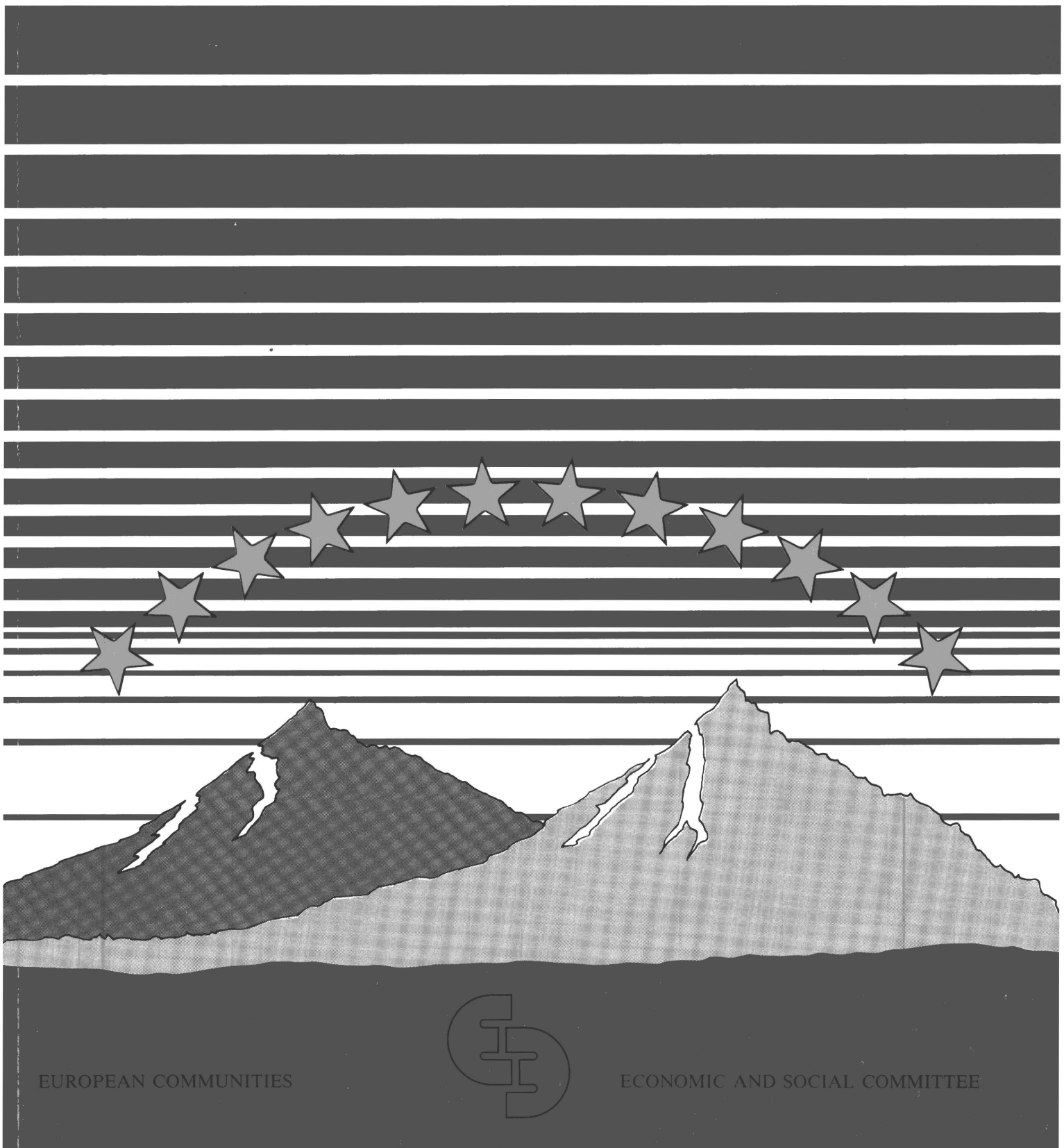
UPLAND AREAS

BASIC DATA AND STATISTICS

ECONOMIC AND SOCIAL
CONSULTATIVE ASSEMBLY



EUROPEAN COMMUNITIES

ECONOMIC AND SOCIAL COMMITTEE

UPLAND AREAS

BASIC DATA AND STATISTICS

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CONSULTATIVE ASSEMBLY

UPLAND AREAS

BASIC DATA AND STATISTICS

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of the General Secretariat of the Economic and Social Committee

Brussels 1990

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Notice:

This publication contains the detailed background information which was assembled in order to draw up the Opinion and Report on 'A policy for upland areas' adopted by the Economic and Social Committee on 28 April 1988. These two documents have been published as a single brochure available from the Economic and Social Committee: the present publication needs to be read in conjunction with the Opinion and Report, as a form of technical or more detailed appendix.

The information given in this publication is not very up to date in most cases, and is unsatisfactory in many because of the widely differing definitions used in the Member States and the general lack of statistical information specific to upland areas.

It is not least because of this general lack of information that it has been decided to publish this work.

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Upland areas

General contents

General survey

of uplands in the following EC countries:

Federal Republic of Germany
Spain
France
Greece
Italy
United Kingdom

Contents

Paper prepared for the Studies and Research Division by Frédéric Young, assisted by Philippe Pochet, under the direction of Jacques Vandamme, Chairman of the Study Group on European Policies (GEPE), associated with the Trans-European Policy Studies Association (Tepsa) Brussels


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Preliminary remarks

Preparing a trans-European summary of the situation of upland areas poses a number of methodological and practical problems:

First of all, some basic statistics for all or part of the countries covered in this study are lacking. Secondly, the available data are not always comparable. Therefore, *we have had to limit ourselves to identifying the main geographical, demographic and socio-economic features of uplands* in the light of - and within the limits imposed by - the data compiled by the Studies and Research Division of the European Communities' Economic and Social Committee in national information reports on upland areas.

So the European comparisons found in the present report do not cover all the topics dealt with in the national reports, and in some cases it has not been possible to include all the countries in comparative tables. Finally, we do not think it is possible to draw up a 'photofit' picture which is valid for all uplands in the countries studied because local, regional and national situations and developments vary so much.

The aim of this summary therefore is to present the difficulties of upland areas by showing some of their basic features. Of necessity it refers to the information reports on the individual countries.

Geographical aspects

At present, there is no exact definition of an upland area which is uniformly applied throughout the European Community.

Of course, the Council has adopted a directive and a regulation on 'mountain and hill-farming and farming in certain less-favoured areas'[1] which grants a special status to areas handicapped by difficult climatic conditions due to altitude, steep slopes or a combination of these two factors.[2]

However, within this European framework, which only applies to agriculture, each country uses its own legal or administrative criteria for 'its' uplands policy where such criteria exist.

Thus the characteristic features contained in the appended tables are based on *criteria which vary* from country to country, and which we have summarized in Table 1.

To make the figures more meaningful, we have also distinguished, where possible, between *areas composed mainly of uplands* 'in the strictest sense of the term' (regions or municipalities consisting of more than 66% of upland territory) and *areas composed partially of uplands* (regions or municipalities consisting of 33-66% of upland territory 'in a broad sense').

Uplands 'in the broad sense' form an important part of the national territories covered by this study: *more than 30%*.

More than 20% of these territories are uplands in the strictest sense.

The countries with the highest percentage of uplands making up their national territory are: Greece (60%), Italy (50%), Scotland (50%), the Federal Republic of Germany (27%), Spain (26%), France (21%) and lastly England and Wales (13%). In Britain upland areas are generally not situated at a high altitude, but the climatic conditions are particularly unfavourable.

Thus, in Britain the altitude qualification for upland areas is 240 m.[3]

In total surface area (all uplands combined) Italy, Spain, France and Greece account for almost 80% of the uplands in the countries referred to above.

The rest are in the Federal Republic of Germany and Britain.

Apart from the large, transnational mountainous and semi-mountainous areas in Europe (the Alps, the Pyrenees, the Ardennes), most of the regions that can be called 'uplands' are *scattered*. Table 1b shows the exact location, total and relative surface area of these regions.

Because of this geographical separation climatic, demographic and socio-economic conditions vary widely both within Europe and within countries.

In Italy, apart from the arc of the Alps in the north, the great chain of the Apennines extends from north to south covering a large proportion of the country before ending in the sea with Sicily and Sardinia.

In France there are the two large transnational mountain regions of the Alps and Pyrenees, the sprawling Massif Central, the Vosges, the Jura and, separated from the mainland, Corsica.

In the Federal Republic of Germany, apart from the Alps, the uplands are made up of medium-sized mountains scattered in the southern half of the country.

The German countryside is criss-crossed by more than a dozen hilly or mountainous regions running from the Eifel in the west to the Bavarian Forest in the east, and from the Sauerland in the north to the Alps in the south.

In Britain, the uplands are found mainly in the north of England, in Wales and in Scotland, where they make up more than 50% of the territory.

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1 See Council Directive 75/268/EEC of 28 April 1975 and Council Regulation 797/85 of 12 March 1985.

2 See the *Information report on upland areas*, Part 2 EC uplands policy through Community, national and regional legislation'.

3 Compared with 700 m in France or 1 000 m in Italy.

Table 1

Upland areas — Basic data

	Italy	France	Federal Rep. of Germany	Great Britain except N. Ireland	Spain	Greece
How uplands defined	Coordinated legislation 1971, 1981 and EEC Dir. 1976	Legislation EEC Directive	No legislation: issued by DER	No administrative definition in practice: according to national parks	Recent legislation: Law of 1982	Recent legislation comparable EEC Directive
Criteria used : Altitude	600 / 700 m	700 m Vosges 600 m	700 m	240 m	1 000 m or 20%	
Slope	Steep slope	over 20 %			over 20 % or slopes higher than 400 m	
Other			Geographic and climatic handicaps			
Uplands area (in km²)	149 013	155 957	67 890	57 000 of which Engl./W & Scot. 20 000 37 000	131 195	79 000
Of which areas mainly upland (over 66 %)	84 818		16 144			7 763
Relative surface area of country	49.4%	21.0%	27.3%	23.3% Engl./W. & Scot. 13% 50%	26%	60%
Of which areas mainly upland (over 66%)	28.2%		6.5%			9.8%
Total uplands population	9 215 741	3 296 151	8 585 400[1]	496 600 Engl. Scot. 235 400 261 200	2 791 447	941 973
Percentage of total population	16.2%	6.7%	13.9% [2]	0.9%	7.6%	9.7%

[1] Of which 1 967 200 in areas mainly composed of uplands and 6 618 200 in areas partially composed of uplands.

[2] Of which around 2% in areas mainly composed of uplands and 10.7% in areas partially composed of uplands.

