price increased. Moreover, female laborers were hard to get now that farm laborers became small farmers and their wives and daughters were employed on the family holding. These circumstances forced the dairy farmers to process their milk collectively in village factories. The fresh morning milk was delivered to the factory together with the skimmed milk of the previous evening. Making butter from the skimmed evening milk was maintained on the farms.

At first, these factories were no more than an extension of the family farm. The cheese maker worked with his wife and children and eventually with one or two workers; the manager commonly was one of the farmers. The factories showed a great variety of legal forms. In contrast to other parts of the country, there were only a few co-operative dairy factories in Westfriesland.

The financial advantages of the collective milk-processing counted the most for families who lacked the cheesemaking craftswomanship, transferred from generation to generation, or the expensive room and equipment for processing and storing the cheese. On farms where a well-developed craftswomanship and several daughters (in order to economize on hired labor) were present, one went on making cheese profitably. But the establishment of village factories offered the possibility for small horticulturalists to start milking several cows. These newcomers in dairy-farming profited both from the collective processing of milk and the manure the cows provided for their small, intensively worked holdings.

Processing milk in factories induced shifts in farm management. It caused the demand for winter milk to increase so that farmers stopped the practice of drying off cows for the winter. Because of the higher milk production during the stabling period, the use of concentrated fodder doubled. The fodder bills increased further through the increased buying of hog-feed. Formerly, farmers kept some hogs in order to get rid of the whey, the byproduct of cheese-making, but with the increased milk deliveries to the factory and proportionately increased returns of whey to the farms, hog-keeping grew in inportance. It became a major side-activity on dairy farms in "De Gouw".

Also aspects of the craftmanship underwent changes. Scientific experiments revealed the importance of sanitary milking and high quality milk to the quality and quantity of the cheese processed from it, was discovered. Farmers had to milk "cleaner" and could even obtain a certificate for doing so. The cheese factories started to couple the price for milk

to the percentage of milkfat. Along with the new payment system, a regular inspection for all cows was introduced. The number of breeding and inspection associations increased also (Schey, 1956). The governmental dairy consultant and vocational training added scientific knowledge to the craftmanship of both milker and cheese-maker. Vocational training in cheese-making grew in importance, since many new cheese-makers did not learn the craft at home anymore.

A typical farming-style developed which differentiated dairy farmers in Westfriesland and "De Gouw" from dairy farmers in the consumption milk district around Amsterdam (Tosseram, 1936). The whole farm management of Westfriesland's dairy farmers was tuned to the final destination of the milk, the cheese. Great attention to the health and improvement of the herd, on-farm breeding, a relatively slow replacement of cows, and hog-keeping as a side-activity were characteristic of this farming-style. To deliver good quality milk was more important than quantity. In chapter 4 we will come back on the concept of farming-style. Here we have touched on it to illustrate the big changes in agriculture around the turn of the century. It may be clear that new challenges for small farmers formed one of those changes.

2.5 Judgements of small-scale farming: the governmental commissions of 1886, 1906 and 1912

The ranks of small farmers in the Netherlands grew, supported by the above-mentioned developments, developments that were interwoven with the take-off of industrialization. The opinion became widely held that large farms with laborers were not profitable anymore. The number of small-holdings, however, increased. The number of farms in the size-category 1-5 hectare, grew from 76.910 in 1890 to 109.620 in 1910. Those in the size-category 5-10 hectare grew in the same period from 33.931 to 41.439.

In general, the total number of farms rose and their average size slowly decreased in the first decade of this century, though we can discern regional differences in this general pattern. In the eastern sandy soil district, for instance, the decrease in the number of large farms and increase in the number of small ones was not as extreme as in the southern sandy soil area because of a different hereditary system. The hereditary customs in the eastern sandy soil district required that only one member of the family took over the undivided parental farm. The process of splitting-up of farms, such as happened in the southern sandy soil area, was thus restricted. But possibilities for the establishment of new farms occurred, when land reclamation was facilitated through the use of fertilizer.

In the southwestern sea clay area, another example, farm division was prevented somewhat by the reluctance of absentee landowners to lease out small tracts. But under the regional inheritance customs, farms were divided after the death of the owner if several sons wanted to farm on their own.

Notwithstanding the seeming viability of small farms, their financial position remained a source of concern for successive governmental commissions. The commission of 1886 found that the net income per hectare were higher on the small farms than on the large ones, although the latter used better techniques. Yet, small farmers would constantly be threatened by their lack of financial strength. And, as long as small farmers had to look for work outside their farms, they would increase the burden on the labor market (Platenburg, 1942: 31). For that reason, the governmental commission of 1886 was not much in favor of the growing rank of small farmers. Its opinion was that the force of the total farming class was not only weakened because of loss of capital and high interest rates, but also through the decreasing size of farms (ibid: 32).

The governmental commission of 1906 however, presented another opinion. Large farms apparantly suffered from a scarcity of labor when industrialization took off. Wages

increased, and economizing on labor costs by mechanization was hardly possible because of the scattered parcelling situation. On the small farms however, the family provided its own labor force. And the small farmer was free to focus on the most advantageous farm type. More than the previous commission, the members of the 1906 commission were of the opinion that big farms were not profitable anymore and that small farmers formed an essential part of Dutch agriculture. Besides, the growing industrial employment offered small farmers many possibilities for side income. The governmental commission of 1906 expressed its opinion as follows:

> The preservation of a strong small-farmers class is of the utmost importance for a country. For he forms the transition from the farm worker to the larger farmer. To work themselves gradually up to the rank of the small farmer is the hope of the steady, energetic farm worker, and to make headway is also the aspiration of the small farmer; and so it is with the eye to sound social relations, a good policy to investigate thoroughly and take away as much as possible the impediments to the small farmers' economic development. This is the more convincing, when the special advantages of this rank, for the community and for itself, are investigated more closely (Staatscommissie 1906, quoted in Platenburg 1942: 36 [translation S.]).

The governmental commission of 1912 did not consider the growing number of small farms a negative development, although several regional investigators warned against too great a splitting up of farms. The member of the commission who studied the situation on the southwestern island Goeree Overflakkee remarked that through the growing intensification of farms, more families could find a living. Small farmers cared well for their plots: where big farmers were unable to control their weeds, due to a lack of farm workers, a small farmer just worked harder to get his land clean. Also, other regional investigators identified the strength of the small holding in the workload the farmer himself and his family performed. Yet, a danger lay hidden in this principle. In order to remain his own boss, the small farmer might work day and night with help of his wife and children. He would use the help of his family members more often than when he was a farm

worker, and in that sense he and his family could be worse off than a worker's family. Small farmers appeared to have great dedication and endurance, especially when there were adolescents in the household. They lived simply and frugally and could save money in good years. But a few bad years could ruin them, because they were not financially strong. And those bad years were apt to come.

2.6 Small farmers in the 1920s and 1930s and the role of agricultural extension

Profiting from the rising economy, small farmers on the sandy soils developed their holdings towards mixed farms with animal production. But they and horticulturalists were in trouble when the exportmarkets for butter, eggs and horticultural products collapsed. Sneller (1951) describes how an agricultural revolution took place in the USA, while developments in Europe lay idle because of the war. The large supply on the market hampered a price recovery. Moreover, national governments were more and more inclined to intervene directly in order to increase their own agricultural production. Several other factors accounted for the weakening of the Dutch position in international markets. Because of the long duration of the industrial crisis, the purchasing power of consumers decreased and currency depreciations abroad as well as problems with the financial commitments to foreign countries hurt Dutch exports (Zuurbier, 1984). A widening gap between costs and income was the consequence for Dutch farmers.

As the crisis deepened, the Dutch government became willing to intervene on behalf of agriculture. There was not much sympathy for protective measures, since they could hurt the Dutch export position, but when the situation in agriculture worsened, the farmers' organizations urged the government to intervene actively (De Ru, 1980). First, a system of minimum prices was established, to cover production

costs. Second, to prevent surplus production as a result of the price support system, size restrictions were set on pig, cattle and poultry herds and on acreages of potatoes, cereals, horticultural crops and flower bulbs. Third, measures were taken to guarantee the demand for agricultural products. It was realized, though, that the restrictive policy would especially hurt the small, mixed farms. Therefore, the government decided to spare these farms as much as possible in the application of the crisis measures. The Service for Small Farms (DKB), established in 1936, was intended to support the small farms.

Extra attention for small farmers was deemed necessary to prevent society's being robbed of a category of simple but decent country dwellers, and instead receive an army of landless unemployed. Wasn't it of the greatest importance to maintain the small farms, which gave a means of subsistence to so many, argued the DKB? And didn't a large rural population offer a big potential for popular power and happiness? In the preceding decades, the viability of the small farm has been proven, was the argumentation: it now needed only temporary support to come through the bad times (Commissie van Advies DKB, 1937).

The basic idea was that small farms, supported by the extension service, could adapt their agricultural techniques, economics, degree of subsistence and spending of income to such an extent that they could yield a minimum base of existence (Platenburg, 1942: 56). The DKB presupposed that a farm of five hectare could yield a sufficient family income. Such a farm should provide an adult male worker with a full year's employment if the farm were rationally managed. Five hectare was moreover deemed a sufficient size because the DKB presupposed that small farmers did not aim at making profits beyond family needs. A big farmer should strive towards a high as possible return on invested capital, while a small farmer should give priority to the supply of the family.

One was of the opinion that in normal times, production yields on the small farms would be enough to cover the

expenses, especially because the labor costs of the farming family were not included in the accounting. The deficiencies in these hard times, according to the DKB, were due to a) too-low prices of agricultural products; b) too-high lease prices and real estate charges; c) too much and too expensive purchased inputs; d) the large amount of "other" expenses; e) low yields per hectare and per animal (Commissie van advies DKB, 1937).

The DKB's idea was that the last three circumstances especially, interpreted as non-rational farm management, could be improved through intensive and individual extension. Some 200 assistants were sent in, teaching the farmers how to limit their expenses to a minimum and increase their yields to a maximum: farm rationalisation was the keyword. On a number of experimental farms better input materials, more balanced manuring, more rational farm equipment and a new corn variety were tried. The Home Economics Extension for Rural Areas (HVP) provided many courses, varying from cooking lessons and food preservation to making and repairing clothes and mattresses. For whatever could be improved and saved in the household expenditures would benefit the farm as a whole.

Probably, the intended effects of the extension efforts were augmented by the fact that the extension service also distributed farm inputs such as fertilizer, fodders, certified seed and seed-potatoes. During the year 1939, 37.549.828 Kg. of fertilizer was distributed among small farmers; soil sampling preceded fertilizer advice and productivity increased (Platenburg, 1942: 61). Moreover, the extension service had the financial resources to stimulate participation in milk inspection, that aimed at improving the quality of the milk delivered. Many farmers came into contact with the extension apparatus precisely because of its distribution task and many were helped by the combination of advice and input delivery. Through improved yields - and income - many small farmers were able to reduce or get rid of their debts (ibid: 60).

The aid to small farmers involved not only rationalization of the farm management, but also a kind of

family support for farms with excess labor that in normal times would be employed outside agriculture. In areas where the possibilities for off-farm incomes had diminished, alternative forms of employment were sought. It was feared that placing small farmers in the work projects would lead to neglect of the farms: it was deemed better to subsidize projects on the farms. In a number of communities small farmers were employed in "visible work-projects". They had to bring into culture a tract of heath, dig up pastures to arable land or drain land. Soon, the limits of this kind of employment became apparent. It was not possible in all areas to find enough of those projects, and diligent farmers, who had performed all these tasks already, would fall outside the support. Besides, in the clay-areas, high costs for the purchase of drainage-pipes were a problem (Commissie van Advies DKB, 1938a).

So in this time period, in which the wish to preserve as many family farms as possible dominated, the extension service expanded, interacted directly with small farmers and was in its performance closely interwoven with crisis measures. Extension was part of and supported by a mix of intervention measures, and precisely from these circumstances it derived its strenght.

Yet, despite all governmental measures, farmers were unable to obtain an income that was comparable to the income of other social categories. The widening gap between agricultural and non-agricultural wages and prices caused indignation and irritation among farmers, and must even be seen as one of the incentives for the rise of a new farmers' organization besides the established ones (De Ru, 1980). Farmers' critique was mainly directed towards the government's slowness and reluctance to intervene. According to the ideological leader of the new farmers' organization, Smid, the relative deprivation of the farmers was caused by the fact that the free-trade agricultural policy was actually not abandoned. Agriculture had to be content with the most unfavorable prices, while other economic sectors were

organized to such an extent that they could control wages and prices (ibid). In the reports of the Advice Committee of the DKB we can indeed read that the governmental support was only meant to be temporarily; the small-farm problem was considered a conjunctural one and as soon as the circumstances would improve, Dutch farmers would be competitive again on the markets for agricultural products.

2.7 The small-farm problem reviewed

Despite all efforts, the small farm remained a problem child. After the crisis, one realized that the real causes of the small-farm problem were not fully discerned in the 1930s - although the governmental efforts were understandable in a period that was characterized by a generally high level of unemployment. Platenburg, who expressed the changed opinion about the small-farm problem, pointed to its structural feature: the labor-surplus in rural areas. As farm equipment improved, and large farmers mechanized their farms in respons to high labor costs in the previous period, a labor surplus was created that in normal times could be absorbed by industry and emigration. The economic crisis, however, caused a disruption in this "natural" process. The crisis measures actually created an inducement to further mechanization. The growing of cereals, suited to mechanization, was promoted, and the restrictions counted mostly for labor-intensive crops such as flax, beets, potatoes and horticultural crops (Platenburg, 1942: 80).

Platenburg suggested to intensify farms of about 10 hectare, a size which he felt could yield a reasonable family income. The growing of labor-intensive crops such as potatoes and beets had to be promoted, but also poultry, pig farming and even horticulture were possible. Platenburg believed that the small-farm problem could not be solved within the agricultural sector alone. He deemed creation of outside employment and encouragement of emigration of the greatest

importance in order to facilitate the gradual discharge of the rural labor surplus.

In the post-war period these solutions were further worked out and supported through the combined efforts of extension and other policy measures. But after the Second World War, the existence of a category of "too-small farms", mainly concentrated on the sandy soils, remained a point of concern. Three commissions studied this problem in the period 1949-1958, a problem that, according to all three commissions, consisted of a too-high labor supply on too-small farms (Maris en Rijneveld, 1963). Until the end of the 1940s the total number of farms had increased and a considerable percentage of them were small (see table 2.1).

Table 2.1: Number of farms and percentages of farms in size-classes, 1910-1950

	1910	1921	1930	1947	1948	1950
1 - 5 ha	52	51	47	44	43	42
5 -10 ha	20	22	24	25	25	27
10-20 ha	15	16	18	20	20	20
20-50 ha	11	10	10	10	11	10
over 50 ha	2	1	1	1	1	1
total	100%	100%	100%	100%	100%	100%
total number	209.172	221.649	234.145	245.378	245.579	241.359

Source: Landbouwcijfers

One assumed that the number of small farms on the sandy soils would even increase further, since the division of farms continued - especially in the southern area - while enlargement with newly reclaimed land had come to a halt. According to the commission that first studied the problem (Maris et al, 1951), the crucial aspect was the declining average size of the farms without an accompanying declining labor force per farm. The growing tendency towards mechanization aggravated the problem. On the other hand, the mechanization deemed necessary was hampered by the labor surplus. The excess labor caused a low labor productivity and therefore low incomes. The assumption that small farms were

not remunerative only because of special circumstances no longer appeared tenable. The small-farm problem was considered a structural problem, which required a structural solution.

The general situation after the Second World War differed radically from that in the preceding period, according to the above mentioned commissions. Industrialization was strongly taken up, incomes and welfare increased, and through the opening-up of rural areas, urban ways and standards of living became visible for rural dwellers. Points of reference shifted from the local community towards urban styles of living[5]. The problem now was how to keep agricultural incomes in pace with income developments in other economic sectors. Productivity had to increase, yet an increase in the production volume could easily lead to surpluses, since the demand for agricultural products is an inelastic one. The answer was found in a decrease of the man-land ratio. The density of the labor-supply had to be brought back.

It is precisely the small farms that showed a dense labor-supply. Labor productivity had increased in all size classes during the 1950s, but the differences between large and small farms, as they were found by the end of the 1940s, had not diminished. How could this labor-density be reduced?

The commissions that studied the small-farm problem recommended to increase the labor productivity by increasing acreages and/or by intensifying farm plans. The danger connected to this solution, they realized, was that of surpluses of agricultural products. Second, they were aware that increasing acreages could only be realized if at the same time the number of small farms was brought back. A so-called structural policy could help accomplish these objectives. A structural policy could stimulate the exodus out of agriculture and enlarge farms. Moreover, measures in the context of a structural policy could stimulate farmers to change their farm management and improve production circumstances. In short, the structural policy aimed at adaptating the production circumstances and the production techniques, and at investment in the durable means of

production.

The objectives of a structural change in agriculture seemed acceptable in an economic context of growth and were supported by the agricultural policy of the just-established European Community. Loss of agricultural employment was compensated by the abundance of jobs in other economic sectors; production could increase thanks to sufficient availability of raw materials and favorable markets for Dutch export products. The common agricultural policy provided for a market and price policy and a structural policy that favored the process of modernization.

2.8 Stayers and leavers, modern and traditional farmers in the 1960s

Between 1947 and 1960, the male agricultural work force declined with 30%. The farm workers were the first ones to leave agriculture; for farmers' sons it was in first instance more problematic to leave. Maris et al (1951) observed that many emotional impediments hampered the necessary change. Farmers' sons clung to their fathers' profession. And in some areas it was a source of social respect to make several sons farmers, which would be no problem on larger farms, but very hard on smaller farms. As Bauwens and Loeffen (1981) remarked, there was not only a small farmers' problem, but also a young farmers' problem. Later on in the 1950s, however, the entrance of farmers' sons into the agricultural sector dimished, probably caused by the attraction of higher incomes outside agriculture. Less mobile were the farmers, yet their numbers decreased with 12% between 1947 and 1960.

The structural adaptation of agriculture during the 1960s is led by two main themes which are in essence contradictory and caused conflict situations in Dutch policy (Nooij, 1969): agriculture should contribute optimally to the national income and at the same time, farmers should have the possibilities to earn a reasonable income. This reasonable income, however,

could not be reached other than by a rapid decline of the number of farmers and far-reaching structural adaptations.

Perhaps the best known plan to modernize European agriculture was from EC commissionaire Sikko Mansholt. He realized that it would be impossible to support prices to such an extent that the very smallest farmers in the Community could earn a reasonable living without creating huge surpluses of agricultural products. Mansholt proposed considerable decreases in the farming acreage and agricultural population, while farms had to grow into so-called "modern production units" (Woltjer and van Zijl, 1984: 40). In 1969, the committee "Vedel" in France advocated even more drastic structural adaptations, consisting of lowered prices for the major agricultural products and additional measures to steer the process of a diminishing farming population. The plans encountered much resistance from the agricultural population, which felt its existence threatened. Ultimately, the proposals resulted in a gradual lowering of the prices, which, taken into consideration the ongoing inflation, led to a pressure on farm incomes.

More and more, agricultural policy differentiated between "leavers" - the farms that had to be weeded out - and "stayers" - economically strong farms. The selectivity of the farm policy expressed itself in the selective application of instruments: land reallotments, research, education and extension had to be directed towards objects and entrepeneurs with good economic prospects (Zuurbier, 1984: 60). Farm development was stimulated by interest subsidies, while social payments accompanied the liquidation of farms.

This process of differentiation is also reflected in the division of tasks between the governmental extension service and the extension of the farmers organizations. In the preceding period, the governmental extension service had focussed on technical issues, in order to increase farm results with a certain given input, but from now on it also devoted much attention to farm management and development. More and more, the extension message contained

rationalization, mechanisation and stimulation of financially justified farm management. The intensive cattle sectors (poultry, meat production and pig farming) had priority. The service promoted financial and technical recordkeeping by the farmers and played a role in the allocation of subsidies and payments. The governmental extension service increasingly supported the structural adaptation of the farms, it increasingly served the group of entrepeneurs who were able and wanted to continue their farms. Farm development was the central issue of the structural policy and of the extension policy. Extension also informed farmers about possibilities to leave agriculture. Their sons were stimulated to choose a new occupation (Zuurbier, 1984: 63), and also emigration was an attractive option.

Where the governmental extension services paid attention to the modernization of agricultural production, the extension service of the farmers' organizations dealt primarily with social problems that accompanied the application of the structural policy (ibid: 68). This so-called "social extension"[6] aimed at influencing the attitudes and behavioral patterns of the rural population in order to prepare them for the fast-changing structural developments that swept over the rural areas. The several extension services, including the domestic extension, co-operated in rural development projects. These projects included rationalisation of farms as well as home-making and aimed at improving the well-being of the rural population. Indirectly, these projects had to accelerate re-structuring of rural society, so that it became more in accordance with a modern agriculture (Zuurbier, 1984: 65). For instance, in some areas a decrease in the cost of milk production was realized; in others, resistance against land reallotments was overcome or voluntary parcel exchange occurred. In 1962, all regional development schemes were combined with land reallotments. At the end of the 1960s, due to a lack of financial means, the rural development schemes were diminished, while land reallotment and readjudication increased in importance (ibid: 66).

Extension efforts as well as rural sociological research were seized by the perceived necessity for change and by the seemingly unlimited possibilites of modernization. During the 1960s, both extension and rural sociology also expressed an optimism about the rural dwellers' capacity to adapt to modern techniques and a modern style of living. The transformation of a traditional cultural pattern into a modern cultural pattern was a key issue in sociological studies in these times. Sociologists such as Hofstee (1962), Benvenuti (1961) and Bergsma (1963), were occupied with the classification of farmers in traditional and modern categories, the speed by which farmers adopted innovations and the possibilities for extension to influence farmers' attitudes and behaviors concerning innovations. Although the culture-paradigm was seriously critizized in the following decades, and lost its central position in sociological thinking, it still influenced daily practice which labelled small farmers "traditional" with the same connotation as the word had during the 1960s: not able or not willing to change, lagging in their contacts with the outside world. We will come back to this valuation in later chapters.

Agricultural production rose enormously, made possible through a growing use of capital goods (modern buildings and machinery), rationalization of land use, fertilizer, cattle fodder and pesticides (see table 2.2). The use of pipeline milking, refrigerated milk tanks, manure removal systems, and the building of free-stall barns made an increase in the number of cows per worker and per farm possible, an increase that also was necessary to make the investments remunerative.

The tremendous rise in agricultural production, together with the diminishing number of farms, are the two most obvious expressions of the adaptations in agriculture that took place during the 1960s. In general, two main inducements to the above mentioned developments have been discerned. First, the increase in labor productivity appears to have been the farmer's way of keeping up with the increasing incomes outside agriculture (Bauwens, 1979). In reaction to changing price

Table 2.2: Changes in Dutch agriculture, 1950-1985

	1950	1955	1960	1965	1970	1975	1980	1985
1.	14.6	12.6	10.6	8.3	6.9	6.2	5.5	5.7
2.	410	319	301	264	185	163	145	136
3.	5.7	7.2	7.7	8.5	11.6	12.8	13.9	14.9
4.	-	7.4	8.5	10.4	16.3	24.2	35.1	40.8
5.	-	-	15.6	21.3	50.0	119.0	183.0	238.6
6.	-	-	101	172	367	934	4753	7302
7.	-	590	830	1025	1170	1865	2120	2270
8.	67	80	97	138	190	218	239	246
9.	5771	5725	6721	7151	8253	10286	11850	12530
10.	3200	3900	4700	4400	4500	4900	6200	6600
11.	43.5	44.5	50.5	39.5	45.5	43.5	49.0	48.5
12.	24.0	27.0	27.0	28.5	35.5	33.0	38.5	42.5

1= Agricultural work-force in % of total work-force
2= Number of farms (x 1000)
3= Average size per farm (hectares)
4= Average number of dairy cows per farm
5= Average number of fattening hogs per farm
6= Average number of laying hens per farm
7= Average use of concentrate fodder per cow (kilograms)
8= Average use of N pure fertilizer per hectare
9= Average total milkproduction per cow (x1000 ton)
10= Average yield wheat per hectare (kilograms)
11= Average yield sugarbeets per hectare (x1000 kilograms)
12= Average yield consumption potatoes per hectare (x1000 kg)

Source: Landbouwcijfers

relationships, relatively cheap means of production like machinery, fertilizer and cattle fodder were used to substitute for or supplement expensive and scarce ones, such as land and labor. Second, technological development - which is considered a rather autonomous process - made this process of adaptation possible (ibid.). A process of differentiation between "stayers" and "leavers" was set into motion, seemingly unavoidable - but deemed desirable - which was strongly supported by the structural policy and the extension services.

2.9 Medium-sized farms as a new problem category in the 1970s

The number of farms diminished. In 1970 one concluded that the structural policy had contributed to the mobility and relocation of farmers and land (see the first issue of the vocational magazine for agricultural extensionists "Bedrijfsontwikkeling"). Especially the Fund for Development and Sanitation contributed to a decrease in the number of farms[7] and, to a lesser degree, induced occupational change. But still, on the threshold of the 1970s, the articles in "Bedrijfsontwikkeling" were full of notions that structural adaptations in agriculture remained necessary to adapt the sector to changing price relationships and technical developments. Stimulating both farm enlargement and farm elimination remained a characteristic pattern in the agricultural policy of the 1970s. Yet, in the second half of the decade, also some concern about the "laggards" was expressed.

The minimum size for a farm which could provide a farmer with an adequate level of income increased steadily. For many small farmers, those who did not adopt the new technologies or did not enlarge, it became hard or even impossible to continue farming. Other small farmers, however, had effectively increased their farm size, mainly by intensifying animal or horticultural production (Van den Ban and Bauwens, 1988: 3). Chances for enlargement and modernization seemed to be open to all farmers with the "right frame of mind". Yet, some concern about the "laggards" was raised in the second half of the 1970s.

In 1977 and 1978 discussions took place concerning the target group for extension. Some were of opinion that the focus on the modern entrepeneur, with consequent neglect of the production needs and circumstances and small adaptations on medium-sized and small farms, were the logical outcome of the structural policy and the interwoven role of the extension service. Others argued that the recovery of the confidence of medium-sized farms had to be given high priority. The image of

the extension service had to be improved. Moreover, policy measures had to be directed towards the medium-sized farms and more knowledge about this group would be needed (Zuurbier, 1984: 80).

The growing concern for this new problem group arose in a period in which the desirability of the structural policy was being questioned. In the 1970s the differentiation between the "developed" and the "lagging" farms sharpened. For many non-adapted farms that had done well until recently, the prospects for the future were dim. This would cause a further decrease in agricultural employment, which did not fit very well in the general economic situation of the late 1970s (Van Driel, 1982: 7). The conditions for restructuring the agricultural sector were less favorable than those in the 1950s and 1960s, due to the stagnation of economic growth, a relatively high unemployment rate, higher prices for inputs and energy and the growing awareness of environmental issues.

Medium-sized farms were defined as farms that yielded enough income for a family, but had insufficient income to finance farm development and succession. The situation was not that the family income was jeopardized (like in the 1930s), but the continuation of the farm was seen as problematic. To ensure the continuity of the farm, farm development was deemed necessary, which meant

> the adaptation of the farm to changing price relationships, so that, making use of the technological possibilities, an economically better combination of production factors could be reached (Bauwens, 1979: 11).

Economic analysis showed that the prospects for continuity were virtually absent on farms smaller than 90 standard production units (spu). The prospects for farms larger than 180 spu were, on the contrary, practically assured. Somewhere in between were the medium-sized farms.

Around 1980, there were some 31.800 farms in the middle category, one-third of all cattle and arable farms in the Netherlands. On some 22.500 farms, 70% of the farms in the middle category, continuation of the farm was desirable because of the age of the farm head (younger than 50) or the

presence of a successor (see also table 2.3).

Table 2.3: Classification of cattle and arable farms according to size categories and the relative position of the categories concerning agricultural employment, land-use and production potential (1980).

	farms	male labor	land-use	spu
1) farms with continuity (over 180 spu)	35%	42%	54%	60%
2) medium-sized farms with need for continuity	25%	25%	22%	22%
3) small farms below 90 spu with need cont.	11%	9%	5%	4%
4) farms below 180 spu without need for cont.	29%	24%	19%	14%

Source: Van Driel 1982: 36

Research on medium-sized farms showed that two-thirds of these farms were dairy farms and that the highest percentages were to be found in the western grassland area and the north-eastern sandy soil area. Of the farms between 90-150 spu, in 1978 only 8% had a free stall barn and only 46% made use of a milk tank. (On the farms between 150-250 spu these percentages were respectively 44 and 80.) Medium-sized farms thus made less use of modern techniques. In many cases, the absence of a modern type of barn was due to the small size of the parcel adjacent to the farm buildings. The cautiousness of the farmers and their lack of entrepreneurial skills were also mentioned as causes of their low innovativeness. Moreover, their relatively high age and the low succession rate in the middle category could cause the low level of investments.

Although many medium-sized farms had expanded in the 1970s - through enlargement as well as through intensification of production - the increase in labor productivity lagged behind that on large farms. The production size per man on the medium-sized farms was considered too low for an appropriate use of labor. Furthermore, yields, such as milk production per cow and yields per hectare for several important crops lagged behind those of large farms (Van Driel, 1982).

Obviously, medium-sized farmers are described as lacking qualities of craftsmanship and entrepreneurship. They lag behind in everything, compared to large farmers. Van Driel mentions only one positive characteristic of medium-sized farmers: their small debt load. Through their lack of indebtedness - and a frugal pattern of living - the family income was in many cases still sufficient for a short period of time, although this income was often less than the minimal income of the self-employed in general, and it was definitely considered too low for long-term continuity.

Bauwens (1979) has pointed to main causes of the existence of a problematic middle category. He mentioned the increasing minimum farm size that was necessary for a remunerative production, while the actual developments in size were lagging behind. Many farms had become too small to introduce new labor-saving provisions. The rapid technological developments presumed a decrease in the labor force, but the mobility of labor was low in the context of a one-man-farm structure and an unfavorable employment situation. Furthermore, in order to keep a larger herd, more land and other provisions were needed, conditions that were absent on many farms. Farm size and production per worker increased less than was economically necessary and technically possible. This caused a lagging income situation on many farms.

Compared to the 1950s, the man-land ratio - considered the crux of the small farmers' problem - improved a great deal and the productivity of labor increased considerably. But the income situation on many farms remained unsatisfactory. In fact, the 1970s had a new category: farms that had become too small as a consequence of structural developments. Therefore, the existence of this problematic category is a structurally and societally determined question (Bauwens, 1979: 20). Compared to the 1950s, the 1970s were characterized by a growing need for relatively high investments in order to adapt the farms to the rapid developments that took place. Many farmers did not succeed in this, but there were no alternatives for them.

2.10 The persistance of a category of too-small farms

Thus the existence of too-small farms is considered a structural problem, caused by economic and technological developments in a period with a structurally high unemployment rate. Yet, the proposed solutions for the medium-sized farmers' problems does not seem to reflect this knowledge. For medium-sized farms with a need for continuity, two main solutions were proposed (Van Driel, 1982). First, these farms could develop through an increase in size or in the intensity of production. Second, these farmers could strive toward increasing their output within the existing farm plan. A more appropriate grassland management and fodder extraction, more appropriate feeding, and improving the quality of the cattle herd, could diminish the costs per unit and improve yields, without the necessity to invest heavily. In order to improve their craftmanship, medium-sized farmers should be more strongly involved in systems for farm management, participate more in studyclubs, etc.

Medium-sized farmers who lacked possibilities for development - mainly older ones without successor - should depend more on the social policy measures. Improving their labor circumstances so as to lower the fysical burden, could also mean much to them. Some of them could be helped with an allowance through the measure for older self-employed (ROZ) (Van Driel, 1982). For both sub-categories - medium-sized farmers with and without a need for long-term continuity - an improved involvement in extension could be of importance. What efforts actually have been undertaken by extension services to reach medium-sized farmers is one of the subjects of the next chapter.

In fact, the medium-sized farmers' problem was not solved, unless one calls the gradual removal of these farmers a solution. The persistance of the problem showed itself again in the first half of the 1980s, when some attention was directed towards small farms. The incentives for the attention to small farmers is already outlined in the previous chapter:

the slow-down in their rate of liquidation which would hamper the necessary structural adaptations in agriculture; the structurally high unemployment outside agriculture; the possible role of small farmers in keeping up viable rural communities and an agreeable countryside. As was the case with the medium-sized farms in the second half of the 1970s, some extension efforts have been undertaken to reach small farmers in the first half of the 1980s. These latter efforts are also discussed in chapter 3.

Anticipating the results of the next chapter, we could hypothesize that extension alone is a rather weak instrument for improving small-scale farmers' situations when structural developments and national goals point in another direction. Also Röling (1982) points to the problems of a schizophrenic situation in which alternative extension objectives, such as increasing small farmers' incomes, exist alongside a general orientation toward cheap export production. Not much can be expected from extension alone, without policy measures that are working directly in favor of small-scale farming. Extension alone can do little for small farmers when economic and technological developments favor large-scale farming.

Dutch agricultural policy is in general directed towards a strong export market position. One of the requirements of such a position is an efficient agriculture with low production costs. Stimulating small-scale farming only hampers this objective. It is deemed desirable to prevent the situation in which an increasing percentage of agricultural production comes from the least efficient farms, and in which the enlargement of farms is hampered by a growing number of successors on small farms. It is also questionable whether small farmers are able to make the investments necessary for the environmental measures that hold Dutch agriculture in their grasp.

The unwillingness of Dutch policy makers to intervene on behalf of small-scale farming is exemplified by the debate on part-time farming. According to the agricultural census (1988), 16% of all registered farmers had their main

occupation outside agriculture and were considered part-time farmers. They can make use of general agricultural facilities and measures, such as agricultural extension, education and research, or land reallotment and improvement schemes. But many other measures directed towards development needs of farms, such as loan quarantees and investment tax breaks, can only be applied to those whose main employment is in agriculture. Although they form a rather large category, little is known about the composition of the category and the needs of part-time farmers. Their exclusion from some policy measures and the unfamiliarity with the category induced the Christian-Democratic Party in Parliament (CDA) to ask for a report on whether a special policy program should be developed for part-time farmers.

The report was written (Notitie, 1985) and debated in the Parliament (Handelingen, 1985), but it yielded very few results. The report didn't contain much new information or concrete recommendations for policy measures. The definition of part-time farming remained a point of discussion. Moreover, the report was so general that little insight in the problems and needs of the category was obtained. The politicians who were involved in the debate displayed an unwilingness to think and act on behalf of part-time farmers. The Minister of Agriculture pursued an ambiguous policy: he intended to include them in the subsidy measures for building silos for manure storage, but at the same time wanted to exclude them from other investment measures. Approval of part-time farming was only mentioned in relation to their possible role in achieving environmental and recreational goals. The result of the debate: part-time farming must neither be stimulated nor discouraged. There would not become a special attention nor a broadening of investment possibilities.

