

Socio-economic and marketing aspects of livestock regimes in less favoured areas in South-West Germany

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Summary

In most mountainous regions in Germany, there has been a dramatic reduction in the number of livestock-keeping farms. In the less-favoured areas of Baden-Württemberg, within the last twenty years, about 70% of dairy farms have disappeared, and with them up to 40% of the cattle. Studies on the landscape and the performance of extensive grasslands have shown changes either due to the lack of ruminants following abandonment or due to intensification. For areas in the South-West part of the Federal State of Baden-Württemberg, details of the current agricultural situation, developments to be expected in the years to come, policy measures needed to preserve the cultural and ecological richness of the regions and options for land use systems are discussed in relation to one another.

Introduction

In many mountainous LFAs in Germany dairy production has been until now of primary economic importance. There is, however, considerable doubt as to whether dairy regimes which operate under harsh environmental conditions are viable - at least when viewed from the stand-point of mainstream agricultural economics. This assumption is supported by the AGENDA 2000 proposals, which suggest that future CAP measures should be developed away from price support mechanisms into support systems which focus on direct farm payments. Such schemes will probably be based on area payments and additionally on subsidiarity in order to share costs. Taking into account falling milk prices and declining price support, payments to maintain dairy production in LFAs will have to be much higher than they are at present. It can be

assumed that this money will not be available and it is expected, therefore, that grassland-dominated LFAs will be forced increasingly to develop into regions characterised by extensive livestock-keeping systems. The main reason why agricultural activities in LFAs should be continued, instead of forestry, is because agriculture is a fundamental means of maintaining social, cultural and ecological conditions. This paper focuses on results of recent research in LFAs in the Federal State of Baden-Württemberg emphasising the possibilities and constraints of low intensity livestock systems. Some problems, possibilities and limits of extensive livestock systems as a new way of farming are presented for case study areas a) with pre-existing low intensity livestock systems, b) where the implementation of such systems could be a future alternative and c) where even low intensity livestock systems have little future (Figure 1).

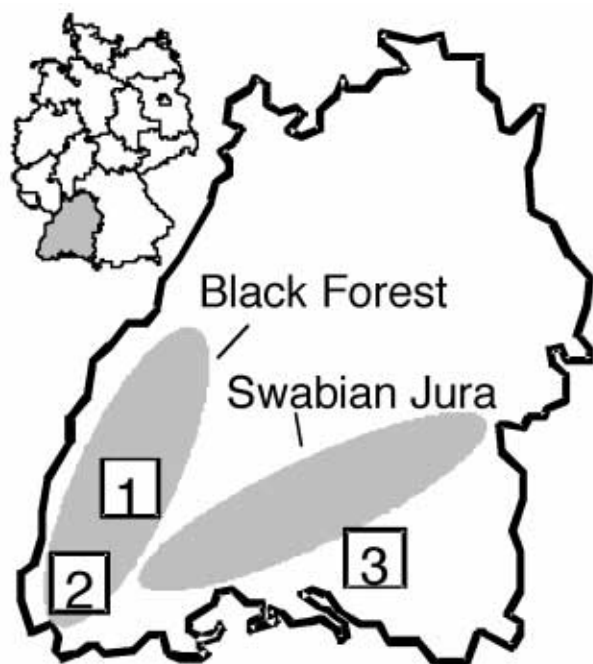


Figure 1. Location of case study areas in Baden Württemberg, Germany (1 = Central Black Forest, 2 = Southern Black Forest, 3 = "Federsee" - Basin).

Central Black Forest

Since the middle of this century, this region has developed away from mixed agriculture into a more or less entirely grassland-dominated agricultural system with mostly dairy production. Due to falling milk prices but increasing production costs, this LFA is faced with dramatic structural changes in the medium term.