Table 1a

Surface population and density

Comparison on a European scale
(includes Italy, France, FR of Germany, England & Wales, Scotland, Spain and Greece)

Total uplands area

598 272 km² or 30.4% of the area of the countries covered, of which

Italy	24.9%
France	19.3%
FRG	11.3%
England/Wales	3.3%
Scotland	6.2%
Spain	21.9%
Greece	13.1%

100% = 598 272 km²

Total uplands population

25 378 500 or 9.4% of the population of the countries covered, of which

Italy	36.5%
France	13.0%
FRG	33.9%
England/Wales	0.9%
Scotland	1.1%
Spain	10.9%
Greece	3.7%

100% = 25 352 500

Average density in upland areas: 42 persons / km²
Average density of countries covered: 141 persons / km²

Table 1b

Upland distribution

		Area (km²)	Percentage of country	Percentage of uplands
Italy		**301 278**	**100.0**	—
Uplands		**149 013**	**49.4**	**100.0**
of which:	Areas composed of 33.3% to 100% upland. Data for administrative areas grouped by massif			
Western Alps		15 174	5.1	10.2
Central Alps		9 580	3.3	6.6
Eastern Alps		22 692	7.5	15.2
Northern Apennines		22 218	7.4	114.9
Central Apennines		26 567	8.8	17.8
Southern Apennines		26 609	8.8	17.9
Sicily		7 999	2.6	5.3
Sardinia		17 906	5.9	10.2
France		**552 176**	**100.0**	—
Uplands		**115 957**	**21.0**	**100.0**
of which:	data by massif			
Northern Alps		12 808	2.3	11.0
Southern Alps		20 704	3.7	17.9
Northern Massif Central		28 206	5.1	24.3
Southern Massif Central		21 898	4.0	18.9
Vosges		3 240	0.6	2.8
Jura		6 521	1.2	5.6
Corsica		8 016	1.5	6.9
Pyrenees		14 563	2.6	12.6
Federal Republic of Germany		**248 681**	**100.0**	—
Uplands		**67 890**	**27.3**	**100.0**
of which:	Areas composed of 33.3% to 100% uplands grouped by massif			
Alps/foothills		11 010	4.4	16.2
Bavarian Forest		5 553	2.3	8.2
Oberpfälzer Wald		5 497	2.3	8.1
Fichtelgebirge/Franconian Forest		4 080	1.6	6.1
Franconian Jura		3 527	1.4	5.2
Rhön		3 539	1.4	5.2
Black Forest		10 059	4.0	14.8
Swabian Jura		8 089	3.3	11.9
Odenwald		2 469	1.0	3.6
Vogelsberg		1 459	0.6	2.1
Taunus		482	0.2	0.7
Hunsrück		2 938	1.2	4.3
Eifel		3 788	1.5	5.6
Sauerland/Rothaargebirge		3 799	1.5	5.6
Harz		1 601	0.6	2.4

Table 1b (contd.)

		Area (km²)	Percentage of country	Percentage of uplands
Britain				
England & Wales		**152 820**	**100.0**	—
Uplands		**20 000**	**13.0**	**100.0**
of which:				
Brecon Beacons	Partial data concerning only national parks. Total area not considered: 6 500 km²	1 300	0.9	6.5
Dartmoor		900	0.6	4.5
Exmoor		700	0.5	3.5
Lake District		2 200	1.4	11.0
Northumberland		1 000	0.7	5.0
North York Moors		1 400	0.9	7.0
Peak District		1 400	0.9	7.0
Pembrokeshire Coast		600	0.4	3.0
Snowdonia		2 200	1.4	11.0
Yorkshire Dales		1 800	1.2	9.0
Scotland		**77 086**	**100.0**	—
Uplands		**37 000**	**48.0**	**100.0**
of which:				
Badenoch/Strathspey	Partial data concerning only areas covered by the Highland Regional Council and Argyll & Bute. Not considered: Islands and Southern Uplands	2 317	3.0	6.3
Caithness		1 775	2.3	4.8
Inverness		2 788	3.6	7.5
Lochaber		4 468	5.8	12.1
Nairn		422	0.5	1.1
Ross & Cromarty		4 975	6.4	13.4
Skye & Lochals		2 691	3.5	7.3
Sutherland		5 865	7.6	15.9
Argyll & Bute		n.a.	n.a.	n.a.
Spain		**505 000**	**100.0**	—
Uplands		**131 195**	**21.0**	**100.0**
of which:	Data grouped by massif			
Pyrenees		14 144	2.8	10.8
Iberian Mountains		18 663	3.7	14.2
Cantabrian Mountains		22 575	4.5	17.2
Bartic Cordillera		18 071	3.6	13.8
Meseta		55 308	11.0	42.2
Canaries		2 069	0.4	1.6
Balearic Islands		474	0.1	0.3
Greece		**131 900**	**100.0**	—
Uplands	Only general data available. Drama used as an example	**79 000**	**60.0**	**100.0**
of which:				
Drama		3 468	2.6	4.3

Demographic aspects

More than 25 million people or 9.4% of the population live in the upland areas[1] of the six countries mentioned. The average density in uplands is low: less than 1/3 of the average density as indicated in Table 2. The density in most massifs is less than 50% of the national average.

Exceptions are the Central Alps in Italy (162 persons/km²) and the Vosges in France (72 persons/km²).

In Germany some massifs benefit from being close to large urban concentrations of industries or services. They have become prized leisure and holiday centres. Population density is roughly 2/3 to 3/4 of the national average. Such areas include the Black Forest (density: 176), the Swabian Jura (176), the Odenwald (184), the Sauerland and Rothaargebirge (176) and the Harz (162). Density in the Taunus is around twice the national average (429). See Table 2a.

Generally the demographic trend over the long term (20 years minimum) is unfavourable in upland areas. At best growth is less than the national or regional average, and in most cases there is a net population decline.

However, the upland population has stabilized in recent years, although when assessing such trends one must remember that density is generally low in uplands and there may be big differences depending on the countries and massifs considered.

In Italy population in upland areas between 1961 and 1981 was half the national average (5.5%: 11.7%). The Central Alps were an exception showing 20.8% growth. The demographic trend was particularly unfavourable in the Central Apennines and Sicily (-2.8% and -2.3%).

In France the general trend in recent years has been a stabilization of the upland population. But the situation varies widely from one massif to another, from Corsica (-7.7%) to the Northern Alps (8.1%).

These trends apply to massifs which are already severely under-populated.

In the Federal Republic of Germany, massifs may be divided into two groups.

In those close to urban centres, with attractive scenery and good communications, such as the Black Forest, the Odenwald, the Taunus and the Alps, the demographic trend has been highly favourable.

In fringe areas, such as the Vogelsberg and the Harz, and in areas such as the Fichtelgebirge, the Franconian Forest and the Oberpfälzer, socio-economic development has declined and the demographic trend has been negative.

In England and Wales the general trend has been negative (-4.5%). The areas concerned are already underpopulated and the age of the population is higher than the national average.

In Scotland, however, the demographic trend is positive. It seems that a part of the population lives in the uplands and works in the towns. It should be remembered that the Highlands form a continuous area covering half of Scotland. The trend in the islands is a lot less favourable.

Employment

A — Distribution by sector

1. It is very difficult to carry out a transnational summary on employment in upland areas on the basis of the data available.

   Not only are the figures incomplete, but they also refer to situations which differ markedly from country to country and from massif to massif. This will be clear from Table 3.

2. But it does seem that agricultural activity in uplands generally is higher than the national average and that industry is of major importance. Apart from tourism (or other special cases) and services sector is less developed. We shall come back to this later.

3. Without having recent and complete statistics on unemployment, one can say that structural underemployment in uplands is higher than the national or regional average. This is particularly the case in the Federal Republic of Germany and in Luxembourg.

4. The age profile of upland populations is characterized by a high proportion of old people and a shortage of people of working age, who leave the uplands in search of jobs and often only return when they have retired.

[1] Bearing in mind administrative units made up of at least 33% of uplands.

Table 2

Population levels

General demography	Italy	France	Federal Rep. of Germany	GB except Northern Ireland	Spain	Greece
National population	56 887 190	54 000 000	61 420 700	51 839 830 Engl./W. Scot. 46 million 5 million	38 200 000	9 740 417
Uplands population	9 215 741	3 296 151	8 580 600 [1]	496 600 Engl./W. Scot. 235 400 261 200	2 821 000	941 973
Percentage of total	16.2	6.7	13.9	0.9 Engl./W. Scot. 0.5 5.0	7.4	9.7
National density, persons/km²	189	98	247	240 Engl./W. Scot. 302 76	75	74
Average density in uplands persons/km²	69	29	126	10 Engl./W. Scot. 17 8	22	12
Demographic trend : *(see note Table 2a)*						
Long period National population (%)	(61 / 81) +5 933 000 11.7	(62 / 82)	(61 / 83) +5 235 700 9.3	(51 / 81)		(61 / 81) +1 351 864 16.1
Uplands population (%)	+ 613 142 5.5	— 20 700 —0.6	+ 1 003 300 13.4	Engl./W. Scot. —11 200 +30 800 —4.5 +13.3		
Recent	(71 / 81)	(75 / 80)	(75 / 83)	(71 / 81)		
National population (%)	+2 420 300 4.2		— 411 500 0.7	—1 300 23 300 — 0.5 9.7		
Uplands population (%)	+ 505 989 4.5	— 7 468 —0.2	+ 14 500 0.2	Engl./W. Scot. —1 300 +23 300 —0.5 +9.7		

[1] 1 967 200 in mainly upland areas, 6 618 000 in partly upland areas.

Table 2a

Population trends

Demography of uplands	Population by upland	%	Density persons/km²	**Demographic trend, %**			
				Long term	*national average*	Short term	*national average*
Italy [1]				(61/81)		(71/81)	
Uplands	**9 215 741**	**100.0**	**69**	**+ 5.5**	*+ 11.7*	**+ 4.5**	*+ 4.2*
of which:							
Western Alps	717 186	7.8	43	4.3		3.0	
Central Alps	1 145 002	12.4	162	20.8		7.4	
Eastern Alps	1 342 501	14.6	57	7.1		2.9	
Northern Apennines	1 150 800	12.5	56	7.5		1.8	
Central Apennines	1 580 978	17.2	60	— 2.8		4.1	
Southern Apennines	2 033 111	22.1	69	3.2		4.6	
Sicily	472 823	5.1	64	— 2.3		2.2	
Sardinia	767 340	8.3	42	1.4		8.6	
France						(68/75)	
Uplands	**3 269 151**	**100.0**	**29**			**+ 0.8**	
of which:							
Northern Alps	314 333	8.9	45			8.1	
Southern Alps	549 919	15.6	13			1.5	
Northern Massif Central	1 182 859	33.5	34			— 2.4	
Southern Massif Central	237 880	6.7	25			— 6.3	
Vosges	274 517	7.8	73			0.1	
Jura	570 920	16.1	42			5.0	
Corsica	261 115	7.4	18			— 7.7	
Pyrenees	143 218	4.0	22			— 3.4	

[1] The data on the demographic trend in Italian uplands have been based on figures referring to areas containing more than 66.6% upland, and are therefore a partial estimate.

Table 2a (contd.)

Demography of uplands	Population by upland	%	Persons/km²	Demographic trend, %			
				Long term	*national average*	Short term	*national average*
Federal Republic of Germany				(61/83)		(75/83)	
Uplands	**8 580 600**	**100.0**	**126**	**+ 13.4**	*+ 9.3*	**+ 0.2**	*— 0.2*
of which:							
Alps/foothills	1 102 200	12.8	100	19.4		3.3	
Bavarian Forest	483 800	5.6	87	9.0		1.2	
Oberpfälzer Wald	412 600	4.8	75	2.8		— 3.1	
Fitchelgebirge/Franconian Forest	445 500	5.2	109	— 6.8		— 5.5	
Franconian Jura	281 200	3.3	80	13.9		2.7	
Rhön	370 500	4.3	105	7.8		— 0.9	
Black Forest	1 773 200	20.7	176	20.4		1.0	
Swabian Jura	1 425 700	16.6	176	16.9		0.4	
Odenwald	454 000	5.3	184	20.6		0.6	
Vogelsberg	108 900	1.3	75	— 2.0		— 2.2	
Taunus	206 600	3.3	429	42.4		4.9	
Hunsrück	284 300	3.3	97	3.0		— 1.4	
Eifel	304 300	3.5	80	9.0		0.8	
Sauerland/Rothaargebirge	668 900	7.8	176	11.0		— 2.1	
Harz	258 900	3.0	162	— 5.4		— 2.9	
Britain							
England / Wales							
Uplands	**235 400**	**100.0**	**17**	**4.5**		**0.5**	
of which:							
Brecon Beacons	32 000	13.7	25	— 10.1		— 7.5	
Dartmoor	29 600	12.6	23	9.2		5.3	
Exmoor	20 400	4.4	25	— 11.1		4.0	
Lake District	39 800	16.9	18	— 8.5		— 9.5	
Northumberland	2 200	0.9	2	— 45.5		— 31.0	
North York Moors	21 700	9.2	16	— 2.7			
Peak District	37 400	15.9	27	3.6		7.2	
Pembrokeshire Coast	21 500	9.1	36	9.1		9.1	
Snowdonia	23 800	10.1	11	— 17.4		0.0	
Yorkshire Dales	16 800	7.1	9	— 4.5		5.7	
Scotland							
Uplands	**261 200**	**100.0**	**8**	**13.3**		**9.7**	
of which:							
Badenoch/Strathspey	9 900	3.8	4	4.2		13.8	
Caithness	27 600	10.6	15	21.5		— 0.8	
Inverness	50 700	21.9	20	25.2		16.5	
Lochaber	19 500	7.5	4	25.8		4.3	
Nairn	9 900	3.8	23	13.8		19.3	
Ross & Cromarty	46 900	17.9	9	41.6		35.5	
Skye & Lochals	10 600	4.1	4	8.2		10.4	
Sutherland	13 300	5.1	2	— 7.6		— 2.2	
Argyll & Bute	66 400	25.4	—	— 6.6		— 1.9	
Spain							
Uplands	**2 821 000**	**100.0**	**22**				
of which:							
Pyrenees	266 623	9.5	19				
Iberian Mountains	146 091	5.2	8				
Cantabrian Mountains	975 342	44.6	43				
Baetic Cordillera	455 796	16.2	25				
Meseta	684 208	24.2	12				
Canaries	220 667	7.8	106				
Balearic Islands	72 714	2.8	153				
Greece							
Uplands	**941 973**	**100.0**	**12**				

5. Taking a look at employment by sector:

   The primary sector is generally more developed in uplands than in the rest of the country (except in the Federal Republic of Germany).