The unwillingness to adapt agricultural policy in favor of part-time farmers reflects attitudes towards small-scale farming in general. One prevailing opinion about the prospects of small farmers is that they need to direct themselves towards specialized products and market niches (De Vlieger,

1987). The small farmer should use his specialization, time and care, to increase the value of the products. He could vertically integrate some production functions on-farm, such as making cheese, selling products directly to the consumer and grading and packing products himself. Second, small farmers could produce special products which bring a higher price, such as organic products and free-range hogs and chickens. Third, farmers could be rewarded for the "production" of landscape and nature or could receive an income from providing recreational facilities. All these solutions for the small-farm problem presuppose that small farms have to differentiate themselves from larger farms in their goals and methods of production. Another possibility for survival is found in combining on-farm and off-farm activities, thereby sliding into the category of part-time farmers (see chapter 6). Anyhow, small farmers do not enjoy policy protection within current types of production.

2.11 Conclusions

Looking back at the past hundred years, we can discern several discrete periods, defining them according to the successfulness of small farming at the time and the judgments about small farming and extension's role in relation to it. Within this overview, we can highlight a few points of interest, namely the innovativeness of small farmers, the role of technology, and ability of extension to reach small farmers.

Around the turn of the century, the situation was unfavorable for the well-established, large farmers, but the small ones were able to grasp their opportunities. The land-saving technologies, developed at that time, as well as the small farmers' integration in a developing support and industrial network enhanced the small farmers' successes. Small farm development around the turn of the century contradicts the idea that "progressiveness" or

"innovativeness" can best be explained by psychological variables. Both Rogers and Röling have pointed out this fault in extension philosophy that small farmers are blamed for their own poverty. They offer instead an alternative explanation in which differential access to resources such as land, water, labor, inputs, markets, capital and information is crucial. Very often, small farmers have no ability to change, because they lack the access to resources. Small farm development in the Netherlands around the turn of the century has indeed proven that small farmers can change when they are able to do so.

We have now entered a period in which small farmers are again blamed for their problems. Although it is recognized that structural developments lie at the root of the problem, small farmers are blamed for their lack of entrepreneurship and craftsmanship. Objectively seen, there are hardly any institutional hindrances which hamper small farmers' access to resources; yet, they have failed to adapt their farms to the "requirements of the time". New insights into the innovative behavior of small farmers seem therefore indispensable.

The second point of interest is the way in which technological developments influence the small farmers' position. Small farmers around the turn of the century undoubtedly benefitted from the land-saving technologies that were developed. The innovations influenced positively the quality and quantity of the export products, and thereby the small farmers' financial basis, until markets collapsed and prices declined. The later development of labor-saving technologies, on the contrary, exposed the labor surplus in the countryside. This surplus hampered the adaptation of agricultural production towards a competitive force in the world markets. Thus the introduction of new technologies after the second world war was necessarily accompanied by a restructuring of Dutch agriculture in which there was no place for small-scale farming. Not innovating meant a declining income, since the output-increasing effects of technology applied by others caused declining farm prices.

In general, technological developments are considered rather autonomous processes that are interwoven with economic principles. According to Rutten (1989), economists tend to stress the endogenous character of technical change, explaining it in terms of costs and benefits, and choices among alternatives. The steering role of agribusiness, government institutions and private institutions is often overlooked. Much research about the complete innovation process must still be done. Rutten suggests research into a) decision criteria in all stages of the innovative process; b) the influence of changing economic conditions and c) the process of selection, i.e., why certain techniques have been developed, while others have not (ibid: 130). This would be a complete research program in itself. Yet, Rutten's remarks makes us wary of taking technical change as the ultimate and inevitable explanation for the small farmers' problem, but to keep an eye open to decision-making processes in technical change. The effects of technical change on small-scale farming are already known; but why are small farmers not organized as "countervailing power" in the decision-making process? (the term is derived from Röling). We will have to come back to this point further in the book.

Finally, we consider the role of extension towards small farmers. At first, small farmers seem to have benefitted from the newly established extension apparatus, precisely because it acquainted farmers with innovations that were usable for them. From the 1930s onwards, extension has played a supporting role in implementing the agricultural policy of the time. It is important to mention that in the 1930s small farmers were supported by a mixture of crisis measures, extension and farm inputs. Small farmers were a specified target category and all elements of the mix were fine tuned to them. This policy was continued in the first years after the second world war.

Later on, as policies were directed towards modernization, farm enlargement and intensification of production, extension lost contact with those categories that

were not able or not willing to develop their holdings according to the "norms" of the time. Yet in the second half of the seventies, medium-sized farms were rediscovered as a new target group for extension in a society that had experienced also negative sides of the intensified production. In the first half of the 1980s, small farmers formed a target category for several extension projects. Yet the general judgement about the persistence of small farms differed widely from that in the 1930s. It is in this different context that we must judge the efforts and results of extension agents to reach medium-sized and small farmers. The description and discussion of these specific projects will be the subject of the next chapter.

CHAPTER 3: TARGETTING EXTENSION TO MEDIUM-SIZED AND SMALL FARMERS: EXPERIENCES IN THE 1970s AND 1980s

3.1 Medium-sized and small farmers as target categories for extension

A substantial portion of the small and medium-sized farmers in the Netherlands are not reached by the usual sources of information, according to researchers from the Agricultural Economic Institute (LEI) (Van Driel, 1982; Wijnen, 1987). But it is precisely these categories that most need help. Van Driel was of the opinion that extension could help improve the financial return on medium-sized farms without making large investments. He recommended both improving the yields, which were relatively low, and reducing the costs of production. But this required greater participation in study clubs and farm management systems; medium-sized farmers had to make a better use of external expertise.

Wijnen also assigned a role to extension in removing bottlenecks in the development of small farms. He found that the educational level of small farmers was relatively low and that many of them had lacked farming experience before taking over the farm. Only half of the farmers Wijnen interviewed had contacts with the socio-economic extension of the farmers' organizations and the technical-economic extension of the government. The low educational level and the deficient transfer of information hampered the technical and economic development of their farms (Wijnen, 1987: 8). More involvement in agricultural extension could help.

Before the LEI studies appeared, however, some efforts had already been made to involve medium-sized and small farmers in extension activities (see table 3.1). The motives for such efforts were manifold. Sometimes staff and extension workers from a service felt they were being monopolized by only a part of the farmers, namely those who asked advice and

made use of investment subsidies. This uneasiness generated two projects. Sometimes the wish to give more attention to the smaller farmers came from a farmers' organization. Another consideration was the potential role of extension in maintaining a certain level of employment in agriculture. It was expected that extension could help improve the yields and labor circumstances, or could stimulate farmers to enlarge their farms, thereby improving their chances for continuity.

In a broader perspective, the attention to medium-sized and small farmers coincided with the growing awareness that a narrow focus on increasing productivity reached its limits as it caused market and environmental disruptions. Moreover, the ousting of small farms by larger ones was considered more and more undesirable as the unemployment rate stayed high. On the pages of "Bedrijfsontwikkeling", the professional magazine for extension workers, the concept "development" as well the role of extension was discussed. "Farm development", it was argued, had an additional meaning: not only enlargement of the enterprise but also optimization of production within existing limitations. Extension should focus on more categories of farmers than those who were willing to enlarge and modernize their farms, and it should take into consideration the existing diversity of conditions under which farmers live and work. The organizers of project 3, for instance, translated this changed view into the question: "What do medium-sized farmers need to give them a socially justified existence on their farms, taking into consideration their wishes and capacities?"

Apparently the above mentioned LEI researchers and organizers of projects expected that extension could help to improve the chances of continuity for medium-sized and small farms, even if they were difficult to reach. Would it be possible to re-target extension in all its aspects - method, content and organization - to these hard-to-reach categories? How the organizers of seven projects for small and medium-sized farmers (see table 3.1) have dealt with this question will be described in the present chapter. In the first part of

Table 3.1 extension projects for medium-sized and small farmers[8]

period for which evaluation was available	target category	involvement of target category	number of extension workers involved
1. 1977-1982	farmer younger than 40, or older than 40 with successor; little contact with extension; needs help according to extension worker	358 farms visited	12
2. 1977-1979	farm size between 70-130 sbe (in total 2900 farms in the area)	1020 farmers in informative meetings; 445 farmers in follow-up meetings	?
3. 1978-1980	farm size between 50-150 sbe; main occupation in agriculture (152 farms in 6 communities)	152 farms visited	12
4. 1981-1982	farm size smaller than 140 sbe	72 farmers in discussion groups	?
5. 1981-1984	farm size between 70-110 sbe; age farm head younger than 50 or older than 50 with successor; main occupation in agriculture	130 farms visited 91 farmers in discussion groups	12
6. 1984-1985	farm size smaller than 120 sbe; membership NCB	739 farms visited	?
7. 1983-1986	farm size smaller than 150 sbe; age farm head younger than 50 or older than 50 with successor: main occupation in agriculture	71 farms visited more than once; 25 farmers in discussion groups	14

1.= project "Unrequested Farm Visit", Cattle-farming Service, Arnhem;
2.= project "Extension for Middle-sized Farms", Cattle-farming Service, Doetinchem;
3.= project "The Middle-sized Farm", Arable and Cattle-farming Service, Waalre;
4.= project "Being and Remaining a Farmer on the Family Farm", technical-economic and socio-economic services in Overijssel;

5.= project "Extension Action for Farms with a Smaller Size", Arable farming and Horticulture Service, Goes;
6.= project "Unasked Individual Extension to Farms with a Smaller Size", farmers' union NCB in Brabant;
7.= project "Smaller Farms around Vorden and Apeldoorn", technical-economic and socio-economic extension services in Gelderland.

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the chapter we will discuss how the various elements of the projects have been implemented: the preliminary studies and the kinds of information they yielded; the ways in which contact with the target category was established and how the content of the extension was adapted to the needs and situation of the target category; organisational aspects. Because the projects differ inthe methods they used, in the number of farmers and extension workers involved, in the time-span, etc., it is hard to make a systematic comparison. For that reason we have chosen to provide a more detailed description and evaluation of a project of which we performed the evaluation ourselves. The outcomes of this evaluation is the subject of the second part of this chapter.

3.2 Outcomes of the preliminary investigations

In five of the seven projects, the staff of the extension services and/or extension workers performed some investigation before the activities started. Agricultural census material and farm visits formed the main sources of information. In most cases the research focussed on possible bottlenecks that impeded farm development. "Why did medium-sized and small farmers not enlarge and modernize their holdings?", was the central question.

In general, the investigators were inclined to point to personal characteristics as central bottlenecks for farm development. In their reports, medium-sized and small farmers appear equally unwilling to adapt and develop their farms and to apply modern technologies. They show a lack of daring and perseverance. Small and medium-sized farmers were said to

display a strong resistance to borrowing money and a relatively low involvement with external expertise. In this sense, they appear to be poor entrepreneurs. Also, their level of craftsmanship is deemed relatively low, as is illustrated by their rather extensive land use and moderate productivity. Despite these "shortcomings", family income is rather good, according to the investigators, as a consequence of the low debt-load and additional sources of income. Moreover, family expenses are relatively low. But the question is whether the income is sufficient in the long term or when a successor wants to take over. In the research reports, the small and medium-sized farmers appear as persons who are not able or not inclined to grasp the importance of such long-term, more structural considerations.

More generally, traces of "person blame" characterize most of the explanations for the small-scale farmers' problems. And it is precisely aspects of the "irrational" behavior that are susceptible to change, according to the researchers. They consider it possible to stimulate a more rational behavior through extension. Other factors hamper farm development as well. These lend themselves less to extension intervention however. Mentioned are health problems, old age and lack of a successor, a too-small acreage adjacent to the farm buildings, unfavorable parcelling, drainage and soil problems or difficulties in obtaining permits for enlargements or relocation of the farm. Clearly, such problematic circumstances cannot be removed by extension.

Two of the research groups discern sub-categories which require different approaches. Older farmers without successor could need help from extension in improving the results within the existing limitations. They might also need more information and help concerning social and fiscal measures related to closing down their farms. The emphasis for younger farmers or for those with a successor should be on developing optimal farm plans as well as on long-term adaptation of the farm structure. In between these sub-categories are farmers in the age-category 50-58, without successor. They could be

helped to improve their income through optimization of the farm plan within the existing means of production. Moreover, extension could help them make small adaptations in their farms that would relieve some of the demands on their labor. (Many farmers in this sub-category work in obsolete and unsuitable buildings; the care of the cattle is hardly mechanized or automatized.)

Thus it is the very concrete farming behavior that is deemed susceptible to intervention through extension. But at the same time, some investigations also reveal the limited power of this instrument. The help of extension is confined by the sometimes very narrow limits of other policy instruments, according to some research groups. For instance, many of the measures in the so-called "structural policy" were not fully applicable on small-scale farms, due to minimum farm size or investment criteria. Even more pinching were several restrictive policy measures that hampered farm enlargement. Extension alone could hardly improve the possibilities for farm continuation, though this was a main goal in many projects. Necessarily, another task for extension has to be included: making farmers conscious about their precarious situation and helping them decide whether to quit farming or not.

Although some research groups stated explicitly the narrow margins in which their extension action had to take place, they could hardly forecast the enormous strain it put on the extension workers' motivation. And probably they also underestimated the consequences of farm policy measures on the motivation and behaviors of precisely those farmers they wanted to involve in the extension programme.

3.3 Establishing contact through an individual approach

Most research groups in the projects recommended an individual approach as the best method for establishing contact with farmers in the target category. The

investigations had shown a great diversity among medium-sized and small farmers, rendering the formation of sub-categories with similar orientation and interest practically impossible. Moreover, it became clear that medium-sized and small farmers were under represented in study clubs and meetings of the local departments of the farmers' organizations. Probably they were not used to, or did not like, group meetings (in chapters four and seven we will encounter some stronger explanations for the small farmers' under representation in formal organizations). Finally, the research groups estimated that, because of the negative judgment of many smaller farmers about extension ("Extension is there only for the large farmers") an individual approach could be helpful in establishing a trusting relationship.

Many of the extension workers involved in the projects recognized the manifold possibilities of the farm visit. They could gain insight into the farmers' situations; and, in this sense, the visits functioned as reconnaissance. Second, it appeared that through individual farm visits, extension workers were able to build a trusting relationship, although this seemed to demand more than one visit. The extension workers in project 7 experienced that during a third visit they could discuss many delicate topics, such as income and family problems, very thoroughly with the farmers. Third, sometimes recruitment for group activities took place during the visits. The extension workers in project 5 combined the first inventorising visit with recruitment for discussion groups.

Visiting medium-sized and small farmers involved a very new aspect: the visits were unrequested. This method was rather unusual. Except for the introductory time during which a new extension worker wished to get acquainted with all farmers in the area - which is more a voluntary thing of good manners rather than an obligation - the usual method is to visit farmers only when they ask for advice. But considering the high threshold for small and medium-sized farmers to contact extension, extension workers themselves had to

approach them more actively.

Related to this unrequested type of extension were the shifting roles of farmer and extension worker. The extension workers became the listeners, a role which several of them found very hard to play. The information had to come from the farmers' side. All the extension worker could do was to unravel and filter the information given to determine the real bottlenecks in the farmers' situations. Especially technical-economic extension workers found it hard to keep a listening attitude and to deal with the complex situations on small farms, situations in which technical-economic and socio-economic issues were highly interwoven. This was not the professional role they had been taught and equipped for in their training. Their lack of experience with the unrequested farm visit made a thorough preparation in working groups, as happened in project 7, indispensable.

The experiences in the several projects show that the unrequested farm visits exposed a latent need for extension, on socio-economic as well as technological terrain. In general, the unrequested farm visit proved to be a good method for establishing contact with a hard-to-reach category.

3.4 Establishing contact through a group approach

Although the unrequested farm visit seemed to be a fruitful method, it also was a very time-consuming one. Therefore, group activities were sometimes chosen. The experiences with this method, however, are mixed. We will mention here four main inter-related problems: a) the self-selectivity of groups, b) the passiveness and uneasiness of small farmers concerning group-work, c) the heterogeneity of the target category and d) the thresholds for leaving the farmyard.

a) In areas where invitations for group meetings were sent to all farmers, or where farmers themselves could decide whether or not they belonged to the indicated size category,

farmers mainly in the top of the size category and a bit larger showed up. This happened even when the invitations contained the message that the issues dealt with would mostly be applicable on farms with a smaller size. The ones whom the organizers would most like to see at the meetings did not come. It was probably necessary that the organizers themselves determine which farmers belonged to the target category; moreover, organizers of group activities concluded that they had to invite the smaller farmers personally in order to get them over the threshold.

b) In group meetings where only the intended, smaller, farmers participated, the organizers found that the group showed little initiative for working without their leadership and that it was difficult to generate a discussion. The farmers would not take the initiative to indicate what issues they wanted to discuss. Only when a highly structured program was set up, which stimulated the self-working of the participants by weaving group tasks into the program, was some exchange of experience achieved. It appeared that farmers from the smaller size categories were not used to working in groups. They felt especially uneasy about comparing their yields and financial returns.

c) The organizers of two projects experienced that, although the percentages of attendance were high compared to "normal" extension meetings, they were rather disappointing considering the very intensive recruitment. The heterogeneity of the target category seemed to be the most important cause for this low attendance. Family and farm circumstances were so diverse that the subjects dealt with were not of importance for everybody. Differences in educational level also created a strain on attendance. In order to be understandable to everybody, extension workers adapted their level of treatment to the lowest educational level in the group. As a consequence, the meetings were not very interesting for young farmers with a relatively high educational level.

d) Some other circumstances appeared to be of importance in the organisation of group meetings. Sometimes it was

important that participants in group activities only had to travel short distances. Nearness of the meetings guaranteed familiarity with the other participants, an important point for a category with a high threshold for formal meetings.

Whether a group approach is a better method for establishing contact with a so-called "hard-to-reach" category than an individual approach is hard to determine. The experiences in the projects show that a group approach poses special problems for the organizers in the invitation and recruitment of the right participants, structuring the meetings, striking a balance between homogeneity and heterogeneity, and finding an appropriate meeting place. But under the right circumstances it is possible to reach many persons at once. Moreover, it seemed to be possible to organize well-attended meetings around issues that were of crucial importance to the farmers, such as the more-or-less forced switch from milking in cans to milking in refrigerated tanks (project 2).

3.5 Fine-tuning the extension message to the target category

Extension workers in all projects were aware of the necessity to fine-tune their information to characteristics of the target category. The educational level of small farmers as well as their acquaintance with modern technologies was generally low. Therefore, extension workers adapted their information as much as possible to the farmers' level of knowledge. They tried to avoid giving attention to the newest technological developments that were hardly applicable on small scale. They talked about ventilation on stanchion barns or used small herd sizes in examples. Furthermore, they avoided too much mathematical calculation in group tasks, because of the great differences in educational level among the participants. In a bookkeeping course it was realistic only to acquaint the participants with the calculation and interpretation of farm economic concepts, and give them a few

exercises. Difficult technical and economical concepts were avoided.

As much as possible, extension workers tried to approach the problems in a very practical way. The organizers of project 2 postulated a development scheme for a medium-sized farm. In group discussions the participants had to answer the following questions: Would you act the same way as the farmer from the example did and why? What other solutions do you see for this farm? Sometimes, extension workers did not hesitate to call in the help of a colleague-farmer who could give a clear argument for his chosen solutions. Such a method was evaluated very positively by the program participants afterwards.

Despite the fact that extension workers adapted their level of disourse to the target category, it was not always possible to propose solutions for the small farmers' problem. The content of extension itself was limited to the current knowledge of the extension workers, to the current stage of technologies available, to the "traditional agricultural" solutions for income problems. For example, the existing forms of technical-economic registration were hard to apply on small-scale, often highly diversified farms. And when restrictive policy measures closed the option of gradual enlargement of farms, many extension workers doubted if they could offer small farmers real solutions.

3.6 Organisational aspects of the projects

In order to reach this hard-to-reach category a special approach had to be developed, a new challenge for extension that required enthusiasm and perseverance from all involved. Such a motivation seemed to flourish best in circumstances where the individual extension worker was not responsible for the success of the project, but where some organizational structure guaranteed exchange of experiences among the agents, co-ordination and support from superiors in the services.

First, an integral approach in which extension workers from the several regional services were involved, was very valuable. Where technical-economic extension workers from several specializations and socio-economic ones from the different farmers' organizations worked together, they were better able to deal with the complex problems on small and medium-sized farms. In project 1, where only technical-economic extension workers were participating, one-third of the questions that arose during the first farm visit revolved around socio-economic issues, mainly succession.

Second, the organizers of the projects recognized the need for some co-ordination and exchange of experiences. The organizational framework varied from one meeting of the extension workers every two months to a well-structured and co-ordinated whole as in project 7 (see table 3.2, section 3.7). Exchange of experiences proved to be indispensable for keeping up the motivation of the extension workers involved. Moreover, schedules were set for the performance of the activities. In this sense, the meetings performed a controlling function. Some minimal organization was necessary in order to program the activities, and to evaluate them on dates set. In a project which lacked such an organization, the results (number of visits) were rather disappointing quantitatively and not in agreement with the objectives set beforehand. Each individual extension worker in this project had to visit ten or fifteen farms from a list made by him- or herself, in one season. This goal presupposed that all the extension workers were equally dedicated. However, motivation for making the unrequested visits differed highly among the extensionists involved, expressing itself in a wide range of number of visits (ranging from 3 to 100).

Third, through an organizational framework and clear participation in a project, extension workers could expect some support from their superiors, especially concerning allocation of their time. Where extension workers lacked this support, the extra work load after the enforcement of the milk contingency in 1984 overwhelmed the unrequested farm visits,

and extension workers became more half-hearted about approaching the farmers.

Project 7, the Vorden/Apeldoorn project, is outstanding for providing a specific organizational structure as well as for a thorough evaluation. The evaluation research was carried out by ourselves (see Goedhart, Somers en Tuitert, 1987), and we will deal at length with this project in the following sections.

3.7 Context and objectives of the Vorden/Apeldoorn project

In 1982, the provincial council of Gelderland, together with the extension services of the government and the farmers' organizations, initiated a small farmers' project. Gelderland is a province with relatively many small farms, about 16.000[9]. Of these small farms almost 5100 needed continuation, i.e. the farmer had his main occupation in agriculture, was younger than 50 years or had a successor when he was older than 50. It was argued that these farms could play a central role in maintaining a desirable level of employment in agriculture if their prospects were strengthened. Improving technical performance and labor circumstances as well as enlargement of the farms were deemed necessary. If these farms did not develop, this would mean a loss in employment opportunities. For this reason the province of Gelderland allocated funds for an experimental project for this small farm category. The project had a duration of three years and ended in 1986.

A newly established organizational structure would support the development of extension strategies finetuned to the target category (see table 3.2).

The communities of Vorden and Apeldoorn were selected as experimental locations because they had relatively many small holdings and extension workers in these areas were rather motivated to participate in a small farmers' project.

Table 3.2: Features of organization in the Vorden/Apeldoorn project and evaluative notes.

1. ONE CO-ORDINATOR, responsible for:
   - preparation and reporting of the working-group meetings;
   - assistance in the preparation of meetings and in the composing of brochures;
   - participation in the evaluation research;

2. BOARD OF SUPERVISORS, consisting of twelve managers or staff-members from extension services and the provincial department of the Ministry of Agriculture and Fisheries, responsible for:
   - formulating goals of the project and developing first ideas concerning methods and content;
   - drawing conclusions and recommendations at the end of the project;
   - supporting the extension workers from their organizations and giving them enough room to perform the tasks of the project beside all their other daily activities (The majority of the extension workers however, said they did not receive this kind of support from their superiors).

3. TWO WORKING GROUPS, each consisting of seven technical-economic and socio-economic extension workers, responsible for:
   - preparation and planning of the activities as well as the exchange of experiences afterwards;

4. AN INTERMEDIATE STEERING COMMITTEE, consisting of three persons that participated in the board of supervisors as well as in the working groups, responsible for:
   - establishing the connection between the supporting and working groups;
   - communicating information that was hard to describe in written reports, such as atmosphere in the working groups.

The main goal of the project was to stimulate

> (...) small farms with potential possibilities for continuation through a specific [extension, S] approach, towards such a farm management that there is more certainty of continuation in the long run (Goedhart, Somers en Tuitert, 1987: 3 [transl.;S.]).

Closely examined, this goal is a very comprehensive one, containing a hierarchy of goals and two implicitly stated assumptions. Moreover, it was admitted that before the two goals mentioned - changing farm management and better chances of continuation in the long run - could be attained, a

confidential relationship with the target category had to be established. Farmers had to "change their attitude towards extension" so that they would be more receptive to attempts to change their farm management. The hierarchy of goals therefore looks at follows (see figure 3.1).

Figure 3.1: Hierarchy of goals in the Vorden/Apeldoorn project

1. to change farmers' attitude towards extension
2. to improve their farm management
3. to improve the farms' chances of continuation

As the point of impact for extension, the organizers chose farm management, with the implicit assumption that a) farm management had to be improved and b) this improvement would lead to better survival chances. During the project, however, it appeared that both propositions were open to question. The specific extension approach contained the following elements or so-called working goals: a) to establish contact with the farmers through farm visits; b) to build a confidential relationship with the farmers by giving them positive experiences with extension concerning individual affairs; c) to create awareness about the continuity question and inform farmers through informative group activities, where the extension workers not only would transfer knowledge, but where mutual contacts and exchange of experiences would also be stimulated; d) develop a group process around common issues, with an emphasis on self-activity; e) to establish an aware and active attitude in the farmer towards his own farm and towards an adequate decision-making. In table 3.3, these working goals and the extension activities are summarized. In addition to the activities mentioned in table 3.3, written material was send to all farmers in the target category. Everybody received a brochure or summary after the meetings and several short extension brochures were composed, dealing with practical subjects. On the front of the brochures, the

Table 3.3: Activities and their characteristics in the project Vorden/Apeldoorn

	Activities	Characteristics
June to September 1983	first individual visit/orientation	-information comes from farmer -what is the farmer's judgment about his farm situation -insight into the target group
December 1983 to April '84	second individual visit/orientation	-if possible, attention to concrete bottlenecks on farm -positive experience with extension -raising confidence
May 1984	first group session/ orientation	-farmer tells about his farm -meeting with a non-threatening issue -as much as possible connection with each farmer's own situation
August 1984 to April 1985	series sessions with technical issues/ enlargement knowledge technical-economic registration/raising conciousness on craftsmanship	-trying to create a good group atmosphere -knowledge transfer on technical issues -improve mutual contacts through group discussion -trying to improve the technical performance
	VORDEN (individual approach)	
July 1985 to December 1985	thorough third individual visit/ raising consciousness and improving decision-making	-reviewing future and continuity of farm with help of bookkeeping -willingness to change -searching for possibilities concerning continuity
	APELDOORN (group approach)	
July 1985 to September 1985	short individual third visit directed towards enlistment for course and discussion group/ raising consciousness and improving decision-making	-renew individual contacts -recruitment for discussion groups on bookkeeping and farm management -discussion of the future possibilities of the farm -insight into farm situation
October 1985	discussion group book keeping/raising consciousness	-bookkeeping -improving mutual contacts through group discussions

project's logo was printed, which was also used on the invitations for meetings and announcements of the farm visits. On the back the names and adresses of the extension workers were printed. Through all this the organizers of the project tried to stay in contact with all farmers, even those who did not attend meetings.

Part of the evaluation research was to determine to what extent the objectives were realized. In doing this, we encountered several problems. First of all, it was hard or impossible to establish comparisons. No control group to the target group was defined in the same communities. This omission made it difficult to establish whether changes on the farms were induced through participation in the project or through other causes. Not only was the comparison in space lacking, but also one in time. Determining a change in attitude towards extension, or in conduct of business, requires examining the situation before the project and again afterwards on the basis of the same set of variables. The situation before the project could now only be obtained retrospectively.

At the start of evaluation, we were also aware that ensuring continuity through improving income is a long-term process that lies outside the time-frame of the project. It was likely that the effects of the project would become visible only in the long run. Moreover, through the super-levy on milk production and restrictive measures on manure production, the context in which the project took place has changed. It became clear that the effects of project activities were interwoven with the influences of a changing agricultural policy. Despite these difficulties, organizers, participants and evaluators were convinced that an evaluation could yield very valuable material; that it could be helpful in organizing future activities for small farmers.

In addition to abundant written material, sources of information consisted of interviews. Forty-one farmers who participated in the project were interviewed with the help of a pre-structured questionnaire. Moreover, we held open-ended

interviews with all extension workers involved and with members of the board of project supervisors (see table 3.2). In the following sections, the results of the evaluation are discussed.

3.8 Evaluation of the project activities by the target category

For most of the farmers interviewed, the unrequested visit was their first contact with extension from the government or farmers' unions. In general, they appreciated the interest in the small farmers' problems and the chance to talk about their own situations. The farm visits appeared to be not only pleasant but in many cases also useful. Farmers said that they changed their minds concerning certain aspects of farm and family as a consequence of the discussions with the extension worker; others obtained useful advice on matters such as a father-son partnership, membership in the Farm-Help-Service, or building a barn.

The appreciation of the farmers interviewed for the group meetings was less unanimous than for the farm visits. For almost half of the farmers who attended one or more meetings, it was the first time they had participated in group extension[10]. Personal acquaintance with the extension worker in the project, together with the careful recruitment, seems to have contributed to the high attendance percentage for the first meeting (50% in Apeldoorn and 30% in Vorden). Half of the farmers interviewed evaluated the meetings positively ("informative, interesting, learned something new that was applicable, nice to exchange experiences"); the other half was less enthusiastic ("heard nothing new") or even negative ("too theoretical"). The heterogeneity of the farmers in their educational level and family circumstances probably played a role in these divergent opinions.

The eight farmers interviewed who participated in a technical-economic registration or bookkeeping course were

enthusiastic about it, though, at the time the interviews were held, few concrete results were evident. But the enthusiasm of the participants helped others over the threshold: five farmers interviewed planned to start a technical-economic registration in the future, and eight wanted to apply for a discussion group on bookkeeping.

The brochures published by the project were considered comprehensible and clear by the farmers. More than half of the farmers interviewed wanted to receive more of this kind of information in the future, information finetuned to the small farm. The other half, however, said that they got enough information from professional magazines or other extension material. Sending a brochure with the project's logo helped farmers recognize the project; through the brochures, they felt that they were participating in a special project.

Obviously, the activities of the project were appreciated by the target category. Especially the unrequested farm visits and the open, interested attitude of the extension workers meant a positive experience with extension for the interviewed farmers, notwithstanding the lack of experience with the method of many extension workers.

3.9 Process-evaluation

Through the farm visits, extension workers established contact with the target category (working goal a.). Often, during and soon after these visits, many demands were made on the extension workers. If possible, the extensionists tried to solve concrete problems and give real, practical assistance. But did this mean that a confidential relationship was established (working-goal b.)? According to the extension workers, the farmers were rather open about their financial situation, especially in the second and third visits. Moreover, extension workers received more calls for advice from the target group than before the project, which can be an indication of a growing confidence. The farmers interviewed

mentioned the extension workers of the project as persons with whom one could exchange thoughts on farm adaptations and from whom one had obtained useful advice. Probably, through these extension workers the institution of extension gained a "face".

Conclusions about the working goals c. and d. must be less positive. About half of the farmers who participated in one or more group meetings experienced these as informative. But the flow of information was, contrary to the organizers' hopes, mainly from extension workers to farmers. Farmer-to-farmer education and exchange of experiences were limited. Two reasons account for the limited success of the group approach. First, the heterogeneity of the target category interfered with the goal of developing a group process. Bachelors, "leavers" and successors each had different perspectives. Moreover, the target category was not homogeneous concerning the type of production: it included specialized dairy farms as well as mixed and hog-keeping farms. Big differences existed in production circumstances (parcelling or tenancy situations), educational level, attitude towards extension and levels of productivity. Because of this heterogeneity, it was not possible to come to a consensus around common issues.

Second, part of the target category was not used to working in groups and learning from each other. The extension workers intended to start with very concrete and technical subjects, gradually bringing in more "threatening" subjects, such as bookkeeping, farm-comparison, etc. The latter issues, however, were not discussed, due to the ever-changing composition of the group and the farmers' uneasiness with group work.

Despite the doubtful results of the group approach, extension workers mentioned the fact that farmers who otherwise attended no meetings did now participate. And there were people who had never dared express themselves in a group who now did. From the beginning the organizers of the project were afraid to emphasize that the project was directed towards small farmers, because these farmers might feel stigmatized.

But afterwards, three-quarters of the farmers interviewed said it was useful to organize special meetings for small farms. This not only allowed the subjects to be adapted to the small farm's situation, but it also gave some of the farmers the courage to participate in the discussion, according to the interviewed farmers.

It is hard to determine the precise influence of the project on the "active and conscious attitude towards the continuity question" (working goal e.). In their own way, the farmers have always adapted their farms to changing circumstances. They increased gradually the number of cows and/or hogs, they made small adaptations and improvements in farm buildings with their own labor and little capital investment. Generally, the investment did not exceed 25.000 guilders, an amount for which the farmers didn't need bank loans. This pattern of gradual development hardly changed in the three years of the project. Some farmers made more ambitious plans for the future, but in general the plans for the future reflected the actual family and succession situation and other circumstances such as farm location, leasing and parcelling, and governmental politics, more than any great influence of the project. Several bachelors did not see any problem as long as their family situation did not change. Through frugal living, the additional income from the pensions of elderly parents who lived with them, and small adaptations, they were satisfied with their situation. Also, older farmers without successors did not feel the need to change much. Several of them were interested in participating in the measure for closing down farms; others wanted to improve their working circumstances.

The household situation and other circumstances seemed to influence attitudes towards continuity more than the extension efforts had done. Moreover, the farmers liked to talk more about the short-range consequences of the restrictive policies than about the future of their farms, according to the extension workers. Yet, during the farm visits many farm continuity issues had been discussed. For about one-quarter of

the farmers interviewed the project undoubtedly influenced their approach to the continuity question, be it by accelerating the establishment of partnerships, by thinking about quitting or by improving farm profits[11].

3.10 Effect-evaluation

As we have seen in section 3.9, the objectives of the project were three-fold. The first goal was to change the attitude of the target category towards extension. In general the interviewed farmers felt that extension workers spend too much time on those farms that were enlarging and modernizing. Through this project, however, extension workers had proved to be helpful to smaller farms also. In this sense, the image of extension was improved. About two-fifths of the target category changed to a strongly positive opinion, while another two-fifths said they had not felt extremely negative about extension before the project. One-fifth of the farmers interviewed did not reconsider their negative opinion. The positive change in opinion, however, did not result in a corresponding increase in the number of requests for advice. Some farmers mentioned that extension workers have to maintain the contact with small farmers. Extension must stay alert, according to these farmers, and give timely advice concerning matters that are of importance for small farmers. Only one-fifth of the farmers who changed their opinion about extension positively, actually increased their contacts with the agricultural extension of the government and farmers' unions.

One reservation must be given here in connection with the changed attitude towards extension. The project was not necessarily the only cause for this change - experiences with extension outside the project could also have played a role. Many participants in the project attended meetings dealing with the manure problem. Often, the extensionists of the project were consulted in relation to succession and super-levy but also without the project, small farmers from the

target group would probably have approached extension on these matters. On the other hand, in some situations it was clear that the establishment of a father-son partnership would not have occurred or taken place at a later stage without the project.

The second objective we discerned was to improve the farm management. During the farm visits, extension workers found many problems, mainly concerning farm-size, succession, working and family circumstances, entrepeneurial skills, financial problems and productivity. The organizers of the project thought it especially possible to improve the farmers' prospects through improving their craftsmanship and entrepeneurship. Through the project, several farmers were stimulated to bring about changes in their farm management or to participate in programmes from which they saw or expected positive results. Two of the farmers interviewed started to participate in feeding/milk inspection, another one was stimulated to change breeding direction. On one farm, the extra support of the socio-economic extension worker led to improvements in bookkeeping. We have already mentioned the participation of farmers in the bookkeeping course and technical-economic registration, which induced one farmer to change over from breeding sows to fattening hogs. Two farmers were stimulated to take a technical agricultural course.