The data presented in Figure 2 refer to the Schwarzwald-Baar District which comprises vast parts of the Central Black Forest. It illustrates the development of dairy farms as the main agricultural production sector in this area since the 1970s. During the period 1974 - 1985, the number of dairy farms declined from 3,400 to about 1,400 holdings. On the other hand in the same time period, the number of dairy cows slightly increased to ca. 21,000 head. Since 1985, the situation has started to change. The decline in the number of farms now correlates with a rapid decline in dairy cow numbers. Current estimations are that there are about 13,000 cows, which is a decline of ca. 40% since 1974. This decline continues with increasing speed and raises the question whether extensive grazing systems would be a viable alternative, both as a strategy for the preservation of typical features of an old cultural landscape, and as systems which require less input of labour and capital as well as attracting reasonable financial support. To obtain precise data about

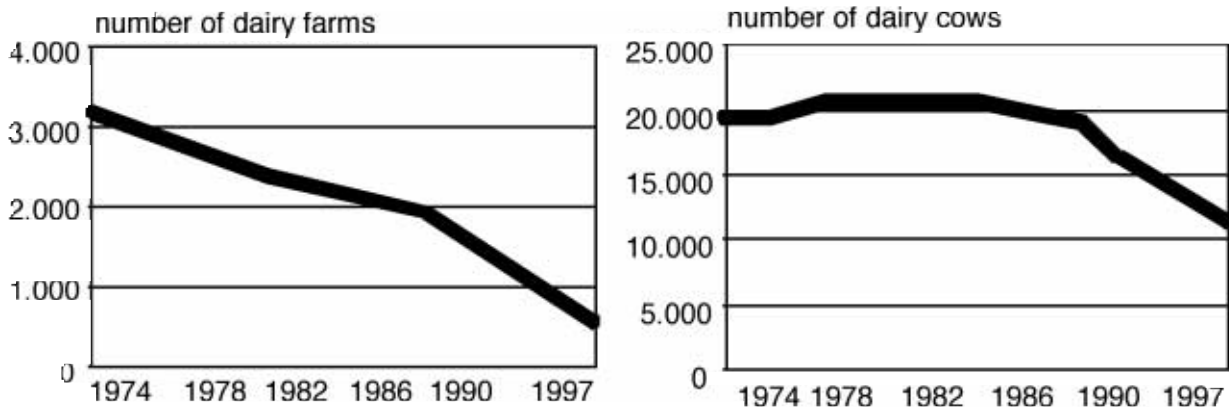


Figure 2. Changes in the number of dairy farms and dairy cows in the Schwarzwald-Baar-District/Baden-Württemberg) from 1974 to present.

the possibilities and constraints of extensive grazing systems with cattle, the village of Unterkirnach in the Schwarzwald-Baar-District was examined closely. At present 44 farms still exist in this village but only 8 of them operate on a full-time basis. Evaluation of statistical data and interviews with farmers led to the following conclusions:

1. According to the opinions of the farmers only 5 from the existing 8 full-time farmers can or will continue farming within a time-frame of 10 to 15 years. They will mainly work on the more manageable sites along the main valley (Figure 3). From the existing 44 part-time and/or hobby farmers, which are mainly situated in the side valleys; only 14 to 16 have the capacity or the interest to stay in farming. It is expected that all of them will stop dairying which raises the question what they ought to produce and what will happen to the grassland?
2. The EU policy for economic dairy production suggests farm sizes with a minimum of 80 cows and at least 8,000 kg milk per cow per year. In the Black Forest region, low forage production limits milk production capacity to a maximum of 4,000 kg per cow per year on the best land. It is already common practice that farmers rent productive land outside the community, where high inputs of inorganic fertiliser are used, and import the crops and fodder to the Unterkirnach valley. From their viewpoint, it makes more sense to drive as far as 20 km and have good working conditions instead of operating on less productive and labour-intensive sites in the near surroundings of their farm.
3. The official agricultural guidance does not recognise any alternatives, in terms of ecologically sustainable models for land use and landscape development, and sticks to the present system, although (some) farmers have started discussing the development of new strategies such as, for