   But the situation varies considerably from massif to massif.

   The primary sector represents:

   (i) in Italy, from 3.3% (Central Alps) to 22.6% (Sicily);

   (ii) in France, from 5.5% (Vosges) to 32% (Corsica);

   (iii) in the Federal Republic of Germany, from 0.8% (Taunus) to 2.6% (Bavarian Forest and Eifel);

   (iv) in England and Wales, from 20% (Lake District) to 40% (Northumberland);

   The secondary sector is generally highly developed.

   Industrialization has not been stopped from penetrating the uplands, especially in the Federal Republic of Germany and France, where the rate exceeds the national average by 10% and 7% respectively.

   In Britain and Greece industrialization in the uplands is lower than the national average. This is doubtless due to the use of data from the national parks for preparing the British statistics.

   When massifs are studied individually it is clear that the percentages of people employed in the primary and secondary sectors are *inversely proportional* to each other.

   Where there is a lot of agriculture, there is little industrialization and vice versa.

   This link cannot be established in the German massifs because very few people (less than 3%) are employed in the primary sector.

   Finally, the *tertiary sector* is generally less developed in upland areas except in Greece and, locally, in regions where the tourism sector is strong. Such is the case in the Federal Republic of Germany. The phenomenon is less marked in England, Wales and Scotland.

   Table 3a gives a breakdown by sector and by massif.

B — Multiple employment - forestry - tourism

1. Several factors combine in upland areas to hamper activities traditionally carried out in the great valleys and plains: agriculture, industry and services. Some of these factors are: altitude, poor soil quality, cold, extreme climatic variations, snow, communication difficulties and distance from major industrial and commercial centres.

   Because of this, the working population in upland areas is often forced to resort to *multiple employment*.

   Thus it is common for an upland farmer to supplement his income by various forestry, craft, commercial or tourist-related activities.

   In France a farming survey carried out in 1979/80 showed that 21% of upland farmers worked part-time and 16% had two jobs.

   In the Federal Republic of Germany too, multiple employment is essential to the survival of farms in the Black Forest, the Bavarian Forest and the Oberfälzer Wald.

2. *Forestry*, however, is not a marginal activity in upland areas, as uplands are generally more wooded than the national average; this can be seen in Table 3a.

   In the Federal Republic of Germany uplands are around 10% more wooded than the rest of the country, with peaks of over 55% in the Harz and Sauerland.

   In France a third of the uplands is covered by forest, slightly higher than the national average. But the situation varies considerably from massif to massif. The Vosges are 71% covered by forest; Corsica less than 25%.

   In Britain the trend is different thanks to the impetus given by the Forestry Commission, which has led to the forest cover in uplands rising to 11%.

   Generally, the European forests are particularly threatened by a 'flight from the land', which leads to a drop in the number of farms, and by pollution and the massive use of certain areas as tourist resorts.

3. The French report shows that mass tourism in the uplands arrived in the 1960s, although the other structures and populations were really unprepared for it. French uplands showed 150 million holiday-days in 1980, of which 120 million were in summer.

   In the Federal Republic of Germany the activities linked to tourism vary widely from region to region. In Bavaria 40% of the people employed in the hotel and restaurant sectors work in upland areas. The percentage is only 5% in the Rhineland and 7% in Lower Saxony.

   British uplands, which are near urban centres, have a big influx of tourists, which is largely encouraged by local and regional authorities. In the national parks visits are in most cases for less than one day.

   In all countries tourism has become an important economic sector in upland areas. But this development has caused some damage to the environment, and it is only recently that the authorities concerned have begun to take action to favour a more harmonious development designed to preserve the attractions of the uplands.

Table 3

Employment

	Italy	France	Federal Rep. of Germany	GB except Northern Ireland / Engl./W. Scotland	Spain	Greece
Working population in uplands	n.a.	(1975) 1 372 281	3 000 000	117 200/ —		354 030
Working population as % of total uplands population	n.a.	39.3	35.0	50/ —		37.5
Unemployment	n.a.	3.0	8 / *9*			2.5 %
Distribution of employment in %[1] by sector[2]	1981 / *1981*	1975 / *1984*	1984	1981	/ *1984*	1984
Primary	12.9 / *11.0*	18.4 / *8.0*	1.6 / *1.2*	25.0 / *4.0* / 9.0 / *4.0*	/ *18*	28.0 / *29.0*
Secondary	40.9 / *41.6*	40.2 / *33.0*	58.6 / *48.6*	21.0 / *41.0* / 24.0 / *32.0*	/ *33.0*	19.0 / *28.0*
Tertiary	46.5 / *47.4*	41.4 / *59.0*	39.8 / *50.3*	54.0 / *55.0* / 67.0 / *63.0*	/ *49.0*	48.0 / *43.0*
Total	100.0 / *100.0*	100.0	100.0	100.0	/ *100.0*	— / *100.0*

[1] Figures printed in / *italic* refer to national average.

[2] Estimates for mainly and partly upland areas.

Table 3a

Economic activity

	Sector			Forests	
	Primary %	Secondary %	Tertiary %	Surface area (ha)	% of district
Italy [1]	**11.0**	**41.6**	**47.4**		
Uplands					
of which:					
Western Alps	8.6	39.5	51.8		
Central Alps	3.3	59.0	37.6		
Eastern Alps					
Northern Apennines					
Central Apennines					
Southern Apennines					
Sicily	22.6	26.4	50.8		
Sardinia	12.0	34.5	53.3		
France	n.a	n.a.	n.a.	n.a.	n.a.
Uplands	**18.4**	**40.2**	**41.2**	**3 521 024**	**30.0**
of which:					
Northern Alps	9.9	43.3	46.8	283 900	30.0
Southern Alps	19.1	27.0	53.9	741 812	36.0
Northern Massif Central	22.2	38.4	39.4	775 649	27.0
Southern Massif Central	25.8	36.0	38.2	554 067	25.0
Vosges	5.5	62.1	32.3	231 290	71.0
Jura	11.9	53.5	34.6	268 592	41.0
Corsica	32.0	21.4	46.6	187 113	23.0
Pyrenees	21.1	33.1	45.8	450 374	31.0

[1] Data concerning districts with more than 66.6 % upland, where available.

Table 3a (contd.)

	Sector			Forests	
	Primary %	Secondary %	Tertiary %	Surface area (ha)	% of district
Federal Republic of Germany	**1.2**	**48.6**	**50.2**	**7 336 090**	**29.5**
Uplands	**1.6**	**58.6**	**39.8**	**2 695 752**	**40.0**
of which:					
Alps/foothills	2.4	49.8	47.8	364 227	34.0
Bavarian Forest	2.6	60.8	36.6	200 000	36.0
Oberpfälzer Wald	2.1	65.5	32.4	211 841	41.0
Fitchelgebirge/Franconian Forest	1.3	70.0	28.7	164 024	41.0
Franconian Jura	2.3	60.1	37.1	109 531	33.0
Rhön	1.0	52.0	47.0	134 044	38.0
Black Forest	1.3	59.1	39.6	466 433	47.0
Swabian Jura	1.3	65.3	33.3	292 210	36.0
Odenwald	1.1	58.1	40.8	100 818	43.0
Vogelsberg	1.8	58.1	40.1	55 057	37.0
Taunus	0.8	42.0	57.2	27 724	51.0
Hunsrück	2.6	47.7	49.7	133 604	46.0
Eifel	2.6	48.3	49.1	128 067	24.0
Sauerland/Rothaargebirge	0.9	60.3	38.8	223.143	58.8
Harz	1.9	51.4	46.7	88 052	56.0
Britain					
England / Wales	***4.0***	***41.0***	***55.0***	***1 135 000***	***8.0***
Uplands	**25.0**	**21.0**	**54.0**	**122 400**	**9.0**
of which:					
Brecon Beacons	22.0	23.0	55.0	10 400	8.0
Dartmoor	21.0	21.0	58.0	7 200	8.0
Exmoor	28.0	14.0	58.0	7 700	11.0
Lake District	20.0	20.0	60.0	17 600	8.0
Northumberland	40.0	13.0	47.0	16 000	16.0
North York Moors	37.0	22.0	40.0	25 200	18.0
Peak District	25.0	29.0	47.0	4 200	3.0
Pembrokeshire Coast	22.0	18.0	60.0	1 800	3.0
Snowdonia	26.0	19.0	55.0	33 000	15.0
Yorkshire Dales	37.0	17.0	46.0	3 600	2.0
Scotland	***4.6***	***32.0***	***63.0***		
Uplands	**9.0**	**24.0**	**67.0**		
of which:					
Badenoch/Strathspey					
Caithness					
Inverness					
Lochaber					
Nairn					
Ross & Cromarty					
Skye & Lochals					
Sutherland					
Argyll & Bute					
Spain	n.a.	n.a.	n.a.		
Uplands					
of which:					
Comarcas Pyrenees[1]	n.a.	n.a.	n.a.	600 000	70.0
Greece[2]				**2 500 000**	**19.0**
Uplands	**28.0**	**19.0**	**48.0**	**1 114 000**	**14.4**

[1] Employment data total less than 100% as unemployed and non-working persons are not counted.

Conclusions

1. On the basis of national information reports and information reports on the upland areas visited, it is possible to identify some very general features of uplands in the Community. But one must be very cautious when interpreting such reports, as national and local structures are so different.

   It is only through having a thorough knowledge of each area that one can zero in on specific assets and difficulties and thus decide what procedures should be used to adapt action at European, national, and/or regional level to particular cases.

2. However, the general features which have been brought out by our analysis are sufficient evidence of the need to develop a specific policy for upland areas, because such areas suffer from particular disadvantages which set them apart from other less-favoured areas in the Community. It will only be possible to develop these areas economically and socially if those features which, more often than not, are handicaps today are turned into advantages. Such a policy is made more urgent by the rapid and marked depopulation of the uplands.

3. The uplands of the six countries studied cover around 600 000 km², or 30.4% of the total surface area.

   The uplands population stands at 25 350 000, [1] or 9.4% of the total population.

   The average population density of the uplands is barely 42 persons/km², of less than a third of the average for the countries concerned by the present study (14 persons/km²).