In these ways, the project contributed to an improvement in the prospects for several farmers. The effects would probably have been greater without the enactment of several restrictive measures during the project. The superlevy on milk production as well as the law on manure prohibited even small enlargements. According to the extension workers, the situation was such that, at the time of the third farm visit, only one-sixth of the farms visited had good survival chances and few bottlenecks. The restrictive policy measures put a severe strain on the realization of the project's aims. As a consequence, the motivation for the project diminished for many of the extension workers involved.

In addition to the effects mentioned, the organisational part of the project yielded some useful side-effects. During the project, the board of supervisors kept themselves on the background but stayed well-informed about the activities of the working groups through notes and reports. The enthusiastic dedication of the members of board yielded a positive side-effect of the project: they learned to appreciate each other through the intensive discussions. Although the discussions in the working groups were very time consuming, everybody found the co-operation between colleagues of different services necessary for the success of this experimental project. Several extension workers were already used to regular contact with colleagues from other services, but these contacts were improved and/or intensified through the project. Moreover the working groups were evaluated by their members as stimulating and supervising, the latter in a positive meaning: without the stimulus and commitments, extra attention for small farmers would have been crushed in the daily rush of normal extension work.

3.11 Conclusions and recommendations from the project

It appeared possible to re-direct the instrument extension to such an extent that part of a category formerly considered hard-to-reach increased its confidence in extension. By adapting method and level of treatment to the circumstances of the target category, and by establishing an organizational support system, the project was a concerted effort to improve the image of extension for small-scale farmers. Moreover, a small number of farmers were indeed stimulated to bring about changes in their conduct of business. The goal of improving their long-term prospects was, however, not a realistic one.

Many of the extension workers involved doubted whether extension was a strong enough instrument to actually influence the prospects for small farms. The project would have had a

greater impact, if other policy instruments should have also been available to give small farms more possibilities for continuity. Some extension workers pointed to the need for instruments to improve the parcelling situation or re-allot production quota in favor of small-scale farmers.

Other recommendations of extension workers and supervisors concerned improving the project's efficiency. In the almost 3.5 years of the project, a total of 325 manhours were expended for less than 100 farmers. Only 28% of the total time could be dedicated to extension itself, so a great deal of the project's effort was embedded in the activities of the co-ordinator, board of supervisors and evaluators. Also the discussions in the working-groups were time-consuming. We must not forget however, that this was an experimental project. The methods and content in this experimental project were developed step-by-step, and it was necessary to evaluate experiences in detail before starting with the next phase. It is likely that the experience of this project can be used to develop a more programmed approach, which is less time-consuming.

Although the performance of extension towards small farmers had improved, extension workers did not hide their doubts about the attainability of the project's objectives. Especially the technical-economic extension workers considered the viability of the small farms to be low - as well as their own contributions to increasing this viability. They mentioned both the poor craftsmanship and entrepeneurship of small farmers and the restrictive measures that were enacted in the course of the project as accounting for the low viability. Several technical-economic extension workers felt that the lack of entrepreneurial skills on small farms threatened the continuity more than external factors. At the same time however, they found it hard to influence these skills. Although something could be done to improve farm productivity within the existing limitations, it was much harder to influence the farmers' small scale orientation and their lack of perseverance. Some extension workers realized only now the

strong reluctance of small farmers to take out loans. Moreover, these farmers showed little interest or willingness to consider alternative types of production when the superlevy and the manure law closed the traditional option of gradually increasing the number of dairy cows and/or hogs. Especially the technical-economic extension workers felt that they had little to offer to such an unwilling category.

On the other hand, most socio-economic extension workers argued that there were matters in which they could do something for small farmers. Not only production results are crucial to the prospects of small farms, they argued, but also making a better use of fiscal and structural matters. Extension could help farmers to pay attention to all sorts of measures that could be of interest to this group, including measures supporting farm liquidation.

In the discussions that arose around craftsmanship and entrepreneurship, many members of the board of supervisors expressed a rather uncommon opinion: although the professional skills differed highly, small farmers must not be underestimated, according to several members of the board. It is not possible to talk about degrees of craftsmanship or entrepreneurship, because the target category holds on to another way of farming. "Farming" for many smaller farmers means more a "way of life" than an economic activity, and is part of a complex pattern interwoven with family and household circumstances. The acknowledgement that small farmers are a category that must be lifted up does them an injustice: they require just a different type of extension. In general the members of the board of supervisors considered the viability of small farms low. But at the same time, they felt that the generally applied norms concerning "viability" were not necessarily the same norms the farmers themselves applied. The criteria for continuity were subjective. Small farmers were tougher than one thought. Extension could take on the task of looking for alternatives that fit farming as a "way of life" and the characteristic risk-avoiding behavior of small-scale farmers, according to members of the board of supervisors.

3.12 Conclusions and discussion

At this point it may be possible to draw some general conclusions about the various attempts to re-direct the instrument extension to small-scale farmers. In the preceding sections, we described how several activities were performed and the motives for doing so. But not much is known about the effects and efficiency of the projects, due to their very poor evaluations. The Vorden/Apeldoorn project is an exception in this respect. The evaluations of the other projects were confined to a short investigation of the extension workers' assessments of their activities. Even their estimations were hampered by their incertainty whether the effects were caused by the extension activities or by other circumstances. For instance, the organizers of Project 2 estimated that their activities helped increase the number of medium-sized farmers that applied for an interest-subsidy. However, they found this hard to verify because at the same time the policy concerning the interest-subsidy was adapted so that farms with a smaller size could also apply for it. The importance of a thorough evaluation is probably not fully recognized by the organizers of most projects. Yet, by comparing the various efforts to reach small-scale farmers, it is possible to discuss the preconditions for an effective target oriented approach in extension.

For any given extension effort to be effective, the instrument extension has to be re-directed in all its aspects. This is the message of "Royen's mill" (see section 1.5). Röling also mentioned that

> it is not sufficient to embrace alternative extension objectives: to reach them, the other elements of the extension process [methods, offering and organization: S.] need to be adapted also. This necessity is often not realized because of lack of insight into the systematic nature of the extension process and the inter-connectedness of its elements (Röling, 1982: 92).

Concerning the organizational aspect, we have already seen that projects without an organization specifically tailored to the project itself threatened not to achieve even

their minimum goals. The relative success of the Vorden/Apeldoorn project may be partly ascribed to its organizational structure, with local working groups and co-operation between several services. However, this organizational structure only existed during the project, and the project will not induce lasting organizational rearrangements. An institution such as the Service for Small Farmers (DKB) in the 1930s is not likely to be established. There even appeared to be much resistance against the evaluators' suggestion of establishing a new specialization within each extension service. Extension workers seemed to be opposed to devoting all their time to small farmers, which would deprive them of their instructive exchanges with large farmers. We could even discern a sense of loss of status; devoting one's time to small farmers did not fit the professional image of extension workers.

In the evaluation of the methods extension workers used to reach their objectives, one of the other elements in "Royen's mill", Kok's model for behavioral change can be helpful (Kok, 1985; see section 1.5). The organizers of the projects were aware that the current method of requested extension and group extension excluded many medium-sized and small farmers from extension activities. Therefore, many projects chose the unrequested farm visit as the method for establishing contact with the target category (step 1). Well-prepared group meetings were also organized. Both methods, however, required specific skills of the extension workers and a new professional role.

Furthermore, extension workers were aware of the need to adapt their messages to a target category that - as was shown in the preliminary researches - had a relatively low educational level and was interested in very practical technical subjects (step 2). Extension workers tried to keep their expositions as close as possible to the small and medium-sized farmers' situation. Advantages and disadvantages of certain farm practices were discussed in a very practical way. By this they tried to accomplish a change in attitude

concerning aspects of craftsmanship and entrepreneurship (step 3). The credibility of the information source was enhanced by creating a base of confidence through unrequested farm visits. (Especially in project 7, much attention was devoted to creating an open attitude towards extension.)

The second half of Kok's model for behavioral changes posed much more severe problems to the organizers of the projects. It was expected that through group activities, where small and medium-sized farmers could meet colleagues with similar circumstances, some change in intention for behavioral change could be brought about (step 4). However, exchange of ideas and experiences among small-scale farmers hardly took place. The target category displayed a rather passive attitude.

The extension workers' experience that, given the economic and political context, the alternatives they could introduce meant only marginal improvements, was probably related to this. Although expectations at the start of the projects were high, as the projects went on it became clear that extension alone wasn't enough to provide realistic solutions to the small farmers' problems (step 5). Moreover, all seven projects covered only a short period of time. Giving extra attention to medium-sized and small farmers was one of the issues in extension programmes for only a few years. After those years, medium-sized and small farmers were expected to find their way through the "normal" information channels themselves; through the positive experience with extension, they would have become better entrepreneurs. Knowing that many small-scale farmers have a rather negative attitude towards extension (see chapter 4), we cannot however expect that one positive experience would alter this attitude into a predominantly positive view. Only when attention for small-scale farmers is well integrated, can extension gain the long-term trust of this category.

Kok's model is directed towards improving the communication between extension agents and a target category; it's focus is limited to the methods involved. As we have seen

above, not all aspects of the methods that were applied suited the small-scale farmers involved. What's more, extension workers found that what they had to offer was too limited to contribute significantly to the small farmers' survival prospects. Although we can discern in the projects some successfull adaptations concerning organization and methods, another element in "Royen's mill", the extension offerings, posed the organizers for a serious and structural barrier. This caused major shortcomings in the projects' internal congruence, which hampered the realisation of the extension objectives. On the other hand, we can argue that the extension objectives may not have been realistic in the given context. This brings us to two main conclusions of this chapter.

One is the confirmation of Röling's remark that a target-oriented approach requires an internal finetuning of the discernable elements of extension. The second conclusion is that extension alone is a too-weak instrument to induce changes on behalf of a category that finds itself in a marginal socio-economic position.

Returning to the recommendations of the LEI researchers concerning the role of extension in improving the prospects of small and medium-sized farms (section 3.1), we must now warn against too-high expectations. The attempts that took place during the 1970s and 1980s to involve these categories in extension activities were scattered and small-scale. Although the efforts showed some moderate success, it is not very likely that they captured the interest of large numbers of extension workers and service staff. As the members of the board of supervisors in the Vorden/Apeldoorn project indicated, the project would probably not have wider emulation in the various services. In some services, people became aware of the possibilities of unrequested extension, but the influences of the project cannot be overestimated. Even many extension workers in the project who had been in contact with small farmers had not changed their rather negative judgement about them. The "built-in tendency" of extension workers to engage themselves with progressive farmers (Röling, 1984)

seems to be very deeply rooted.

The motivation of extension workers to engage themselves with small-scale farmers is not improved by the fact that extension can offer only small improvements when other circumstances disfavor small-scale agriculture. Nor does this fact favor the small farmers' motivation to get involved in extension activities (see chapter 5). The organizers of the projects probably underestimated these societal and psychological barriers. Instead, the projects focussed on removing some minor financial and cognitive barriers. By subsidizing the participation in technical-economic bookkeeping, the organizers of the Vorden/Apeldoorn project hoped to lower the threshold for small farmers to start such a registration. By adapting the level of discourse to the educational level of small farmers, they tried to bridge the cognitive gap. It proved to be not enough.

Finally, we can discern another inhibiting factor, the bias in the preliminary researches. All the investigation groups identified poor professional performance as a major problem of the small farmers. They expected to stimulate farmers to behave more rationally through involvement in extension activities. Both craftsmanship and entrepreneurship, however, are ambiguous and normative concepts, and the rationale that is embedded in farming activities is also not unambiguous (see chapter 7). It seems important to give more attention to the definition small-scale farmers themselves give of their situation and practices. Extension is not dealing with objects that can be manipulated but with social actors who define their own goals and solutions for their problems, who take in specific social positions and operate under specific sets of norms and values. For this reason, we will shift our point of view in the next chapters; from the extensionist's judgements to the farmer's valuations and interpretations. To get acquainted with the small farmers' life worlds, two researches have been carried out, the methods of which will be described in the next chapter. Chapters 5 and 6, then, contain the results of these researches.

CHAPTER 4: RESEARCHING THE SMALL FARMERS' WORLD AND THEIR RELATION WITH EXTENSION; METHODS OF EMPIRICAL RESEARCH

4.1 Preface

The empirical basis of the project "Employment in agriculture and extension" consisted of three elements: an exploratory research, that was held in the summer of 1985; an evaluation of the Vorden/Apeldoorn extension project (see chapter 3) in the spring of 1986; and a qualitative survey in the first months of 1987. In this chapter we will discuss these three studies.

We start with a description of the objectives and methods of the exploratory research, followed by a summary of its main results. The methods and results of the evaluation of the Vorden/Apeldoorn project are already set out in the previous chapter. Yet, additional to the outcomes of the evaluation that were of interest for the organizers of the project, we gathered some information among participating farmers that we will present in section 4.4. Both the exploratory research and the evaluation yielded conclusions that shaped the problem and objectives for the qualitative survey. How this survey is performed, is also described in this chapter. The results of the survey are discussed in chapters 5, 6 and 7.

4.2 The exploratory research: problem and concepts

The objectives of the exploratory research were to gain understanding of the troublesome relationship between extension on the one hand and small farmers on the other, and to investigate the factors that perpetuated the gap between them. We needed to get acquainted with both the small farmers' and the extension workers' perpectives. A conceptual scheme had to be developed as a framework in which context further research could be conducted. Existing literature from rural

sociology and extension science already provided some preliminary concepts, which helped to direct the exploratory research at first, so-called "sensitizing concepts" (Blumer in Nooij, 1990). These concepts referred to the gap between farmers and extension workers as to "conflicting life-worlds" and to ways of farmers' behaviors as to "farming styles". I expected that these concepts, interacting with empirical findings, could result in a categorization relevant in the context studied and explaining the behaviors of discernable actors in that context.

Concepts such as "conflicting life-worlds" and "farming-styles" are not sharply delineated in rural sociology. They are used in different contexts and refer to different aspects. For instance, Mok and Van den Tillaart (1986) have developed some ideas about the specific relationship between farmers and extension workers. They showed that farmers and extension workers use diferent criteria to judge the future of the same farm. While extension workers applied technical and financial criteria, these criteria were not so important to the farmers. The extension workers in Mok and Van den Tillaart's study focussed on good technical and financial outcomes, while for the pig farmers other occupational aspects counted as much or even more, like a workstyle which is not hazardous to one's health, minimizing one's risks and not being inconveniently dependent on others. The extension worker is inclined to take a part of the farmer's existence into account, while the farmer himself considers his whole occupational existence, concluded Mok and Van den Tillaart.

Following the same line of reasoning, Nitsch (1984) developed his ideas concerning the "cultural confrontation between farmers and the Agricultural Advisory Service". While the Agricultural Advisory Service presupposes a linear model of decision-making, farmers make their decisions according to an adaptive strategy consisting of an on-going interaction between vision, experimentation and experience. The goals of farmers are not restricted to optimizing the efficiency of the farm enterprise (as is often presupposed by the Advisory

Service), but

> they take into consideration a complexity of needs and values, including social needs, environmental concerns and various aspects of job satisfaction. They strive for a qualitative satisfaction of their own personal and family needs, rather than for optimizing the economic outcome of the farm enterprise. Their aspirations have an organic rather than instrumental orientation, whereby I mean that for most farmers, farming means stewardship and a way of life very different from running a business (Nitsch, 1983: 44).

Thus farmers and advisers live and work in different cultural contexts, contexts in which the same words have different meanings. Divergent interpretations of craftsmanship and entrepreneurship occur, as well as divergent opinions about the goals of the production process and the definition of a "good" farmer. According to Long (1989b), different and often conflicting "life-worlds" or social fields intersect on the social interface between farmers and extension agents. The interface thus constitutes an encounter of interpretations and meanings. We were of the opinion that such an encounter could best be studied by qualitative research. Learning about small farmers could best be achieved by looking at how they perceive reality - their reality - and how they give meaning to their own farming practices.

"Farming style" also has a normative connotation. Farming styles can be discerned by

> observable differences in the conduct of business and the related to it system of norms and attitudes of a group of farmers (Van der Ploeg, 1984).

There exist regional, historically grown and collective norms around the "proper" ways of farming. A farming style thus bears a cultural component, that is however tied to the specific ecological and institutional arrangements of a region. Tosseram (1936) for instance, discerned two styles of dairy farming in the province of North-Holland, based on differences in the ecological infrastructure and the economic organizaiton of the destination of the milk. Character and goals of the conduct of business of farmers around Amsterdam, who individually delivered milk for direct consumption,

differed considerably from those of farmers in het "Noorderkwartier", whose milk was processed into cheese.

"Farming style" as is described above, seems to be congenial to the concept of "farming system". A farming system is an integrated whole, consisting of production-technical, labor-organizational and social-cultural factors, based on an ecological foundation and embedded in an institutional environment. Crucial in this concept are the interdependencies and the interrelationships within the natural and human environment in which farmers operate (see also section 1.6). A detailed description of the small farmers' farming system could thus provide a list of objective conditions by which productive strategies can be explained. Yet, in my opinion, the emphasis on the normative component in the concept "farming style", gives more grounds to start "understanding" the meaning of certain farm practices for farmers. For this reason I have chosen for "farming style" as a point of departure.

On the one hand, a farming style and the institutional arrangements connected with it, guid farmers to find the most optimal solutions in a given context. On the other hand, however, Hofstee (1985) has pointed to the danger that the normative aspect of a current farming style can prevent a rational adaptation to changing circumstances. There are, for instance, examples of small farmers who followed the current farming style, although it went against their own material interests. Small farmers in the eastern sandy soil area in the late 1940s were inclined to "imitate" the current farming style (Maris et al, 1951). Even earlier, the following problem was identified:

> The small farm, focussing on types of production suitable for the small farm, is still practised too little. The small farmer always aspires to be a large farmer in miniature (Staatscommissie voor den Landbouw, 1912: 390 [transl.; S.]).

Thus the concept of "farming style" makes us aware of social and cultural norms involved in ways of farming and the "proper way of farming". Each farming style has its own rationale, a

> (...) specific ratio that links goals and means, a system of meanings, with which the own reality can be interpreted and ordered (Bolhuis en van der Ploeg, 1985: 106 [transl.; S.]).

In the original connotation, the concept bears moreover a regional component, though it is argued that nowadays differences in farming-styles cut across the regions (Van der Ploeg en Roep, 1990). Nowadays, farming-styles should be more determined by different positions farmers take vis-a-vis external institutional networks or vis-a-vis agricultural policy, than by historically grown patterns of norms and values. In recent studies about farming styles, the cultural component in the concept is therefore disconnected from regional histories. Regionally based patterns of norms and values are - in my opinion unjustly - ignored. For my own research, I rather handled the point of departure that modern, uniform requirements for farming practices interact with existing patterns in such a way that a new diversity of farming styles, yet regionally discernable, becomes visible.

Both concepts such as "conflicting life-worlds" and "farming style" functioned as "sensitizing" concepts during the exploratory research. It appeared though, that both concepts needed a specification, a more precise content, when we applied them to the problem of the troublesome relationship between small farmers and extension workers. We will come back to this specification in chapters 5 and 7, and continue here with the set-up of the explorative research.

4.3 The research area and informants in the exploratory research

Following the normal habit of anthropologists, I chose a rather small area as my research area: "De Gouw" in Westfriesland. Much information had recently become available about the area, because of the planned land readjudication scheme and other governmental plans. The farm structure of De Gouw was quite heterogeneous, which made it interesting for a first

investigation: several agricultural branches were represented and the area comprised many small and medium-sized holdings (see tables 4.1 and 4.2).

Table 4.1: "De Gouw", number of farms per type of production (main occupation in agriculture)

	1976	1981
cattle farms	275	227
intensive livestock farms	13	9
arable/horticultural farms	28	20
open ground vegetable farms	47	50
fruit farms	16	13
glass-house farms	18	18
other horticultural farms	9	11
all farms	406	348

Source: Van Berkel, 1983

Table 4.2: "De Gouw", size-classes (standard production units) of full-time farms (numbers), 1981.

farm-size	up to 130 spu	131-175 spu	175-230 spu	230 spu and over	total
type of farm					
cattle farm	106	64	30	27	227
intensive livestock	5	2	1	1	9
arable/horticulture	15	2	-	3	20
open ground vegetab	25	5	7	13	50
fruit farm	7	3	2	1	13
glass-house	5	5	2	6	18
other horticulture	5	2	2	2	11
all full-time farms	168	83	44	53	348

Source: Van Berkel, 1983

Twenty-five small farmers and market-gardeners in the area had recently been interviewed for the LEI research concerning small farms (Wijnen, 1987), and I was allowed to obtain some of the information that had been gathered about these respondents. Finally, at the time I lived rather close to De Gouw which facilitated the exploration and acquaintance with informants.

De Gouw, which history we already briefly explored in the second chapter, is from old a dairy region. As a part of Westfriesland it benefited from the excellent marketing infrastructure for butter and cheese, which became important

export products in the 17th century. Large farmers accumulated wealth from their interests in trade and whaling, and theremnants of this "golden century" are still visible in stone tablets on the farm-houses. Arable farming began to be abandoned around 1500 as a result from drainage problems and shrinking peat soils.

The peat soil has disappeared totally, and the underlying sea clay nowadays forms the material for agricultural production. Dairy farming is still the most important type of agricultural production in De Gouw. The physical environment favors dairy farming, since grass production is rather good compared to the peat-soil areas which make up other parts of the western Netherlands. On a limited scale, alternative land uses are also possible, e.g. vegetable- and bulb-growing. Yet, the area also has its problems, which provided an inducement for land reallotment. Both drainage problems and the existing parcelling pattern would hamper a "healthy" agricultural development.

Drainage problems hamper optimal grass production, which is especially a handicap for intensive dairy farms with a high number of cows per hectare. Moreover, the drainage problem hampers rapid expansion of the very profitable bulb-growing. Bulb growers on sea clay must reckon with very strict rotation requirements: only once in six years can they grow bulbs on the same parcel. They are therefore eagerly seeking to rent well-drained parcels on dairy farms.

The traditional parcelling pattern in De Gouw is considered another obstacle in the modernization of dairy farms. A modern type of stable with an - immobile - milking parlour is only profitable when the adjacent parcel is large. A quarter of the dairy farms, however, lack such a parcel. The historical land clearing pattern that still dominates the landscape is also a handicap. The narrow parcels are sometimes 1.5 to 2 kilometers long. During wet summers, many of these pastures turn into mud because of the frequent treading of the cows when they move to and from the milking place. (At the time the interviews were held, many farmers therefore kept

their cattle inside, thereby using their winter supply of fodder.)

In itself, the production circumstances for farmers in De Gouw are relatively favorable. Yet, spokesmen for the area express the opinion that the area misses its chances unless the agricultural structure changes drastically. More free stall barns must be build; horticultural farms need to enlarge to allow mechanization; the acreage in bulbs need to grow with 1% yearly. The number of farms with less than 20 hectares will diminish and the number of larger farms increase (van Berkel, 1983). The land readjudication scheme will be one of the main instruments of this process of restructuring. However, as we will see later, not all farmers in the area agree with these plans.

Besides conducting a literature study, I interviewed 30 informants at length, who were representative of several local categories (see categories A, B and C in table 4.3). Other than the respondents in the research of the Agricultural Economics Institute (category D in table 4.3), my informants were not a random sample. Instead, I chose persons who were able to discuss in depth their ways of farming or could verbalise their opinions about agricultural developments and social relationships in their region. After all, my exploration was not meant to test hypotheses, but to develop a conceptual scheme.

Table 4.3: Categories of informants in the explorative research

	dairy farming	vegetables/ bulb growing	fruit	other	total
A	4	3	1	-	8
B	8	2	1	2	13
C	2	3	1	3	9
D	15	8	1	1	25

A= Farmers with farms larger than 120 spu
B= Farmers with farms smaller than 120 spu
C= Local experts (from extension services, agricultural schools and local government)
D= Small farmers who were interviewed in 1984 in the research of the Agricultural Economics Institute (Wijnen, 1987). From these interviews I obtained the aggregate results.

As a guide for the interviews I used a list of topics: pattern of farm development, physical circumstances, family and household circumstances, working circumstances, sources of income, participation in various formal institutions, judgement about the small farmers' prospects, goals and values concerning the profession. With the help of these topics I could develop a conceptual scheme relevant to the small farmers' situation. A pattern appeared in which household and farming strategies, historical patterns and marginalization concerning relevant formal farm organizations were in a complex way interwoven.

4.4 Results of the exploratory research

During the exploratory research it appeared that small farmers differed from large farmers not only in size, but also in their production goals and farm management. Summarizing the results of the study, large and small farmers could be described as follows:

1. **Large farmers:** a high return to labor as central objective - strive after as high as possible production volume - dare to invest - well-involved with external experts, though not uncritically - modernized and mechanized enterprises - specialized type of production - relatively many cows per hectare - necessity to buy on fodder markets and board out calves and heifers (dairy farmers); necessity to hire outside labor (horticulture and bulb-sector).
2. **Small farmers:** maintenance of independence as central objective - strive after a good quality product - working at a low cost level and risk aversion - hardly involved in, and very critically to external experts - low degree of modernization and mechanization - diversified type of production and off-farm incomes - relatively few cows per hectare - able to satisfy fodder needs from their own grasslands and able to raise own calves and heifers - use of family labor.

Both small and large farmers considered their own management to be internally consistent and a logical way to reach their goals. Yet, in the eyes of several local experts and the large farmers themselves, only large farmers could be called "good" farmers or "entrepreneurs". A "good" farmer could react appropriately to changing circumstances, because of his integration in the knowledge system. In the eyes of external experts and large farmers, small farmers lacked this quality. They didn't contact the extension service actively and lacked other entrepreneurial qualities, such as daring to invest and being aware of business economics. Therefore small farmers would not be able to react adequately to changing circumstances.

The small farmers interviewed were well aware of their stigmatization as "bunglers". They did not fit the professional image of the farmer/entrepreneur, which generated feelings of inferiority. Moreover, small farmers felt that extension workers often underestimated the viability of their farms:

> When we wanted to build a new stanchion barn, the extension worker dissuaded us. "You better look for a job", he said to my husband. We would have too little income from the cows. But he did not consider the extra income we had from the sheep and lease out of land for bulbs. Anyhow, we build in '74 and we managed to carry on (dairy farmer's wife).

> In '78 I had bought my neighbours' land and I wanted to build a new stanchion barn. The socio-economic extension worker argued against it. But he did not take into account that I was a bachelor at the time and that all that I earned I could put into the farm. Finally, the extension worker changed his tack and then the bank also changed its tack. When I married, my wife provided the income (dairy farmer).

Sometimes, the accounting methods of banks and extension workers didn't fit the diversified farms very well, which could hamper the acquisition of bank credit. Some small farmers found that extension workers were just not equipped with solutions for small, "disorderly" farms. Other complaints that came to the fore in the exploratory research were: "Extension organizes excursions only to good [= modernized:

S.] farms"; "The extension worker only comes when the weather is good" [and the advice is not applicable under other weather circumstances]; "They give beautiful advice, but do not have to pay for it themselves"; "Extension has egged on farmers to produce more and more, and now the small farms have to pay for it". Larger farmers were also critical on the extensionists' advice - they tended to adapt the given information to their own farm situation rather than simply following the advice - but they did not express the negative feelings that came through in the small farmers' statements.

Some small farmers mentioned bad experiences with extension workers which had made them become suspicious and lose faith in external advisers. But in general, small farmers appeared to display a negative image of "far away institutions", especially their regulatory functions. They felt they were victims of a government policy that was directed towards solving problems that had not been caused by them. Especially the way in which the superlevy was enacted gave rise to bad feelings[12]. Moreover they did not see their own farmers' organizations defending their interest.

Most small farmers interviewed were member of a farmers' union (LTB) but seldom attended meetings. "At LTB-meetings, small members are of no weight", was the opinion of a small farmer who once functioned as representative on a local board. "The boards of the farmers' organizations only consist of large farmers", recalls another small farmer. A third one experienced that the boards of the farmers' organization just did not want to talk about small farmers' problems. Others never went to the meetings because "the chairman himself milks 100 cows" which generated feelings of inferiority. Even when a local board of the LTB tried very hard to get a small farmer on the board, it failed because of the small farmers' deeply rooted distrust of their organization. Small farmers in the exploratory research clearly felt discriminated against and for that reason withdrew from formal institutions. As a consequence, however, their position in the locality deteriorated, which could negatively influence their economic

performance. A vicious circle was set into motion.

In contrast, large farmers dominated the formal agricultural organizations. Several of them even fulfilled more than one function at the same time. As a consequence, it was the large farmers who were informed about restrictive measures at an early stage, or about the ins and outs of the upcoming readjudication scheme. The scheme board was installed two years before "the area" would be informed about the plans. The members of the board thus had ample opportunity to react "adequately" to changing circumstances. In fact, they actively helped to shape the changes. Customarily, members of the board were recruited from and assigned by the farmers' organizations. There were no small farmers among them. Small farmers considered the coming readjudication more as a burden than as a relief and they felt they had lost control of what was happening around them. And because they didn't give feedback in the formal organizations, their environment seemed to lose sight of them.

Small farmers also felt marginalized more directly. Because smaller vegetable- and fruit-auctions were being combined, the costs for transport increased, which especially hurt small market gardeners, with their relatively small production volume. Moreover, at the new, large auction, farmers could get a bonus for selling more than f 50,000, an amount that small-scale market gardeners could rarely reach. The quantity bonuses at the dairy factory were a thorn in the side of the small dairy farmers I interviewed. They also considered the imposition of the superlevy unjustified. The fact that dairy farmers with 13-40 cows could get a small benefit or could apply for a small benefit for self-employed (EUZ) was considered by them as mere eyewash.

To summarize, small farmers and market gardeners in the exploratory research felt stigmatized as bunglers and pushed back by the formal organizations that were directly or indirectly relevant to their economic performance. They felt that the small farmers' economic marginalization was strengthened by a process of social marginalization.

4.5 Conclusions of the evaluation of the Vorden/Apeldoorn extension project

The conclusions from the exploratory research were confirmed after analysis of twenty-seven small-farm situations in the province Gelderland. We visited these dairy farms in the context of the evaluation research mentioned in the previous chapter. In addition to the questionnaire, we had posed several questions about farm- and family circumstances, which we combined with the written reports of the extension workers about these farms.

As was the case in "De Gouw", small farmers in the communities of Vorden and Apeldoorn expressed feelings of belonging to a marginalized category, although they warmly welcomed the recent interests of extension workers in their situation. And, as the farmers in "De Gouw", they showed specific traits in their patterns of farming and farm development by which they, by their own accord, distinguished themselves from larger farmers. Small farmers around Vorden and Apeldoorn appeared to distinguish themselves from the mainstream "modern" agriculture, both in their actual, observable production strategies, and in the underlying norms and values that guided their behaviors.

Characteristic for their way of farming was the relatively low number of cows per hectare, their relatively extensive land use. According to the farmers, the small herd-sizes had several advantages. It enabled them to provide for the own fodder supply and to give enough attention to individual cows. Moreover, many farmers interviewed expected to stay below the phosphate norm which would restrict the spread of manure per hectare in the upcoming law on manure. It was another aspect of the measures that would pose a threat to them - the obligatory building of manure storage - yet concerning the norms for the spread of manure they expected few problems.

Small dairy farmers around Vorden and Apeldoorn rejected big expansions in herd-size on basis of bought fodder. They

rejected the growth model anyhow, even the younger ones among them. With a herd of 30-40 cows it should be possible to earn a living, was their opinion. Larger herd-sizes would go at the detriment of the attention for individual cows, which they considered a very key aspect of their craftsmanship.

Craftsmanship, according to the farmers interviewed, shows itself in raising one's own calves for replacing the herd, in a long life-span, a good health and meat production of cows. The volume of milk production comes in second place. The farmers said to be attached to the traditional, red type of cow with its relatively high meat production and higher value for calves; the love for these "beautiful" cows is expressed in the care given to them and the wish to expose them well. The cows look best in a stanchion barn, is the opinion of many of the farmers interviewed. They therefore critisized the modern free stall barns, which are "dirty", cause cows to step on their teats and give the farmer fewer possibilities to care for individual animals. Moreover, free stall barns are synomymus with large herd-size Holstein-Frisian cows, which are "milked to death" and replaced very rapidly - all aspects that do not fit in the small farmers' image of a "beautiful" farm or a "good" farmer.

Characteristic for the small dairy farmers' opinion about "good" management was their avoidance and spread of risks, expressed by both a gradual pattern of farm development and building as much as possible oneself and in a diversification in sources of income. Gradually modernizing farm buildings oneself had the advantage that one did not need to take up high loans. On the other hand, however, the slowness of the adaptations meant that one had to work longer with inconveniences, such as milking cows in several places in stead of in one. And when the superlevy was enacted, small farmers found themselves in the unfavorable situation that they had failed to increase their production volume to such an extent that their future income was safequarded.

Fortunately enough, their incomes did not totally depend on milk production. Most farmers kept fattening hogs, sows or

chickens. In many cases the family income was partly derived from non-agricultural sources. Old-age pensions of living-in parents, partly allowances for labor-incapacity, off-farm part-time jobs, renting room for summer-guests and selling of agricultural products, frequently added to the family income. The existing diversity in sources of income thus served as a safety net when milk production was restricted by the superlevy. Several farmers expanded their hog-keeping activities somewhat or started to breed their herds in with meat-type of cows, such as piedmontese.

Through the interviews we obtained a rough impression of the small farmers' farming style in another part of the country than De Gouw. We observed similarities between the two research areas, such as the rather extensive ways of farming and the avoidance and spread of risks, aspects that small farmers emphasized in order to distinguish themselves from larger farmers. In both areas, small farmers rejected the growth model on moral grounds. We will come back on this moral basis of small-scale farming and the controversy it involves, in the next chapter, where the results of the qualitative research are presented.

We observed also some differences. Meat production of cows for dairy farmers in De Gouw was not as important as for farmers in Vorden and Apeldoorn, while the quality and quantity of the milk counted less for the latter than for the former. As we will see in the next chapter, regional customs and traditions, together with the existence of an institutional network that favors certain types of farming, can possibly explain such observed differences between regions.

Another striking difference was that the household and family situation of farmers around Vorden and Apeldoorn seemed to perform a decisive influence on production strategies, while this was not very clear in De Gouw. One-third of the farmers interviewed around Vorden and Apeldoorn was a bachelor, whether or not living with his parents in the same house. Several married farmers lived with their parents in the

same house or on the same yard. Due to these circumstances, many farmers seemed to lack the incentives for adapting their farms or had to reckon with the elder generation's wishes and preferences concerning production strategies. The high occurrence of bachelors and farmers with living-in parents was also characteristic for the respondents in nearby Salland, one of the two research areas in the qualitative survey. We will discuss this feature and its consequences for household and production strategies more thouroughly in chapter 5. But already from the evaluation research it became clear that patterns of farm development and household situation were interwoven in a complex way.