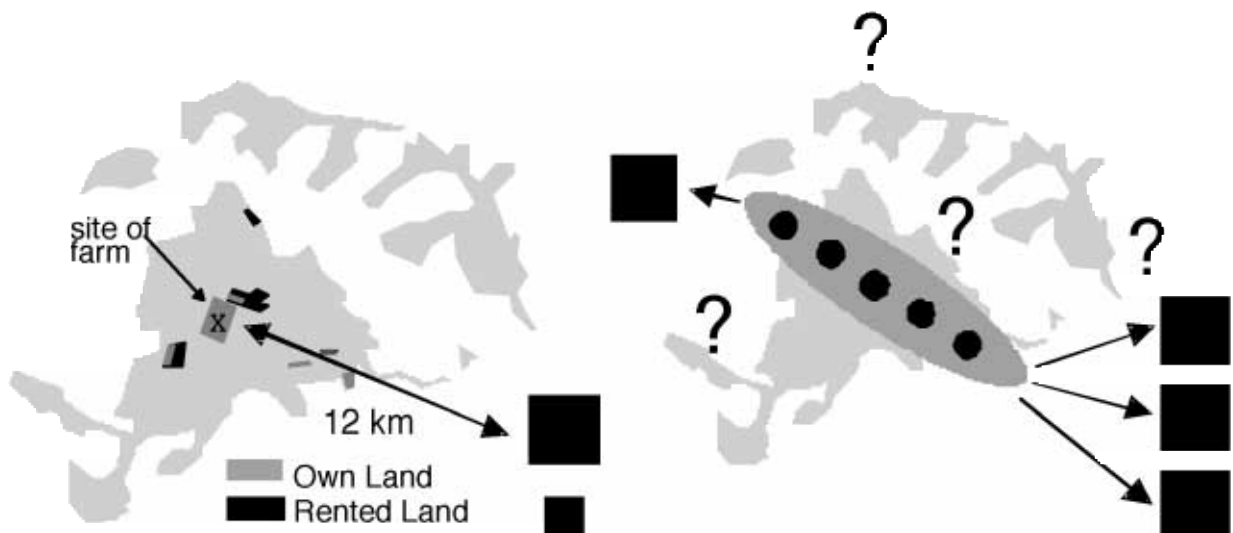


Figure 3. Top left shows the situation of a full-time dairy farmer in the community of Unterkirnach/Schwarzwald-Baar-District. He farms 55ha, of which 44ha are rented. Instead of renting (grass-)land in his village (which would be available) he tends to use manageable sites outside of the Unterkirnach valley no matter if they are far away. At two locations farmers already produce crops and silage on ca. 20ha. The imported nitrogen which is applied to grassland in the Unterkirnach-valley is causing increasing eutrophication of the environment. Top right shows the uncertainty surrounding the part-time farms in the side valleys.

example, extensive grazing systems with suckler cows. The reasons why this has occurred are as follows: lack of official interest in this production system; the existing infrastructure is not suitable; farmers do not co-operate in production and marketing; there is a lack of understanding and of programmes which support extensive beef production; and a lack of existing marketing structures and marketing strategies and logistic limitations, such as shortage of local, and even regional, slaughtering facilities.

- There is little awareness about the dramatic changes in the agri-structural situation among politicians or more commonly within the body of decision-makers for rural affairs. So it is most probable that the future of the (Central) Black Forest, under the CAP, can be described in the long run as follows: afforestation of low productive fields, continuing dairy at the most suitable locations, high imports of concentrates, pollution problems and further decline in ecological value.