4. *Geographically*, uplands account for significant areas of national territory: between 20 and 30% in France, the United Kingdom, the Federal Republic of Germany and Spain, 50% in Italy and 60% in Greece. They are not a marginal phenomenon. There are two main types of massif:

   (i) those 'on the fringe' far from urban and industrial centres and with inadequate communication links, such as the Bavarian Forest or Drama;

   (ii) those which are more accessible, integrated into the national economy through their proximity to urban and industrial centres, have good, modern communication links, and, above all, possess geographical resources that have been turned to good account by tourism. Haute-Savoie, the German Taunus and the Italian Central Alps fall into this category.

5. From the *demographic* point of view, uplands, which are agricultural by tradition, have undergone a major and continuous decline in population.

   Many areas have been depopulated by the combined effects of the flight from the land in general and by the living and working conditions peculiar to uplands.

   It is only recently that there has been a certain stabilization of the uplands population, although one should remember that population densities are extremely low and the population is ageing.

   Closer analysis of local conditions shows that while some conurbations remain constant in size or are growing, small villages and the most isolated upland areas are still showing a decline in population.

   Thus the population density is only 13 persons/km² in the Southern Alps in France, 2 persons/km² in Sutherland in Scotland, 18 persons/km² in the Lake District, 75 persons/km² in the Vogelsberg in the Federal Republic of Germany, and 3 persons/km² in Drama.

   But some areas are an exception, such as the Central Alps in Italy, with 162 persons/km², and the Taunus, with 429 persons/km². The age profile of upland populations is characterized both by a high proportion of old people, as already mentioned, and a shortage of people of working age, who leave the uplands in search of jobs and often only return when they have retired.

6. Economic activity in uplands has a number of structural weaknesses. Despite the flight from the land, upland areas still contain a high proportion of farmers (often 20% or more of the working population), which is always higher than the national averate and has to cope with very different geographical and climatic conditions.

   The industrial sector has been fairly developed for some time, with an activity rate which is sometimes higher than average, as in the Franconian Forest in Germany, the French Vosges or in the Central Alps in Italy.

   Activity is concentrated in lacklustre or declining industries: textiles, mining, etc.

   Firms are mostly small and concentrated in the crafts sector. Finally, the tertiary sector is growing almost everywhere, but its importance varies considerably from region to region.

[1] In a broad sense. In a strict sense it stands at around 20 000 000.

Its development seems generally to be linked to tourism, and the local outlets it offers will probably provide work for only a fraction of the working population leaving farming.

7. It is impossible to draw any general conclusions on unemployment in upland areas on the basis of the statistics available. The information report on the Federal Republic of Germany seems to provide evidence of structural under-employment in certain outlying upland areas, which is aggravated by major seasonal unemployment.

   But in the growing Haute-Savoie region it seems that the jobs situation is a lot more favourable.

8. In addition, a not insignificant portion of the population are obliged to engage in *multiple employment* because of the lack of income from farming, the seasonal nature of work or other difficulties peculiar to uplands. It is not uncommon for a worker to have several occupations: in farming, forestry, tourist accommodation and craft activities.

9. *Crafts and forestry* also have an important role to play in upland areas. We have pointed out that many industrial activities are carried out by small firms, and the building sector provides many jobs.

   Forests are undoubtedly one of the great riches of the uplands. Except in special cases the forest cover in uplands is much higher than the national average.

   Forestry not only provides jobs but also makes it easier to protect the upland environment and thus conserve its main attraction for tourists. Any uplands policy has to take this fact into account.

10. In many cases tourism seems to be the key to developing upland areas. More and more town-dwellers are being attracted to the uplands for winter sports and nature holidays (hence the importance of communications links).

    The result has been economic growth ranging from stopgap activity to the creation of a real industrial and service sector.

    Such a development, which may be highly beneficial, must, however, take account of the interests of local populations and safeguard natural sites. It cannot be carried out in an uncontrolled manner.

11. The above features, which have been summarized rapidly, determine what should be the fields of action and immediate priorities of an uplands policy in the Community. Agriculture and forestry, industrial renewal, communications, tourism and the environment are the foundations of any policy for developing and improving the uplands.

References

The statistics on which this paper has been based have been taken from the following:

Part 2 of the *Information report on upland areas*

National surveys: I. France — II. Federal Republic of Germany — III. United Kingdom — IV. Italy — V. Spain — VI. Greece

and

Surveys of areas visited (document prepared by the Studies and Research Division of the European Communities' Economic and Social Committee), supplemented by:

Basic statistics of the Community, Eurostat, ECSC-EEC-EAEC, Brussels/Luxembourg, 1985 (23rd edition).

France

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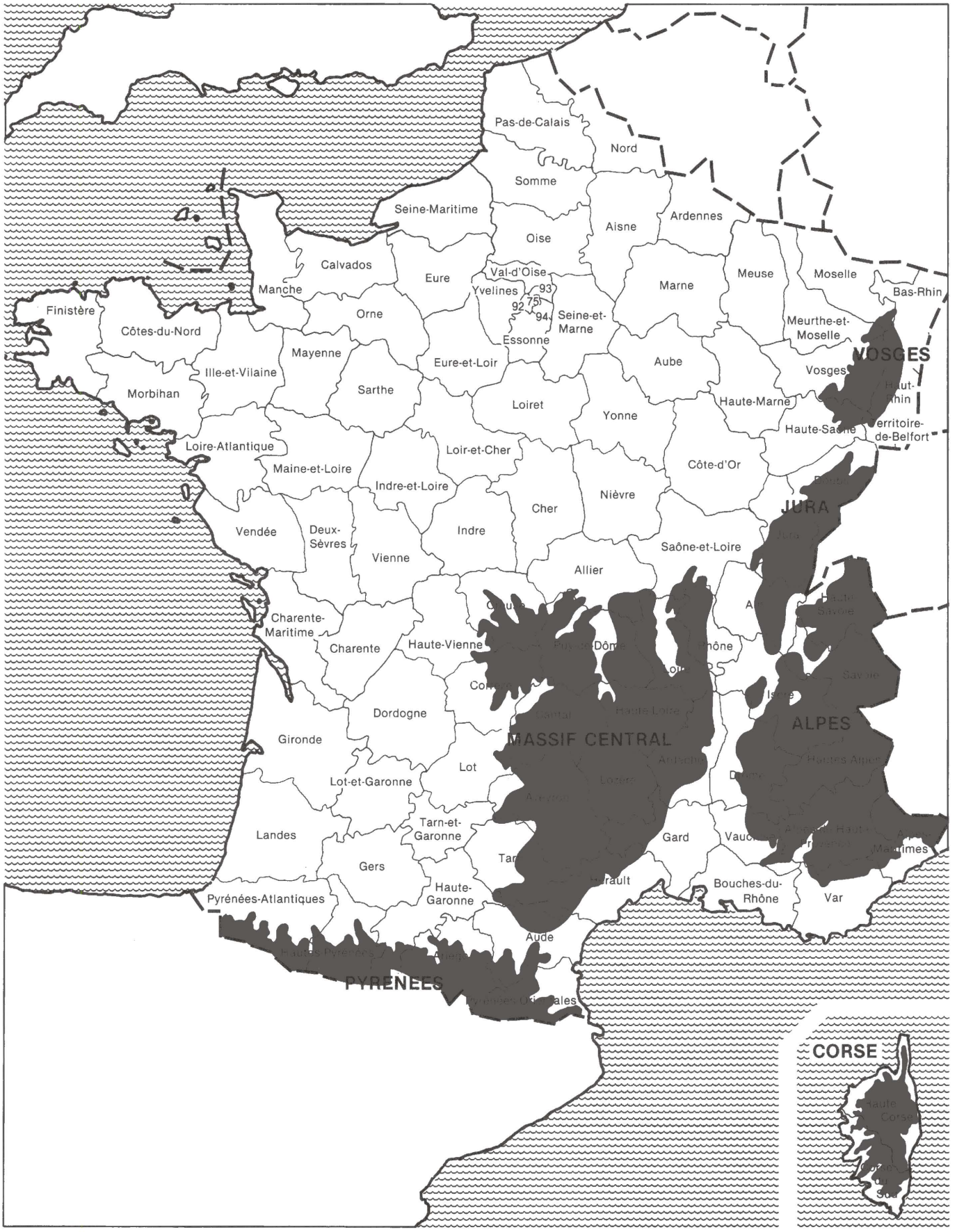
Upland areas of France



Background information

General introduction: Definition of upland areas and statistical data

Upland areas are defined on the basis of agricultural policy measures. The first definition was produced in the Decree of 23 June 1961. Present-day boundaries are the result of the amendment of 28 April 1976, adopted in order to implement the EEC Council Directive of 28 April 1975.

Upland areas consist of municipalities or parts of municipalities (fractions) where land use is seriously limited and production costs are unusually high. An 'upland' municipality is one which satisfies one or both of the following criteria:

(i) average altitude of at least 600m in the Vosges; 700m in other upland areas;

(ii) average slope of at least 20°.

The list of upland areas has grown as classification has been made easier. The 1961 total of 4 129 municipalities had thus risen to 5 436 municipalities and 138 'fractions' by 1979.

A fully comprehensive uplands policy should clearly take account of factors such as climate and geographical location. It should also cover all the economic sectors concerned.

Statistics have been compiled on the basis of the traditional (agricultural) definition of uplands. As a result, upland farming figures prominently in the studies carried out. Whereas there is a considerable amount of statistical data on the agricultural sector, there is not enough information on industry, crafts, services and tourism.

Another problem is that information is not all up to date, and statistics are not always comparable between regions or even columns. Thus data may be collected on the basis of individual *départements*, municipalities or upland areas. The reference years are not always the same and, generally speaking, statistics on the 1960s and 1980s are very hard to come by.

This annex aims to bring together all the available information so as to present as complete a picture as possible.

Surface area, geographical features and environment in general

The French uplands cover a surface area of 115 957 km², 21% of the country's total. UAA measures 3 719 905 hectares, which in 1980, comprised 13.5% of total UAA. 5 436 municipalities, 138 'fractions' and 43 *départements* are in, or contain, upland areas.

The French uplands are extremely varied and can be divided into six main areas: the Vosges, the Jura, the Alps (northern and southern), the Pyrenees, the Massif Central (northern and southern) and Corsica.

The differences between these upland areas are apparent from the countryside, vegetation, centres of population and way of life.

Table 1

Upland areas	Surface area (km²)
Northern Massif Central	28 206
Southern Massif Central	21 898
Pyrenees	14 563
Vosges	3 240
Jura	6 521
Northern Alps	12 808
Southern Alps	20 704
Corsica	8 016

Source: Report by a Committee of inquiry of the French National Assembly on the situation of agriculture and the rural economy in the uplands and lesser-favoured areas (referred to hereafter as the Besson report), pp. 26-31.

Demographic aspects

Population

The total population of upland areas in 1982 was 3 296 151, approximately 6.7% of the total population of France. Population is unevenly distributed amongst the upland areas:

Table 2

Distribution of population per upland area

Upland area	Number of inhabitants 1975	Density inhab./km²
Northern Massif Central	1 182 859	34
Southern Massif Central	549 919	25
Pyrenees	314 333	22
Vosges	237 880	73
Jura	274 517	42
Northern Alps	570 920	45
Southern Alps	261 115	13
Corsica	143 218	17.8

Source: Revue problèmes économiques (Review of economic problems) No 1872 (1984), p. 17.

The rural exodus has taken the place of the former seasonal migration, depriving upland areas of a large part of their population. This process of depopulation has had a negative effect on the age pyramid in these areas (ageing population).

Tables 3, 4, 5 and 6 show the age structure of the population in upland areas and population trends between 1962-82.