4.6 The qualitative survey: problem and approach

The exploratory and evaluation studies yielded three main conclusions. First, patterns of farm development and farm management on small farms differed from those on large farms. While adapting their farms to changing circumstances, small farmers not only grew more slowly than large farms, but also developed different types of production or combinations of sources of income. They apparantly attached specific meanings to seemingly universal concepts such as farm development and proper farm management.

Second, it appeared that small farmers experienced that extension workers had little understanding and respect for their ways of farming and undervalued the viability of their enterprises. Extension workers could do little for the typical problems of the small farm. In general, judgements, approach and content of extension were not attuned to the small farmers' situation. This was one of the reasons why small farmers themselves did not actively ask advice and why they seldom showed up at extension meetings.

Third, the low confidence in extension was not an isolated phenomenon. With respect to socio-economic status, people from small farms felt they were off the map. The ways

in which they interpreted their environment and the changes that had been brought about were imbued with feelings of belonging to a marginalized category. These feelings restrained them from participating in extension meetings, studyclubs, etc.

For their part, extension workers had many questions about small farmers, as was revealed in the evaluation of the Vorden/Apeldoorn project as well as in study meetings for socio-economic extension workers in several parts of the country (Somers en Wijnen, 1986). Five main questions were formulated by extension workers:

1. What are the specific extension needs of small farmers?
2. What is the small farmers' style of farming and how can we attune our methods to that particular style?
3. What can we offer people on small farms?
4. How can we best approach these small farmers?
5. Is it possible to develop a group process for small farmers?

These questions, together with the small farmers' experiences, shaped the central objective for the qualitative survey: to classify survival strategies on small farms in a way that would help extension workers understand and improve their relationship with small farmers. We defined the concept "survival strategies" as an ongoing process of decision-making and adapting income-yielding practices in the light of changing circumstances, so that the farm can persist as the main source of income for a farming family. Survival strategies occur in both farming and household practices, since farm and family are so closely interwoven. The length of the term for which continuity of the farm is important is determined by the family/succession situation, by the stage in the family cycle. The research was directed towards those farmers that needed continuity for a rather long term.

As method for the research we chose for a "qualitative survey", a method that discerns itself from both "pure" qualitative research and surveys, but at the same time bears aspects of both methods. On the one hand, a qualitative survey

afforded the possibility of giving the problem and results a broader reach than is the case with "pure" qualitative research. On the other hand, it does more justice to the uniqueness and individual interpretations of the respondents than is the case with regular surveys (Nooij, 1990). Especially because we were dealing with hard-to-reach farmers with whom extension has lost contact, it was important to obtain detailed insight into the situation and styles of living and working of this category, and at the same time grasp the meanings of what was done and said. Open-ended interviews seemed the best way to reach this objective.

The time-consuming character of this type of research made the help of interviewers indispensable, and therefore the questionnaires needed some standardization. The character of the questionnaire - many open-ended questions which left scope for the respondents' own stories - posed special requirements for the interviewers. They were students, selected on the basis of their abilities as qualitative interviewers. All completed an interview training. Guidelines established before the interviewing as well as constant evaluation of the interviews "in the field" made it possible for a comparable completion of the forms to be obtained.

The questionnaires were integrally processed to data-base files, and I had to shorten the often detailed reports of the interviewers. The data-base files form the "raw material" for a complete picture of the visited farms. A very detailed picture of several farms has moreover been obtained by transcribing the complete interviews from tape. Further summarizing and abstraction was obtained by coding and relegating suitable variables to SPSS files. Switching back and forth between data base files and SPSS files enabled me to quantify some relationships without losing the connection with the respondents' interpretations.

4.7 The research areas in the qualitative survey

The sample used in the qualitative survey existed of arable crop growers in a part of the southwestern see-clay region (Goeree Overflakkee and Schouwen Duiveland) and dairy farmers in a part of the eastern sandy soils (Salland). Because we supposed that regional patterns influenced working and living circumstances, we chose to concentrate the interviews in two areas instead of seeking a random dispersal over the country. It was not easy to find "typical" Dutch rural areas, but at least both chosen areas do not show very atypical characteristics. Neither of them are closely intertwined with urban problems; the production circumstances are neither clearly unfavorable, nor clearly favorable. In their agricultural structure (farm-size, types of production) the chosen areas do not differ much from the wider regions of which they form a part.

In both research areas, some extension efforts have been directed towards small farmers (projects 4 and 5, see chapter 3), and investigations into the small-farm problem were performed. The working group "infrastructure arable farms 15-30 hectare" reported:

> In 1980, approximately 60% of the arable farms in the South-West were smaller than 30 hectares. On some of these farms, however, farm management is not directed towards long-term continuity. On the farms with less than 15 hectares, there are many older farm heads without successor as well as arable farmers with an additional occupation. On the roughly 3400 farms between 15-30 hectares this is less frequent. Yet, in relation to the income necessities of a family, there are too many too-small farms among them. The average farm-size is 20% smaller than the size required to provide one working person with sufficient employment (Werkgroep Infrastructuur akkerbouwbedrijven 15-30 ha, 1981: I [transl. S.]).

The working group deems the failure to improve the profitability of the 15-30 hectares arable farms alarming. In its reports, the working group not only describes the situation on these farms, but also mentions ways of improving their financial situation. It considers farm succession and

the possibilities for performing side-activities and their consequences for the farm management. It also mentions the pros and cons of diversification of production, causes of the relatively small share of potatoes in the farm plan, causes of the relatively low yields, and the possibilities for diminishing costs of production. Finally, the working group suggests several measures that could improve the small farms' position. The extent and the urgency of the problems would require extra extension and support measures for small arable farms. According to the working group, the extra efforts do more than counterbalance the problems that would arise if small arable farmers could no longer support themselves. In this respect the working group warns for unbalanced development of specific areas in the South-West.

Therefore, the three technical-economic extension services in the South-West, together with the socio-economic services of the farmers' organizations gave extra attention to the small farmers in the winters 1981/82, 1982/83 and 1983/84. Through unrequested farm visits, extension workers gained insight into the composition of the small farm category. Next, discussion groups were started, to which arable farmers were personally invited. In these groups, the possibilites for increasing the profitability of the farms were discussed. The agricultural magazines also printed accounts of several farms in the South-West on which a development had taken place that could function as an example. In some areas, the discussion groups went on well, but the organizers of the project concluded that, in general, the small farmers' interest in participating was limited. The project was terminated because it demanded too much time from the extension workers and yielded too few results.

In Overijssel, the province in which the second research area was located, some extension efforts were also directed towards small farms. In the season 1981/82, the technical-economic and socio-economic services together organized a course "Being a farmer and remaining a farmer on the family farm". The organizers experienced, however, that it was not

the small farmers, on whom the activities were targeted, who responded to invitations to the meetings, but the medium-sized farmers.

In both of the two reports on the structure of agriculture in Overijssel that appeared in the 1980s, the small farm problem is a point of discussion. Although the number of small farms was diminishing, there still existed a considerable category of small farms with a need for continuity. In 1985, 53% of all 12,286 registered farms in the province were smaller than 150 standard productions units (spu) (De landbouw in Overijssel, 1987). 1946 farm heads younger than 50 years had such small farms while

> From financial-economic research it appeared that farms smaller than 150 spu are generally too small to yield an income that is enough for both the normal household expenses and the savings needed for investing in the farm's development. It would not be easy for those young farm heads to continue their farms on a long term basis. For older farmers there is not necessarily a problem unless there is a successor for their farms (De landbouw in Overijssel, 1987 [transl. S.]).

During the first half of the 1980s, the number of smaller holdings decreased less quickly than in the preceding years, when the introduction of the milk tank occurred. In the period 1980-1985, the total number of farms decreased an average of 1.7% yearly (this was less than the expected 2.1%). The slowdown in the decline was most pronounced in the years 1982/83 and 1983/84. The unfavorable employment situation outside agriculture may have played a role in this slowdown, according to the structure report. Yet, between 1984 and 1985 the decline was again considerable, namely 2.8%.

The fragments mentioned above give a quick impression of the small farm problem as is it perceived in the South-Western seaclay area and in Overijssel. Extension agents have gained some experience in organizing extension activities for small farmers in both regions, though their efforts did not yield the desired effects. Extension workers were not acquainted with the typical ways of farming and development patterns of small farms. On both sides, prejudices and inhibitions had

grown. The qualitative survey would provide more insight into this problematic situation.

4.8 Sample, respondents and non-response

We wanted to direct the qualitative survey to those farmers for whom the farm would persist as the main source of income for a medium or long term. The sampling procedure therefore aimed at farmers whose main occupation was agriculture and who were younger than 55 or had a successor if they were older than 55. The limits for farm size were set at between 50 and 150 spu. Farms smaller than 150 spu are generally considered small farms; farms smaller than 50 spu are mainly part-time farms. In order to achieve some homogeneity in the sample, we included those farms for which at least 60% of the volume of production came for arable crops or dairy farming.

Already in the first stages of the research two problems arose that cast their shadows ahead. One problem was that census figures, on which the sample was based, did not always fit the reality on the farms. Among the arable farmers who supposedly had their main occupation in agriculture, there were many with extensive side-activities that had not been mentioned in the census. During the checking of the sample, several arable farmers who clearly were part-time farmers, could already be removed from the sample. Others, however, were identified as part-time farmers only during the interviews. Side-activities appeared to be so crucial to the arable farmers' survival strategies that we decided not to remove more farmers from the sample because of side-activities. In total, interviews with 71 arable farmers and 71 dairy farmers yielded useful material (see table 4.4).

Table 4.4: Sample-size and respondents, Goeree Overflakkee and Schouwen Duiveland (GO/SD) and southwestern Overijssel (ZWO)

	GO/SD	ZWO
selected at random at start	95	98
additionally selected because of high non-response		17 +
removed from sample after checking	12	3
non-response	9	38
not useful	3	3 -
number of useful interviews	71	71

A second problem occurred among the dairy farmers: the high non-response rate in this category. All selected farmers received an invitation for an interview; the dates were set by telephone call. Many dairy farmers refused to co-operate because of embitteredness. "They [the minister of agriculture and other "officials"; S.] do nothing for us; research does not help anymore"; "This research is already too late". During the interviews we were also often confronted with such embitteredarguments. "Until a few years ago you could expect everone to co-operate", explained an extension worker in the area, "but at the moment everyone is sick of the whole situation. The small farmers feel unfairly treated, abandoned." Another reason for the high non-response rate among dairy farmers was probably their weariness about questionnaires. The law on manure had required a detailed registration. Several dairy farmers had recently been interviewed about the consequences of policy measures on their enterprise. Finally, we had the impression that the need for continuity influenced co-operation in the research. Many bachelors did not deem an interview useful, because the long-term continuity of their farms was not at stake. Moreover, the succession rate in the non-response category was considerable lower than in the category who agreed to an interview (see table 4.5).

Table 4.5: Differences between response and non-response categories (averages)

	GO/SD		ZWO	
	resp.	non-resp.	resp.	non-resp.
farm-size (spu's)	100	108	105	111
farm-size (hectares)	18.99	19.33	10.49	10.54
age farmer	45	45	46	46
successor present	25%	25%	30%	20%

The results of 142 interviews will form the basic material for the following chapters. Here, we will present only a few general characteristics of the farmers interviewed (see tables 4.6, 4.7, 4.8 and 4.9).

Table 4.6: Classification by age of interviewed farmers

	GO/SD		ZWO	
age-category	number	percentage	number	percentage
25-34	8	11.3	8	11.3
35-44	24	33.8	15	21.1
45-54	31	43.6	38	53.5
55-75	8	11.3	10	14.1
TOTAL	71	100.0	71	100.0

Table 4.7: Succession situation

	GO/SD		ZWO	
	number	percentage	number	percentage
successor present	18	25.4	21	29.6
certainly no successor	12	16.9	5	7.0
succession not (yet) applicable*	41	57.8	45	63.4
TOTAL	71	100.0	71	100.0

*farmer is bachelor, has no children or children younger than 16 years old

Table 4.8: Classification by size (spu's)

	GO/SD		ZWO	
spu's	number	percentage	number	percentage
50- 74	15	21.1	18	25.4
75- 99	22	31.0	12	16.9
100-124	17	23.9	15	21.1
125-150	17	23.9	26	36.6
TOTAL	71	100.0	71	100.0

Table 4.9: Classification by size (hectares)

	GO/SD		ZWO	
hectares	number	percentage	number	percentage
< 5	-	-	4	5.6
5- 9	2	2.8	29	40.8
10-14	18	25.4	26	36.6
15-19	20	28.2	12	16.9
20-24	19	26.8	-	-
25-29	8	11.3	-	-
30 and more	4	5.6	-	-
Total	71	100.0	71	100.0

CHAPTER 5: HOUSEHOLD- AND PRODUCTION STRATEGIES OF SMALL-FARMING FAMILIES

5.1 Preface

In general, the concept "survival strategy" describes the conscious actions of households to satisfy their basic livelihoods. Many studies concerning the subject deal with peasant strategies in third-world countries; but recently the survival of poor households in industrialized countries, in both rural and urban contexts, has also attracted the attention of social scientists[13].

There are many levels of "survival". In our area of interest we are not using the term in its most basic meaning. No small farming family in the Netherlands is actually in danger of starving to death. But it may face a deteriorating income and the necessity of economizing on household expenditures. It may even face growing isolation from its social environment, comparable to the social isolation of urban poor who can not afford to participate in cultural or sporting events, to buy gifts or to invite guests home for meals (Engbersen e.a., 1986). According to the agricultural data annually produced by the Netherlands Central Bureau of Statistics and the Agricultural Economics Research Institute, the incomes derived from smaller farms are considerably lower than those from larger farms[14]. But how urgent is the small-farming family's situation? Can we define their problems in the same way as those of the urban poor, who are economizing on such basic necessities as food and are threatened by social marginalization as well? How do small farmers themselves perceive their income situation? And what kind of household strategies do they apply? Investigating this question will be the first task of this chapter.

The threat to the continuation of small-scale farming as an income-yielding activity seems to be beyond doubt. Yet, the small farmers we interviewed all had adapted their farm in one

way or another so that it could provide for a large part of the household's current needs. The speed and the scope of the adaptations were typically short-term solutions to changing economic relationships and modest accomodations to technological and cognitive developments. It therefore seems to be more justified to speak of responsive survival strategies than planned farm development. In sections 5.4 and 5.5, we shall describe the kind of adaptations farmers made to guarantee the continuity of their farm as main source of income.

It was important that we gained an understanding of the small farmers' motivations for their specific farming patterns. According to Barlett, farmers all over the world have something in common regarding their adaptive strategies:

> All farmers make choices on how to allocate the resources available to them, all operate within the cultural and institutional environment in which they are located, and all face vagaries of weather, health and price (Barlett, 1980: 546).

In this citation, the author emphasizes the possibilities and restrictions the environment places upon the choices farmers make. The freedom of farmers in the allocation of resources is thus a limited freedom. The type of problems farmers encounter as well as the type of solutions they can find, is partly determined by fluctuating circumstances, such as price relationships and the weather, and partly by a more or less durable context. I want to highlight two aspects of this context in this chapter.

First, there is the agricultural household that is closely intertwined with farm decision-making. Several authors have shown how decisions concerning farm development and conduct of business are closely related to the stage of the family-cycle and to the needs, possibilities and limitations of the household. Each stage in the family-cycle is characterized by a typical relationship of "demand" and "supply" of labor (Zwart, 1990: 38), and by a typical balance between supply of labor, consumption level and farm-size (see Strijker, 1983; Petit, 1976). The specific relationships in each stage influence the possibilities and limitations of farming strategies.

Second, there is a regional context which includes both infrastructural and normative components. By "infrastructure" we mean a dense complex of physical circumstances, processing and marketing facilities, and formal and informal knowledge networks concerning specific types of production that exist in a region. The term "centre function" is commonly applied to such a regional infrastructural complex. In the conversations we had with farmers, these infrastructural aspects appeared to influence the decisions farmers made whether or not to start or continue specific types of production. Socio-historical norms also influence farming practices. Here we refer to the concept of farming style which we explained in the previous chapter.

We thus need to place the small-farmers' survival strategies in both household and regional contexts in order to gain a better understanding of the goals and motivations of the farmers interviewed. In this chapter, we will restrict ourselves to those strategies that can be found in the areas of household and farming practices. In chapter 6, we will deal with non-agricultural sources of income. Here again, household and regional aspects will function as a guideline to the descriptions. Both chapters 5 and 6 are based on the results of the qualitative survey described in chapter 4.

5.2 Income and economizing in small-farm households

The small farmers interviewed liked to elaborate on the issue of low and deteriorating farm income, but where it came to the point of figures, the discussion often stumbled. Discussing the income situation and sources of income was a delicate thing to do. Several farmers refused to give information; others did not know or pretended not to know their incomes. Our figures concerning income level (see table 5.1) are thus incomplete.

We got another indication of income levels by asking farmers whether or not they had received the "benefit for

self-employed", a small yearly benefit for self-employed who earn less than a certain minimum income. Twenty arable and thirty-four dairy farmers received such a benefit. Yet, several farmers were not sure whether they had received one or not - "The bookkeeper keeps track of such things." - reflecting the disinterest of several farmers in bookkeeping. Others, especially dairy farmers, had not applied for the benefit simply because they refused financial help. They derived some pride from "not living on taxpayers' money", and distanced themselves from farmers who had used tax benefits to enlarge their enterprises. However, the benefit for self-employed, like the "benefit for small dairy farmers" that several farmers received, is only a very small amount of money, a "mere eyewash".

Table 5.1 reflects the apparently wide divergence in income among small farmers. The research material gives insufficient evidence for explaining these differences. We have no insight into the precise calculations that underly the figure of taxable income, including the calculations of costs, yields, and fiscal deductions, which would have required a detailed study of book-keeping records. Yet, it became clear that farmers with a relatively high taxable income derived a large part of their income from side activities. Moreover, the size of dairy farms clearly influenced the incomes derived from them.

Table 5.1: Average taxable income over the past three years from arable farmers in two southwestern islands (GO/SD) and dairy farmers in Salland (ZWO).

	GO/SD (N=71)	ZWO (N=71)
less than 20,000	11%	21%
20,000 - 39,000	42%	55%
40,000 - 59,000	23%	10%
60,000 and more	14%	-
no answer	10%	14%
total	100%	100%

The incomes were generally very modest and, according to the respondents, the profits from farming continued to

decrease. One-third of the arable and two-thirds of the dairy farmers considered their income from farming alone insufficient for necessary farm adaptations and household expenses: "Your labor is not paid for, much work is for nothing." Only because small-farming families economized on household expenditures and looked for additional sources of income did they escape real poverty.

Whether farmers perceived their income as problematic seemed not to depend directly on the actual level. Household composition as well as norms and values concerning consumption patterns influenced the satisfaction with the current income more than its actual level. Were there adolescents in the household; were there elderly or handicapped persons who need special care; how many people must be supported by the income? These household circumstances seemed to influence many of the respondents' evaluations of their income level.

Bachelors tended to be satisfied with what they earned from farming; but in families with adolescents there was often tension between the consumption wishes and the income level. Some respondents experienced that nursing of old, sick or handicapped members of the household could subject them to unexpected expenses. Such a situation occurred relatively often in Salland, where so-called "extended households" existed. In households with adolescents, respondents often felt a need to hold down on expenses. They would like to go on vacation in order to please the children, but their income situation did not permit it. Adolescents asked for more clothing money or otherwise increased their requirements, while their parents felt short of money. In these cases, the level of income was definitely defined as insufficient.

Purposefully economizing on household expenditures occurred in more than half of the families interviewed. The strategies varied from not going on vacation to not buying "luxury food" such as chips or soft-drinks. Several women sewed all the family's clothing themselves. Others bought mainly second-hand clothes for themselves so that they could afford new ones for the children. Many couples had not bought

new furniture for 25 years. But nobody economized on food. "When you work so hard, you have to eat well", they explained in the case of meat. Very often, families had meat, milk, eggs or vegetables from their own farm. Though many respondents felt hard-pressed, obviously no one felt "poor".

Yet we could locate a specific vulnerable sub category: farmers between 45-55 without successor or whose succession was not yet sure. Arable farmers in this category had little opportunities for side-activities and were mainly dependent on arable farming with its decreasing profits; dairy farmers in this category could be found on the smallest holdings. Almost all respondents felt the effects of a deteriorating income situation in agriculture, but especially the above mentioned category had very little scope to look for adequate answers.

5.3 A way of living

Though many small-farm households purposely economized on household expenditures, they did not define themselves as poor. This opinion obviously had much to do with their low attachment to a high standard of living. Most of them said they would not change their pattern of household expenses much if their income would improve. Some would spend more on luxury items, like a (better) car, vacations and household furnishings, but the majority would allocate the extra income to farming investments. The farm clearly had priority over the household. Household purchases were left undone when the purchase of farming equipment was necessary. And it is mainly due to this attitude that the ability to make small farm adaptations was not threatened: "It [the income: S.] goes, but it is because we do not ask much for ourselves".

The inclination to give priority to the farm above household expenditures is reflected in the frugal patterns of living of many farmers interviewed. Especially in Salland, many respondents lived in a very old-fashioned way, and did not seem to mind: "We do not care about luxury." Sometimes

there was no telephone, no television, no car, and the furnishing of the houses dated forty years back. In general, small-farm families displayed a frugal style of living that they would hardly alter if their incomes were improving - a hypothetical situation that we put to them. Living frugally is a value that is transferred from generation to generation. It is, in the respondents' own words, a "style of living". "You do not know differently, you've grown up living thriftly." Past generations and neighbors on small farms formed a point of reference for this way of living.

The frugal lifestyle on small-scale farms is certainly not limited to the two research areas covered by the qualitative survey. It is mentioned by extension workers who visited small-scale farms in the context of extension projects (see chapter 3). It is also mentioned in the two surveys from the Agricultural Economics Research Institute among medium-sized and small farmers (see section 3.1). Extensionists and researchers have often noticed the frugal way of living, the relative absence of financial problems due to a low debt load, and small-farming families' satisfaction with little. These observers have seen no problem in it. They mentioned only that these families could manage, but that financial problems arose as soon as succession was at stake.

Yet, through the interviews we held ourselves, it became clear that the income situation - besides the problem of succession - was not unproblematic at all, for three reasons. First, there clearly existed tensions in families with adolescents, since all members of the household had to make sacrifices for the continuity of the farm. Second, several young couples seem to have broken with the traditional expectations and developed expectations of a more consumption-oriented lifestyle. The relation between their expectations and the income-yielding capacity of their farm becomes more and more strained. Third, though many respondents take a small income for granted, in their eyes, families on large farms do not. The proverbial "satisfaction with little" has become charged with tension.

A frugal way of life is indeed one of the possible adaptations to the limited income capacity of small farms, but, at the same time, it is considered a moral obligation, it is how one ought to live. In the respondents' eyes, it is small-scale farming families who are living up to this obligation, while large farmers violate this moral code. According to many farmers interviewed, large farmers always want "more", and the large farmers' greed is supported moreover by fiscal and policy measures, which help them to enlarge and modernize their farms.

The code of "having enough" is not confined to the realm of patterns of living, but expresses itself as well in patterns of farm development and farming practices. It hurts small farmers to experience that their way of both life and work are not rewarded anymore. Modernization and scale enlargement have not only weakened the economic viability of small-scale farming, but also undermined its moral basis.

5.4 Patterns of farm development on arable farms

General processes such as scale enlargement, modernization and specialization did not leave the small arable farms undisturbed. But we observed that these processes took a specific form on these small farms. Generally, small farms tend to be less attractive to take over than large ones. The farms that have recently been taken over are larger than those taken over in earlier decades. This tendency, together with enlargement of existing farms, results in scale enlargement. Also many of the arable farmers we interviewed enlarged their acreages. In the sample, the average acreage has grown with 10% since the current farmer took charge. Yet we observed that the farms that were taken over in the 1980s were somewhat smaller than the farms that were taken over in earlier decades. Moreover, farmers who took over in the 1980s seemed to lack opportunities to enlarge their holdings. They considered land prices too high. Probably, new possibilities

for alternative land use and off-farm income have recently provided alternatives to scale enlargement; they formed the basis on which young farmers dared to take over a small farm.

Closely related to farm enlargement are developments in farm buildings. The arable farmers who enlarged their acreages most, also have the most facilities[15]. Using much of their own labor, arable farmers remodeled a former chicory shed into a machinery store, or created a keeping place for potatoes in an old cow barn. Not everyone went as far as providing their own storage facilities. Thirty-eight percent of the arable farmers interviewed had to sell their produce directly from the land or used a co-operative keeping facility. Moreover, twenty-eight respondents were engaged in one or another form of co-operation involving machinery, which provided them with the advantages of modernization without the full financial burden. Through co-operation they had use of machinery that is not profitable on small acreages, such as machinery for planting and harvesting potatoes.

Several forms of co-operation occurred. Neighbours and relatives[16] helped each other with labor and machinery, mostly on a reciprocity basis with "closed purses". Sometimes two or even three farmers held equipment as common property. Several respondents were member of a co-operative custom-work business (Covelam). The Covelam charged all members a fixed rate per hectare based on costs, though working the small parcels of the smaller farms required more labor time per hectare than on the larger farms. By co-operating in keeping facilities and machinery, small arable farmers were able to modernize their production process without greatly enlarging their acreages. Moreover, they could alter their farm plans easily.

Contract work plays two roles in the flexibility and adaptive capability of small arable farmers. First, the owners of specialized machinery tried to make this machinery profitable by performing customwork for colleagues. Second, most of the arable farmers interviewed said to make use of customwork now and then, which enabled them to benefit from modernization without enlarging their farms.

Specialization, the third of the above mentioned general process, did occur on the small arable farms of the sample. Many of the farmers interviewed started with a mixed farm. The more-or-less forced modernization in dairy farming in the 1970s - processing industries quitted collecting milk in cans so that farmers had to purchase a refrigerated milk tank - formed the incentive for specialization towards arable farming. Respondents were reluctant to make the high investments required for profitable dairy farming. For most of the farmers the choice was not that difficult, since they had low affinity with cows or did not want to be tied down by caring for milk cows. Yet, we observed a slight increase in the arable farmers' interest in cattle-farming as a secondary agricultural activity[17]. They did not choose poultry or hog-keeping: "We did not grow up with this". Some have considered keeping chickens or hogs on a large scale, but shied away from it because of the high financial requirements. But an increasing number of farmers used the old barns to keep several calves or bulls for fattening.

We observed a slight tendency to increasing diversification in type of crops raised. Many of the farm plans included horticultural crops. During the 1980s, the variety in crops grown increased somewhat within the sample. On the one hand, traditional labor-intensive crops, such as tulips, gladioli, flower seeds and chicory pens, disappeared from many farm plans. Other farmers, however, started growing these crops. In total, the share of cereals in the farm plans decreased in favor of horticultural crops and crops other than potatoes and sugarbeets[18]. Thus, no unequivoval process of specialization has taken place on small arable farms. As we shall see later on, a certain degree of diversification, in agricultural production as well as in sources of income, enable small arable farmers to keep farming on a relatively small acreage. Diversification is a key component of their survival strategies. Moreover, they were able to meet the technological requirements of "modern" farming through several forms of co-operation.

5.5 Patterns of farm development on dairy farms

Younger dairy farmers in the sample had the largest acreages. Not only did they take over larger farms than their older colleagues, but they were also able to enlarge their farms the most. This tendency, unlike that for the arable farmers, is in agreement with the general process of scale enlargement. The possibility of buying land has also influenced development patterns on small dairy farms in the sample. Farmers who enlarged their acreage also increased their herd size, modernized their cow barn, and very often abandoned hog-keeping. Farm enlargement and modernization thus coincided with specialization. In contrast, those who did not have the possibility or did not want to buy land expanded their hog-keeping, and modernized in this type of production[19].

Half of the dairy farmers interviewed built a new cow barn in the 1970s or 1980s, be it a free stall barn with milking parlour or a stanchion barn. It is true that working is easier in a free stall barn, confirm the ones who have chosen a stanchion barn, but cows are better off in the latter type of barn. Cows develop relatively fewer leg defects and get more individual attention when pregnant. Beside this rational-sounding argument, dairy farmers with a new stanchion barn also claimed that in a stanchion barn the cows are cleaner and look better than in a free stall barn. Many dairy farmers interviewed cherish a "good looking" cow, whose beauty is best displayed in a stanchion barn. And this "good looking" cow is per definition a red, MRY-type cow. Thus normative aspects play a role in the type of modernization.

More than one-third of the dairy farmers adapted existing buildings instead of building anew, mostly with much of their own labor and limited financial expenditure. They fixed a slatted floor, installed a milk-pipe, or extended the extisting space in order to bring all the milk cows together in one place. Sometimes it took years for all the improvements to be made. And then, labor circumstances were still rather

unfavorable compared to the situation in newly built barns. Nine farmers did not change anything; they continued manuring by hand or carrying the milk to the tank.

Hog barns were also adapted, though to a lesser degree than cow barns. Seven farmers build a new, modern hog barn; six farmers adapted the existing buildings themselves by insulating them and fixing slatted floors. But of the thirty-nine respondents with hogs, only one-third worked in an insulated shed. One respondent commented:

> Formerly, small farmers had an advantage compared to the larger farmers, because they could give more attention to the hogs. But now they have a handicap because the larger farms have better buildings[20].

As for another aspect of modernization, mechanization, most dairy farmers owned all the equipment they needed. Only six dairy farmers had some equipment, such as a sprinkler or a manure spreader, in common property with a neighbour. The ones who grew some potatoes or corn for silage depended mostly on the specialized equipment of the contract worker.

Specialization also occurred on small dairy farms. Many farms were formerly mixed. Part of the available land was in use for arable crops, such as rye, barley, oats and potatoes. The amount of land for arable farming decreased, and a variety of crops was replaced by a monoculture of corn. Only a few respondents still grew a small corner of potatoes for several steady customers and for their own consumption.

Another change that took place on the farms was the disappearance of poultry and hogs. Many respondents had raised a few hundred chickens; some, more than thousand. In the 1960s and 1970s, at the introduction of the laying batteries, most of them quit with this second branch. They shied away because of the high financial requirements or felt they were first and foremost cattle farmers. However, laying hens are returning to the farms, though under the heading of "free range chicken". Also hog-keeping has lost its importance as second branche. On twenty farms the fattening hogs practically disappeared and on fifteen farms sows were gone as well. "Closed" farms, where one fattens one's own piglets, are an exception nowadays,

while many respondents were practising it in the past.

Despite the obvious tendency towards specialized farms, many dairy farmers in the sample still rely on more than one type of agricultural production. Diversification even seems to have gained new impetus with the implementation of the super-levy. As was the case with the arable farmers, we can conclude that the general tendency towards specialization on small dairy farms has not crystallized fully and even seems to be reversing recently. Modernization of farm buildings has taken place only to a certain extent. This limited degree of modernization reflects the small farmers' reluctance to take out loans and his willingness to expend much of his and his family's labor in order to limit the costs. On the one hand, this step-by-step, low-risk type of farm development enabled the farmers to guarantee their main source of income for the time being. On the other hand, however, farmers who followed this kind of survival strategy seem to be very vulnerable when drastic changes in agricultural policy take place (see section 5.10).

5.6 The agricultural household

Before elaborating further on productive strategies it seems necessary first to take a closer look at the meaning of the agricultural household as pool of labor, care and income. It is in this social unit where decisions concerning productive strategies are actually made. The household situation involves both the make-up of the family and the age and life-stage of its members.

The majority of the households in the arable region consist of a nuclear family: man, woman and eventual children. But a variety of households occurs in the dairy region. Half of the dairy farmers interviewed lived in a nuclear family. A quarter were bachelors, whether or not living with parents, brothers or sisters in the same house. Another quarter of the farm heads are married and live with their parents, brothers

or sisters in the same house or on the same yard. These households depend on the old age benefit of the elderly or the board-money paid by living-in brothers and sisters. They eat together together and share car and telephone; they take care of old, sick or handicapped members of the family; when necessary, all capable hands perform tasks on the farm. Since these families form a pool for care, income and labor to a large extent, I will call them "extended" households.

The variety in types of household and the large number of bachelors seem to be limited to the eastern sandy soil district, where the traditional Saxon hereditary system is still common, be it in a slighty adapted, more "business-like" form. The custom implies that one of the children takes over the farm, and other children have to accept a relatively small allowance. In return, the sucessor is obliged to take care of his parents in their old age. According to Rijpma, this hereditary system was a strategy to transfer the family farm as a complete economic unit to the next generation (Rijpma, 1985). Especially for the relatively small farms in the Achterhoek, the part of the eastern sandy soil district where Rijpma did research, the transfer of a complete farm was a precondition for its viability. Kooy (1959) as well as Benvenuti (1961) found that the occurrence of extended households correlated with small farm-size, but this correlation only existed there, where this type of household was a normal feature for the rural population. Thus the extended household is first an attitude of the rural population, which is then perpetuated by the circumstance of small farm-size.

The frequent occurrence of bachelors also seems to be regionally limited. Nationally, the percentage of bachelors on small farms is relatively high (21%), compared to 12% for all farms (Wijnen, 1987). But, apparently, large regional differences exist. In Salland, as well as in the two communities where the Vorden/Apeldoorn project took place (see chapter 3), the bachelors made up a 25% of the total sample of small farms. In the southwestern area under investigation, on

the contrary, only 7% were bachelors. Strikingly, the bachelors in Salland took over relatively small farms and, despite the fact that they were able to enlarge their acreages relatively well, the production capacity of their farms lagged behind (see table 5.2). With no need to support a family and no growing child as a successor, bachelors lacked the motivation to develop the income capacity of their farms, according to their own comments. They have the least modernized farm buildings and the lowest yields.

Table 5.2: Differences in farm-size variables between unmarried and married dairy farmers in Salland (N=71).

	unmarried	married	statistics
historical farm-size (ha)*	7.77	9.85	F4.60(.0354)
current farm-size (ha)	9.71	10.91	F1.20(.2768)
current production volume (sbe)	89	110	F6.69(.0118)
milk quotum (kg)	105.888	139.392	F5.00(.0286)

* By "historical farm-size" we mean the acreage at the time the farmer concerned became farm-head.

Farmwork is mainly done by household members. The arable farmers we interviewed spend an average of forty-two hours per week on their farm. The average total labor time from the household is sixty-four hours a week. On dairy farms these figures amount to an average of fifty-seven and eighty-one hours a week. (Besides, many small farmers also have off-farm activities.)

Frequently, unfavorable circumstances caused long working weeks. Several arable farmers suffer from an unfavorable parcelling or a long distance between house and farm buildings. Many dairy farmers work in obsolete buildings, which aggravates their work load. Most of them are of the opinion that they have to work harder than their colleagues with modern barns. Another reason for long working weeks is trying to build and repair as much as possible oneself. Through the years farmers realized small adaptations with their own hands and the hands of family members. The furnishment of a frost-free keeping facility for crops, the insulation of a hog barn, the building of cellars under the

old stanchion barn - farmers made these improvements as much as possible themselves or with help of family members. A brother-in-law who works in construction can easily get bricks for yard-pavement; another is a former construction worker and is handy enough to make one stable out of two; a third has a son who is a motor mechanic and who takes care of reparation and maintenance of the equipment. Farm adaptations can be performed very cheaply in this way.