Southern Black Forest

In the southern Black Forest, with its small-scale farming structure and extensive common grazings, cattle systems with suckler cows are already of considerable importance. This change of agriculture has taken place during the last decade because of reductions in numbers of small, part-time dairy farms which have turned their farming activities into beef production. The situation in the southern part of the Black Forest shows the problems of less favoured areas which are in a transitional situation, on their way towards new ways of farming. LFAs, such as the Southern Black Forest area, are often regions with few agricultural products, produced under environmentally friendly conditions, but in large quantities (milk and/or meat). Those regions are faced with the following problems:

- It is justified to sell high quality premium products at high prices because of their linkage to unique environmental and ecological commodities. However if the market is far away from the production area, this advantage is difficult to realise. It is logical that, if a certain product is easily available and if at the same time the spending power of the consumers is limited, high product prices cannot be achieved. Or, more simply: "The marketing cannot all be done in the neighbourhood". Although the demand for extensive premium beef is increasing, all marketing strategies have to focus on the displacement of ordinary beef products, as well as competition from other high quality products. Figure 4 gives an overview of special beef producing and/or marketing initiatives which already exist in Baden-Württemberg. Not counting such regional projects, there are 50 to 60 premium beef labels in Germany with often nation-wide distribution channels. Figure 4 also shows that, especially in the Black Forest area, there is a concentration of marketing initiatives (both large and small). Almost all of them have specialised in extensive beef production and many of them operate in the same market. This means that because of their disadvantaged trading situation (lack of consumers in rural areas), all of them attempt to serve urban markets where better prices can be obtained, or they try to set up adding value marketing concepts with food companies, although

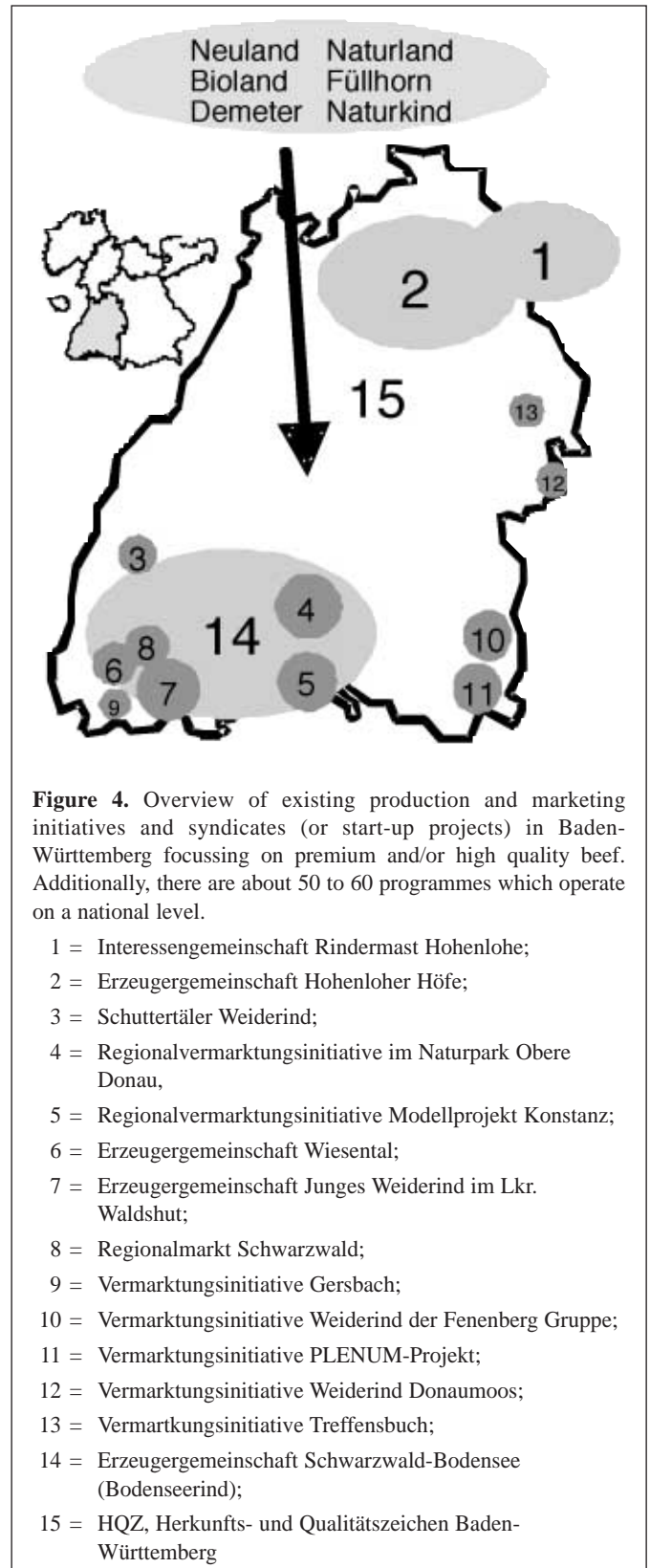
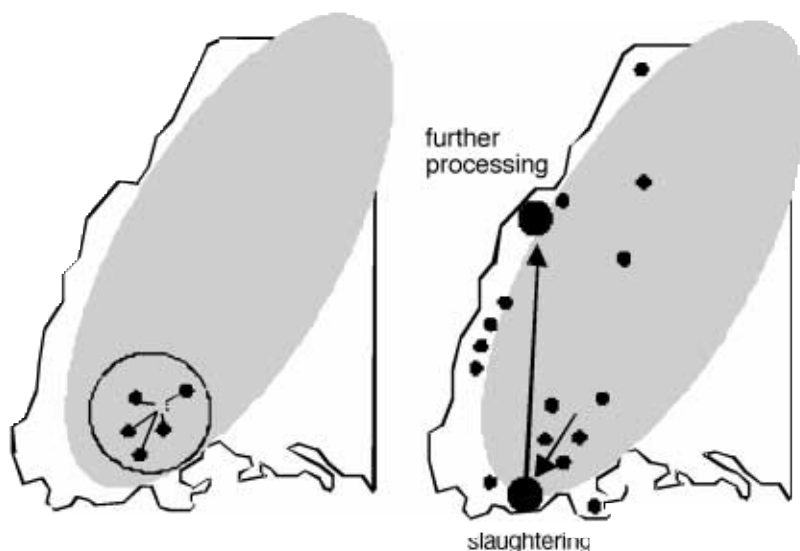