Table 3

Distribution of rural population in upland areas according to age bracket

	Under 35 years %	35 - 54 years %	55 - 64 years %	65 years and over %
Jura	45.7	23.3	10.0	21.0
Southern Massif Central	40.1	24.5	11.4	24.0
Northern Massif Central	39.4	24.9	11.2	24.5
Northern Alps	37.0	22.5	12.6	27.9
Southern Alps	34.6	24.1	13.0	28.3
Pyrenees	33.7	24.2	12.6	29.5
Vosges	40.6	22.5	9.6	27.3
Corsica	28.0	32.3	18.8	21.1

Source: Revue problèmes économiques No 1872, p. 18 (1975 figures).

Table 4

Trends in upland population between 1962-75

(Figures based on statistics for individual upland areas)

Upland areas	1968 population	1975 population
Northern Massif Central	1 211 954	1 182 859
Southern Massif Central	586 893	549 919
Pyrenees	325 396	314 333
Vosges	237 404	237 880
Jura	261 340	274 517
Northern Alps	528 101	570 920
Southern Alps	257 198	261 115
Corsica	155 165	143 218
Upland areas total	**3 563 442**	**3 534 761**
Variation (%) [1]	1968/1962 + 0.5	1975/1968 — 0.8 1975/1962 — 0.3

Source: Inerm, Panorama des massifs (Survey of upland areas), Annex 2, Table 2.

[1] Variation : $\frac{'75 - '68}{'68}$ %

Note: The 1962 population figures for individual upland areas are not available; percentage variations only are available.

Table 6

Population trends in upland areas, 1962-82

(Total of upland *départements*)

	1962	1968	1975	1982
Population	3 316 893	3 336 331	3 303 619	3 296 151
Trends %		68 / 62 + 0.6	75 / 68 — 1.0	82 / 75 — 0.2

Source: Inerm, Upland areas in the *départements*, Table 2.

The increase in the population of certain upland areas should not disguise the fact that many regions are becoming completely depopulated, whilst in other areas the population is reduced to a few hundred inhabitants. By way of example, 90% of the municipalities in Lozère, 72% of those in the Alps of Haute-Provence, 69% of those in the Hautes-Alpes and 78% of those in the Hautes-Pyrénées *have fewer than 300 inhabitants.*

It is worth noting on the subject of upland depopulation that 84% of upland municipalities have fewer than 700 inhabitants, which is not the case for 74% of French municipalities with fewer than 10 000 inhabitants.

Statistical data on upland population vary according to the criteria used in compiling them. Thus the total upland population for all the upland *départements* is lower than the total upland population for the actual *upland areas*. Nevertheless, the figures do provide a valid indication of relative size, and any differences at this level are unimportant.

The Inerm analyses of the most recent censuses show a *stabilizing trend* in upland populations. This is offset against the rural exodus from the mid-nineteenth century to the 1960s which led to the depopulation of upland areas.

Table 5

Distribution of upland municipalities according to size of population and upland area (1975)

Inhabitants	Vosges	Jura	Alps	Corsica	Massif Central	Pyrenees	Upland areas total
0 — 699	87	422	1 021	175	1 630	561	3 896
700 — 1 999	46	38	129	25	283	39	560
2 000 — 4 999	18	14	36	1	62	6	137
5 000 — 9 999	7	2	14	1	10	1	35
10 000 — 19 999	1	3	2	0	4	0	10
more than 20 000	0	1	1	0	3	0	5
Total	159	480	1 203	202	1 992	607	4 643

Source: Besson report.

Table 7

Breakdown of employment according to economic sector and upland area

(%)

	Vosges	Jura	Alps North	Alps South	Massif Central North	Massif Central South	Pyrenees	Corsica	Upland area Average
Primary sector	5.5	11.9	9.9	19.1	22.2	25.8	21.1	32.0	18.4
Secondary sector	62.1	53.5	43.3	27.0	38.4	36.0	33.1	21.4	40.2
Tertiary sector	32.3	34.6	46.8	53.9	39.4	38.2	45.8	46.6	41.4
comprising (primarily)									
Agriculture	5.1	11.4	9.7	18.6	21.7	24.9	20.0	30.0	17.8
BPW (a)	9.3	8.3	11.3	14.5	8.6	9.9	10.3	17.4	10.1
Commerce	7.0	6.9	8.2	8.6	8.8	7.6	7.8	7.4	8.1
Hotels, cafes, restaurants	3.0	3.0	6.0	6.4	2.7	2.5	5.4	4.4	3.8
Textile, clothing	22.2	1.7	1.7	0.6	6.1	7.5	4.6	0.3	5.6
AFI (b)	2.4	2.5	2.2	2.2	2.7	3.0	2.1	1.3	2.5
Metalwork and engineering	8.2	18.0	8.6	1.2	8.0	2.1	2.2	0.4	7.0

Sources: Besson report, p. 23. and Inerm, Panorama des massifs, Annex 2, Table 1, 1975.
(a) Building and public works.
(b) Agri-food industries.

Economic and social aspects

Employment

Upland areas have an active population of 1 372 281, 39% of the total population. Of these, 1 331 205 are employed, which would put the unemployment rate at 3% (1975 figures) (see Table 7).

Structure of production

Agriculture and forestry

Final agricultural production (FAP) from upland areas accounts for 6.7% of the French total. This percentage is relatively low in view of the fact that the agricultural land surfaces in the uplands represent only 13.5% of total UAA.

Table 8

Value and structure of final agricultural production (FAP) in upland farms (1977)

(%)

	Total upland areas Million FF	Total upland areas %	France %	Upland areas %
Total FAP	**8 368**	**100**	**100**	**6.7**
FAP veg.	**1 413**	**16.9**	**44.6**	**2.5**
Cereals	170	2.0	16.7	0.8
Vegetables	108	1.3	5.9	1.5
Potatoes + beetroot	233	2.8	4.7	3.9
Fruit	377	4.5	4.2	7.2
Wine	437	5.2	9.0	3.9
Other veg. products	86	1.0	4.1	1.7
Animal FAP	**6 955**	**83.1**	**55.4**	**10.0**
Beef cattle	2 256	27.0	18.0	9.9
Pigs	586	7.0	7.8	6.0
Sheep, goats, hides	807	9.7	2.4	26.4
Poultry, eggs	433	5.2	7.5	4.6
Milk	2 575	30.0	17.7	11.5
Other animal products	295	3.5	1.9	12.1

Source: Besson report, p. 101.

83% of upland farming consists of animal production, the main products being milk (30.8%) and beef (27%). Vegetable FAP, on the other hand, accounts for only 16.9% of total production, the main products being wine (5.2%) and fruit (4.5%). Crop production accounts for only 16% of all farming activities (as against 38% for France as a whole) (see Tables 8, 9 and 10). Trends in FAP from 1970 to 1980 confirm and strengthen (by 3%)

Table 9

Structure of production and costs of FAP in % of FAP (1970/1975)

	1970	1975
Vegetable production	19.3	17.5
Animal production	80.7	82.3
Intermediate consumption	33.7	40.8
Farm costs	14.9	16.8

Source: Inerm, Panorama des massifs, Annex 2, Table 22.

Table 10

Distribution of farms according to technical and economic level (OTEX) Trend from 1970-79 in % terms

(Total upland areas of *départements*)

	1970	1979
General agriculture	2.0	3.0
Horticulture	1.0	1.0
Permanent crop prod.	9.0	10.0
Multiple crop prod.	2.0	2.0
crop prod. + stock breeding	15.0	7.0
Cattle : milk	19.0	33.0
meat	15.0	12.0
mixed	11.0	4.0
Other herbivores	3.0	1.0
Granivores	3.0	1.0
Multiple stock breeding	16.0	4.0

Source: Inerm, Panorama des massifs, Annex 2, Table 21a.

Table 11

Breakdown of farms according to technical and economic level [1] (OTEX) — %

(Upland areas of *départements*)