For the daily activities respondents often call in help from household members. This seems to be especially the case in Salland, where not only the type of production requires more labor time than on the southwestern islands, but also relatively many extended households occur. In cases where an elder father lives in the same house or on the same yard, he very often performs odd jobs, such as gathering eggs, feeding hogs and cleaning up farm buildings and farm yard. Other members of the household, especially the spouse, are inclined to give a hand in busy times or in cases of illness of the farmhead. And on dairy farms where the man has outside activities or is partly handicapped, the farm actually revolves round the woman. In these cases all daily activities such as milking, feeding of calves and hogs, tidying buildings and yard and bookkeeping are performed by the woman. On arable farms, the spouse and eventual children often help in the sorting and selling of agricultural products.

When ill, small farmers are inclined to rely on family and neighbors instead on calling in the farm-help service. Actually very few respondents are members of this service. They seldom take vacations so that for this occasion they do not need outside help. In general, small farmers tend to rely on informal, personal networks. This holds not only for their labor-supply, but also for their information-seeking behavior. Family and small-farming neighbors also form a point of reference for their ways of living and working. The household situation particularly affects the production strategies small farmers choose.

5.7 Production strategies on arable farms

Small arable farmers followed a variety of strategies in order to "remain a farmer" on a relatively small acreage. Reacting on declining prices, they tried to limit the costs of production in many ways and to increase the yields per hectare; they intensified their land use and diversified their sources of income. All arable farmers interviewed were eager to improve their financial results.

No method was left untried in order to increase the yields per hectare. They improved the soil condition through drainage, through the use of chicken manure and through green-manuring; they used more fertilizer, applied soil fumigants more often, and selected crop varieties with more care than ever. Though yields per hectare cover a wide range, most farmers agree that they see no further possibilities for increasing them[21]. When increasing crop yields is no longer possible, limiting the costs of production receives more attention. Farmers were especially conscious about a more selective use of pesticides and insecticides, which resulted in reduced expenditures for chemicals. Many respondents also tried to weed by hand as much as possible and "keep the custom worker outdoors". Yet they felt that limiting the costs of production needed not be detrimental to crop yields.

Profits are influenced not only by the volume of the produce, but also by the prices they realize. The prices of so-called "free" products, such as potatoes and onions, were especially crucial for the arable farmers interviewed. Selling those products at the right time formed an essential element of their entrepeneurship, an element that always caused some agitation and was, according to the farmers, the most difficult part of the "métier". Those involved in growing and forcing chicory were well aware that the quality of their products determined in part the prices they got. Though they had some limited ability to influence revenues, arable farmers felt generally dependent on market relationships which they could not control. The only answer respondents had to a

constantly changing marketplace, was adapting their farm plans from time to time.

Shifts in farm plans occurred under the pressure of very divergent circumstances. The increasing incidence of diseases forced several respondents to quit growing gladioli. Labor-intensive crops such as onions and chicory pens were abandoned, but returned in the farm plans as soon as specialized mechanization for these crops appeared. But in general, prices for agricultural products were a crucial factor in the choice for the farm plan. Onions had also disappeared because growing them was not longer profitable. Chicory pens, flower seeds and primrose appeared to be lucrative when first introduced. But with growing surpluses in the seed-growing sector, the pharmaceutical and seed industries stopped handing out contracts and curtailed the acreages of flower seeds and primrose. At the time the interviews were held, the unstable situation in the chicory forcing sector was having repercussions on the growers of the pens, who worked mostly on contractual basis. One respondent commented:

> With a contract you have the advantage that you always know what you earn. But now they [the ones who force chicory: S.] don't pay if they have no money. Not that they are not honest, but there is just no money. In the middle of March I still needed to go after it, while they had to pay me by mid-November. And the intermediary is not at home if it comes to paying. Yet you reckon with the money, you have also to think about your loan payments.

Moreover, low prices restrained arable farmers from including chicory pens in their farm plans:

> Chicory pens were so variable, either copper or gold. You have very limited costs with it. No more than one hectare pens, you must do that years at a stretch, then you have a good year in between. When it didn't yield anything for three years, I quit it.

Because most respondents hardly made any investments in the cultivation of chicory pens, they could rather easily quit and change to another crop. Sowing and harvesting is mostly performed by the custom worker and only seldom did farmers invest in refrigerated storage for the pens.

The stories of small arable farmers reflect their constant awareness of changing external circumstances and the need to react flexibly. Not only economic motivations, but also their acquaintance with specific crops, the suitability of their land and their marketing possibilities influence their choice of crops. We will return in more detail to this subject in section 5.10, where we elaborate on the alternatives for small arable farmers in the current economic and political context.

In addition to circumstances mentioned, the actual outcome of the farmers' adaptive strategies seems to be influenced by the farm's size and demographic factors. Farmers on relatively small farms in the sample tend to increase the intensity of land use as well as to increase the labor input per hectare. The smaller the farm, the greater the total number of hours household members work on it. And where a successor is present, we find the most labor-intensive crops and the highest labor input from the household[22]. Where the continuity of the farm has to be carried over the succession of generations, all hands are put at work to increase its income capacity. For instance, one-third of the farmers with a successor grow several types of potatoes instead of a monoculture of "bintje". These special varieties are often harvested by hand, packed and sold directly from the farm to the consumers. The sample is too small to get statistical evidence for the observation that stage in the family cycle influences production strategies. Yet, we were able to construct a rough typology of survival strategies on arable farms, based on means of several variables and distributed over farm-size and demographic categories (see table 5.3). Thus, whereas farm size is a structural problem for which arable crop growers have to find an adequate solution, demographic factors influence the strategies actually carried out.

Table 5.3: Characteristics of production strategies of several categories arable crop growers

age farmer + succession sit.	farm-size 5-19 hectares	20-40 hectares
age 26-44	(N=21) - "narrow" farm-plan - on- and off-farm side-incomes - contract worker spends many hours on half of these farms; other half of farmers performs customwork or involved in co-operation	(N=10) - wide variety of crops - involved in forms of co-operation - wives provide for additional income - recreational facilities
age 45-55 without successor	(N=9) - very narrow farm-plan with large share of potatoes - low total labour input - more than half have off-farm job	(N=13) - large share of potatoes in farm-plan - involved in forms of co-operation - farm is main source of income - recreational facilities and direct sale agr. products
age 45-72 with successor	(N=9) - wide variety of labor intensive crops - farm is main source of income	(N=9) - wide variety of labor intensive crops - farm is main source of income

5.8 Production strategies on dairy farms

Like the small arable farmers in the sample, dairy farmers coped with a small acreage through intensifying the land use (R= -.50, p.000). Yet, dairy farmers gave a different content to this general tendency, according to their type of production, the specific characteristics of their region and demographic patterns.

In Salland, hog-keeping as a second branch is, as in other parts of the eastern sandy soils, a traditional and generally accepted answer to a small acreage. Elderly farmers displayed a kind of attachment to this side-type of

production, but younger ones where inclined to abandon hog-keeping and to specialize in dairy farming as soon as the possibility for expanding the acreage occurred. The relatively young (under 45 years old) farmers from extended households form an exception to this "rule". For them, the availability of the labor power of the father - and the attachment of the elder to hog-keeping - make it attractive to hang on to fattening hogs. Hog-keeping is also important to farmers with a successor, who have seen their plans for moderate enlargements in land and cowherd vanish into thin air because of the super-levy.

Another production strategy, trying to maximize levels of production, seems to be tied to the felt needs of the farmers to provide for family income and the continuity of the farm. Maximizing milkproduction[23] was not a goal of every dairy farmer we interviewed. Especially bachelors and older farmers without successor do not feel pressed to increase the level of production. For this reason many of them are not participating in the milk control. For some, an ethical motive is in play: "It is no good to force things up so much". Others, because they want to produce both meat and milk, do not want to breed Holsteins into their MRY herds. A "red" calf does better on the market than such a "scrag of an american". Also, it is taken for granted that a "beautiful" cow is of the MRY breed. Several farmers who trade cattle as side-activity, and are well aware of what a "beautiful" cow is worth, liked to see their stables filled with MRY cattle. The wish to have red cows is based on an economic argument as well as a norm that is generally prevailing in the region[24]. Only a few farmers interbreed with Holsteins in order to increase milk production. More common is the tendency to interbreed with meat type of cows, such as Piedmontese, in order to increase meat production within the existing young cattle herd.

Unmarried dairy farmers realize the lowest milk production and few of them keep close track of their technical and financial results. In general they feel little pressure or need to improve their productivity. They are satisfied with

little. The absence of a successor is the most palpable impediment for bachelors to invest in their business. "It is no use to aspire a large farm, it is without purpose because of the lack of a successor". Maintenance of the present situation and limiting the costs of production are key to their survival strategies. As much as possible they try to build and repair everything themselves, but they also economize on concentrated feed for the cows, even when this is detrimental to the level of production.

Younger dairy farmers and older ones with a successor more often strive after higher levels of production. The farm management often undergoes changes when a successor starts working on the farm. His presence is a stimulus, for instance, to improve hog barns, which positively influences production. Successors often participate in studyclubs, where new aspects of the conduct of business are discussed. They keep records and are well aware of the technical results. Many older farmers, in contrast, can estimate only very roughly their results in hog-keeping. As we did for the arable farmers, we could construct a rough typology of dairy farmers concerning production strategies (see table 5.4).

Table 5.4: Characteristics of production strategies of several categories dairy farmers

age farmer + succession sit.	farm-size 4-9 hectares	10-20 hectares
age 26-44	(N=6) - diversified - not modernized - low milk quotum and production - main source of income outside farming	(N=16) - specialized and extensive land-use - high milk quotum and production - modern cow stables - some additional income
age 45-55 without successor	(N=17) - specialized - not modernized - low milk quotum and low milk production - farm is main source of income	(N=11) - specialized and extensive land-use - medium milkquotum, low milk product. - no additional incomes

	farm-size	
	4-9 hectares	10-20 hectares
age 45-72 with successor	(N=10) - highly diversified and very intensive land-use - emphasis on hogs, modern hog-barns - medium milk quotum and production - additional sources of income	(N=11) - specialized and extensive land-use - modern cow stables - high milk quotum and production - farm is main source of income

Thus farming practices are prompted by the need for continuation of the farm and household needs. The agricultural household is the social unit in which one lives and works and in which choices concerning the farm management are made, whether it concerns the daily routine matters or the large questions that occur only a few times in a farming cycle.

Parents who live in the same house or on the same yard seem to have kept their say in production strategies, even when the son is actually in charge as farmer. Several respondents experienced their parents' influence as an impediment. In these cases, the farmer would have liked to introduce some innovations, such as recordkeeping in the feeding of hogs or participating in milk control and artificial insemination, but the parents' opposition kept them from doing so. For others, however, the presence of the older generation was a precondition for hanging on to hog-keeping as a second type of production. Obviously, much depended on the mental flexibility and physical health of the living-in elders. Whether sharing the household with the elders is experienced as a mere obligation, as a burden, or as a helping hand, differs from case to case. It is therefore impossible to draw conclusions about the correlation between the presence of an extended household and actual strategies.

5.9 Characteristics of the small farmers' farming style

A farming style can be characterized by its specific occupational orientation, which forms the normative underground, and related aspects of craftsmanship and entrepeneurship. Where craftsmanship refers to the relations of the producer with the means of production and the product, entrepreneurship refers to his orientation towards external institutions and markets (Bolhuis and Van der Ploeg, 1985; Mok and Van den Tillaart, 1986). In all these aspects, the small farmers we interviewed displayed a certain similarity.

Risk-avoidance is a characteristic pattern in the survival strategies of small arable farmers: "You must invest according to your income; do not take up too high loans; do not take financial risks". Considering the currently low prices for agricultural products and high prices for land, buying land is only profitable with one's own money, argue these farmers. Since the income derived from arable crops fluctuates widely, it is questionable if you can manage to pay both interest and principle. Where is your freedom, if your hands and feet are tied to the bank? And it is precisely this freedom that makes farming so attractive, freedom not only in the sense of "arranging your own work yourself", but also freedom in the sense of being "independent".

We must not mistake this striving after independence for the stubborn individualism that is commonly ascribed to small farmers. This alleged individualism mainly refers to the low participation of small farmers in formal agricultural organizations. But in daily practice, co-operation occurs frequently: the farmers interviewed attach importance to personal contacts instead of relying on far-away institutions. They strive for good personal relationships with neighbours and the contract worker, who are called onto in times of illness instead of the farm help service. They rely on the advice of this contract worker, the bookkeeper or the partner in the co-operation, rather than on the advice of an extension worker with whom they are not acquainted personally. And in

case respondents need "professional" advice, they rather prefer to approach a well-known extension worker who has displayed interest in small-scale farming, than the institution extension.

The dairy farmers we interviewed also rely on personal, informal networks, including the extensionist from trade and industry with whom they have regular contact. And also they are attached to avoiding risks and maintaining their independence. But within this general attitude, they display relatively diverse motivations and goals. Practically all arable farmers are inclined to improve the productivity of their farms as much as possible; this is not the case, however, for all dairy farmers interviewed.

A striking observation is that many dairy farmers base their farming decisions more on ethical and social motives than on economic considerations. They compromise on milk production in order to keep the traditional type of cow "pure"; they prefer a stanchion barn above a free stall barn because this "beautiful" cow looks better in it. They do not consider a cow as a milkfactory that is depreciated in only a few years. They think you lose your respectability by going into debt. Very often practical or economic rationalizations accompany their explanations of such ethical motives, but this does not conceal the ethical point of departure for farming practices.

Despite differences in farming motivations and goals, small dairy farmers display a certain normative consistency through which they distinguish themselves from large farmers. Where it concerns craftsmanship, love for animals is the keyword of the small dairy farmer. According to the respondents, small farmers spend relatively much time on individual animals; a dairy cow needs care and attention and the well-being of the animals is better guaranteed on a small farm than on a large one, according to the respondents. Cows on large farms would frequently suffer from foot-problems, and pregnant cows would get less attention than they need. Looking after animals well has moreover an economic advantage:

respondents said to be able to reduce the costs for the veterinarian, to detect early when their cows go into heat, and to better control the quality of the milk.

Arable farmers also stated that a small farmer could give better care to his crop than a large farmer, and that a small farmer even took care of the small edges of the parcels. Yet it seemed that arable farmers did not attach as much moral weight to their valuations as the dairy farmers did.

As for entrepreneurship, modesty is the crucial aspect for the farmers we interviewed. Satisfaction with a moderate income is high on their banner and is often mentioned to differentiate themselves from the greed of large farmers. Farming is to make a living for one's family, they say, not to make profit. Small farmers are proud of their capability to adapt the farm and to survive without a lot of subsidies and loans. Farm adaptations have always been necessary and will stay so in the future. Yet, the scale of the adaptations does not surpass the consumption needs of the household; there is a point of "enough". Farm enlargement is no goal in itself, nor is profit-making[25].

Small farmers hold modest farming and income goals. In this respect, they have much in common with entrepreneurs in small and medium-sized business outside agriculture. These entrepeneurs are, from an economic point of view, more directed towards livelihood survival than towards growth or profits (Nooteboom, 1987: 19). Small and medium-sized entrepreneurs rely on personal, informal networks, with the emphasis on oral communication, a pattern that also holds for small farmers. Small and medium-sized entrepreneurs are, moreover, less directed towards external contacts and commercial policy than towards the product. This is related to their desire for craftsmanship, freedom in their work and independence. These values are partly shaped by traditional values, and, as Nooteboom argues, do not connect very well to the heroïcal, Schumpeterian view that is generally associated with entrepreneurship (ibid: 20).

Obviously, small and medium-sized businessmen show many similarities with small farmers where it concerns occupational orientation. Additionally, small farmers show the characteristic that their household situation forms the point of reference rather than external institutions. Korpel (1989) also found that the decisions whether to modernize, whether to invest and enlarge mainly depended on the presence of a successor. And according to Van der Ploeg (1987), farm development is a function of the demographic cycle of the family for those farms that are hardly or not interdependent with external institutions - that are, in his words, characterized by a relatively low degree of "system interwovenness" (Van der Ploeg, 1987: 30). For farms with a relatively high degree of interwovennes, however, the family as center of decision-making and as normative point of reference has been replaced by external institutions and relationships. In general, the category of farmers we deal with is characterized by a low involvement in external institutions. In this sense, Van der Ploeg's conclusion has some relevance to our study.

5.10 Small farmers' reactions to recent changes in prices and policy

Because of lowered prices for grains and reduced sugar quota, small arable farmers find themselves again at a point of reconsideration. Changes in farm plan as a reaction to changing circumstances have always taken place, but at the moment, the arable farmers interviewed are gloomy about their alternatives. Growing fewer sugar beets and reduced prices for grains mean a cutback in income for all of them. Their estimates of yearly income losses range from two-thousand to ten-thousand guilders. The consequences of the changed market relations differ from farm to farm. One-third of the arable farmers expect a minor cut-back in income. Only a small part of their acreage is cultivated with grain and sugarbeets

and they are mainly dependent on so-called "free" products (potatoes and onions) or on growing flower seeds on a contract basis. Another third can compensate for a cutback in income with side-incomes from forcing chicory, operating recreational facilities or performing an off-farm job. Yet for a third of the arable farmers interviewed, the changed market relations have dramatic consequences. These farmers depend heavily on grains and sugarbeets as their source of income and they do not see possibilities for switching over to alternative crops. In general, farmers in the 45-55 age-category without successor feel the most threatened.

Large shifts in farm plans as a reaction to the changes will probably not occur in the near furture. Only one-sixth of the interviewed arable farmers said they planned to make small adaptations in the following growing season. They would, for instance start growing grass seed or peas, or increase the acreage of potatoes. An "en masse" shift towards horticulture or husbandry will not be the case. Farmers feel that if they shifted into horticulture, they could expect surpluses, with their associated lower prices. Another argument is that not everyone has the labor available or wants to put so much labor into garden crops. Furthermore, many arable farmers on the island Schouwen Duiveland lack suitable land and fresh water, and feel rather isolated from the marketing and knowledge system in horticulture. Concerning the second option, animal husbandry, respondents are inclined to start only on a small scale, with few financial risks. They say they lack experience in husbandry, but they also display a certain aversion, especially against hog-keeping.

Another suggested possibility, organic agriculture, is not acceptible to most of the arable farmers interviewed. It is not that they disapprove of it, but they see many practical obstacles[26]. They consider it impossible to refrain from spraying chemicals while the neighbours keep spraying. All diseases and pests would come to the unsprayed crops. A more important objection is the lack of labor necessary for weeding the crops, since chemical treatment is not possible in organic

agriculture. (Yet several respondents disapproved of spraying of chemicals and for that reason they always had weeded as much as possible by hand. In devoting much attention to their crops and not damaging the environment, they differentiated themselves from large farmers who were not in a position to give so much personal care to their crops and who were forced to spray large quantities of chemicals.)

For the dairy farmers, the superlevy and law on manure intervened dramatically into their "natural" ways of adaptation. Several paid fines and many wrote an application for a larger milk quotum, which only a few received. During the time the interviews were held, several farmers had not yet received a definitive assignment. Especially the ones with a relatively extensive land use felt hurt and feared a considerable cutback in their income. On the relatively intensive farms, farmers could adapt to the restricted production volume by selling cows and producing as much fodder as possible on the land now available. The extensive farms, in contrast, did not have this relative advantage because they had always raised their own fodder.

The superlevy also hurt farmers in a more indirect way. The ones who had always sold their surplus corn were now confronted with lower prices for the product, since more dairy farmers had started to grow fodder crops on land now available. Also the income from trade in cattle - for many a profitable hobby, for several the main source of income - had decreased. The cows were hard to sell, due to the large supply on the market.

As a consequence of the superlevy, several shifts in farm management have occurred on the farms in the sample. Part of the dairy farmers, mostly bachelors or elderly farmers without successor, curtailed their purchase of concentrated feed in order to allow the milk production to decrease. They let the cows remain "dry" longer and fed the surplus milk to calves. Others, however, tried to "milk their quotum full" with fewer cows, by better breeding selection and feeding more concentrate.

And as a reaction to the restricted milk production, many farmers extended their hog-keeping activities. Between 1984 and 1986 there was only one newcomer in the sample, but the average farmer who kept fattening hogs increased his number of hogs from seventy-five in 1984, the year of the superlevy, to ninety-three in 1986. Also the fattening of cattle gained impetus. Farmers started to keep young cattle for fattening; and for that purpose to breed-in with meat types of cows, such as Piedmontese. Many dairy farmers interviewed have steer-fattening in mind as a way to fill up the empty stands in stanchion barns and regain lost income. A total switch over to steer-fattening is however not under discussion. For such a switch the investments seem too high, with no certainty of a good income.

Small dairy farmers are not inclined to enlarge their production volume through buying "land with quota". They search instead for a combination of several types of husbandry, without making large investments. It is striking in this respect that especially the ones with a relatively low need for continuity (bachelors and elderly farmers without successors) have only hog-keeping in mind, the traditional answer to a small farm-size. Where the need for continuity is greater, as is the case with young dairy farmers and older ones with a successor, one also has steer-fattening or rabbits in mind. Some of them were actually experimenting with rabbits, a type of production that required little investment. Little interest is shown in other types of animal husbandry, such as goats or free-range hogs. The marketing situation for these branches is yet unsure and the farm adaptations too large. But many have just an aversion towards it or have not given it thought. Some respondents are beginning to keep free-range chickens, selling the eggs directly to the consumers. Again, this is only a small side-activity, without large investments required.

5.11 Conclusions

The arable and dairy farmers interviewed have always been able to adapt farming practices to changing circumstances. Through gradual enlargement of herd or acreage and adaptations in the farm plan, buildings and equipment, they have been able to maintain an income from farming. They have followed changing general patterns in agriculture in slow motion and reverted to "traditional" and regionally bounded solutions. The survival strategies of small farmers are part of a definite style of living and farming that has its specific and recognizable points of reference and patterns of norms and values. Small farmers exhibit a kind of cultural identity which characterizes them as a discernable social category.

It is good to realize that we have come to this conclusion on the basis of a mainly qualitative approach. We have listened carefully to the small farmers presenting their world view, their interpretations of and their judgements about how to farm properly. It is on the basis of their own accounts and our "sociological imagination" that we have arrived at the above conclusion. We are aware that this conclusion is only one of the prevailing opinions. In contemporary agriculture, the small farmers' ways of living and working are usually labeled as old-fashioned, as irrational and inefficient. Small farmers are considered poor entrepeneurs who display a lack of daring and perseverance; they have failed to seize the opportunities available to all farmers. Looking at small farmers' norms and values from this angle, one would be inclined to ascribe their modesty in income goals as a failure in their careers, as is suggested, for instance, by Gasson:

> The data were wholly consistent with the suggestion that orientation to work reflects experience in the job. When low status farmers emphasized the value of independence and an intrinsically rewarding type of occupation they might have been making the best of their situation. The fact that they gave low priority to obtaining a high income or to status in the farming community might be interpreted to mean,

> not that they did not strive for money and prestige initially, but that they must convince others, and eventually themselves, that they have not failed in their occupation (Gasson, 1974: 137).

In this sense, small farmers are blamed as "the authors of their own victimization" (Scott, 1985) and what appeared in our research as a normative pattern is merely reduced to personal failings. Small farmers are not blind to their own shortcomings. Several admitted they were too cautious, unable to manage big changes or investments, unable to interpret the economic data that nowadays give important indications for farm management. Yet, admitting their shortcomings does not necessarily deny the existence of a specific pattern of norms and values that guides small-scale farming families. We are obviously dealing with different world views and a clash of interests.

Though it becomes harder for many small-farming families to make ends meet - and the prospects are not deemed very favorable - the loss of income and a growing economic differentiation between small and large farmers is not as much emphasized by small farmers as we would expect. Certainly there are very obvious complaints, but these seem to involve social and cultural recognition more than income per se. What hurts small farmers more than loss of income, is loss of a meaningful and respected productive role in agriculture. It is the ignorance by local and national governments of the contribution of small-scale farming that hurts, the lack of recognition that many families live a thrifty and decent life on a small acreage.

CHAPTER 6: SOURCES OF NON-AGRICULTURAL INCOME

6.1 Preface

As we have seen in the previous chapter, diversification is a striking characteristic of small farmers' production strategies. Diversification is not confined however, to the realm of agricultural production. We might also think of combinations of sources of income. From a national survey in 1982 it appeared that almost half of the farmers with a small farm (up to 150 spu) had a side-income, whether from labor, from lease of land, or from social security benefits (Wijnen, 1987: 54-55). This survey was based on agricultural census figures, which, as we will see later in this chapter, tend to underestimate the actual importance of non-agricultural sources of income for farming families. We might expect that more small farmers depend on non-agricultural incomes than are included in the survey. Also a local inventory revealed that side-activities could play an important role in the income supply:

> Sale of products directly to the consumer, lease of land and buildings for stabling, storage, public garden or for camping ... can apparently form a good additional source of income for farmers and market-gardeners near cities. Furthermore there are relatively many agrarians who still have another profession beside that of farmer or market-gardener. Other regional inventories also show that this is more common than can be deducted from national figures available (Kamphuis, 1985: 50-51 [transl. S.]).

One of the survival strategies of small farmers is to combine on-farm activities, agricultural or non-agricultural, with off-farm activities. The prospects for finding full-time employment in agriculture are gloomy. Small arable farmers face growing competition from large farmers, who are on the lookout for new crops that can broaden their rotation scheme and make up for lowered prices for the "grand cultures". With the introduction of mechanization for labor-intensive crops, small farmers will lose their former hold on these crops.

Small dairy farmers face a restrictive policy concerning milk and manure production. In these circumstances, families on small farms look for alternative types of production such as goats, rabbits, and new crops. But beside the fact that the markets for these products are hardly developed, production practices have not been fully developed, with all associated risks. And it is certainly not in the general attitude of many small farmers to engage in risky operations.

By combining non-agricultural and agricultural activities, many farm families are sliding into the category of part-time farming. There are indications that the occurrence of part-time farming is closely connected to the small-farmers' problem of finding additional income. Though the percentage of part-time farmers is increasing, farmers' organizations and politicians have until now paid little attention to their needs, as we have seen in section 2.10.

In this chapter we will elaborate further on part-time farming as a survival strategy of small-farming families. Our intention is to gain a better insight into the circumstances and motivations which influence these families' decision to look for additional non-agricultural income. We will describe several forms of part-time farming that we found among the farming families we interviewed in the qualitative survey (see chapter 4). The emphasis in these descriptions will be on household circumstances and regional patterns, since we have concluded earlier that both factors influence survival strategies of small farming families. We will give considerable attention to the respondents' evaluation of the combination of agricultural and non-agricultural activities. But we first start with an inventarisation of some characteristics of part-time farming in the Netherlands, including aspects of definition. We will then proceed with the results from the qualitative research.

6.2 Part-time farming in the Netherlands

Gaining insight in the phenomenon of part-time farming is hindered by lack of an adequate definition of it. Moreover, census figures tend to underestimate the occurrence of part-time farming and thereby its relevance to the survival of many small farms. According to the current definition in the Netherlands, a part-time farm is an agricultural enterprise in which the farmer spends less than 50% of the normal labor time, whether or not in combination with another profession.

This definition gives rise to a lot of complications. First, many retired farmers consider themselves full-timers, although their reduced holdings only demand a small amount of labor. They call themselves full-time farmers at the yearly agricultural census. For this reason, the Agricultural Economic Institute has adjusted the census figures by introducing the extra category of "resting" farmers. A second problem is the obscured demarcation between part-time and hobby farmers. Adding an income criterium to the definition, as is customary in some other countries, would solve the problem of directing agricultural measures towards a category of farmers with little or no dependence on agriculture for its income. Third, the definition of part-time holdings focusses on the labor time of the (predominantly male) farmhead only. Yet 28% of all labor input on part-time farms is contributed by women. Besides, a great deal of contract work can be expected on part-time holdings. Looking at the total labor input on farms, it is clear that there are so-called part-time farms which better fit in the full-time category.

Extending this point of view, one might take into consideration the total non-agricultural labor time of all family members, or their total non-agricultural income. Many spouses are responsible for selling agricultural products directly to the consumer (Kamphuis, 1985; Loeffen, 1984). And the young farm wife who, in the first years of her marriage, holds on to the job she already had before her marriage, is no longer an exception. Successors on mainly small farms often

have a part-time or full-time job on other farms or in agriculture-related businesses. Also other members of the household can bring in income. Finally, agricultural households sometimes profit from all kinds of social security benefits that their members receive. It seems reasonable, therefore, to regard the agricultural household as an income-generating unit, just as we have regarded the household in the previous chapter as a pool of labor. We are actually dealing with "Multiple-Job-Holding Farm Families" (Fuller, 1984), a description that gives a more complete picture of the joint efforts of small-farming families to survive. Counting the non-agricultural activities of all family members can bring about a whole new categorization of part-time and full-time farms.

Then there is the problem of the reliability of census figures. During our qualitative survey, for which the sample was based on census figures, we found that for several respondents, farming was only of minor importance to their income and certainly took up less than half of their labor time. Yet, one of the sample criteria was that the farmer had to have his main occupation in agriculture. Moreover, twenty-seven of the seventy-one interviewed arable farmers had a non-agricultural side-activity, while only fourteen had mentioned this at the yearly agricultural census. The actual situation was thus not always in agreement with the information farmers gave at the census. Part-time farmers obviously feel themselves first-and-foremost to be farmers and derive much satisfaction from following this independent profession. Spierings (1990) also mentions how this attitude of part-time farmers contributes to a general underestimation of the occurrence of part-time farming.

While holding on to the current definition of part-time farming - since alternative statistics are not available - we can discern a concentration of part-time farms in the eastern sandy soil district. The percentage of part-time farmers exceeds the national average in the provinces Overijssel, Gelderland, Utrecht and North-Brabant (Landbouwcijfers, 1988).

The high density of part-time farms in the eastern part of the country is considered an outcome of a "weak" agricultural-economic structure. Due to the soil type and specific historical development patterns, the agricultural structure of these areas is characterized by small farms with low labor needs (Vermey and Kempers-Warmerdam, 1985). A small size is actually the crucial characteristic of part-time holdings (see table 6.1).

Table 6.1: Percentages of discernable categories of farmers with less than 120 sbe and with less than 10 hectares (1987).

category	% with less than 120 spu	% with less than 10 hectare
main occupation in agriculture without side-activities	33	40
main occupation in agriculture with side-activities	56	63
main occupation outside agriculture	92	86
retired farmers on farms	97	80

Source: figures computed on basis of Landbouwcijfers, 1988.

The average size of part-time farms is increasing, though at a slower rate than full-time farms. Intensification on part-time farms is also lagging behind the overall process (Spierings, 1990). Illustrative are figures from Gelderland, one of the provinces with a high percentage of part-time farmers (table 6.2).

Table 6.2: Patterns of development on full-time and part-time farms in Gelderland, 1972 and 1980.

	full-time farms 1972	full-time farms 1980	part-time farms 1972	part-time farms 1980
Average number of dairy cows per farm	15	29	4	6
Average number of dairy cows per 100 ha. grassland + fodder production	145	183	72	38

Source: Agrarisch Gelderland op weg, 1982.

Seemingly, a process of extensification has taken place on part-time dairy farms, but this is not true when we take the composition of the cattle herd into consideration. The number of calves and heifers on full-time farms is on the average one-third or one-quarter of the number of young cattle on part-time farms. Raising young cattle for the more intensive full-time farms has increasingly become a complementary source of income for part-time farmers (including the category of "resting" farmers), a trend that has been reinforced by the implementation of the superlevy on milk production. Although part-time farms are relatively extensive, a slight trend towards intensification is discernable. For instance the average number of fattening calves per farm rose from 92 in 1972 to 143 in 1980 (in Gelderland).

Finally, the category part-time farmers is very heterogeneous and its composition is constantly changing. The family cycle plays an important role in these dynamics. Young couples may try to develop a full-time farm with the help of outside income, while their elders provide some additional labor on the farm. In the process of succession, when the holding is too small to generate two incomes, the successor can look for a temporary off-farm job. This may occur more often since restrictive measures in animal husbandry now hamper an increase in the production volume. Older farmers without a successor may shrink their business and work it part-time. In one family cycle, an agricultural holding can pass through different stages, depending on the stage in the family cycle.

Part-time farmers may differ from each other with regard to the type of their main profession, their motivations and valuations. Part of them seem to consider their agricultural activities a compensation for unpleasant and unsatisfying wage labor. For others, the farm may add income to a low wage. Farmers are moving from the part-time to the full-time category and vice versa, or they are moving into or out of agriculture. The agricultural structure and the structure of

the local labor market may influence these dynamics.

Weerdenburg (1972) notes that in the first half of the century, part-time farmers were mainly wage laborers, trying to derive an extra income through agriculture. Nowadays, part-time farming satisfies the need for continuity of people who were raised in farming families. Part-time farmers are now former full-time farmers or have full-time farming as a goal. Apparently, they are so attached to agriculture that they hold on to agricultural activities when adopting another profession. The attachment to agriculture is reflected in the preference of farmers for specific jobs. Part-time farmers mainly prefer agriculture-related jobs or relatively independent work in the open air, according to Weerdenburg. They moreover would rather choose a job that provides additional income than a job with career possibilities. Many part-time farmers can be found in construction work, agricultural trade and contract work (Landbouwcijfers, 1984).

The economic situation of part-time farmers is highly diverse, because of divergent professions. Yet, according to Weerdenburg, their social-cultural outlook is very similar. Part-time farming as a social phenomenon is closely related to the social-cultural attachment of people to the land - which is mainly their own or their family's property - and to work circumstances in which independence is highly valued. The reasons they are not able to continue their farming activities full-time, however, are located in developments that have taken place in the agricultural structure. In general, part-time farming in the Netherlands can be seen as an outcome of processes of scale enlargement and modernization; it is the small farmers' answer to declining incomes from agriculture.

6.3 Part-time farming in the two research areas: some general remarks

Though the sample for the qualitative survey research was confined to farmers whose main occupation was in agriculture,

it appeared that especially in the arable region, households actually derived a large part of their income from non-agricultural sources (see table 6.3). Many farmers and their families devote a considerable amount of labor time to side-activities.

Table 6.3: Estimated contribution of agricultural income in total household income in Goeree Overflakkee and Schouwen Duiveland (GO/SD) and Salland (ZWO).

	GO/SD (N=71)	ZWO (N=71)
- less than 50%	20%	12%
- between 50-90%	46%	20%
- between 90-100%	31%	58%
- unknown	3%	10%
total	100%	100%

Most side-activities take place on the farm or are connected with the agricultural production itself (see table 6.4). A minority of farmers has income from wages outside the farm, and only a few have a full-time job. Spouses contribute to the total income through off-farm activities, mainly in the public health or administrative sectors. Moreover, we must not underestimate the women's contribution in on-farm side-activities such as tourism and direct selling to consumers. When successors have finished school, we can find them, beside

Table 6.4: Types of non-agricultural sources of income

	GO/SD	ZWO
off-farm job* of farm head	25%	11%
off-farm job of spouse**	18%	9%
off-farm job successor***	33%	33%
trade	14%	9%
tourism	25%	1%
direct selling products	31%	11%
customwork	16%	-
forcing chicory	10%	-
social security benefit farmer****	10%	13%
social security benefit others	10%	42%

* part-time or full-time
** N=66 on arable farms and N=53 on dairy farms
*** N=18 on arable farms and N=21 on dairy farms
**** mainly partially unfitted for work

their work on the parental farm, in a part-time or full-time off-farm job or as merchants in hay, straw and cattle. Also children living at home sometimes have incomes from wage work, but practically none of them pays board. Finally, many households receive permanent benefits, such as benefits for labor incapacity, for widows and orphans, and old age pensions. Most of these permanent benefits form a welcome addition to keeping the household going.