Figure 4. Overview of existing production and marketing initiatives and syndicates (or start-up projects) in Baden-Württemberg focussing on premium and/or high quality beef. Additionally, there are about 50 to 60 programmes which operate on a national level.

- 1 = Interessengemeinschaft Rindermast Hohenlohe;
- 2 = Erzeugergemeinschaft Hohenloher Höfe;
- 3 = Schuttertäl Weiderind;
- 4 = Regionalvermarktungsinitiative im Naturpark Obere Donau,
- 5 = Regionalvermarktungsinitiative Modellprojekt Konstanz;
- 6 = Erzeugergemeinschaft Wiesental;
- 7 = Erzeugergemeinschaft Junges Weiderind im Lkr. Waldshut;
- 8 = Regionalmarkt Schwarzwald;
- 9 = Vermarktungsinitiative Gersbach;
- 10 = Vermarktungsinitiative Weiderind der Fenenberg Gruppe;
- 11 = Vermarktungsinitiative PLENUM-Projekt;
- 12 = Vermarktungsinitiative Weiderind Donaumoos;
- 13 = Vermarktungsinitiative Treffensbuch;
- 14 = Erzeugergemeinschaft Schwarzwald-Bodensee (Bodenseerind);
- 15 = HQZ, Herkunfts- und Qualitätszeichen Baden-Württemberg

there are only a few of them.

- Figure 5a shows the "Schmidt-Märkte" marketing concept for extensive beef by managed cattle in the Southern part of the Black Forest/Baden-Württemberg which was until recently successful. This model project for regional marketing guaranteed to consumers that production, processing and marketing was done within the same area. The "Schmidt Märkte" project existed until 1997. Mainly due to



Figures 5 a (left) and **b** (right): Example of a regional marketing concept for extensive beef in the Southern Black Forest area (“Schmidt Märkte-concept”) and its forced structural change due to EU-regulations.

the EU-labelling regulation which was set up in 1998 the structure of this project had to be changed (Figure 5b). The EU-beef labelling regulation requires that slaughtering and further processing of premium beef meat is only allowed at EU-certified places. Small local butchers are unable to comply with the complicated and extremely expensive obligations of this regulation. As a result, on the one hand, the altered concept of the “Schmidt Märkte project” has led to an increase of marketing power, but on the other hand has resulted in falling prices and loss of labour force employed in the rural area.