OTEX nomenclature	General agriculture		Horticulture		Permanent crop prod.[4]		Multiple crop prod.		Crop prod./ stock breed.		Cattle						Other herbivores[2]		Granivores[3]		Multiple stock breeding	
											milk		meat		mixed							
Censuses	1970	1979	1970	1979	1970	1979	1970	1979	1970	1979	1970	1979	1970	1979	1970	1979	1970	1979	1970	1979	1970	1979
Départements																						
Vosges																						
57 Moselle	1.6	0.0	0.8	0.0	0.4	1.8	0.4	0.0	20.1	5.3	13.4	41.6	1.6	0.9	3.1	4.4	3.9	39.8	19.7	0.9	35.0	5.3
67 Bas-Rhin	0.6	0.9	0.9	0.0	1.7	9.8	1.1	3.8	28.7	8.5	9.4	26.2	6.1	3.1	7.2	3.6	5.8	35.4	14.4	1.5	24.2	7.2
68 Haut-Rhin [1]	1.0	2.6	0.5	1.3	5.7	21.2	0.3	2.1	10.6	5.8	20.3	43.7	2.6	1.5	27.8	4.2	3.3	16.0	8.8	0.5	18.9	1.3
70 Haute-Saône	1.2	2.5	0.2	0.0	0.0	1.0	0.2	0.8	21.4	21.6	44.3	50.9	0.6	0.4	4.4	1.9	0.9	16.5	2.7	0.0	24.0	4.3
88 Vosges	0.7	1.0	1.2	0.4	0.0	0.7	0.1	0.1	8.1	6.8	43.5	59.4	3.0	2.5	15.9	3.5	1.2	23.2	8.4	0.6	17.7	1.8
90 Territoire de Belfort	0.7	2.1	1.4	2.1	0.7	0.5	0.0	0.5	23.2	12.8	16.3	42.8	0.7	3.2	4.4	4.8	1.1	27.3	25.5	0.6	29.0	3.2
Jura																						
01 Ain	1.2	1.3	1.7	0.4	6.2	9.8	1.5	2.0	12.4	8.4	40.0	37.5	5.4	7.0	16.7	4.4	3.7	23.8	5.3	1.3	5.7	4.1
25 Doubs	0.3	0.2	0.5	0.1	0.1	0.2	0.0	0.1	2.1	1.3	78.4	76.9	5.0	2.6	6.1	2.5	0.8	13.0	4.4	2.4	2.3	0.6
39 Jura	0.2	0.0	1.3	0.1	0.4	0.5	0.1	0.0	3.1	1.7	72.3	68.3	4.8	3.6	7.3	2.7	3.7	21.2	5.3	1.5	3.9	0.4
Northern Alps																						
38 Isère	1.8	4.7	1.1	1.7	1.3	7.0	1.5	6.2	20.0	13.1	23.2	33.9	7.7	2.6	19.6	4.3	4.7	18.3	2.3	0.8	16.7	7.4
73 Savoie	2.0	1.1	0.8	0.2	3.6	5.9	1.2	3.1	12.6	6.5	44.2	42.1	5.2	5.3	16.2	6.5	4.0	24.0	4.4	0.7	5.8	4.6
74 Haute-Savoie	2.3	1.3	1.1	1.3	1.6	2.6	0.5	0.6	5.5	5.7	60.7	54.7	3.5	5.6	11.0	5.6	2.0	19.0	6.2	2.2	5.5	1.3
Southern Alps																						
04 Alpes de Hte. Provence	22.7	28.6	2.8	0.5	7.9	12.0	7.1	7.4	22.9	13.4	0.2	2.7	5.2	1.4	3.0	2.0	22.3	28.2	3.5	0.6	2.5	3.2
05 Hautes-Alpes	9.6	8.8	0.5	0.4	9.4	8.4	2.4	4.6	17.9	15.4	6.6	16.0	5.9	2.9	16.5	5.8	25.1	30.5	3.7	1.0	8.3	6.4
06 Alpes Maritimes	9.0	3.2	16.0	14.0	9.6	37.6	13.5	7.7	22.0	7.0	9.6	5.4	0.6	0.0	1.4	0.6	10.2	21.8	4.8	0.8	3.2	1.7
26 Drôme	10.7	12.2	0.8	0.0	11.7	20.1	12.1	10.9	36.8	13.5	4.2	8.7	0.8	0.6	3.8	1.0	10.0	25.5	3.1	1.7	5.9	6.0
83 Var	16.8	6.1	4.6	0.6	45.0	68.2	11.8	6.1	10.7	5.9	0.7	0.7	0.0	0.1	0.2	0.3	7.1	10.9	2.2	0.4	0.8	0.7
84 Vaucluse	10.7	15.4	1.2	0.3	38.8	57.9	27.0	12.2	17.7	8.0	0.0	0.0	0.2	0.0	0.1	0.0	2.5	3.8	1.5	0.4	0.3	1.9
Northern Massif Central																						
03 Allier	1.2	2.5	0.2	0.0	0.3	0.8	0.0	0.4	23.7	16.5	0.9	13.4	24.1	19.8	3.0	10.2	2.5	25.6	5.7	1.0	38.4	9.8
15 Cantal	1.7	0.4	0.2	0.2	0.2	0.2	0.0	0.1	4.4	1.6	18.7	61.3	17.7	14.9	41.3	6.9	2.3	11.9	2.0	0.4	11.2	2.0
19 Corezze	0.5	0.9	0.0	0.4	0.5	0.8	0.1	1.0	12.4	4.3	1.1	8.3	43.1	51.8	4.5	2.4	3.0	25.6	1.2	0.2	33.3	4.3
23 Creuse	0.9	0.2	0.5	0.1	0.1	0.4	0.1	0.0	7.9	1.5	2.0	13.1	66.2	35.5	6.4	18.4	4.7	29.6	0.9	0.4	10.4	0.6
42 Loire	0.8	1.0	0.4	0.6	2.3	5.5	0.8	2.3	14.6	6.4	30.7	56.8	6.3	4.7	13.9	3.8	1.6	12.9	2.5	0.4	26.0	5.6
43 Haute-Loire	1.5	1.9	0.2	0.3	0.3	0.4	0.1	0.3	13.4	7.1	33.4	66.9	20.1	2.1	9.3	1.6	4.1	16.6	2.1	0.4	15.3	2.4
46 Lot	0.1	1.1	0.1	0.3	3.2	1.0	0.3	1.2	16.7	6.0	1.5	15.1	28.2	41.9	1.6	3.9	4.9	16.0	1.6	0.3	41.7	13.1
63 Puy de Dôme	2.0	1.8	0.1	0.2	1.4	2.1	1.2	1.4	19.7	6.8	12.9	49.8	25.2	9.4	15.9	6.9	3.0	17.8	1.7	0.3	16.9	3.5
69 Rhône	1.0	0.7	0.6	0.9	3.3	13.2	0.6	3.7	12.9	6.8	39.7	45.8	9.8	4.9	14.8	4.6	1.7	12.4	1.0	0.5	14.5	6.4
71 Saône et Loire	0.0	0.0	0.0	0.0	63.0	67.6	1.1	0.0	19.0	12.8	5.0	7.0	2.0	1.4	4.0	1.4	1.0	9.8	0.0	0.0	5.0	0.0
87 Haute-Vienne	1.0	0.1	0.1	0.1	0.0	1.0	0.0	0.2	21.0	3.1	1.0	1.9	34.2	49.6	1.3	0.3	7.7	42.2	1.0	0.1	32.8	1.3
Southern Massif Central																						
07 Ardèche	0.4	2.3	0.9	0.3	20.3	17.5	3.9	5.8	32.9	10.8	2.8	19.3	7.6	0.9	6.3	0.9	6.4	33.0	1.1	0.7	16.4	8.5
12 Aveyron	1.4	2.9	0.3	0.5	4.3	4.1	0.9	1.8	15.8	7.3	5.3	18.1	16.2	26.5	6.1	1.3	20.1	28.7	4.8	0.6	24.7	8.1
30 Gard	1.3	3.5	4.8	1.2	27.0	42.6	16.3	5.8	28.1	13.0	1.2	1.7	0.7	0.4	1.3	0.1	11.7	28.0	2.6	0.7	5.0	3.1
34 Hérault	0.9	1.0	0.6	0.8	76.3	78.8	5.4	2.5	5.9	4.6	0.5	0.8	2.7	1.6	1.3	0.1	5.0	8.7	0.9	0.4	0.6	0.8
48 Lozère	1.1	1.3	0.4	0.2	2.7	3.2	1.0	1.4	7.7	5.7	5.8	29.4	43.6	15.4	5.9	3.9	15.7	37.9	3.2	0.4	12.6	1.1
81 Tarn	1.0	4.9	1.6	0.2	1.2	3.2	2.5	2.9	13.8	12.3	10.6	15.1	21.4	14.7	3.4	0.8	7.6	37.6	3.0	0.8	29.0	7.5
Pyrénées																						
09 Ariège	4.0	9.9	0.4	0.3	0.4	1.4	0.7	2.3	24.4	8.2	3.6	17.6	16.3	22.8	19.2	2.4	8.6	32.0	3.2	0.8	19.1	2.3
11 Aude	9.6	12.4	1.3	0.4	45.6	45.8	8.3	6.4	20.1	8.3	0.3	3.8	2.6	6.7	6.0	0.2	4.5	13.4	2.3	0.3	5.7	2.3
31 Haute-Garonne	2.9	1.3	0.6	0.2	0.5	0.6	0.4	1.2	15.2	5.2	3.6	19.8	30.0	24.4	11.7	2.0	11.5	42.6	1.8	0.2	21.6	2.6
64 Pyrénées Atlantiques	0.6	1.1	1.3	0.2	0.2	0.4	0.5	0.4	8.4	2.6	0.3	15.1	21.7	12.8	9.0	3.9	10.5	58.9	2.5	0.5	44.9	4.1
65 Hautes-Pyrénées	0.9	2.9	0.7	0.8	0.5	0.6	0.2	1.1	17.7	5.5	23.9	6.2	1.9	31.2	11.8	0.6	12.9	38.4	6.7	0.4	34.4	12.3
66 Pyrénées Orientales	0.2	1.2	0.5	1.4	70.9	80.1	8.6	2.6	7.9	2.7	1.8	1.5	0.2	1.7	3.0	1.7	4.1	5.8	0.7	0.3	2.3	0.9
Corsica																						
2A Corse du Sud	0.2	0.3	2.4	3.8	26.6	19.8	4.2	3.4	22.0	8.6	0.0	0.3	14.6	25.9	0.1	0.1	11.8	23.0	9.2	3.4	8.9	11.4
2B Haute-Corse	0.1	0.7	1.5	2.9	33.8	30.0	3.5	1.1	16.0	5.0	0.0	0.5	12.5	24.6	0.3	0.1	17.6	26.4	8.1	2.8	6.5	5.9
Upland areas Total	**2.0**	**3.0**	**1.0**	**1.0**	**9.0**	**10.0**	**2.0**	**2.0**	**15.0**	**1.0**	**19.0**	**33.0**	**15.0**	**12.0**	**11.0**	**4.0**	**7.0**	**23.0**	**3.0**	**1.1**	**16.0**	**4.0**

Sources: Scees / Insee — Processing : Cemagref - Inerm.

[1] Technical and economic data are not strictly speaking comparable between the two census because they were based on slightly different definitions. Comparisons should therefore be made with caution.

[2] Sheep - goats only or mixed cattle - sheep (with cattle <2 / 3).

[3] Pigs - poultry.

[4] The increase in permanent crop production in 1976 is explained by the inclusion of six new municipalities with a strong wine industry.

Table 12

Percentage of forested areas in IFN (National Forestry Inventory) region chosen to represent upland areas

(Reference year of forestry inventory for each *département*)

Uplands		Surface (ha)		Forested areas %	Reference year [2]	
		Total	Forested [1]			
Vosges	57 Moselle	25 500	21 450	84.1	1971-74	
	67 Bas-Rhin	39 620	32 720	82.6	1979	
	68 Haut-Rhin	104 480	71 370	68.3	1978	
	70 + 90 HS + TB[3]	38 420	25 820	67.2	1976	
	88 Vosges	126 150	75 300	59.7	1972-73	
	Total	334 170	226 660	67.8	—	
Jura	01 Ain	199 900	102 150	51.1	1973-74	
	25 Doubs	330 900	134 400	40.6	1972	
	39 Jura	130 050	74 100	57.0	1970-71	
	68 Haut-Rhin	10 330	6 000	58.1	1978	
	Total	671 180	316 650	47.2	—	
Northern Alps	38 Isère	346 800	147 600	42.6	1973-74	
	73 Savoie	505 950	143 950	28.5	1974-75	
	74 Haute-Savoie	287 080	126 880	44.2	1975-76	
	Total	1 139 830	418 430	36.7	—	
Southern Alps	04 Alpes de Hte. Provence	695 850	293 400	42.2	1975-76	
	05 Hautes-Alpes	569 000	152 650	26.8	1973	
	06 Alpes Maritimes	358 510	153 250	42.7	1976-77	
	26 Drôme	331 450	157 800	47.6	1974	
	83 Var	91 050	43 600	47.9	1975-76	
	84 Vaucluse	88 220	51 390	58.3	1976	
	Total	2 134 080	852 090	39.9	—	
Northern Massif Central	15 Cantal	577 760	146 160	25.3	1977	(2nd inventory)
	19 Corezze	339 600	148 950	43.9	1962-63	
	23 Creuse	54 000	20 500	38.1	1966-67	
	42 Loire	268 400	91 950	34.3	1968-69	
	43 Haute-Loire	500 190	169 150	33.8	1979	(2nd inventory)
	46 Lot	75 920	30 600	40.3	1980	(2nd inventory)
	63 Puy de Dôme	565 390	198 350	35.1	1976-77	
	69 Rhône	133 350	49 750	37.3	1972-73	
	87 Haute-Vienne	70 000	27 650	39.5	1963	
	Total	2 584 610	883 160	34.2	—	
Southern Massif Central	07 Ardèche	395 400	161 900	40.9	1972-73	
	12 Aveyron	833 500	198 505	23.8	1971-72	
	30 Gard	161 000	90 850	56.4	1972-73	
	34 Hérault	262 200	89 150	34.1	1973-74	
	48 Lozere	517 650	192 300	37.1	1969-70	
	81 Tarn	137 400	66 600	48.5	1970-71	
	Total	2 306 150	799 305	34.7	—	
Pyrenees	09 Ariège	373 090	165 300	44.3	1978	
	11 Aude	134 270	70 370	52.4	1978	
	31 Haute-Garonne	72 950	37 850	51.9	1974-75	
	64 Pyrénées Atlantiques	264 400	86 650	32.8	1970-72	
	65 Hautes-Pyrénées	299 200	98 150	29.5	1973-75	
	66 Pyrénées Orientales	253 100	88 000	34.8	1971	
	Total	1 397 010	536 320	38.4	—	
Corsica	2A Corse du Sud	764 670	209 120	27.3	1976-77	
	2B Haute-Corse	361 830	77 850	21.5	1976-77	
	Total	1 126 500	286 970	25.5	—	
Upland areas total		**11 693 530**	**4 319 585**	**36.9**		

Source: National Forestry Inventory — Summary: Cemagref - Inerm.

[1] Forested areas include, in addition to forests for the production of wood:
(i) wooded areas whose prime purpose is not the production of wood;
(ii) clearings of less than five years, with no re-growth;
(iii) inaccessible plantations.

[2] Year corresponding to the 2nd phase of the inventory-taking of soil samples.

[3] Haute-Saône + Territoire de Belfort.

Note: The difference in the totals for uplands areas in Tables 12 and 13 is accounted for by the different reference year taken into consideration.

the predominance of animal production in upland farming. Dairy production has seen the most significant increase, involving 19% of farms in 1970 but 33% in 1980. This phenomenon has occurred in virtually all the upland *départements* (see Table 11). As *dairy production* is largely used in the manufacture of cheese, *it falls outside the scope of Community support mechanisms*. This means that the farms concerned are not guaranteed a stable income (comment made in the Besson Report, p. 100).