Arable farmers especially perform a wide variety of side-activities. Moreover, they combine several side-activities at the same time or successively during a family cycle (see table 6.5).

Table 6.5: Sequences of combinations of sources of income for arable farmers within one family-cycle.

case 1
off-farm job, extensive farming → growing labor-intensive crops and raising cattle → growing arable crops, tourism

case 2
forcing chicory, practically no farming → trading potatoes and onions, growing arable crops

case 3
off-farm job, extensive farming → growing arable crops, contract work

As a rule we observed that the contribution of off-farm sources of income to the family income diminished as the farmer grew older, and that the on-farm combination of sources of income increased. Farmers mentioned several reasons for this shift. One farmer interviewed was fired and, because of high age and low educational level, not qualified for another job; another became physically incapable for the job, but is still able to perform certain activities on the farm; several farmers did not feel able anymore to continue the heavy combination of off-farm job and farming when growing older; for others, the desire to be self-employed and independent was a motive to resign from the job and start full-time farming. Thus within one life cycle different stages can be discerned.

The off-farm activities of the farm women interviewed also follow the demographic cycle. Relatively young women, without children, spend the largest number of hours in an off-farm job. Several women had jobs from which they resigned as soon as the first child was born. When the children grew older, many women became activeoutside house and farm, though often less in paid jobs and more in voluntary work. The side-activities of successors as well are tied to the farm-cycle. Many respondents had an off-farm job just before and after the take-over of the farm. This situation repeats itself for the present generation of successors. Especially when there is a long time before their father reaches the age that he can obtain an old-age pension (sixty-five), successors encounter a rather long period in which they have to combine their work on the farm with an outside job, since in most cases the farm is too small to yield two incomes.

Type and extent of non-agricultural activities not only differ according to the stage in the family cycle, but also to the type of household. Relatively few bachelors have off-farm sources of income; relatively many farmers from extended households combine agricultural and non-agricultural activities. Bachelors feel strongly tied to the farm and house. When they live alone on a dairy farm, nobody else can perform the daily tasks. When they live with very old parents, they feel obliged to stay home in order to look after them. Extended households, on the contrary, are characterized by a rather flexible labor supply. Another reason for bachelors to refrain from off-farm activities is their satisfaction with the income derived from farming. Because they have no family to support and have few requirements for themselves, they do not feel pressed to look for outside sources of income.

In the next sections we will elaborate further on several specific combinations of agricultural and non-agricultural activities of small-farming families. We will focus on the motivations and circumstances by which the choices can be determined. Again, the point of departure will be the experiences and interpretations of the farmers we interviewed.

6.4 Processing of agricultural products

Processing of agricultural products, such as making cheese, does not occur on dairy farms in the sample. But several arable farmers are engaged in forcing chicory or in grading and packing potatoes. We shall confine ourselves here to the forcing of chicory, which happpens on seven arable farms. The extent and modernity of the forcing enterprise differs from farm to farm, as does the income it yields. The duration of forcing "in soil" - in a pit in the barn - varies from four weeks to four months and the income it yields varies from "a nice extra earning in the winter period" to "necessary additional income". In contrast, forcing "in water" - in a modern hydroponic installation - takes place over at least eight months and yields approximately 90% of the family income. Working in a traditional barn is generally more uncomfortable than in a modern installation, because of the posture in which one works. Two forcers in soil still have uninsulated barns. This is not only unpleasant for the worker, but also affects the quality of the product, since the temperature in the pit is not constant.

Forcing chicory requires a high labor input. Everywhere, the help of the spouse is essential. Farmers feel that because of current low prices, forcing chicory can only be profitable with high inputs of (unpaid) family labor. In compensation for the high demand on their labor, farmers keep the freedom they would lose in wage work, the alternative. Keeping one's freedom, setting the pace of one's work, being an entrepeneur, has been the decisive motivation for starting or extending forcing chicory instead of "working for a boss". Moreover, forcing chicory fits well in the activity cycle of the arable farm, which is characterized by a rather quiet period during the winter.

A third motivation for choosing forcing chicory as a source of income is that arable farmers in the research area are well acquainted with it. The island Goeree Overflakkee is a traditional center for chicory. Not only is the density of

producers sufficient to provide for a well- functioning formal network of knowledge exchange, but chicory is also a traditional answer to a small acreage. In the biographies of many interviewed arable farmers, forcing chicory occurs as a short-term or long-term source of income, alternated with other activities, such as marketing potatoes. One example is an arable farmer who, between 1982 and 1986, had brussels sprouts as well as forcing chicory in order to make the winter period productive. He abandoned forcing chicory when it ceased to be profitable, and set himself to providing recreational facilities and raising cattle in addition to arable crop growing. We can characterize him as one of those occasional forcers, who leap into the activity without making much investment when the prices are good, and then quit as soon as prices fall.

Engaging in a side-activity that requires little investment is attractive to the ones who like to minimize risks. But because of the current trend towards modernized and specialized production, the prospects for forcing chicory in the old- fashioned way are cloudy. Many interviewed arable farmers fear making the high investment for a hydroponic set-up while lacking the certainty of good prices for the product. They mentioned also other factors that make forcing chicory less attractive nowadays. If they take on the modern production method that involves year-round forcing, they will no longer be able to identify themselves as arable farmers. Some fear the amount of manual labor required. Others loath the "inside" work, prefering the outside work inherent to arable farming. Others are simply too far from the auction and transportation would be too costly.

It would be interesting to see if the ones who have chosen a modern installation differ from the ones who work in a more traditional way. Both forms represent discernable choices arable farmers have made. The fear of high investments of the ones with chicory in a pit is also observable in their arable farming. They are barely mechanized and have few keeping facilities so that they have to sell their products

directly from the land. While the hydroponics represents a specialized enterprise, forcing chicory in a pit is primarily a side-activity accompanying arable farming. All farmers who force chicory are relatively young and have a high educational level. When we compare the farmers "on water" with those "in soil", there are no corrrelations with age, educational level, participation in formal organisations or the like. What seems to be relevant though, is acreage.

In general, the farms where chicory is now forced, were smaller at the time they were taken over than the average farm at that point. But those with a modern water installation were exceptionally small and still are. Because of the small acreage one has more than once stood for a drastic choice. One respondent was a former truck driver until he took over the farm and gradually engaged in forcing chicory. During the reallotment he had to choose between intensification of the land use through growing vegetables or modernizing and expanding forcing chicory. Pure arable farming on the small acreage was no longer possible. In 1985, he started with a modern water installation. The second respondent was forced to abandon bulb-growing, due to a growing pressure of diseases. But bulb-growing was the cork that kept the small farm afloat. He had to choose between chicory and fattening hogs, and afterwards he concludes that the extension worker was right to advice forcing chicory. The third respondent had many choices upon his takeover of the parental mixed farm: expanding in dairy farming and building a modern barn with milking parlour; starting in fattening hogs or switch over to forcing chicory. The extension worker dissuaded the latter, but based on quantitative information, the farmer himself concluded that it had to be possible and went to the bank.

The fact that in one case the extension worker advised in favor of forcing chicory and in the other case dissuaded it can be explained by the fact that forcing chicory on Goeree Overflakkee is a well-known phenomenon, while on Schouwen Duiveland one was rather unacquainted with it. The third respondent lives on Schouwen Duiveland. When he started with a

modern enterprise, there was only one other farmer with hydrophonics. He admits to having learned by bitter experience. We see here one of the meanings of the concept "center-function", a density of a specific type of production and the directedness of both the institutional network and farmers towards this type of production. The third respondent was not only participating in the chicory-studyclub on his own island, but also kept contacts on Goeree Overflakkee, "where the knowledge is".

In all three cases the arable farm was too small to yield a reasonable income and therefore one had to choose another main source of income. As a consequence of the year-round production of chicory, the arable part of the farm is kept simple, choosing a "narrow" farm plan with a relatively low labor input from the farmer and a relatively high labor input from the contract worker. Outside labor is employed in the forcing of chicory beside the already high labor input of the spouse. Obviously, the enterprises of the respondents with a modern water installation differs from the "average" enterprise in the sample, while the more traditional chicory forcers resemble more the average arable farmer who tries to broaden his means of existence by on-farm processing of arable products.

6.5 Trade

The arable farmers who are involved in trade (N=6), are a very heterogeneous group. Two of them combine trade in hay and straw with still other side-activities, such as providing recreational facilities or performing contract work. For them, the extent of the trade is limited. Then there are two medium-sized potato and onion merchants, who need the help of family members and casual laborers in their business. According to their own comments, they earned high incomes in this very speculative trade, but over the last three years, the business has slackened. Finally, there are two very large merchants,

who spend only 10 to 20% of their labor time in arable farming[27].

Despite the heterogeneity of the farmer-merchants, they share some characteristics. All had farms that were very small at the time of take-over, but that are now of average size. These farms have expanded much and are well-equipped with buildings, because of the grading and storage of products. The farm plans are "narrow" with a relatively large share of potatoes. The farmer himself spends relatively few hours in arable farming, and the contract worker many. On the whole, the yields per hectare are below average, and the farmers are relatively underrepresented in formal agricultural networks. Finally, the farmer-merchants have had no work experience other than in the parental business. The combination of trade and farming not only yielded enough income for father and son - so that the successor did not need to have an off-farm job - but also trade is typically a "family-business" that is transferred from father to son. All knowledge and experience needed could be obtained in the parental business.

Also for the dairy farmer-merchants (N=6), trade is a tradition that is passed on from father to son. Trade is an "art" that is more or less inborn, according to the farmers. It needs a lot of intuition and you need to grow up learning the art. These respondents felt more merchant than farmer, as is clearly reflected in their farm management and development. Not only did these farmer-merchants take over a relatively small farm - "father was a better merchant than farmer" - but they have changed little since the succession. The buildings are obsolete, the number of cows few, the milk quotum and production low. Everything points to the fact that farming is only of minor importance compared to trade.

That these respondents place being-a-merchant above being-a-farmer is also reflected in their low participation in formal agricultural networks. They have many contacts with merchant colleagues and read more professional literature about trade than about farming. The farmer spends few hours on the farm, which is compensated for by the high labor input of

his wife. She performs almost all daily tasks, such as milking, feedings calves and hogs, cleaning up and bookkeeping. The farm-help service is not called upon. These respondents are very much on their own, and through the circumstances of large families and the relatively frequent presence of a successor, they can fall back on members of the household. To increase the income-yielding capacity of the farm with an eye on succession, hogs are kept as second type of production. And, keeping hogs and trade are closely interwoven: the farmers market the piglets and hogs themselves. Yet, for most of the farmer-merchants it is clear that the successor wil not find full-time employment in agriculture. It is taken for granted that he will take over the trade business or look for an off-farm job in addition to farming.

Trade as a source of additional income to arable or dairy farming is well accepted among farmers. Actually, marketing is a part of their profession for more than the-above mentioned twelve respondents. Many arable farmers consider selling of their products at the right moment an exciting and satisfying art. Many dairy farmers visit the cattle markets themselves in order to buy and sell. Yet, the twelve farmer-merchants we described, are different from the other respondents. Both in labor time and income, their emphasis is on trade. The farm is more a consequence of their trading activities than the other way around.

6.6 Selling agricultural products directly to consumers

Twenty-two arable farmers sell potatoes, onions, and sometimes also beans and peas directly to consumers. The extent of the activity ranges from 5% to two-thirds of total sales. Mostly, this direct marketing is restricted to selling to a small circle of steady customers and casual tourists or other passers-by. In general, these twenty-two respondents attach little importance to this activity as source of income:

it yields a small extra, untaxed earning. For several farmers, the social contacts it brings, are more important than the earnings. The financial results are very modest considering the labor time required. Grading and packaging require extra work; customers appear at irregular and unfavorable moments. There always has to be someone at home. In practice, farmwomen devote a lot of hours to the activity. In four cases, the activity has developed to a major secondary activity, to which all members of the household contribute (see cases 1 and 2).

Case 1: Selling products directly to consumers on an arable farm

Farm: 18 hectares on which are grown winter wheat, potatoes, sugarbeets, summer wheat, onions, pasture. Family: man (53), woman (47), son (21), daughter (17); no successor.

In 1976, this family abandoned dairy farming. They were reluctant to make the high investment that modernizing the dairy farm would require. In the same year they started the small shop in the barn. Through the years they built a frost-free keeping facility for potatoes and a grading installation. In the shop they sell potatoes and onions year-round; during the summer also beans and peas. All onions and 10% of the potatoes are sold directly to consumers, consisting of employees of the delta-works, tourists and other passers-by. Potatoes smaller than 40 mm go to the merchants. The earnings are small and the hand-harvesting, grading and selling of the products take a lot of time. The man estimates he spends sixty hours a week on the farm; the woman twenty-four. During the six weeks of the summer vacation, the children each work forty hours a week.

This family has considered several alternatives. Between 1977 and 1984, the man had a side-occupation as milk inspector. However, this took so much time that the farm suffered, and it did not yield that much income, since it brought him into a higher tax category. The farmer has grown primrose, but this year no contracts are being handed out. Intensifying the farm plan through growing chicory pens, celery or brussels sprouts has no prospects, according to the farmer, because of the already flooded markets for these products. He deems enlarging his acreage impossible because of high land-prices.

Case 2: Selling products directly to the consumers in combination with recreational facilities on an arable farm

Farm: 20 hectares, plus 6 hectares casually rented, growing potatoes (of which half are early potatoes), sugarbeets, winter wheat, onions, cauliflower. Family: Man (50), woman (45), son (23), daughter (20), son (16, successor).

A barn is furnished as a frost-free keeping place for potatoes. Here are also the grading installation and a little shop. From a pulled-down barn the farmer has build a summer-house for tourists that functions as a garage in the winter. During the summer, 15 places for trailers are leased. All the cauliflower and onions grown in the farm are sold in the shop. Of the potatoes, 40% is sold directly to consumers and the rest goes, graded and packed, to other shops. Tourism and trade keep the whole family busy during the summer months, when they work twelve to fourteen hours a day. While the man and his two sons harvest the early potatoes by hand, the woman and the daughter are busy packing, selling and transporting potatoes. The family has bought a station wagon for transportation. In order to lighten the work load they have bought a pallet lift and a packing machine.

Despite the side-activities, their income stays relatively low. Their annual taxable income averages around 28,000 guilders, including 15,000 guilders from tourism. The family hopes to enlarge its possibilities for tourism and direct marketing to compensate for decreasing income from grains and sugarbeets, and to keep some prospects open for the successor. For pure arable farming, the farm is too small, so it is necessary to do many things beside it. The farmer doesn't consider buying of land financially attainable, and he thinks he is too busy already for an off-farm job or starting in horticulture.

In Salland, selling products directly to the consumers occurs less frequently than on the southwestern islands. Only six dairy farmers sell manure, potatoes and eggs on a small scale. The activity yields a small additional income, while it takes up much time. Yet, it is considered an attractive side-income for the ones who want to broaden their means of existence a little bit without making investments (case 3).

Case 3: Selling products directly to the consumers on a dairy farm

Farm: 8.25 hectares of which 1.75 are used to raise corn and potatoes; 13 MRY-type cows, milk quotum 63,500 kg, 19 fattening hogs, 1900 laying hens. Family: man (50), father (78). No successor.

The farmer has always tried to keep costs as low as possible and to use his own labor as much as possible. He has never invested much, repairs machinery himself and tries as much as possibble to provide his own fodder. The buildings are not modernized. The young cattle stand on a slatted floor, but there is no milk pipe. Because of this, and because of the multiple types of production, the farm is rather laborious. The farmer works seventy hours a week; his father helps another twenty hours with picking eggs and feeding calves. "Each change means an investment" declares the farmer, and therefore he has little enthusiasm for switching to other types of production. Enlargement is not useful, because of his age and the lack of a successor. In response to the super-levy, he keeps a few more young cattle than usual to which he feeds the surplus milk. He does not feel any need to increase the milk production, which is currently some 5000 kg per cow. Increasing the results with the hogs is not attainable, according to the farmer, because he lacks a heated and insulated barn. He considers his results with the chickens, however, as above average: 320 eggs per chicken per year. The small size of this branche and the care and attention he is able to give it are the main reasons for the good results.

Part of the eggs he delivers to his customers at their homes. He also sells the manure from the stanchion barn to people who have plots in public gardens. He deems his present income (between 7,000 and 8,000 guilders, excluded the income from selling eggs and manure) enough to live on. His father has an old age pension. If his income would decline strongly - as a consequence of a lower milk price or lower prices for hogs - he would abandon dairy farming and sell all his eggs directly to consumers himself. He could use the then available land for growing grains, just as he did in the early 1970s, and he would switch to free-range chickens.

What factors play a role in choosing direct marketing of agricultural products? On the arable and dairy farms without this side-activity, about three-fourths of the farmers do not think that the financial and fiscal advantages compensate for the burden and the lack of freedom direct selling brings with it. They consider the customers more as a bore than as a nice social contact. The location of the farm also plays a role. A quarter of the arable farmers feel favorably about direct marketing, but find it hard to realize. Their farms are too remotely located to guarantee a regular outlet. In Salland, it is striking that the farms with direct selling are located in the immediate surroundings of towns (Deventer and Holten). Presumably, further from the towns, the opportunities for direct selling are not so favorable. "It does not happen in

this neighbourhood", is a much-heard argument among dairy farmers to have no direct selling.

Thus, personal preferences as well as farm location play a role in whether or not to start in direct selling. It fits easily, without large investments, into the activities of both arable and dairy farmers who have the necessary social skills. Yet, this side-activity is performed much more often in the arable region than in Salland. The market situation differs little between the two areas. Both on the islands and in Salland there are only a few small towns, and in both areas, tourists form a potential sales market. Apparently, arable farmers are more inclined to grasp this opportunity than are dairy farmers.

6.7 Tourism as source of income

Eighteen arable farmers have additional incomes from a small campground or other facilities for tourists; five are busy getting ready to start something like that. The earnings derived from tourism vary highly - it may be up to 40% of the total income. In eight cases the extra income is important for keeping farm and household going. Tourism has recently become an acceptable source of income for farmers in the southwestern area. Of those without recreational facilities, just a few are negative about it: "You loose your freedom", "It creates a lot of mess", "Farming business is no recreation business". The majority, however, sees advantages of tourism but is not able to profit from it. Their farms are too remote from the coast, where tourism is centered, or they were not able to get the needed permits. In several cases, the distance between house and farm buildings was a problem; in other cases, the farmer considered himself too old to start something new.

In Salland there is only one farm with recreational facilities: the lease of a small summer house. Only two other farmers saw possibility in a campground or guest house; the majority had a negative attitude towards tourism, even though

it would yield some extra income in times when agricultural incomes would decline. Tourism on the farm could "limit your freedom" and "you wouldn't be a farmer anymore". Several farmers with hogs feared the conveyance of diseases by tourists; others feared accidents with cows. Moreover, it might be impossible in this region to obtain the needed official permits.

As is the case with direct selling, many arable farmers have choosen tourism as a second enterprise, not because it yielded more than other activities, but because it fit logically into their way of farming and into their farm and family circumstances. They have built the needed facilities themselves with few costs. Women provide much of the needed flexible labor supply. Not only do women perform most tasks, as is the case with direct selling, but they have often also taken the initiative. Apparently, direct selling and tourism are key ways that women contribute to the survival of the farm.

Why do some farmers consider recreation an activity with good prospects and others not? Within the arguments of the respondents, there are factors on both the demand and supply sides of the "market for tourism". Yet, concerning the demand side of the market, there are hardly any differences between the two areas. Parts of Salland as well as parts of the islands are very attractive to tourists. In both regions we find concentrations of huge camp grounds. Arable farmers have started to supply small-scale, quiet places for tourists, while the dairy farmers have stood aloof from these possibilities. At the same time, arable farmers use the temporary density of potential customers for direct selling of their products, while dairy farmers generally judge direct selling negatively.

From the supply-side of the market, the farm type plays a role. Tourism on arable farms brings few risks, both for tourists and for the farm, than on dairy farms. Moreover not all dairy farmers avail of the flexible labor needed. Bachelors have relatively less time available, as is the case

with married farmers who have to care for aged living-in parents. Moreover, camp sites are not found on the smallest arable farms in the sample - it is the relatively larger farmers who have such a side-activity. In "normal" times these larger farms would have yielded enough income, so that an off-farm job or a labor-intensive on-farm activity was not necessary. Furthermore, farmers with a campground are relatively old and have a low educational level. Both factors hamper obtaining an off-farm job. The general trend is that when farmers grow older, they prefer on-farm side-activities, such as recreation.

Yet the most pertinent reason for determining a choice for tourism as source of income is the opinion of the farmer's social environment. The establishment of a special organization for farmers with a campground on Schouwen Duiveland (VeKaBo), has been an important step in the process of acceptance by farmers, officials and farmers' organizations, as is witnessed by one respondent:

> I do not know if you are acquainted with the VeKaBo; the ZLM [the farmers organization: S.] did not want to know about it. The chairman of the local board here, a very large farmer, was not opposed to it and brought it before the regional board. There, everybody was opposed, because they say: camping doesn't belong in agriculture. Finally they came round - also from the main executive - and now they want to help you to get ten places[28]. ... The average acreage here is around twenty hectares and there are many farms with only twelve. The main executive of the ZLM sees of course that those small farms have no means of existence. They argue: we do not favour tourism on farms, but we still have to help these farms. The main executive of the ZLM are all large farmers, as is the case on the regional board. For that reason they were opposed to it at first. ... Within two years everything has changed. If they realize on a certain moment that all those small farms will disappear ... but I do not know exactly their motivation. It has happened also because that association of farmers with a campground has been established. Those people lobby(arable farmer).

Two main points can be noted in this comment. First, the image of "the farmer" as exclusively a producer of agricultural products, has changed. This changed image came

about under the pressure of the immanent disappearance of small farms. Second, the establishment of an organization that defends the interests of a specific interest group is important. Such an organization can induce a change in attitude among farmers and among the established agricultural organizations. Moreover, it has proved to be able to put pressure on local governments in order to stretch-up the laws concerning tourism on farms. This interaction between private initiative, organization and the growing acceptance of tourism as source of income on farms, has been lacking in Salland. Many dairy farmers are opposed to a recreational facility on their farms and at the same time blame the local governments for their lack of co-operation in issuing the permits.

6.8 Off-farm jobs

Many farmers interviewed combine both full-time and part-time wage-earning activities with farming. Most of them take local employment and jobs in the agriculture-related supply and processing industries. In addition to the ones who held an off-farm job at the time of the interviews, twenty-seven dairy farmers and nineteen arable farmers had had income from wage work in the past, mainly around the time of the take-over of the farm or in the building-up stage. When succession took place via a father-son partnership, it frequently occurred that the father worked full-time on the farm and the successor looked for an outside job. But sometimes the father already had an additional income, for instance from trading activities or driving a milktruck. In those cases the farm was also too small to yield a full income for the successor, so that outside employment was taken for granted.

Many respondents had had an off-farm job in the first years after the succession in order to save money for farm improvements. (A few respondents had postponed the decision to become a farmer and had an off-farm job in the meantime.) Respondents had practised the most diverse jobs at that time.

In Salland, they had been poultry-selector, employee at a contract worker's business, farm hand, milk-sample taker, milktruck driver, construction worker, carpenter, bus driver, employee at the farm help service. On the islands, jobs included employee at a contract worker's business or a grading business, policeman, fireman, marram planter, construction worker, crane driver, carpenter, farm hand. Many respondents thus have work experience outside the parental farm, although not always work directed towards their future profession of farmer.

Future farmers are still commonly forced to look for outside employment. Half of the successors on dairy farms and one-third of the successors on arable farms have an outside job. Sometimes, the successor finds additional income through on-farm diversification, such as trade, a new type of husbandry, or performing contract work for others, but in many cases it remains necessary for the son to look for a part-time or full-time off-farm job until the father has reached the age of sixty-five. Most of those jobs are agriculture-related and in the close vicinity of the farm.

Working an off-farm job partly coincides with the life cycle. Respondents with off-farm jobs at the time of the interviews were relatively young. Financial necessity is the most obvious reason for their wage- earning activities. Many have taken over a smaller-than-average farm and are trying to develop it to a full-time farm through gradual enlargement, supported by the outside income. Sometimes, these farms were taken over under difficult circumstances: father died young and the - still very young - son felt more or less forced to continue the business; family members displayed an unwillingness to co-operate in the process of succession. Some dairy farmers with an outside-job inherited very small and strongly neglected farms. Father was more merchant than farmer, they explain, or father had retarded the necessary farm adaptations. The take-over of neglected farms occurred also in cases that the farmer inherited the business through female lines, either via family-in-law, or via a widowed

mother. In the first cases the neglected situation is caused by the long-term lack of succession (there were only daughters); in the other cases, difficult family circumstances caused a repercussion.

Although most respondents with an off-farm job desire for full-time employment on their own farm, not everyone succeeds in this. At the time the interviews were held, the farms where the farmer had an off-farm job were still below average size. Sometimes, the requirements of the off-farm job force adapting the pattern of development and management to such a degree that the ideal of full-time employment on the farm seems to grow further away rather than closer.

For the arable farmers interviewed, there are some obvious reasons farm development is hampered. Arable farmers with an off-farm job work fewer hours on the farm than the other respondents. Yet, unlike on dairy farms, their spouse does not then take on extra tasks. The farm just receives less attention. This is probably one of the reasons for the lagging yields per hectare. Moreover, several farmers with an off-farm job said they had been discriminated against in the reallotment. They were not eligible for extra land, because they were not dependent on agriculture for their income. Yet they specifically hoped to enlarge their farms in the reallotment in order to gain full employment there. Other impediments for realizing a full-time farm are lack of time and the inclination to avoid taking risks. One is too short of time to start growing labour-intensive crops beside the job, and switching over totally to horticulture is deemed too risky. It seems that for one-third of the arable farmers with an off-farm job, the combination of farm and job is a permanent situation. Because the farm yields too little, the farmer has an off-farm job; because he has a full-time job, his possibilities to develop the farm to the extent that it yields a reasonable income are limited. It's a vicious circle.

Farm development and management on dairy farms also show the effects of an off-farm job. Starting new types of husbandry, now that the super-levy prohibits enlargements in

dairy farming, are not under consideration, because the farmers lack the time and energy. Many have already shrunk the hog-keeping branch or abandoned it totally if the father could not help anymore. In general, dairy farmers with a small acreage try to intensify their land-use by diversification and/or increasing the number of cows per hectare. But dairy farmers with an off-farm job have rather extensive farms, and their technical results stay below average. The workload of the dairy farmers with an off-farm job also has consequences for the workload of the spouse. Women on these farms milk the cows, which is rather unusual, and make decisions concerning daily matters on their own. Frequently they have to cope on their own when a cow goes into labor.

In general, the work load of both arable and dairy farmers with an off-farm job is burdensome. They work long days and have little free time. The flexibility of the job is then of much importance, a flexibility that most farmers are able to arrange. They can easily take a day off when the farm demands more time, or have a certain freedom in how the work of the job is arranged. The feeling of freedom that farm-work brings with it, is itself a compensation for the heavy work load: "If you have worked forty hours for a boss, you value it extra when you can start again for yourself". Especially for the respondents with a full-time job, farming has become a hobby that provides compensation for "working for a boss". The freedom to set the pace of work, the work in the open air, the love and care for land and animals, the diversification in tasks; all these aspects are more rewarding than the money one makes with farming.

The off-farm job has obvious consequences to the farming goals and patterns of development and management. There are, however, differences between those with a full-time job and those with a part-time or freelance job. Arable farmers with a full-time job (N=7) have made few changes on their farms since the take-over. At most they drained a few hectares, rented a few hectares extra, or bought some machinery (for which fiscal reasons form an important stimulus). Arable farmers with a

part-time or free-lance job (N=11) have accomplished more farm development. These farmers have mechanized, build a keeping facility for potatoes or a machinery barn, or started to grow new crops. Dairy farmers with a full-time job (N=5) made only small improvements to their obsolete buildings and hardly expanded their cow herd. Dairy farmers with a part-time job (N=5), in contrast, enlarged their cow herd to some extent and built a small free-stall barn.

Financial necessity is the main reason for most respondents to take outside work. Most deem it a "necessary evil" and would rather be employed on the farm full-time: "As soon as prices rise, it would be possible to work less outside the farm". Those with a side-occupation do not feel stigmatized anymore by neighbours and colleagues, since the necessity for so many farmers has influenced the acceptance of part-time farming positively. Nor do respondents without an off-farm job judge negatively. This does not mean that farmers are resigned to the difficult situation in which small-farming families find themselves, but that farmers with an outside job are not stigmatized as "bad farmers" by their social environment. But the ideal of most part-time farmers is still to be employed on the farm full-time, and they continue to identify themselves primarily as farmers.

There are regional differences in the acceptance of this survival strategy. One-third of the dairy farmers say they know no colleagues with a salaried job outside the farm; this is the case for one-tenth of the arable farmers. Many arable farmers observe that increasingly farmers need to practise an outside job. In Salland, respondents are inclined to refer to part-time farming rather in the context of succession: "It is nice when the successor has a job if the father is not yet sixty-five". We got the impression that part-time farming on the islands is more a normal feature of the rural society than in Salland. Through the years, the percentage of arable farmers with an outside job has been rather constant, while among dairy farmers it occurs mainly among those who have taken over the farm since 1970 (see table 6.6).

Table 6.6: Respondents with an off-farm job in the past and present.

period in which the farm was taken over	GO/SD %	ZWO %
before 1960	50 (N=8)	25 (N=4)
1960-1969	50 (N=12)	33 (N=21)
1970-1979	55 (N=29)	56 (N=32)
1980-1987	50 (N=10)	51 (N=14)

Apparently, farmers are very reluctant to look for an off-farm job, unless the financial necessity creates such a pressure that one has no choice. Beside the ones who already combine wage work with farming, only one arable and three dairy farmers - and also four women on arable farms and one woman on a dairy farm - are considering looking for an outside job in the near future. Other arable farmers should look for a job from sheer necessity, but they give themselves few chances on the labor market. They consider themselves too old or too uneducated to find a job other than unskilled laborer. Some respondents have partialdisabilities that make them unsuited to jobs requiring physical labor.

Dairy farmers mention the same problems in finding jobs. They additionally experience obstacles in their type of farm and household situations, feeling tied to milking hours or care for living-in parents. In general, arable farmers see more possibilities in their region for work than dairy farmers. For women, in contrast, there seem to be better opportunities in the administrative and public health sectors in Salland than on the southwestern islands.

Arable farmers apparently have better opportunities for finding off-farm work than dairy farmers. Both the lower labor requirements of the arable farm and the possiblity to call in help from the contract worker or from their co-operating neighbours enable arable farmers to be off their farms for a part of the week. The labor market in the southwestern area seems to provide better opportunities than is the case in Salland. Probably, these advantages have influenced the acceptance of part-time farming as a feature of arable

farming. Arable farmers with an off-farm job are better integrated in the "farmers' world" than dairy farmers with a job. Part-time arable farmers are relatively young, have an average educational level for their age category, and do not participate less in formal agricultural institutions than the average arable farmer in the sample. Part-time dairy farmers are also relatively young, but their educational level is low and they participate less in extension activities and farmers' organisations.

Off-farm working women are more "normal" in the arable region than in the dairy region, though the labor market seems to provide rather good opportunities in Salland. In Salland, the respondents often disapprove of women who work outside: "A woman with children must not go away, it is detrimental to her family", "As a farmer you rely on the help of your wife". This disapproval rests partly on the indispensability of womens' labor on dairy farms. On the arable farms the woman is called on to help fewer times than on dairy farms. Yet, spouses of arable farmers more often had a job before their marriage than spouses of dairy farmers, and they find it rather "normal" to hold on to it in the first years of their marriage. Social-cultural motives in the arable region seem to favor wage-earning activities of farm-women[29].

6.9 Conclusions

The variety in combinations of agricultural and non-agricultural sources of income makes the research population a rather motley whole. Side-activities occur much more frequently among farmers than could be expected on basis of census material. Diversification in sources of income contribute to the spread in risks so cherished by small farmers. Summarizing, we can point to several factors that influence the choice in the type of combination.

First, there is financial necessity. Many farms where one performs side-activities are relatively small, and the need

for continuity is relatively large.

Second, the type of farming and type of side-activity are interwoven with each other. For instance, on the arable farms, forcing chicory takes place in the quiet winter period; the presence of milking cattle diminishes the possibilities for dairy farmers to find an off-farm job.

Third, household and demographic factors influence the type of combination. Combinations of sources of income on dairy farms occur relatively often in extended households and relatively rarely among bachelors. Small farmers see the pool of family labor as crucial to their possibilities, while the pressure to support a family certainly plays a role in the felt need to look for alternative sources of income. Moreover, the age of the farmer determines his chances on the labor market and his physical ability to sustain the laborious combination of farm and job.

Fourth, both infrastructural and cultural preconditions favor certain combinations and disfavour others. The regional labor market, market outlets for products and services, and the supporting networks for development and exchange of knowledge influence the choices farmers make about which way to broaden their means of existence. Such infrastructure interacts with patterns of norms and values around "normal" strategies. Infrastructure and ideology strengthen each other to create a socially accepted image of the "farmer". That this image is however not a "natural fact", but can be changed through concerted action, is proven by the organization in the arable region for farmers with a campground.

It would require a separate study to find the reasons for the observed differences in attitude of arable and dairy farmers. One suggestion would be the fact that arable farmers have to a larger extent than dairy farmers been dependent on products that were not protected by EC-measures and showed sharper fluctuations. Arable farmers have always been on the look-out for new crops when the previous ones did not yield anymore. Moreover, the time schedule on arable farms enabled arable farmers to fill in quiet periods with other productive

activities. Other factors with historical-cultural origins, have probably influenced farmers' preferences for certain combinations of sources of income and their disapproval of others.

CHAPTER 7: SMALL FARMERS AND EXTENSION: CONFRONTATIONS AT THE INTERFACE

7.1 Preface

In the two previous chapters we saw how small farmers reacted to changing circumstances and what factors influenced the ways they shaped their survival strategies. First, household circumstances and regional patterns appeared to influence strongly the decisions small-farming families made. Second, normative arguments interacted with arguments based on economic calculations. As other authors also have noted (see section 4.2), both these features can cause the farmers' opinions to diverge from those of extensionists.

Small farmers tend to take their whole complex unity of working and living into account. They make their decisions according to a logic that arises from a context of limited means[30]. Extensionists, in contrast, are inclined to take only a part of the farmer's existence into account and to use a logic based on economic calculations and technical optimization. The culture that imbues the formal knowledge system is one of technical and economic progress, one that promises almost unlimited future expansion. The confrontation of different value systems may easily result in a miscommunication between representatives of the different social categories that meet each other at the interface. Putting it more extremely, such a confrontation can lead to seemingly unbridgeable gaps. Or, put in Long's terminology, on the interface between small farmers and the formal knowledge system, different, and often conflicting, "life-worlds" or social fields intersect (Long, 1989a: 232).