“Federsee” Basin in Upper Swabia

The fen area of the Federsee basin, covering ca. 10,000 ha, belongs to the ecologically and archaeologically (Neolithic settlements) most valuable regions in Central Europe. Of great importance are its wet grasslands and extensive reedbeds. Although considered as an LFA, the basin is surrounded by fairly productive arable land. Since the agricultural area of each community is only partly situated in the fen zone, the agricultural development at present can be described as follows:

1. Various attempts in the past to improve the farming conditions and the productivity of the fen grassland area failed. Because of fragile soil conditions it is not possible to use heavy machinery. High rainfall and high groundwater levels, which can occur at all times of the year, are additional restrictions on farming. Traditionally, the farm work was mainly done by manual labour. In the last decades some hundreds of hectares of extensive grassland have already been laid fallow and have developed into reedbeds.
2. At present about 960 hectares of grassland have still an agricultural use. Additionally, because of ecological interests about 300 hectares of grassland are managed with the support of special conservation programmes.
3. The remaining dairy farms do not rely any more on grassland. Arable crop silage and concentrates are increasingly replacing hay and green fodder. According to statistical data and taking into regard the socio-structural situation, it is most probable that all small-scale dairy farms will disappear within a few years. At least until last year, pig production was increasing. Grassland in the fen area was of interest to pig farmers in order to provide the necessary agricultural land to achieve the required nitrogen balance and/or slurry disposal.
4. At present, some 1,400 dairy cows with a quota of ca. 6m kg per year are in the area. The resulting average production level of 4,100 kg per cow per year is fairly low. Assuming there will be a productivity increase to 6,500 kg per cow per year (which still is far below the average of intensive dairy regions), the existing quota could be reached with just about 900 cows. This assumption for such a development to happen in the near future is realistic. Hence, it has to be assumed that in the Federsee fen area, dairy farms will give up 400 to 500 hectares of extensive grassland.
5. There have been discussions in the region about future perspectives for the wet grassland, highlighting the possibility of extensive grazing systems. But the constraints are that farmers have alternatives; due to the productive arable sector; and do not wish to invest in an uncertain or new production system. The second point that has to be stressed is that grazing systems located only in the fen area are not possible, because of the problematic site conditions. Grazing systems would also need areas outside the peat zones, which, at present, are not available. In consequence, it must be expected that great parts of the basin will be abandoned in the near future. There are two strategies to deal with this situation. From an unbiased ecological perspective, this change of landscape, with resulting ecological succession to scrubland, can be seen as positive. If such an outcome is associated with the restoration of a natural fen water economy, even peat production and fen growth could be initiated. The key German word for such a new way of understanding of nature is “Prozeßschutz”, which can be translated as protection of natural processes. An alternative is to keep the landscape open, as it is, by means of conservation management. In this case, there is an issue of what to do with the resulting biomass?