Forests, stretching over 3 521 024 hectares (1970 figure) (wooded surface) cover a third of upland areas. The percentage of wooded areas is 30% as against 25% for France as a whole, and this varies from upland to upland. The Vosges, where 71% of the total surface area is forested has the highest percentage. The least forested upland areas are the Northern Alps, the Massif Central and Corsica (see Tables 12 and 13).

Upland forests are a major economic resource and they also play a vital ecological role. In 1978, upland areas provided half of the coniferous wood produced in France: 5 million m^3.

Exploitation of this resource is hampered by slopes and physical obstacles, highly fragmented private property and timber mills which are either too small or too far from the place of production.

Upland forests are owned by the State (12%), the municipalities (30%) or by private individuals (58%) (see Table 13).

Structure of farms

(i) Surface area of farms and UAA

The surface area occupied by farms in the uplands is, broadly speaking, comparable to that of the rest of France. But there are differences from one upland to another. Average UAA per farm increased from 16.9 hectares in 1970 to 21.8 hectares in 1980 (see Tables 14 and 15).

Table 13

Breakdown of forest according to type of ownership

Uplands	State-owned		Owned by the *département*		Owned by the municipality or 'fraction'		Privately owned		Total		Extent of forests in each upland in relation to the total of upland areas	Percentage of forests[1]
	Hectare	%	Hectare	%	Hectare	%	Hectare	%	Hectare	%		
Vosges	48 264	21	103	—	90 991	39	91 932	40	231 290	100	6.6	71
Jura	14 144	5	82	—	130 114	48	124 252	46	268 592	100	7.6	41
Northern Alps	27 097	7	914	—	172 469	45	183 420	48	283 900	100	10.9	30
Southern Alps	141 483	19	1 393	—	283 205	38	315 731	43	741 812	100	21.1	36
North. Massif Central	9 672	1	1 142	—	88 968	11	604 093	78	775 469	100	22.0	27
South. Massif Central	76 949	14	370	—	52 511	9	424 237	77	554 067	100	13.7	25
Pyrenees	75 434	17	672	—	192 214	43	182 055	40	450 375	100	12.8	31
Corsica	33 771	18	122	—	56 627	30	96 548	52	187 113	100	5.3	23
Upland areas	426 814	12	4 798	—	1 067 144	30	2 022 268	58	3 521 024	100	100	30

Source: RGA 70 Scees - Municipal Inventory — Processing : Cemagref - Inerm.

[1] Surface area of forest in relation to upland as a whole.

Table 14

Breakdown of farms according to amount of UAA (1980)

(%)

	Vosges	Jura	Alps North	Alps South	Massif Central North	Massif Central South	Pyrenees	Corsica	France as a whole	Upland areas
— 5 hectare UAA	51	15	36	36	12	25	34	31	28	26
5 — 10 hectares	19	8	2	13	16	13	21	15	13	16
10 — 20 hectares	16	16	22	18	28	20	26	22	19	24
20 — 35 hectares	9	29	12	14	25	19	13	17	19	19
35 — 50 hectares	3	19	4	7	11	9	3	7	9	8
+ 50 hectares	2	13	3	12	8	14	3	8	12	9
Average UAA (hectares)	9.5	28.1	14	23.8	23.1	27.5	13.4	19.9	23.4	21.7

Source: Besson report, p. 97.

Table 15

Number of farms and UAA

(Upland areas of *départements*)

Départements	Number of farms			UAA			UAA / farm			
	RCA 79/80 number	RCA 70 number	Annual growth rate	RCA 79/80 Surface area (ha)	RCA 70 Surface area (ha)	Annual growth rate	1979/80 Average surface (ha)	I	1970 Average surface (ha)	I
Vosges										
57 Moselle	113	254	—8.6	563	771	—3.4	5.0	23	3.0	18
67 Bas-Rhin	469	632	—3.6	3 032	2 682	+1.4	6.5	30	4.2	25
68 Haut-Rhin	2 096	3 031	—4.0	23 317	21 988	+0.6	11.1	51	7.2	43
70 Haute-Saône	485	663	—3.4	5 415	5 861	—0.9	11.2	51	8.8	52
88 Vosges	2 566	3 752	—4.1	25 010	26 684	—0.7	9.7	44	7.1	42
90 Territoire de Belfort	187	276	—4.2	1 784	1 843	—0.4	9.5	44	6.7	40
Jura										
01 Ain	2 387	3 090	—2.8	58 605	58 557	0.0	24.6	113	19.0	112
25 Doubs	4 242	4 928	—1.6	127 262	122 684	+0.4	30	138	24.9	147
39 Jura	1 649	2 091	—2.6	51 429	72 826	—3.8	31.2	143	34.8	206
Northern Alps										
38 Isère	5 131	7 392	—0.4	83 248	83 648	0.0	16.2	74	11.3	67
73 Savoie	7 138	9 597	—2.3	88 987	80 426	+1.1	12.0	55	8.4	50
74 Haute-Savoie	7 392	8 930	—1.0	102 523	104 523	—0.2	14.4	66	11.7	69
Southern Alps										
04 Alpes de Hte. Provence	3 898	4 561	—1.7	135 260	144 449	—0.7	34.7	159	31.7	187
05 Hautes-Alpes	4 310	5 623	—2.9	87 187	92 919	—0.7	20.2	93	16.5	98
06 Alpes Maritimes	2 805	3 490	—2.4	26 256	19 197	+3.6	9.4	43	5.5	32
26 Drôme	2 287	2 933	—2.7	76 537	73 544	+0.4	33.5	154	25.1	148
83 Var	717	1 649	—8.8	14 245	11 288	+2.6	19.9	91	6.8	40
84 Vaucluse	1 082	1 106	—0.2	19 500	19 486	0.0	18.0	83	17.6	104
Northern Massif Central										
03 Allier	1 038	1 277	—2.7	23 425	22 382	+0.5	22.6	104	17.5	104
15 Cantal	10 604	12 585	—1.9	376 904	361 036	+0.5	35.5	163	28.7	170
19 Corezze	6 683	8 314	—2.4	151 435	148 809	+0.2	22.7	104	17.9	106
23 Creuse	2 449	3 103	—2.6	84 758	82 314	+0.3	34.6	159	26.5	157
42 Loire	8 177	10 196	—2.4	128 861	126 285	+0.2	15.8	72	12.4	72
43 Haute-Loire	11 854	15 787	—3.1	247 396	257 001	—0.4	20.9	96	16.3	96
46 Lot	1 309	1 520	—1.6	24 481	21 825	+1.3	18.7	86	14.4	85
63 Puy de Dôme	13 963	17 720	—2.6	305 174	290 399	+0.6	21.8	100	16.4	97
69 Rhône	5 524	6 310	—1.5	82 553	81 413	+2.7	14.9	68	12.9	76
71 Saône et Loire	71	100	—3.7	1 275	1 312	—0.3	18.0	83	31.1	77
87 Haute Vienne	875	1 148	—3.0	21 398	20 820	+0.3	24.4	112	18.1	107
Southern Massif Central										
07 Ardèche	8 128	11 209	—3.5	119 123	121 719	—0.2	14.6	67	10.9	64
12 Aveyron	13 135	16 028	—2.2	407 342	408 942	0.0	31.0	142	25.5	151
30 Gard	1 660	2 353	—3.8	36 295	32 780	+1.1	21.9	100	13.9	87
34 Hérault	3 005	3 988	—3.1	47 112	41 537	+1.4	15.7	72	10.4	62
48 Lozère	5 322	7 117	—3.2	273 291	275 378	—0.1	51.3	235	38.7	229
81 Tarn	3 358	3 997	—1.9	82 606	76 618	+0.8	24.6	113	19.2	114
Pyrenees										
09 Ariège	3 810	4 940	—2.8	63 023	61 243	+0.3	16.5	76	12.4	73
11 Aude	2 681	3 568	—3.1	45 409	39 700	+1.5	16.9	78	11.1	66
31 Haute-Garonne	850	1 134	—3.1	11 010	9 911	+1.2	12.9	59	8.7	51
64 Pyrénées Atlantiques	4 647	5 200	—1.2	71 412	84 946	—1.9	15.4	71	16.3	96
65 Hautes-Pyrénées	3 967	4 692	—1.8	42 340	41 986	+0.1	10.7	49	8.9	53
66 Pyrénées Orientales	3 822	5 284	—3.5	34 621	35 995	—0.4	9.0	41	6.8	40
Corsica										
2A Corse du Sud	2 732	3 430	—2.5	54 119	52 124	+0.4	19.8	91	15.2	90
2B Haute-Corse	2 712	3 476	—2.7	54 112	53 598	+0.1	19.9	91	15.4	90
Upland areas Total	**171 330**	**218 474**	**—2.7**	**3 719 905**	**3 693 115**	**+0.1**	**21.8**	**100**	**16.9**	**100**

Source: Scees / Insee — Summary : Cemagref - Inerm.

UAA in upland areas rose from 3 693 115 hectares in 1970 to 3 719 905 hectares in 1980. This would indicate a total growth of 0.72%, and an annual growth rate of 0.1% (see Table 15). 48.4% of UAA is kept as permanent grassland, 25.8% as heaths and common grazing land, 11.8% is used for fodder crops, 9.6% for cereals and 1.3% for vineyards (the uses of the remaining 3.1% are not specified in the RGA), (general agricultural census 79/80 statistics) (see Table 15). Uncultivated or under-cultivated land forms a high proportion of UAA in upland areas; this means that the increase in UAA between 1970 and 1980 is only relative.

(ii) Number of farms

According to the general agricultural census (1979-80), there are 171 330 farms in the uplands. Between 1970 and 1980, 2.7% of *farms were abandoned per year in the uplands*, compared with 2.5% in the lowlands. The highest figures were 4% in the Vosges and 3% in the Northern Alps, and the lowest was 2% in the Northern Massif Central and the Jura. The number of farms in 1970 was 218 474 (see Table 15).

Table 15a

Percentage of surface areas and crops (RGA 79/80)

	Upland areas		France as a whole	
	%	Number	%	Number
Crops				
Cereals	9.6	56	33.0	63
Fodder crops	11.8	49	16.1	50
Permanent grassland	74.2	88	38.9	72
comp.: permanent grassland	48.4	85	34.1	70
heaths and common grazing land	25.8	40	4.8	1
Vineyards	1.3	22	3.7	34
Orchards (6 types)	0.4	8	0.6	7

Source: Scees/Insee - Summary: Cemagref - Inerm

(iii) The problem of land use

In many upland areas where a sudden increase in tourism coincides with a decline in agriculture, farmers no longer have control over agricultural land. Landowners prefer to retain ownership of property until they can sell it at a high price to non-farmers. Rocketing prices, caused by tourism, have spelt doom for farm contracts and have led to the tendency to rent property in the form of the *'sale of grass'*, thereby increasing the amount of uncultivated land. *Uncultivated land* is a serious problem in the Southern Alps and the Pyrenees (western and central). It has been calculated that the *total amount of uncultivated land in the uplands is between 400 000 and 800 000 hectares*. (The figure of 800 000 hectares given in the Besson report more or less tallies with the figure of 25.8% UAA used as 'heaths and common grazing land', produced by Inerm.)

The *land use problem* derives from the fact that upland property is much in demand by social groups and economic agents who are in no way connected with the traditional inhabitants of these areas - the newcomers consist of tour operators, hunters, retired people, people with second homes, etc. This leads to perpetual conflict in land use. Furthermore, the multiplication of properties due to divided inheritances, non-resident owners and speculation, which lures many owners of small properties, all combine to block changes in ownership. Local inhabitants are calling for a definition of land use ('zoning').