In this chapter, we will first present an inventarization of issues of miscommunication between small farmers and extensionists, from the farmers' point of view, as came to the fore in the qualitative survey (see chapter 4). Section 7.2 contains the farmers' valuation of extension and several other

formal sources of information. It became clear that farmers' degree of involvement in the formal knowledge network and their valuation of it could not be described adequately in terms of individuals' preferences and values only, but were correlated to variables such as age and farm-size (section 7.3). Additionally, we broadened our description to farmers' involvement in farmers' organizations, which function both as a formal source of information and political representation (section 7.4).

Second, we also felt the need to deal with a related issue that has evoked much discussion in the Wageningen department of sociology: the issue of institutionalization and styles of farming. The essence of the issue is that through an increasing integration of farmers into a technical-economic task environment (TATE), this formal network prescribes increasingly farming practises. As a consequence, the farmers' autonomy diminishes (Benvenuti en Mommaas, 1985). But the degree to which farmers are involved in the formal network differs; farmers show different "degrees of institutionalization", without obvious consequences for their farms' viability. As Bolhuis and Van der Ploeg (1985) and Maso (1986) argue, farmers can follow farming styles diverging from those that seem rational according to the logic of the formal knowledge system without jeopardizing their economic soundness. By this line of reasoning, farmers can freely choose strategies that are different from, but equally as rational as, the strategies proposed by representatives of the formal network.

The issue of institutionalization and farming styles, on which we elaborate in section 7.5, interested us for two reasons. The first is that it could be possible to discern sub-categories among small farmers according to their degree of involvement in the formal knowledge network and related farming practices. Second, it could provide a basis for evaluating small farmers' survival strategies. Small farmers generally show a low involvement in the formal knowledge system, which may affect their choice of strategies. Can we

characterize the small farmers' rationality and strategies as different but equally sound, as Bolhuis and Van der Ploeg and Maso found? Or must we conclude that their withdrawal from formal institutions and their distinguishing ways of farming and living are no free choice, but reflect their incapacity to keep up with rapid changes in economic and technological relationships? We will deal with this question in this chapter, relating it to the discussion of professionalization and marginalization (section 7.6 and 7.7).

7.2 The small farmers' images of extension

Inviting small farmers to talk about their experiences with extension leads very quickly to a long list of grievances. In general, the demarcation between an overall negative feeling about everything connected with official institutions and concrete negative experiences with extension was rather blurred. Yet, it seemed possible to categorize the complaints on the basis of content and situation. As we will see, farmers who had contacts with extension on a more-or-less regular basis, judge differently from those with no or few contacts. The tone of the former's judgments is much less negative than that of the latter's. Farmers also judge discernable types of extension differently. Moreover, we could make some kind of classification of the arguments farmers made in evaluating their contacts with extension.

Many farmers interviewed in the qualitative survey had once had contact with the socio-economic extension worker of the farmers' organization (SEV) or with the technical-economic extension worker of the governmental service for advice (see table 7.1). The farmers rarely consulted these experts, however, about production-technical issues such as health and feeding of cows, fertilizing, or pest and disease control. For these daily matters farmers relied on the advice of the extensionist of trade and industry, the veterinarian, or the contract worker. In general, the extension of trade and

Table 7.1: Percentage of farmers who consulted an extension worker at least once in their whole lifetime in Goeree Overflakkee and Schouwen Duiveland (GO/SD) and Salland (ZWO)

	GO/SD (N=71)	ZWO (N=71)
.socio-economic extension	49%	48%
.technical-economic extension	56%	52%
.ext. from trade and industry	38%	58%

industry was valued more highly than the governmental extension:

> The extension worker of the governmental service rarely visits the farmers, compared to the pesticide salesman (arable crop grower).
>
> The extensionist of private industry is more interested in my farm than the SEV or the extensionist of the governmental service (dairy farmer).

The help of a socio-economic or technical-economic extension worker was occasionally called in around decisions of succession, lease contracts, switching to another type of production or investment decisions. Eighteen dairy farmers asked a socio-economic extension worker to help them with their appeal against the superlevy. For most of them, it was their first acquaintance with the SEV - and a positive one. Approximately 80% of all farmers who had called in help were more-or-less satisfied with these contacts. The impression exists, however, that the personal qualities of the extension workers had greater appeal than the institution extension. Some farmers mentioned the rare, "very good extensionist" they had known; the new extensionist who acquainted himself with all farmers in his region and who seemed to be interested in small-scale farms; the old extensionist who unfortunately had changed his job or died. In general, personal contact and confidence in persons were extremely important to the information-seeking behaviors of the farmers interviewed.

The rather positive judgements did not mean that all advice was followed. Some technical-economic extension workers advised dairy farmers to build a modern type of stable. But many farmers chose to build a stanchion barn instead for

esthetic reasons. Some arable farmers who forced chicory adapted their existing installations "in soil" instead of investing heavily in hydroponic installations, as they were advised. (According to one of them, there were not as many problems with slimy chicory and diseases on soil as with forcing chicory "on water".)

Also critized was the extensionist's valuation of the viability of the enterprise. Several extension workers in the past had pointed out the low viability of the farms, and had advised against a son succeeding or were in favor of quitting. "But I'm still a farmer" concluded many respondents.

Apart from the contacts farmers had or did not have with extensionists, we asked them about their participation in several formal farm-related institutions (see table 7.2). The ones who participated at the time the interviews were held or had participated in the past in activities such as studyclubs and an automated advisory system for pest control (Epipre), also judged these positively, though not uncritically.

Table 7.2: Percentage of farmers who participate in formal farm-related institutions at the time the interviews were held

	GO/SD (N=71)	ZWO (N=71)
.meetings and excursions from bank,trade,industries	83%	68%
.studyclubs	30%	11%
.Epipre*	11%	-
.technical-economic registr.	-	20%
.silage sample-taking	-	55%
.milk inspection	-	63%
.artificial insemination	-	86%

* centralized computerized pest and diseases control system

The farmers interviewed gave a variety of arguments for not getting involved in formal institutions. Many dairy farmers did not participate in technical-economic registration because of their aversion to paperwork. (Similarly, arable farmers voiced an aversion to bookkeeping.) Farmers also considered the costs of participation in such systems too high for a small-scale farm. Two young dairy farmers, though very

conscious about the inhibiting effects of the superlevy upon their survival chances, considered registration a frustrating activity, since it confronted them daily with the bad results of their enterprises. The restrictions on the volume of milk production also kept several dairy farmers from participating in the milk inspection. Others, who did not feel any incentive to improve their productivity - mainly bachelors - did not consider involvement in the milk inspection useful.

Approximately one-third of the farmers were outspokenly negative about extension. Most of them had no or hardly any contact with extension. It is especially this category that feels discrimated against by extension, as the following comments show:

> They are too busy when you call, you find them on the large farms.
>
> They do not see you when you are small, they would say "just sell your business".
>
> The way we farm is not interesting to them.

Connected with these arguments was the opinion that extension had stimulated production growth, of which respondents felt they were victims:

> Extension has sometimes advised farmers to become too large.
>
> Extension has always advised more cows, and then suddenly we are saddled with the law on manure.
>
> Attention is more directed towards production than towards the social aspects of the small farms.

Farmers also expressed a lack of confidence in the formal sources of information. They frequently criticized the inexperience of the extension workers and their supposed lack of practical knowledge:

> Those young extension workers just lack experience: they look at other farms and then tell how it works.
>
> Those fellows work according to the book, that's never right.
>
> Extension is often too theoretical: practice turns out very different.

> Extension confirms what you yourself know already.

Many respondents had little confidence in computer-based sources of information. They preferred to rely on their own knowledge and experience rather than to lean on the advice of a computer. Moreover, the extensionists of private and co-operative trade and industries gave practical information on technical issues on the spot. Sometimes, a negative judgment was based on the scope and type of innovations that were proposed by extensionists:

> Extension wants the piglets on a slatted floor; I would rather have them on straw.

> Extension does not have to pay for it. You must not jump further than your jumping-pole is long.

> Extension is there for people who always must have the newest of the new.

> If you listen to extension, you must constantly acquire something else.

Thus, many farmers were not involved in institutionalized sources of information because of feelings of inferiority or because they preferred to rely on their own knowledge and experience. Disagreements about technical innovations, farm viability and production goals caused small farmers to withdraw from extension activities. Farmers were not acquainted with or did not trust concepts and knowledge based on a scientific model. In general, they felt that extension was not attuned to the situation and needs of small farmers[31].

7.3 Farmers' involvement in extension and their characteristics

Although we observed a general dissatisfaction among small farmers concerning agricultural extension, it became obvious that respondents differed from each other in depth and content of this dissatisfaction. Feelings of inferiority and marginalization in Salland were much more obvious than in the southwestern area. Moreover, we got the impression that it was

the relatively small dairy farmers who were outspokenly withdrawn from extension. Therefore, we looked for possible correlations between the respondents' contacts with extension and general characteristics such as farm size and age.

We must be aware of the fact that the figures in table 7.2 are limited by the moment at which the interviews were held and to the farmer and his wife. Several farmers had formerly participated in a studyclub, in Epipre, milk control, artificial insemination or technical-economic registration; others intended to participate in the future. Sometimes the farmer himself was not involved, but his successor was. The son's participation depended partly on the father's attitude. Some respondents gave their successor much opportunity to apply new insights and techniques, obtained in studyclubs or based on farm registration and comparison, in the actual farming process. Others distrusted these sources of information and considered their own knowledge and experience as the point of orientation for their successor. Even when succession had occurred, the older generation sometimes influenced their sons' degree of involvement in external sources of information. Three young dairy farmers who lived with their parents in the same household had been considering participation in a studyclub or registration system, but were held back by the older generation. Although we admitted the possibility of small distortions, we took the farmers' current participation in formal farm-related institutions as a point of departure and added to it their individual contacts with extensionists.

In general, younger farmers were more inclined than older ones to exchange experiences in studyclubs and to educate themselves through excursions, demonstrations and meetings sponsored by the bank, trade and industry. Their relatively high educational level made it easier for them to master standardized knowledge and scientific concepts. On the other hand, younger farmers lacked farming experience, which would make involvement in extension activities useful, according to older farmers.

We also found correlations between dairy farmers' contacts with extension and farm-size variables (table 7.3).

Table 7.3: Pearson's correlation coefficients for involvement in several information channels and farm-size variables; dairy farmers (N=71). Levels of significance between brackets.

	hectares	spu's	milkquotum
asking advice from			
- socio-economic extension	.21 (.039)	.28 (.010)	.26 (.014)
- technical-economic ext.	.37 (.001)	.49 (.000)	.56 (.000)
- trade and industry	.04 (.381)	-.01 (.479)	.05 (.330)
attending meetings, excurs.	.45 (.000)	.50 (.000)	.43 (.000)
participating in			
- studyclubs	.08 (.257)	.20 (.045)	.30 (.006)
- technical-econ. registr.	.25 (.018)	.46 (.000)	.53 (.000)
- silage sample-taking	.36 (.001)	.46 (.000)	.48 (.000)
- milk inspection	.12 (.155)	.37 (.001)	.44 (.000)
- artificial insemination	-.04 (.371)	.07 (.281)	.06 (.298)

The dairy farmers' involvement in technical-economic extension, meetings, excursions and demonstrations, technical-economic registration, silage sample-taking and milk inspection correlate highly with farm-size variables. The farmers who are involved in these five activities derive 90-100% of their family income from the farm; moreover they have rather modernized barns. Less correlated to farm size are "asking the socio-economic extension worker for advice[32]" and "participation in studyclubs". Contact with the socio-economic extension worker is more related to involvement in farmers' organizations than to farm-size; participation in studyclubs is more determined by age than by farm-size.

Farm-size seems to be no impediment at all to "asking the extensionist from trade and industry for advice". The extensionists from trade and industry are persons the farmers have confidence in, who frequently visit all clients, small and large. Although they represent a commercial interest, they have won the confidence of many small farmers because of their practical orientation and frequent (unrequested) visits.

Finally, participation in artificial insemination seems to be determined more by personal objectives and orientation than by farm-size. Several dairy farmers bought their own bull

with breeding records, planning to sell it later for meat when the cows were with calf. For these respondents, commercial skills formed an element of craftsmanship. Moreover, they tended to a diversified type of farming that included hog-keeping and cows for meat production (see also chapter 5). Clearly, the dairy farmers interviewed judged the discernable types of extension differently; yet, in general, a relatively small farm-size tends to impede dairy farmers' getting involved in extension.

This is less true for the arable farmers. The only significant correlation[33] with farm size in the arable region concerns the farmers' attendance of activities organized by the bank, trade companies and processing industries, and standard production units (spu) (R=.31). Furthermore, demanding advice from the SEV is positively correlated with historical farm size, the acreage of the farm at the time of takeover, but this variable has more to do with locality and tradition than with current farm-size (see also section 7.4).

We can conclude that, in general, younger respondents have a more open - though not uncritical - attitude towards external sources of knowledge and information than older ones. Moreover, the relatively small dairy farmers especially demonstrate a strong withdrawal from extension.

7.4 The involvement of farmers and their wives in (semi-) agricultural organizations

Extension is only one of the institutions that make up the farmers' formal environment concerning agricultural knowledge and information. In order to broaden our view concerning the small farmers' integration in the formal knowledge network, we also considered their participation in farmers' organizations, as well as their wives' participation in (semi-) agricultural organizations. We also considered the influence of farm-size on the respondents' involvement in these organizations.

Of the arable farmers, 77.5% are members of a farmers' organization, whether the liberal one (ZLM) or the Christian one (CBTB). The majority of these are not very actively involved (see table 7.4).

Table 7.4: Degree of involvement in farmers' organizations

	GO/SD	ZWO
not a member	16 (22.5%)	16 (22.5%)
m., does not attend meetings	27 (38.0%)	33 (46.5%)
m., does attend meetings	22 (31.0%)	15 (21.1%)
actively involved, board m.	6 (8.5%)	7 (9.9%)
total	71 (100.0%)	71 (100.0%)

The members of the CBTB who attend meetings of the local chapter were generally satisfied with the attention paid to small farmers. More complaints were directed towards the ZLM:

> At the meetings, small and large are seated separately.

> The ZLM should look more closely after the small ones, because the large ones are busy pushing the small ones out.

> There is little attention to recreation, because the large farmers are against it.

Within the sample no significant correlations between farm- size variables and degree of involvement in farmers' organizations are discernable. For arable farmers, current farm size is no impediment to involvement in farmers' organizations. But historical farm size, the acreage of the farm one took over, does influence this involvement (R=.40). One is affiliated or not because of custom, and in the past, it was the relatively large farmers who were organized. Most of the farmers who were not members of a farmers' organization at the time of the interviews, didn't care much about it; their father was not a member or the farm has been a part-time holding in the past. Especially on Goeree Overflakkee, where the historical farm size is significantly smaller than on the other island, the relationship between historical farm size and involvement in farmers' organizations is fully expressed (R=.47). Arable farmers on Goeree Overflakkee who built up

their farms from scratch have no historical ties with farmers' organizations; as a consequence, they have considerably less contact with the socio-economic extension services from these organizations than farmers on Schouwen Duiveland. Only 9% of the respondents on Schouwen Duiveland are not members of a farmers' organization, compared to 43% on Goeree Overflakkee.

Of the dairy farmers interviewed, 77.5% are members of a farmers' organization, mainly the Catholic organization (ABTB) and the liberal one (OLM). Here as well, membership in a farmers' organization is a custom from which the relatively small and part-time farms are excluded. Both historical and current farm size seem to influence dairy farmers' involvement in farmers' organizations (historical acreage R=.31; current acreage R=.45; spu's R=.38)[34]. Most of the farmers who attended meetings felt that the organization did nothing for the small farmers. One local board member even went as far as resigning in protest. "The FNV [trade union, S] does more than our own organization" - was a typical comment expressing the general dissatisfaction with how the farmers' organizations dealt with small-scale farming.

There are striking differences between the two research areas in the involvement of farmers' wives in (semi)-agricultural organizations (see table 7.5).

Table 7.5: Degree of involvement in women's organizations

	GO/SD	ZWO
no spouse	6 (8.5%)	18 (25.4%)
not a member	45 (63.4%)	21 (29.6%)
m., no participation	6 (8.5%)	3 (4.2%)
m., participates	8 (11.3%)	26 (36.6%)
actively involved, board m.	6 (8.5%)	3 (4.2%)
total	71 (100.0%)	71 (100.0%)

On the southwestern islands, notably fewer women are members of these organizations than in Salland. Several wives in the arable region had no farming background and did not consider themselves "agricultural" women. Women on arable farms were generally less agriculturally oriented than those

in Salland. Their relatively low participation in women's agricultural organizations, however, is compensated for by their activities in the local community. Voluntary work for the church, in health care and educational institutions are very common activities. Farm women in Salland were much less involved in such activities. Another difference is that degree of involvement in (semi-) agricultural organizations is positively correlated with farm size in the arable region, but not in the dairy region. Women in the arable region are more actively involved when their farms' spu's are higher (R=.33). Like the farmers' involvement in organizations, women's involvement on Goeree Overflakkee is less when the historical farm size is smaller (R=.28).

Thus both tradition and farm size influence the small farmers' involvement in formal organizations. Among dairy farmers we could moreover discern the influence of household situation. The involvement of bachelors - who make up almost one-quarter of the sample in Salland - is relatively high. Bachelors have few contacts with extension and they rarely participate in local organizations that are not directly relevant to agriculture. Often they are closely bound to home, because of the care of elderly parents living with them. "Cannot leave father or mother alone" is a much-heard explanation of bachelors for not participating in off-farm activities. Their involvement in farmers' organizations is an exception: the farmers' organizations are central to their social life. The opposite is true for the married farmers whose parents (-in law), brothers or sisters or uncle and aunt live in the same farmyard, in a kind of extended household. Their participation in farmers' organizations - and the involvement of their wives in women's organizations - is relatively low. We have the impression that people in extended households are more directed towards informal social contacts within the family.

7.5 Farmers' involvement in the formal knowledge system and farming characteristics

Clearly, part of the farmers interviewed is in a marginal position regarding formal organizations and institutionalized sources of information. Would it be possible to define categories of farmers according to their degree of involvement in the knowledge system, in order to distinguish the really "hard-to-reach"? Possibly such a sub-categorization correlates with specific farm characteristics, as is suggested by Bolhuis and Van der Ploeg and Maso.

The farm management of the Italian farmers in the study of Bolhuis and Van der Ploeg who relied heavily on the technical-economic task environment - who, in other words, showed a high "degree of institutionalization" - was largely prescribed by these external institutions. As a consequence they followed rather extensive farming practices. In contrast, farmers with a low degree of institutionalization were typified by an intensive way of farming. A high or low degree of institutionalization coincided with discernable styles of farming, each with its own rationale, by a

> (...) specific ratio that links goals and means, a system of meanings by which their own reality can be interpreted and ordered (Bolhuis en Van der Ploeg, 1985: 106 [translation: S.]).

Following the typology of Bolhuis and Van der Ploeg, Maso (1986) characterized two types of dairy farmers in a Dutch province according to the type of cow they kept:

1. Farmers with the Holstein type of cow: as high as possible milk production - building upon the Galileïc (scientific or quantitative) knowledge model - inclined to make high investments - call on external experts - delegate commercial activities to the co-operatives of which they are members.
2. Farmers with the MRY-type of cow: combination of milk and meat production - relying on the conjectural (semiotic or qualitative) model that involves experience and intuition - keep their investment as low as possible - low use of external expertise - commercial insight is aspect of craftsmanship.

Thus Bolhuis and Van der Ploeg, and Maso, mention differences in production goals, in rationales and in frames of knowledge used. While the highly institutionalized farmers share the objectives and outlook of external experts, the less integrated farmers strive after preserving their autonomy. The farming styles discerned by the above-mentioned authors seem to be internally consistent and equally viable. Inspired by these findings, we looked for correlations in our own research category.

The statistics from the qualitative research (see Appendix A) reveal two patterns. First, respondents are involved in clusters of aspects of the knowledge system rather than in the knowledge system as a whole. Second, dairy farmers who are well-involved in the major clusters do share specific characteristics, a correlation lacking in the arable region.

Concerning the first pattern, we observed that farmers who are not involved in certain aspects of the knowledge system may be involved in other aspects; farmers who participate on certain terrains do not necessarily participate on others. Yet, in both the arable and the dairy region we discerned two main clusters within the formal knowledge network. The first major cluster contains the farmer's involvement in their farmers' organizations, including their contacts with the socio-economic extension service of this organization. The second major cluster consists of the farmers' contacts with elements of the knowledge system that refer to more production-technical aspects of farming. However, several aspects of the knowledge system that we would like to include in this second cluster do not fit in; they remain quite separate. For the arable farmers in the sample, this separate aspect of the formal knowledge network is the farmers' attendence of excursions or meetings organized by banks, trade companies and processing industries. For the dairy farmers, participation in studyclubs, asking the extensionist from trade or industry for advice and participation in artificial insemination do not fit in the second major cluster.

For the arable farmers, neither the major clusters nor the separate aspect are correlated with each other. The arable farmer who is involved in a farmers' organization is likely to have contacts with the SEV of his organization, but not necessarily with the governmental extension. In Salland, the two major clusters are correlated, but still have no statistical relationship with the separate aspects. It seems, therefore, not possible to discern homogeneous sub-categories of farmers according to their "degree of institutionalization", as was the case in the study of Bolhuis and Van der Ploeg. A very practical consequence of this finding is that the extensionist whose aim is to deal with small farmers, must be aware not to limit him- or herself to one channel of extension.

As a second pattern, we observed that dairy farmers who are well-involved in the major clusters of the formal knowledge network do share specific characteristics, a correlation lacking in the arable region. Dairy farmers with a high participation in the major clusters are characterized by their relatively large and modernized farms. They aim at high levels of production and have the farm as their main source of income. These farmers have a relatively high educational level and are able to communicate with external experts on an equal level. Like the external experts, they certainly see improving their technical results as a main objective; and to that end, they make use of the available formal sources of knowledge and information.

This doesn't mean, however, that farmers who lack these characteristics and are not or hardly involved in the two major clusters lack any contacts with the formal knowledge system. For instance, most farmers with a relatively small acreage but an average or higher than average number of cows didn't consider building a free-stall barn attainable and did not need to consult the technical-economic extension worker. Because of their background as small farmers - small in acreage - they have no traditional ties with the farmers' organizations. Yet, they do participate in studyclubs as a

means to improving their levels of production. Further, dairy farmers' participation in artificial insemination or their contacts with the extensionist from trade and industry is not bound to specific farm characteristics.

The only correlation in the arable region is that farmers with a high participation in the first major cluster have a diversified farm plan consisting of pure arable, mechanized crops. They also have relatively large acreages. There are no indications for the existence of an unequivocal relationship between involvement in the formal knowledge system and specific farming patterns, such as is suggested by Bolhuis and Van der Ploeg and Maso. In chapter 5, we had already observed that farming patterns depend to a large extent on the acreage available, demographic factors and household composition.

Finally, we want to touch on the farmers' age and educational level in connection with their participation in the formal knowledge network. According to Maso, the educational level of farmers can be an indication of the degree to which they are acquainted with concepts based on a scientific knowledge model, and of their inclination to accept standardized knowledge as guiding principle for their farming practices. As is shown in table 7.6, many farmers interviewed have only attended elementary school, whether or not complemented with some basic agricultural courses. But the younger the farmer, the higher his educational level and the more he is inclined to evaluate his situation with help of general economic calculations. On the one hand, for the younger dairy farmers in the sample, this will form an inducement to improving productivity; on the other hand, the confrontation between what is technically possible and the restrictions of a given small farm size can result in a constant frustration and disappointment.

The educational level of arable farmers does not correlate with involvement in aspects of the formal knowledge network, but that of dairy farmers is correlated with several aspects of this network (see Appendix A). This observation is analogous to our conclusions about the influence of farm-size

Table 7.6: Educational level of farm heads and successors[35]

	GO/SD		ZWO	
	farm heads (N=71)	succes. (N=18)	farm heads (N=71)	succes. (N=21)
1. elemen.school*	26.8%	-	42.3%	-
2. lower vocational**	54.9%	77.8%	40.8%	47.7%
3. middle level***	16.9%	22.2%	12.7%	42.8%
4. higher level	1.4%	-	4.2%	9.5%
total	100.0%	100.0%	100.0%	100.0%

* whether or not followed by agricultural courses
** four arable farmers and one successor have a technical instead of an agricultural education; four dairy farmers and two successors have a technical instead of an agricultural education
*** only one arable farmer attended a middle level school other than an agricultural school

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on participation in the formal knowledge system. The younger dairy farmers in the sample - who also have the largest farms - seem to form a sub-category in that they are relatively well-integrated in the knowledge system and that their farming style is in accordance with institutional notions about proper farm management. Although not statistically evident, the presence of a successor resulted in a more positive valuation by the dairy farmer of external experts and modern techniques. Others, however, lack the inducements of their household situation and the "cultural capital" (Bourdieu, 1989) to acquaint themselves actively with the principles and applications advocated by the formal knowledge system. In this sense, they are considered "less professional" farmers or "bunglers", and approach marginalization. In the next section we will further elaborate on this polarizing process of professionalization and marginalization.

7.6 Professionalization and marginalization[36]

In the literature concerning professionalization, four obvious aspects can be discerned: a. Systematic knowledge is a basis for occupational skills; b. The occupational group

strives to reserve certain segments of the market for itself; c. Professional organizations protect the domain of the occupational group; d. There exists a common professional culture.

Concerning the first aspect we can observe that scientific knowledge gradually has gained ground to the detriment of experiential knowledge. More and more, the knowledge learned at agricultural schools is deemed an essential addition to individual farming experience. Nowadays, a middle vocational level of education is considered a minimal requirement for running an agricultural enterprise well. Agricultural courses, participation in studyclubs or other extension actitivies where scientific knowledge is disseminated can make up for an insufficient educational level. Many small farmers, however, don't meet these requirements (see also Wijnen, 1987).

Access to farming is not formalized through a legally acknowledged system of licences, as is the case with the medical profession or public notaries, for instance. The conventional meaning of professionalization implies that a primary aim of market reservation is to prevent the penetration of bunglers. From a formal point of view, access to farming is quite open, and smaller farmers are not excluded from farming through such a system. Yet, in practice, small-scale farming is discouraged and the zest to take over a small-scale farm is relatively low (Spierings en Wolsink, 1984).

The criteria for joining a farmers' organization appear not to be at all strict, which results in a great variety of membership. If these organisations were defending an acquired market segment, then a logical implication would be that applicants would only be admitted when they met certain criteria for membership. Yet the farmers' organizations seem very heterogeneous, representing small, medium-sized, large, part-time and full-time farmers, and covering all agricultural sectors. The same can be said of the technical associations, though these organizations represent specific agricultural

sectors. Because of this heterogeneity, one would expect the farmers' organization to represent its members' interests equally. In practice, however, many small farmers criticize the farmers' organizations for not defending the small farmers' interests (Wijnen, 1987; Korpel, 1989; Somers, 1985).

A common professional culture such as the shared meanings and values that are inherent in "good" farmers' practices, may also accentuate distiction from the outsider. A "good" farmer is not only a good craftsman, but also an entrepreneur. In daily language there seems to be no misunderstanding about the concepts of craftsmanship and entrepreneurship. Craftsmanship entails a mastery of (standardized) knowledge and the skill to apply this knowledge to a specific farming situation. The entrepreneur is a dynamic personality who reacts appropriately to changing external circumstances (economic and technical). Small farmers are generally stigmatized as lacking these necessary qualities.

Several aspects of craftsmanship and entrepreneurship, however, make these concepts less unequivocal. They are reflected not only in observable relationships between farmer, objects of labor (animals, land) and means of production but also in a series of specific norms under which those relationships are initiated, evaluated and further developed (Bolhuis and Van der Ploeg, 1985). Craftsmanship and entrepreneurship "produce" discernable "styles of farming". Moreover, the evaluation of craftsmanship is constantly changing. Its degree can be measured by technical results and/or by product quality. These days, it is also being measured by the environmental- and animal-friendliness of the production process. Because the concepts of craftsmanship and entrepreneurship are far from unequivocal, and leave room for a variety of manifestations, it seems unjustified to consider the small farmers' goals, values and actual performances as unprofessional, obsolete and irrational. We must instead recognize the inventiveness and flexibility with which they react to changing circumstances within given limits. This doesn't mean that all farmers we interviewed make optimal use

of their possibilities (see also chapter 5), but that many deserve better valuation and more attention than they have gotten until now.

The process of professionalization has apparently not completely crystallized in Dutch agriculture. Although we witness a process of differentiation between professional entrepreneurs on the one hand and farmers approaching marginalization on the other, this process has not progressed so far that the market is becoming monopolized by those having close ties to the institutional network. Formally, the process of professionalization has not crystallized to such an extent that those categories who do not meet the set criteria are marginalized. Yet, marginalization of small farmers takes place through less obvious processes such as degrading their frames of knowledge and cultural outlook.

The processes of professionalization and marginalization in Dutch agriculture take the form of an ideological clash: a clash between disparate frames of reference and rationales in which the small farmers are the losers. We may not forget, however, that this isn't just a cultural issue, a difference of styles, but one that is indivisable from the small farmers' very palpable marginal economic position.

7.7 The socio-economic position of small farmers

Until now we have dwelt on the involvement of men and women in farm-related organizations. Yet, people from small-scale farms are also actively involved in non-agricultural formal organizations. We have already mentioned the activities of women from arable farms in the locality. On more than 60% of the arable farms, the man and/or woman were affiliated with a sport, cultural or social association; on approximately 40% of the farms, the man and/or woman fulfilled board functions in these organizations or in church, school, and local governments (community or "waterschap"). On more than 40% of the dairy farms, the man and/or woman were affiliated with a

sport, cultural or sociability association; on approximately 20% of the farms, the man and/or woman fulfilled one or several board functions. In the interviews nobody mentioned small farm-size as an impediment to involvement in such non-agricultural associations. On the contrary, men and women with a small farm background play an important role in keeping up the social and cultural local infrastructure.

Although a small-farm background seems no obstacle for participation in local, non-agricultural formal organizations, part of the respondents felt themselves to be marginalized in their formal agricultural environment. Their negative judgment about extension was not an isolated feature, but fit in with their overall feeling of "being pushed out" - not only by extension, but also by government policy, trade and industry, and even by their own farmers' organizations.

For many arable farmers the government was a faraway institution that did little good and caused a lot of problems. According to arable crop growers, high taxes and low prices were a problem, though they did not fall especially on small farmers. Yet, several respondents commented that agricultural policy was directed towards "breaking the small farmers' necks". Trade and industry seemed to reinforce the expulsion of small farms, since small farmers paid relatively high prices for fertilizer and pesticides. Arable farmers also pointed to a selection process in the current reallotment, in which only large farmers would be able to pay the high prices for vacant land. In another way as well, large farmers would snatch away the bread of the small ones. Though formerly horticultural crops and early potatoes were found only on the small farms, nowadays the larger farmers had started to grow these crops also. As a consequence, surpluses and low prices threatened. Furthermore, increasing mechanization and automation would reinforce the tendency to scale enlargement. In short, the future looked gloomy for small farms, according to many of the arable farmers interviewed.

The dairy farmers were very embittered, especially about the superlevy and the law on manure. Though in general, dairy

farmers did not challenge the necessity for the restrictive measures, they felt injured by the way the measures were imposed. Many dairy farmers interviewed thought it very logical that the government subsidies were used for enlargements in the dairy sector, but unjustified that small farmers, who had not contributed to the explosive growth in milk production, were penalized. They were generally of the opinion that a certain quantity of milk, for example the first 100,000 liters, should be untaxed. Others thought that farms with less than 20 cows should be free from the surtax. Frustration over the discriminatory aspects of recent policy-measures was further aggravated by the perception that their own farmers' organizations did not defend the small farmers' interests. "The small farmers are oppressed and left to their fate", is one of the very embittered comments that we recorded during the interviews. Through the policy of discrimination the future for small dairy farms would be very gloomy.

The sense of being a victim of a conscious expulsion policy is one side of the small farmers' interpretation of his societal position. On the other side, many respondents mentioned the strong sides of small farms. Aren't the small farmers tougher than one often thinks? Isn't it true that they are financially less vulnerable than large farms because of their low level of investments and high labor input, their possibilities for side-activities and speciality crops? Small farmers are used to working hard, living frugally and reacting flexibly to changing circumstances, according to many respondents. Small farmers claim they have a right to live and work, that they are an integral part of their rural environment.

7.8 Conclusions

At the interface between farmers and elements of the formal knowledge system all kinds of friction can occur. Rural sociologists have pointed to divergences in goals and values,

in the encounter of different knowledge models and rationales. There are categories of farmers who are integrated into the formal knowledge system to a small degree only. According to several authors, these farmers practice rather autonomous styles of farming as equally rational and viable as the "dependent" farming-style. This is obviously not the case with small farmers.

Bolhuis and Van der Ploeg and Maso abstracted from the specific socio-economic position of their research population or the socio-economic differentiation within their population. But the farmers we interviewed felt that they belonged to a marginalized category and that their ways of farming, their frames of reference and their knowledge were considered obsolete and inferior. Characteristics of both Bolhuis and Van der Ploeg's "extensive" farmers and Maso's "red" farmers can obviously be found in our description of small farmers in the previous two chapters, but it may be clear that their survival strategies are considered less viable than those of larger farmers.

In the qualitative research, we have found no clear correlations between degree of involvement in the formal knowledge system and style of farming, as suggest Bolhuis and Van der Ploeg and Maso. Yet, we may draw some conclusions about degrees of involvement and aspects of dependency and autonomy.

Evaluating the small farmers' level of professionalization, we can discern two sub-categories. First, there is a category that withdraws from formal institutions because of powerlessness. They were not able or lacked the incentives to re-orient themselves constantly to changing economic and technological circumstances, though they realize that farming the way they always have is no longer a viable option and even considered inferior. For instance, considering the case of older farmers, we observed that several of them were just not able or lacked the incentives to acquaint themselves with modern techniques and concepts of modern farm management. Their withdrawal from formal institutions and hanging on to

their own ways of farming bear the marks of alienation rather then of preserving their autonomy in a way that gives evidence of rationality and originality. This observation is supported by our finding that the presence of a successor can form a turning point in the farm management, with the agreement of the father. When a successor is present, the farm - represented by the younger generation - may become an active participant in the formal knowledge system. For older farmers without successor and many bachelors, however, breaking the barriers of their distrust may require an intense and costly effort by extension.

The other category of small farming families show an amazing creativity in creating their own employment opportunities, with or without help of external experts, and with or without formal educational background. They try to make optimal use of the specific strengths of small-scale farming and regional solutions and possibilities. Yet, their ways of working and living, characterized by risk-avoidance and frugality, do not fit into the generally prevailing idea of the farmer-entrepeneur. Moreover, their chances for continuity are constantly threatened in the current economic and political climate that disfavors small-scale farming. The "cultural confrontation" between small farmers and representatives of the formal knowledge system is, therefore, not just an encounter of life-worlds that can be mediated, but a confrontation deeply rooted in social and economic situations of which small farmers feel they are victims. These are the actual structural factors that inhibit the integration of small farmers into the formal knowledge system. It is precisely these factors that are the hardest to overcome by extension alone.

CHAPTER 8: DIVISIONS AND UNITY

8.1 Preface

Now that we have come to the last sections of this book, we will review the objectives of the research project 'Employment in Agriculture and Extension' mentioned in chapter 1 and try to reach some conclusions. Primary aims of the project were a) to identify categories of farmers who are homogeneous in their survival strategies and b) to indicate ways agricultural extension could help farmers optimize their survival strategies. The focus was on those categories of farmers whose farms were considered not viable on the long term and who were hard-to-reach by agricultural extension.