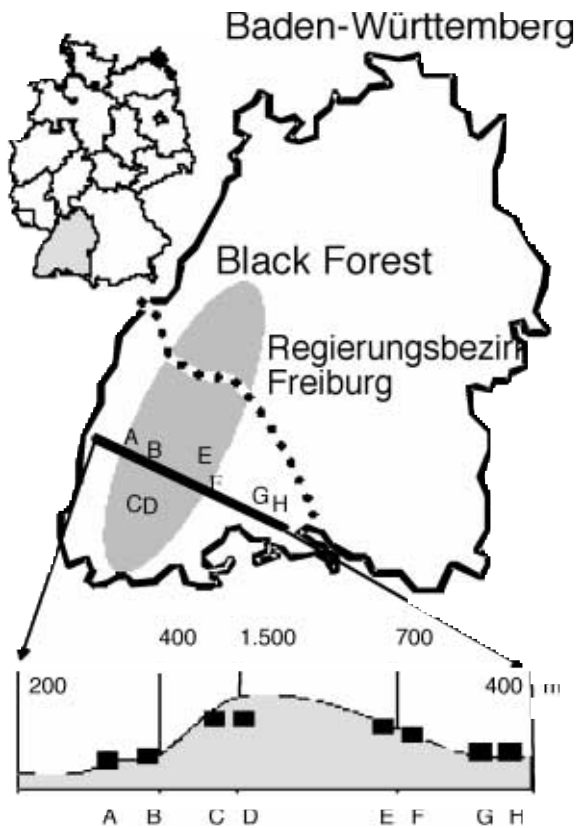


Figure 7. Location of the 8 dairy farms studied along a transect from the Rhine valley (left) to the Lake Constance Basin (right).

A political outlook

It is difficult to resolve the current problems of extensively operating beef production systems in Southern-German LFAs. One major problem of all regionally or locally operating beef producing and marketing projects is that their often successful “bottom-up approach” is confounded by “top-down” agricultural policy measures.

One reason why low intensity husbandry systems, such as with suckler cows, should be better economically supported - as well as politically and by the implementation of special programmes- is the cost factor. It is probably inappropriate to give further support to intensive dairy production at high altitudes in Black Forest and encourage them to increase their cattle numbers yearly, only to increase production of milk.

Since the income of farmers in LFAs already depends, up to 100 per cent (sheep production and high mountain farms), on subsidies, premiums or other financial support measures, the implications of the effects of the AGENDA 2000 reform are vivid. One objective calls for direct payments to be linked to area payment schemes. On-farm case studies along a transect

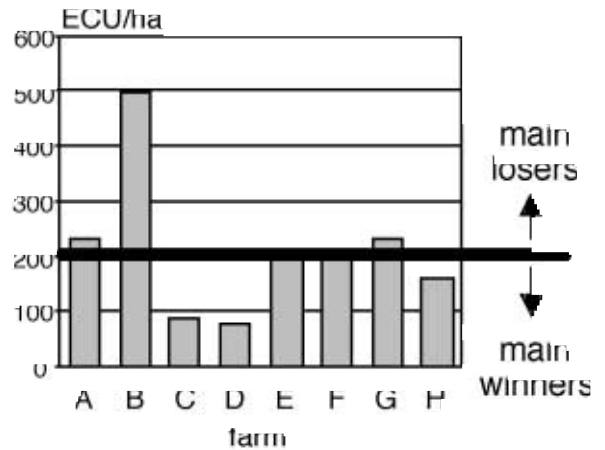


Figure 8. The compensation for a price loss of 0.05 ECU per kg milk by means of average area payments would have main loser and main winner effects. Losers will be intensive dairy farms which operate on relatively small land areas, winners will be (theoretically) extensive farms which utilise large areas.

from the Rhine valley to the Lake Constance Basin in the County of Freiburg (= Regierungsbezirk Freiburg) show that area payment schemes can have a range of effects (Figures 7 and 8). In the scenario that was developed, it was assumed that the farmers were faced with a price loss of 0.10 Euro per kg milk and that 80 per cent of the resulting loss of income had to be compensated for by area payments. Such payments were allocated to the milk-producing agricultural area of their farms. The conclusion of this hypothetical study was that compensation costs (dairy and/or beef) in the same area and over small distances can vary widely. The question raised is at what level should compensation payments be set. At a compensation level of 200 Euro per hectare, the data shown (although referring to dairy farms) suggests that extensively worked farms would (theoretically) be the winners. On the other hand, one has to be aware that, if the main source of income consists of area payments, the economic returns are stimulated even in fairly unproductive regions. Land mobility as a fundamental factor for new structures is therefore low.