In section 8.2 we will point to some of the most obvious characteristics of the category of small-farming families, followed by some recommendations for extensionists who's aim it is to reach this category (section 8.3). However, we concluded in chapters 3 and 7 that extension alone is not a strong enough instrument to really improve the small farmers' prospects. The problems experienced in reaching the category are typical for the functioning of the agricultural knowledge system in the Netherlands which creates a structural gap between "leavers" and "stayers". The problems are moreover typical for a situation in which rare, local initiatives run contrary to national objectives. Therefore, we felt the need to point to the possibility of extension's role in organizing and mobilizing small farmers (section 8.4) as well as to currents in agricultural policy (section 8.5). We will close the chapter with a short, personal afterthought.

8.2 Heterogeneity and homogeneity in the small farmers' category

Identifying rather homogeneous sub-categories of farmers could help extensionists to optimize their performance towards small farmers, was the presumption of our research project. Indeed, the experiences from several projects showed that small-scale farmers formed a very varied target category, which hampered the performance of an effective extension programme.

In the qualitative survey we already tried to diminish the variety by applying sample criteria such as type of production, geographical location, main occupation in agriculture, age and succession situation. The sample was thus expected to show some homogeneity concerning the income-yielding capacity of the farm, the need for continuity, and exogeneous production circumstances such as physical characteristics and nearness of marketing facilities and extension and research centra.

The delineation, however, proved to be ineffective, because of the inaccuracy of official statistics and the dynamics and heterogeneity which characterize small farmers as a category. During his life cycle, a farmer could shift from a full-time occupation in agriculture to a part-time one, and vice versa, without this being recognized by the agricultural census. Demographic factors in the agricultural households appeared to exert strong influences on the farmers' goals and possibilities, and therefore on the patterns of farm development. Great differences in survival strategies occurred, according to the household composition and stage in the family cycle.

Household circumstances also influenced the farmers' judgement of their agricultural incomes. Although we observed no real poverty among small-farming families, the income of households with adolescents was often considered too low, which necessitated stringent economizing on household expenditures. Bachelors and elderly couples without successor

experienced fewer income problems.

Considering farmers' evaluation of their economic status and expectations, we can discern another division within the category of small farmers. A frugal way of living typifies small-farming families, although we got the impression that young farmers had higher income ambitions than older ones. Points of reference have shifted somewhat through time, and a low income was harder for the younger farmers to accept than for the older ones. A greater number of younger farmers than of older ones experienced relative financial deprivation, while older ones were more frustrated by a kind of structural marginalization - isolation vis-a-vis the farm-related institutional environment - and a social degradation. Both forms of "societal disorientation" (Nooij, 1969) frequently occurred among dairy farmers in the qualitative survey.

Because of the instability and diversity among small farmers, our study did not result in an unequivocal description of the category. Such a conclusion can be interesting from a sociological point of view, but it may discourage extension agents whose aim is to develop extension programmes for well-defined categories with well-defined problems.

Yet, the farmers we interviewed seemed also to have something in common: a recognition of their feeble socio-economic position in an economic and political system that is dominated by large farmers and by forces they cannot control. Moreover, small farmers consider themselves to be unrewarded stewards of valuable styles of working and living, of norms and values that seem to have become obsolete and superfluous in our modern consumption-oriented society. In this sense, small farmers feel united, and distinguishable from large farmers.

Our finding that small-farmers' strategies in large part depend on family and household circumstances - another characteristic that small farmers have in common - is no startling news. Chayanov (in Strijker, 1983) has shown that patterns of farm expansion coincided with developments in the

household. Petit (1976) also has pointed to the relationship between patterns of farm development and and the family cycle. This seems to hold true especially for small farmers. They are inclined to attune their investment decisions to the current needs and labor supply in the household. By this way of acting, they risk responding too late. For example, parents hesitate to adapt their farm or buy land when the son postpones the decision to take over. At the moment the son wants to take over - whether or not in a partnership with his father - the opportunity to buy land is gone, or restrictive measures are enacted so that the necessary adaptations can no longer be realized.

Small farmers feel that they are trapped unexpectedly by policy measures which diminish their survival possibilites. The risk of "coming too late" is increasingly likely in a context characterized by rapid technological and economic changes and by increasing policy requirements that are imposed on farmers for environmental reasons. Those unable or unwilling to follow these changes must be real innovators in new types of production to maintain their prospects in agriculture. Small farmers have been shown to be very flexible in combining other sources of income when their main source of existence is threatened. Some of them have also managed to be very creative in searching out solutions for their income problems. Yet most of them, especially the dairy farmers in our qualitative survey and the evaluation research, are inclined to follow regionally-accepted types of production for wich a formal and informal knowlegde system already exists. The need may arise for farmers to go beyond regional solutions in order to survive. Co-operation or organization may be very important for establishing alternatives.

8.3 Implications for the practice of extension agencies

We have described small farmers as a highly diversified social category which yet deserves the predicate "social

category" because of its shared structural, marginal position in current agriculture. Both aspects of the category - its heterogeneity and its unity - bear specific implications for extension practice.

If we want to discern sub-categories among small farmers, the research material suggests that we can define objectively descriptive, clearly defined, and easily verifiable criteria, such as we have done in the qualitative survey, and add to these criteria such as stage in the family cycle and household composition (see chapter 5). These variables determine much of the needs and possibilities of small-farming families. Knowledge of this type of stratification can provide the extensionist with some indications of the farmers' concerns and options. Clusters of farmers can been identified, visited by extension workers and eventually invited to instructive meetings.

In addition, it seems inevitable that the extensionists who occupy themselves with small farmers must master some specific skills. They need to be aware of the inaccuracy of census information and the unstable composition of the defined target categories of which we spoke in section 8.2. Necessarily, they must be generalists who know to mediate in the complex interwovenness of farm and family. Moreover they must be able to approach the farmers without prejudice and be willing to spend time gaining the farmers' confidence. Reaching a hard-to-reach category is a time-consuming activity. It seems therefore inevitable that choices must be made within the extension service as a whole or concerning the work terrain of individual extension workers. What we are talking about is a new specialization within the extension apparatus.

Such small-farmers specialists should not only be well-trained in appropriate methods but also be able to offer appropriate information. The latter is actually more problematic than the issue of methods. As we have seen, extension projects for small farmers have partly failed because extensionists had to work in a context in which the

possibilities for small-scale farming were restricted. Extension offerings for small farmers that can actually improve their continuity chances, are limited.

In section 2.10 we mentioned several prevailing opinions about possibilities for small farmers which we will recall here. With his special strengths, time and care, the small farmer can increase the value of his products. He could integrate some functions of the production column on the farm, such as making cheese, selling products directly to the consumer and grading and packing products. Second, small farmers could produce special products which bring a higher price, such as organic products and grubbing hogs and chickens. Third, farmers could be rewarded for the "production" of landscape and nature or could receive an income from providing for recreational facilities. All these solutions for the small-farm problem presuppose that small farmers have to discern themselves from larger ones in their goals of production and ways of working. Another possibility would be the combination of on-farm and off-farm activities, thereby sliding into the category of part-time farmers.

We observed that some of these alternatives are already practised by part of the farming families we visited, especially in the two research areas in the western part of the country. Yet these strategies do not guarantee viability on the long term. Larger farmers are also moving into these options, thereby threatening the often delicate balances in sales markets. And it is still the question whether small farms really have advantages of scale in these types of production. Moreover, small farmers have shown not to be the first ones to engage themselves in types of production that are deviant from well-tested ways of working, and for which a cluster of marketing and information functions in their region - the centre function - lacks. Probably, the proposed solutions are solutions only when they are strongly supported by policy measures that favor small-scale farming. Local pressure groups can play an important role in the establishment of appropriate knowledge and sales networks

through which they obtain proper information and technology and can exert influence in both policy circles and market canals.

8.4 Mobilizing and organizing small farmers

When we consider these last mentioned options, it must be clear that extension - if it is willing to support small-farming families - will play a role totally different from the one it had until now. Until now, we departed from the point of view that extension could help farmers improve their individual perspectives. Also the current survival strategies that we observed during the empirical research, were isolated acts of individual households. Although these survival strategies arise from a common regional heritage of farming styles and centre function, each small-farming family has taken up the struggle to survive on its own. Some exceptions, however, occurred in the arable region. Arable farmers co-operated in several ways and even participated in the establishment of an association for farmers with a camping-site. But what is lacking, is a small-farmers' organization, set up by and for small farmers, defending their interests in the same circles as the established farmers' organizations do. Collective action is a "forgotten" strategy.

Until now, the small farmers' grievances have not resulted in the establishment of a small-farmers' organization or in pressure groups within the farmers' organizations. Small farmers lack influential spokesmen within the farmers' organizations or in the fractions of the political parties. They were grumbling, though resigning to their fate. They did not express a unanimously readiness to stand up publicly for what they perceived as socially justified demands, such as happened in the 1930s (Landbouw & Maatschappij; De Ru, 1980) or in the 1960s (Farmers' Party; Nooij, 1969).

Röling (1988) suggests that development of the countervailing power of backward categories is the only way of

really improving their situation. This possibility and the challenge it would pose for extension is, however, until now not recognized in the Netherlands. Extensionists have tried to organize group meetings, with varying success, but this is not necessarily the same as mobilization and organization of small farmers. The organizers of the group meetings did not leave their paradigm of "inducing a voluntary change in behavior"; "from above" we need to add. Farmers were invited by official agencies to attend meetings organized by these agencies. The results were not always encouraging, yet there were some positive experiences. Small farmers participated in meetings concerning issues that deeply affected their survival chances. The organizers of project 2, for instance, reached many medium-sized farmers with an informative meeting about the compulsory transformation from milking in cans to milking in refrigerated tanks. Moreover, from the evaluation of project 7 it appeared that small farmers did not feel stigmatized when invited to meetings "especially for smaller farms", as the organizers of the project feared they might. Thus, the avenue of group meetings is not automatically closed.

The problem for extension in organizing and mobilizing small farmers may be that small farmers themselves do not perceive any realistic solutions within the current political and economic climate. Half of the farmers that we interviewed in the qualitative survey were proponents of small farmers' meetings in which social and political issues were discussed. Many of them were in favor of a differentiated agricultural policy that would help small farms and slow down development on larger farms. At the same time, however, they called their wishes unrealistic dreams. Only a few farmers favored a separate small-farmers' organization or more permanent separate activities, such as a small-farmers' studyclub. This limited inclination to organize themselves is also observed in another research about small farmers (Korpel, 1989).

It is hardly surprising that small farmers do not express their bitter feelings and work constructively towards a better future in the formal organizations at their disposal, but

instead confine their complaints to the intimacy of their yards and informal networks, a kind of behind-the-scenes gossip and abuse. In this respect the small farmers that we interviewed showed many similarities with subordinated classes "everywhere most of the time" (Scott, 1985: 285). Small farmers feel crushed by economic relationships they see as inevitable; on economic and political terrain they have lost all influence. What is left is the backstage battle on ideological grounds, a battlefield of social and cultural norms and values. The small farmers stress the social meaning of small farms, the cultural values they foster in their ways of living and working. It is a passive resistance in the only realm in which they feel strong.

If extension decides to dedicate itself to the task of organizing and mobilizing small farmers, it will first have to unravel the origins of suspicion and misgivings, to examine the deeply rooted social conflict, and to subject its own functioning and assumptions to critical investigation. In theory, it could be a new challenge for the extension apparatus. In practice, however, even the more motivated extensionists involved in projects for small-scale farmers were restricted by the prescriptive social mechanisms of their knowledge system. They were moreover tied by the limiting prevailing political and economic context of an agriculture that anxiously protects and promotes its position in the export markets. This brings us to some political considerations concerning the small-farm problem.

8.5 Implications for agricultural policy

As we have seen in the first chapter, the existence of less-favored regions in countries such as Germany, France and Italy forced experts on extension to think in terms of a differentiated approach to agricultural policy and extension. The desire to maintain a certain level of social and economic infrastructure in less-favored areas obviously influenced farm

policy and extension. As Nooij (1965) observed, values that shape agricultural policies are related to specific structures that form the context of agricultural production, such as unfavorable physical circumstances (Austria) or a deeply rooted dedication to producing for agricultural export markets (Netherlands).

In chapter 2 we observed that values can change over time alongside changing social and economic circumstances. Nooij has discerned four main values that shape agricultural policies, which can be helpful in our present discussion: 1) a micro-economic value that expresses itself in policy measures aiming at a rational economic organization of individual farms; 2) a macro-economic value predominant in policy measures that promote an optimal contribution of agriculture to the national product; 3) a macro-social value which results in striving for maintenance of a numerically strong group of farmers, seen as defenders of a valuable and more-or-less traditional way of life; and 4) a micro-social value that leads to seeking a fair level of income for the farmers, comparable to the level of wages in industry.

Following Nooij's typology, we observe that the micro-economic value has been expressed in all types of policy since the crisis of the 1930s, when the agricultural extension apparatus was extended and started to dedicate itself explicitly to improving farm management. Influence of other values, however, seem to be tied to specific periods. Characteristic of the 1930s was the conviction that it was necessary to maintain a dense rural population (the macro-social value). This conviction led to specific crisis measures, but these could not prevent a growing relative deprivation of the rural population. According to De Ru (1980), lagging income in agriculture was one of the incentives for the rise of a militant farmers' organization, "Landbouw en maatschappij".

The macro-social value lost its influence in the post-war period as industrialization took off and the employment situation improved. This offered a way out of the small-farm

problem: the problem did not need to be solved within agriculture alone. From the second world war onwards a so-called "progressive agricultural policy" dominated. This contained both the macro-economic value characteristic of a free-market policy and the micro-social value of a welfare state policy. The two values appeared however to be contradictory, inducing permanent conflict. The only solution seemed to be a rapid decrease in the number of farms. Bluntly stated, farmers who were unwilling or unable to modernize their farms, and who were therefore threatened by lagging incomes, were encouraged to leave agriculture.

The threats of relative deprivation and expulsion from agriculture, combined with a certain psychological inclination, caused the ranks of the Farmers' Party, a right-wing policital party, to grow during the 1960s (Nooij, 1969). Nooij also recognized other forms of societal disorientation similar to what we have observed with small farmers in the 1980s. He mentions a marginal societal position (described as a low participation in formal organizations) and feelings of being deprived of an important social and cultural value. This value was not longer expressed in the post-war period, while farmers in the 1960s, and, in our research small farmers in the 1980s, still clung to the moral aspects they perceived to embody.

We have recently arrived in a period in which the micro-social value is no longer seen as a prime responsibility of the government, but only of the producers themselves. Agricultural policy has become more market-oriented in character and small farmers seem more than ever to be left to their fate. The arable sector is allegedly undergoing a restructuring in order to change the farm structure in the Netherlands from being relatively small farms, compared to, for instance, arable farms in France. Many arable farms have to disappear in the very near future. In the dairy sector, where the farm-size structure is considered relatively good, new surpluses require stringent policy measures. Whether these measures will consist of declining prices or cutbacks in quota

does not make much difference to small dairy farmers, who will be hurt either way.

But at the same time, new values have been formulated, that apparently need strong governmental interventions. These new values refer not to the producers' situation (as Nooij's typology does) but instead deal with consumers' preferences and environmental issues. In the context of these new values, the small farmers' position comes into a new light.

On the one hand, small farmers especially may encounter problems when environmental requirements are sharpened. Small arable farmers may, because of their small acreages, have problems offsetting the losses in crop yields that may occur when many pesticides must be abandoned. Although the dairy farmers we interviewed may have relatively few problems with their manure disposal, they may encounter severe problems with the obligatory investments in manure storage for the months they are not allowed to spread manure on the land. It is not unthinkable that this environmental requirement may force elderly dairy farmers without successor to decide to quit farming. In the same way, the obligatory investment in a refrigerated milk tank in the 1970s was an insurmountable obstacle for many farmers.

In general, small arable and dairy farmers risk the danger of continued marginalization when they fail to exert influence on research and experimentation programmes to develop new, environmentally sound farming systems.

On the other hand, small farmers - especially the ones with a need for long-term continuation - may use their proverbial flexibility to direct themselves to providing products and services that have become highly valuated by consumers (see section 8.2). However, some form of market protection and professional support is needed during the time they are experimenting with and establishing these new types of production. Considering the resources that are devoted to developing and introducing technologies for large-scale types of agriculture, it seems socially justifiable to support a category of farmers who otherwise risk a loss of their

independency and dignity. Moreover, the growth of the phenomenon of part-time farming and its importance to its practitioners (see chapter 6) must urge policy makers to reconsider their policy of abstention.

There is, however, a category of small farmers who lack the incentives or possibilities to actively seek alternatives. For them, improvements and small enlargements in current types of production, combined with non-agricultural sources of income, are necessary to bridge the time till their old-age pensions. Although most of these farmers live frugally and pose few requirements, they risk real poverty when prices for agricultural products further decline. Not supporting this category of farmers would mean making them choose between a marginalized existence on a too-small farm, and looking for a job on a regional labor-market that has no opportunities for older and low-educated ex-farmers.

8.6 Divisions and unity: a personal afterthought

Directing agricultural extension towards specific categories such as small- and part-time farmers makes little sense without an agricultural policy that takes into account the existing diversity in agriculture. Such a policy would be partly build upon social values, but also meets very concrete societal wishes concerning a viable and diversified countryside, and products and services which embody quality, craftsmanship and a personal approach. These seemingly traditional aspects have gained new value in our mass-consumption, individualized society.

The moral aspects inherent in the small farmers' economic activities can also be seen in this new light. Small farmers' norms and values are not just an atavism, an obsolete frame of reference cherished by a stubborn, land-based category. As we have seen in chapter 5, a similar type of morality has also been found among small- and medium-sized entrepeneurs in other economic sectors. Independence, concern for ethics, personal

ties, regional orientation, and frugality are by no means obsolete and disappearing values: we meet them as a constant factor in changing societal contexts. Unfortunately, these norms are attached to and cherished by a social category that is a predestined loser in a profession is that rapidly changing its requirements. Unfortunately, these norms function to stigmatize losers. The divisions created in no way enhance modern agriculture. The acknowledgement of existing diversity and the strengthening of aspects of this diversity may unite and strengthen agriculture as a whole.

It may also serve to deal with problems related to the rural exodus and regional inbalances. Maintenance of a category of small-farming families for keeping up the viability of rural areas - viability in its double meaning of the availability of an economic, social and cultural infrastructure, and an experienced well-being - may seem rather unimportant in a densely populated country such as the Netherlands, but it certainly is crucial for many of the so-called less-favored areas in the several EC-countries. We might also think at the gloomy prospects of rural areas in eastern European countries, when their countless small farms are confronted with imported technologies and farming practices, with modern standards of labor productivity and product quality. If the process of modernization creates the same gap between "leavers" and "stayers" as it did in the Netherlands during the 1960s, but without an increase in employment opportunities and an accompanying system of social security, millions of people risk unemployment and poverty.

Much is at stake for less-favored areas in the EC and eastern European countries. Therefore, policies dealing with regional development must keep an open eye for creating opportunities for small-farming families to increase their income-yielding activities, on- and off-farm. Such policies will also give extensionists the opportunity to play a very active role in helping small-farming families to find creative solutions for their problems.

APPENDIX A

Tables A.1 and A.3 reflect the correlations between farmers' involvement in various aspects of the formal knowledge system. Obviously, the respondents can participate in certain elements of the knowledge system without being involved in others. Performing the SPSS-method of hierarchical cluster analysis, based on the coefficient matrices results in a suggestion for the clustering of distinct aspects of the knowledge system. The clustering is illustrated in vertical icicle plots using average linkage (between groups) (tables A.2 and A.4).

Table A.1: Pearson's correlation coefficients for several variables (arable farmers, N=71); 1-tailed signif.: * -.01, ** -.001

	a	b	c	d	e	f	g	h
a	1.0000	-	-	-	-	-	-	-
b	-.0508	1.0000	-	-	-	-	-	-
c	-.0589	-.1812	1.0000	-	-	-	-	-
d	.0400	.4328**	.3627**	1.0000	-	-	-	-
e	-.0115	.1469	.1375	.0006	1.0000	-	-	-
f	.1056	.2363	-.0963	.2469	.1149	1.0000	-	-
g	.3798**	-.0704	.0836	.0575	.2513	-.0293	1.0000	-
h	0.0	-.0409	-.0326	.0581	.0701	-.0954	0.0	1.0000

Table A.2 Verticle icicle plot using average linkage (between groups); arable farmers (N=71)

Down: number of clusters; across: case label and number

```
     h  f  c  d  b  e  g  a

      8  6  3  4  2  5  7  1
1     +XXXXXXXXXXXXXXXXXXXXX
2     +X  XXXXXXXXXXXXXXXXXX
3     +X  XXXXXXXXXX  XXXXXXX
4     +X  XXXXXXXXXX  X  XXXX
5     +X  X  XXXXXXX  X  XXXX
6     +X  X  X  XXXX  X  XXXX
7     +X  X  X  XXXX  X  X  X
```

a= asking the socio-economic extension worker for advice
b= asking the technical-economic extension worker for advice
c= asking the extensionist from trade or industry for advice
d= participation in a studyclub
e= attending excursions, meetings (banks, trade, industries)
f= participation in computerized advice system for pest control
g= involvement in farmers' organization
h= educational level

Table A.3: Pearson's correlation coefficients for several variables (dairy farmers, N=71); 1-tailed signif.: * -.01, ** -.001

	a	b	c	d	e	f	g	h	i	j
a	1.00	-	-	-	-	-	-	-	-	
b	.18	1.00	-	-	-	-	-	-	-	-
c	-.14	.03	1.00	-	-	-	-	-	-	-
d	.28*	.24	-.13	1.00	-	-	-	-	-	-
e	.39**	.49**	.07	.28*	1.00	-	-	-	-	-
f	.06	.26	-.06	.14	.11	1.00	-	-	-	-
g	.09	.38**	.09	.27	.30*	-.01	1.00	-	-	-
h	.20	.40**	.13	.27	.45**	.20	.38**	1.00	-	-
i	.42**	.36**	.12	.32*	.49**	.04	.38**	.54**	1.00	-
j	.37**	.44**	-.15	.28*	.40**	-.10	.22	.22	.38**	1.00
k	.08	.33*	.04	.15	.36**	.04	.13	.27	.22	.1

Table A.4.: Verticle icicle plot using average linkage (between groups) dairy farmers (N=71)

Down: number of clusters; across: case label and number

	c	f	k	g	i	h	e	b	d	j	a
			1							1	
	3	6	1	7	9	8	5	2	4	0	1
1	+	X	X	X	X	X	X	X	X	X	X
2	+	X	X	X	X	X	X	X	X	X	X
3	+	X	X	X	X	X	X	X	X	X	X
4	+	X	X	X	X	X	X	X	X	X	X
5	+	X	X	X	X	X	X	X	X	X	X
6	+	X	X	X	X	X	X	X	X	X	X
7	+	X	X	X	X	X	X	X	X	X	X
8	+	X	X	X	X	X	X	X	X	X	X

a= asking the socio-economic extension worker for advice
b= asking the technical-economic extension worker for advice
c= asking the extensionist from trade or industry for advice
d= participation in a studyclub
e= attending excursions, meetings (banks, trade, industries)
f= participation in artificial insemination
g= participation in technic-economic registration
h= participation in milk inspection
i= participation in silage sample-taking
j= involvement in farmers' organization
k= educational level

NOTES

1. See N.G. Röling (1983): Werkgelegenheid in de landbouw en voorlichting: aanzet tot een terreinverkennend en beleidsvoor-be-reidend onderzoek. Wageningen: Landbouwhogeschool, Vakgroep Voor-lichtingskunde. The problem of the project proposal was brought forth by a working group of the National Council for Agricultural Research (NRLO) that focusses on the flow of agricultural research results to non-traditional target categories. In addition to development aid, human food and alternative usage of the rural space, the working group designated employment as a field of priority.

2. Spierings and Wolsink considered a farm not to be viable when its size was less than 110 standard production units (spu). This unit of measure expresses the economic size of an agricultural enterprise and of the different production units within an agricultural enterprise. A spu is a standardized amount of additional value, computed in a base period under an appropriate conduct of business and under normal cicumstances. The amount per hectare of a crop or per animal is periodically adapted to changed technical and economical circumstances. A hectare of winter wheat for instance, counted for 3.0 spu in 1981 and for 2.5 spu in 1986; a milk cow counted for 2.1 spu in 1981 and for 2.5 spu in 1986 (Landbouwcijfers, 1989). In general, a Dutch farm with an economic size of 120 spu is presently considered to provide full-time employment for one person.

3. See, for instance: Bierma, a.o., 1984; Mil, 1984; Van der Linden, 1985; Wijnen, 1987.

4. As impediments to mechanization van der Poel mentions the following: 1. the high costs for the predominantly foreign equipment and the lack of co-operative credit facilities; 2. the additional investments in land improvement that were required for the use of large machinery, such as pipe-drainage instead of ditches; 3. traditional tenancy customs and regulations that discouraged farmers from making capital investments or taking yield-improving measures; 4. an abundance in the labor-market until 1859 and during the agricultural crisis, and the inability of farm workers to handle machinery; 5. a lack of non biased information and extension.

5. Maris en Rijneveld make it appear as if the discrepancy between agricultural wages and prices and those in other economic sectors were first felt by rural dwellers after the Second World War. This is important to note, since the agricultural market- and price policy and also the structural policy in this period were legitimized by the opinion that farmers did no longer accept that agricultural incomes could not keep pace with income developments in other economic sectors. Yet, as De Ru has demonstrated, the relative

deprivation of farmers was also felt in the pre-war period as a result of the opening-up of rural areas, and even stimulated the rise of a new farmers' organization. Relative deprivation was thus no new issue and also the opening-up of the rural areas, a process that, according to post-war authors, would generate great transformations in rural society, seemed to be already well underway in the pre-war period.

6. Later on, this social extension was complemented with socioeconomic extension, which focussed on the financial-economic continuity of farms, succession, contractual obligations, professional changes, and insurance and legal matters.

7. During the 1960's, approximately 6,500 farms were closed in the context of the measure for closing down farms, in which an allowance was provided for farmers who quit farming. The measure underwent several adaptations which made it applicable to more categories of farmers. In the 1970's some 11,000 agreements were reached; between 1980-1987 more than 4,000 (source: Landbouw-cijfers).

8. As information sources for these projects I used internal reports as well as oral information. Moreover, two special issues of the vocational magazine for extension workers provided information (Bedrijfsontwikkeling 10(8/9) (1979) about extension for medium-sized farms; Bedrijfsontwikkeling 16(11) (1985) about extension for specific categories).

9. A farm was considered small when it provided productive employment for less than one person, in the context of modern production technologies. This definition corresponds to farms of less than 150 standard farm units.

10. Those interviewed who had never attended meetings before the project mentioned the following reasons: "do not like group meetings in general", "no time", "the subjects only suited large farms", "feel a bit inferior when large farmers dominate the audience".

11. Probably, the improved contacts with extension will influence future decisions. This, however, lies outside the scope of the evaluation.

12. The superlevy was enacted in 1984 in order to gain control over the huge surpluses of dairy products in the EC. Small farmers were of the opinion that the measure hurt smaller farmers more than larger ones. In the first place, with the imminent superlevy and knowing that the milk production of 1983 would be the reference for future production, many farmers with free stall barns were able to enlarge their herds. Small farmers, who mainly work in traditonal stables with a fixed number of stands, had no opportunity to enlarge their production of reference. Therefore, the real cut-back in production seems to have been more serious on smaller farms.

Second, those farmers who actively participated in

farmers' organizations, boards of cooperatives, etc. - mainly larger farmers - knew very well how to be eligible for a larger quotum. They also knew the loopholes in the law. Very few small farmers were informed in an early stage and could take advantage of early information.

Third, after the imposition of the superlevy, larger, intensive farmers were especially anxious to reduce their costs of production. Boarding out of calves and heifers, higher milk production per cow and better use of their own pastures in order to economize on the costs of fodder, were strategies often applied. For the relatively extensive smaller farmers, for whom a low cost level is inherent in their farming style, there were no such alternatives for further cutting back on expenses. The relative advantage of small farms (concerning costs of production) was thereby partly gone.

Fourth, the superlevy appears as a deduction on income taxes in accounting. A farmer with a low taxable income who pays almost no income tax, doesn't pay less taxes after settling his superlevy. A farmer with a high taxable income gains more advantage from the income reduction caused by paying the superlevy. The higher the income, the less the pain. So again, the superlevy weighs heavier on the smaller farms, where the incomes are generally the lowest.

Finally, the step-by-step enlargement of small farms has come to an end with the superlevy. Gradually enlarging the herd is no longer a possible survival stragegy. Larger farmers, in contrast, are more inclined to - and also can afford to - pay high prices for "land with milk on it" when they want to enlarge their production volume. The growing demand for this scarce commodity has momentarily resulted in extremely high prices for land which has a milk quotum connected to it.

13. The theme of the 13th Congress for Rural Sociology, that was held in Braga, Portugal, was "Survival Strategies in Rural Europe". The attention to survival strategies in an urban context in the Netherlands becomes evident from two reports from the community of Rotterdam: "Minima without margins" and "A minimal existence".

14. In the census year 1981/82 the production volume of a smaller farm fell between 74 and 148 standard farm units; in 1985/86 a small farm had between 79 and 158 standard farm units.

15. Pearson's correlation coefficient R .30, p .005.

16. Five respondents worked on the parental farm together with one or more brothers. Four came from divided farms where the machinery was still common property.

17. Many respondents kept a few animals for their own use or as a hobby. Ten respondents had extended this hobby to such a degree that they considered it a second branche: they kept more than fifty sheep, more than fifteen bulls, and one farmer

kept 500 rabbits.

18. We have based our figures on the respondents' own estimates about acreages and crops grown. We were also able to account more precisely the shares of several (groups of) crops in the total acreage in use by the farmers of the sample, based on the census figures of 1984 and 1986. Between these two years we can observe a slight increase of horticultural and other crops.

	1984		1986	
	GO	SD	GO	SD
cereals	30%	39%	24%	37%
potatoes	27%	19%	28%	20%
sugar beets	20%	19%	21%	19%
horticultural crops*	15%	11%	13%	8%
other crops**	7%	11%	13%	16%

* onion, chicory pen, winter carrot, seeds, celeriac, broad bean, cabbage, brussels sprouts, gladioli, herbs, leek, cauliflower, dahlia
** (green, white and brown) beans and peas, grass seed, evening primrose, corn, flax, poppy seed, lucerne

19. Relevant Pearson's correlation coefficients on the 5%-level of significance are: increase in acreage - increase in herd size (R= .32); increase in herd size - degree modernization barn (R= .48); increase number fattening hogs - degree modernization hog-shed (R= .50); increase number sows - degree modernization hog-shed (R= .43); increase in acreage - increase number sows (R= -.26).

20. Indeed, in the sample, the technical results in hog-keeping were positively correlated with the modernity of the buildings. This correlation was absent in dairy production.

21. There is no indication that certain categories of farmers have generally higher yields. Nor are crop yields correlated with farm size or personal characteristics, such as age, educational level or contacts with extension.

22. Their is a correlation between acreage and standard farm units per hectare (R= -.50, p.000) and between acreage and labor input per hectare (R= -.40, p.000). In a multiple regression analysis, where the variables are entered stepwise, R squared increases from .16 to .36 when, beside farm-size, succession situation is put into the equation that explains the labor-input from the household per hectare.

23. Since many farmers with hogs could only roughly estimate their technical results in hog-keeping - fodder conversion for fattening hogs and piglets per sow for sow-keeping - we have restricted ourselves in the presentation of the material to the average milk production per cow per lactation period.

24. The choice of breed of cow is not tied to specific categories of farms or farmers within the sample. There is also no correlation with educational level or contacts with extension, as is suggested by Maso (see chapter 4).

25. Gasson also made mention of a variation in values and motivations that could be attributable to differences in socio-economic status of farmers. Small family farmers valued independence and stability above growth, while the preference for growth over stability increased progressively with increasing socioeconomic status (Gasson, 1974).

26. Only a few arable farmers interviewed express their doubts concerning the alternative circuit. Some of them questioned whether the consumer can be assured that he is really buying organic food. Others just expressed their dislike of "alternative conquerors of the world".

27. These two merchants, brothers with separate businesses, have a somewhat different background than the avarage farmer in the sample. Their father had no arable farm, but traded in flax and forced chicory. They bought land piecemeal, and arable farming is more an outcome of the trade business than the other way around. The trade businesses are separate corporations from the farm which employ permanent and casual laborers. One of the brothers trades in fertilizer as well as potatoes. These two respondents differ in more than one way from the average farmer in the sample: they have no arable background, earn extremely high incomes in their corporations and feel less hurt by the deteriorating circumstances in arable farming.

28. According to national law, farmers may have a maximum of five trailers or tents at their farm. In some areas, however, it is possible to obtain an exemption, so that farmers can offer 10 places.

29. We also have to recall here the fact that women on arable farms had more frequently a non-agricultural background than women on dairy farms.

30. In both characteristics we can find traces of a specific peasant logic (for instance, see Darré, 1985; Berger, 1979; Shanin, 1971; Scott, 1976).

31. This judgement also concerns the information in professional journals, according to 11% of the arable crop growers and 17% of the dairy farmers. For instance, arable crop growers found too little information about the financial aspects of small-scale farming. They also missed finding enough information about forcing chicory "in soil". Dairy farmers encountered problems in finding enough information about stanchion barns for small herd sizes. Several dairy farmers also felt that the professional journals were often incomprehensible concerning recent policy measures.

32. During the evaluation of the project Vorden/Apeldoorn (see chapter 3) it appeared that especially for the technical-economic extension workers, the contact with small farmers was new. Small farmers rarely demanded technical-economic advice, according to the extensionists interviewed, and the high work-load did not leave much time for visiting them unrequested. Socio-economic extension workers, on the other hand, indicated that they came on farms of all sizes. Only the issues that came up differed somewhat between small farms and larger farms.

33. Calculated are Pearson's correlation coefficients, with a $p < .005$. When we consider correlations with farm size, we must take into account that the sample is already rather homogeneous concerning farm size. As a whole, the category of farms between 50 and 150 spu's is stigmatized as "hard-to-reach" for extension. Yet, the results from the qualitative survey show that some differentiation within the category is needed.

34. In contrast with the arable region, the historical farm-size and current farm-size in Salland are correlated. This is true for acreage (R=.66, p .000) as well as number of dairy cows (R=.53, p .000). Dairy farmers, more than arable farmers, have taken the inherited situation as a starting point and then expanded their farms very gradually. Among the arable farmers, however, there are ones who have built up a farm "from nothing". The fathers of several respondents on Goeree Overflakkee, for instance, were engaged in trade or forcing chicory without working any land; a few respondents on Schouwen Duiveland come from farm-laborers' families who obtained land in the reallotment that took place after the flood of 1953.

35. This table shows that in general successors are better educated than established farmers. Moreover, several successors who attended the lower agricultural school at the time the interviews were held, intended to go to a middle agricultural school later. Not shown by the table, though an expression of the same tendency, is the negative correlation between age and educational level (arable crop growers: R-.45, p.000; dairy farmers: R-.48, p.000).

36. For this paragraph I leaned heavily on a paper for the 13th European Congress for Rural Sociology (Nooij and Somers, 1986).

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