(iv) Public sector measures in upland farming

A policy on the uplands was launched at the beginning of the 1960s, but it was not until the 1970s that it took on a decisive shape. The main legal instruments and policy measures are listed below:

Supplementary law on agricultural policy (1962);

Decree on the policy of rural rehabilitation (1967);

Law on the development of agricultural land (1972);

Decree No 74-134 (1974) creating a special uplands indemnity (ISM);

Plan for the development of the Massif Central (1976);

National directive of the planning and protection of upland areas (1977);

Institution of Inter-ministerial Rural Development and Improvement Funds (Fidar);

Law on agricultural policy (1983).

Table 16a

Appropriations for rural rehabilitation in upland areas

(Million FF)

1973	165.4
1974	175.2
1975	214.7
1976	222.7
1977	221.9
1978	241.0
1979	244.5

Source: Besson report, p. 42.

Table 16b

Financial support provided by the Ministry of Agriculture in upland areas

(Million FF)

		Total upland area		
		1978	1979	1980
I.	**Measures confined to upland areas** [1]			
	Total [2]	492.0	540.1	787.1
	(of which special upland grant)	384.9	434.9	697.5
II.	**Measures intensified in upland areas** [3]			
	Starting-up allowance for young farmers	52.7	52.4	66.1
	Interest-rate rebates (including additional rebates) [4]	467.0	497.0	470.0
	Other intensified measures [5]	23.3	24.0	32.5
	Total (II)	543.0	573.4	568.6
III.	**Market support and Guidance** [6]	659.8	926.5	2 271.8
	A = (I) + (II) + (III)	1 694.8	2 040.0	2 627.5
IV.	**Allowance for retired farmers** [7]	117.2	139.0	163.0
V.	**Inter-ministerial rural development and improvement fund** [8]	176.8	143.8	161.6
Total expenditure				
	B = (I) + (II) + (III) + (IV) + (V)	1 938.8	2 322.8	2 952.1
VI.	**Exemption from milk co-responsibility levy** [9]	9.2	13.6	63.7
Measures predominantly economic in character				
	C = (I) part [10] + (II) + (III) + (VI)	1 685.3	2 031.6	2 668.5
	Ratio : F / Number of farmers (current francs)	9 840.0	11 870.0	15 590.0
	C / Number of annual labour units (current francs)	7 490.0	9 020.0	11 850.0

Source: Bureau RCG, Ministry of Agriculture.

1 Ministerial measures operating solely in upland areas or depressed agricultural areas; conservation work in upland areas; grant for mechanization of hill farming; grant for construction of buildings for rearing sheep and goats; grants for establishment of grazing land associations and for start-up of grazing groups; special grants in depressed agricultural areas.

2 The table covers only part of expenditure from which agriculture is a beneficiary. In particular, it does not cover general government expenditure, agricultural education, social security, promotion and monitoring of quality, and certain items of capital expenditure.

3 National measures involving preferential action in upland areas.

4 Distribution of a portion of interest-rate subsidies (soft loans for farms). Distribution made in light of 1980 loan on basis of subsidy equivalent; additional rebates reflect easier terms of certain loans in upland areas.

5 Start-up grants of EUMA and GAEC, subsidy for pig sheds, housing aid for young farmers, production guidance premiums for beef, veal and sheepmeat.

6 Distribution in light of estimated agricultural output of each upland area.

7 Distribution of *département* expenditure on basis of proportion of *département* in upland areas.

8 In 1978 and 1979, expenditure assigned to rural action scheme of the Ministry of Agriculture; plus, in 1980, expenditure assigned to General Services allocation of the Prime Minister (Chapter 65.03).

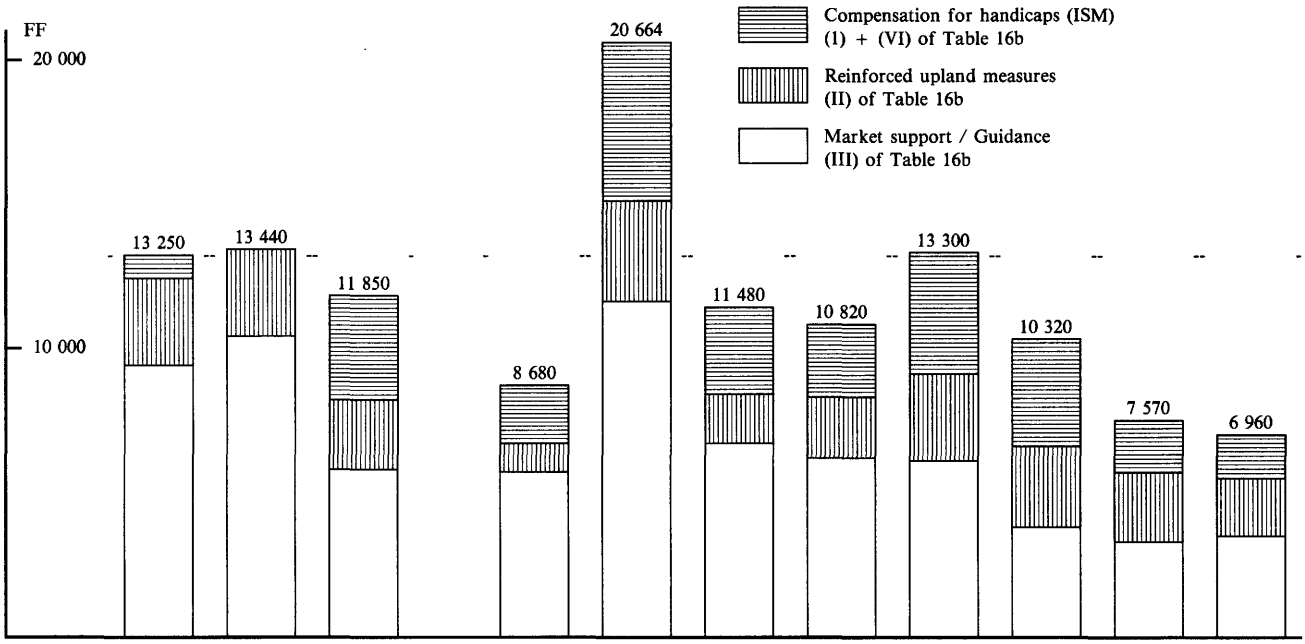
9 Based on estimated deliveries of milk from upland areas.

10 Excluding land upgrading in upland areas.

Table 17

Financial support by Ministry of Agriculture in upland areas

(Partial cost in 1980)



Source: Bureau RCG, Ministry of Agriculture.

Industry

Upland areas are not under-industrialized. The industrialization ratio (percentage of total population employed in secondary sector, excluding construction and public works) is 12.3, which is higher than the national mean of 11.7; however, the ratio varies from area to area. Traditional industries dominate (textile-clothing, non-ferrous ores and metals, power, leather-shoe, paper-cardboard, wood-furniture). Modern industry is absent. The only growth industry relatively well-represented is rubber and plastics.

Before the recession of the 1970s, employment was increasing in most industries - the only exception being textile-clothing, where employment contracted by 27%. Since the 1970s, 35 000 industrial jobs have been lost. Labour shedding may become more marked, because of the considerable proportion of declining industries (Tables 18, 19, 20 and 21).

Craft trades are holding their own despite great instability. The remoteness of the workshops poses problems. Production and creative crafts are doing best. Service crafts are threatened with disappearance; their labour force is ageing (Table 22).

Tourism

Large-scale tourism in upland areas began in 1960, but the local inhabitants were unprepared for the extent of development. The Besson report discusses the scale of the growth of tourism, drawing attention at the same time to the problems caused by industrial and urban

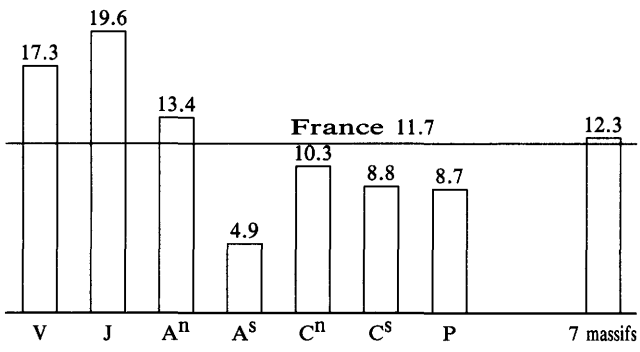
Table 18

Industry in upland areas

Industry	Number of estab. (11 or more jobs)	Number of jobs	upland / upland total %	
			estab.	Jobs
Vosges	1 136	127 767	22.6	33.9
Jura	774	44 333	15.4	11.8
Northern Alps	918	74 702	18.2	19.8
Southern Alps	172	9 390	3.4	2.5
Northern Massif Central	1 096	59 318	21.8	15.8
Southern Massif Central	577	37 849	11.5	10.0
Pyrenees	358	22 977	7.1	6.1
Uplands (7 massifs)	5 031	376 336	100	100
France	**58 946**	**5 262 659**		
Uplands / France %	8.5	7.1		

Table 19

Industrialization rates of upland areas



Source: Insee (Cemagref-Inerm, Panorama des massifs synthèse, p. 16).

Table 20

Industry in upland areas
(% of total number of firms in each area)

	Vosges	Jura	Alps North	Alps South	Massif Central North	Massif Central South	Pyrenees	Corsica	Average all upland areas
Number of firms per 10 000 inhabitants	66	34	23	15	13	11	17		25.5
Capital goods	12.4	28.5	11.7	5.4	5.3	7.4	3.6		10.6
Intermedairy goods	17.6	28.0	33.5	14.0	13.6	23.4	17.6		21.0
Building and public works	27.4	17.0	30.9	55.6	16.7	19.4	31.4		28.3
Non-durable consumer	35.3	22.5	18.0	7.8	49.1	38.3	34.7		29.3
Energy	2.0	1.2	0.9	8.5	6.1	2.7	5.4		3.8
Agri-food	5.2	3.0	4.9	8.8	9.2	8.8	7.3		6.7
Total industry	100	100	100	100	100	100	100		100

Source: Revue problèmes économiques No 1872, p. 19.

Table 22

Number of craft enterprises [1]

	Vosges	Jura	Alps North	Alps South	Massif Central North	Massif Central South	Pyrenees	Corsica	Upland areas 1976 [2]	Upland areas 1975
Breakdown of craft enterprises in 1976										
Food	13.1	10.5	12.8	15.4	18.1	18.8	88.5	16.4	16.0	16.7
Building	33.0	24.3	28.0	35.6	23.6	33.5		45.0	28.1	28.4
Wood	15.3	18.9	20.4	11.5	17.3	10.4	6.7	10.2	16.2	15.9
Ores, mech. and elec. engineering	19.7	14.7	20.6	18.0	21.3	14.4		15.7	18.9	19.5
Textiles, leather	5.9	2.7	4.0	4.2	7.1	4.5	4.8	2.3	5.2	5.5
Health, unclassified	13.0	28.9	14.2	15.2	12.5	18.4		10.4	15.6	14.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of craft enterprises (1976)	2 490	6 442	7 435	4 748	16 976	7 348	3 268	1 676	50 383	
Number of craft enterprises per 1 000 inhabitants	119.1	234.7	130.5	231.2	159.1	195.7	104.2	163.0	161.5	

Source: Répertoire des métiers Récapitulatif Cemagref - Inerm.

[1] *Départements* not included :
Vosges : Haute-Saône, Territoire de Belfort and Moselle;
Northern Massif Central : Corrèze and Saône-et-Loire;
Southern Massif Central : Aveyron;
Southern Alps : Alpes-Maritimes.

[2] Disregards Pyrenees.

development. The creation of jobs in the tourism sector has generally helped to prevent upland depopulation. However, this encouraging demographic trend may hide a stagnation, or even a drop in the number of original inhabitants, who are then replaced by outsiders. In practice, tourist projects are usually conceived independently of rural planning procedures.

Available figures are as follows:

(a) Winter holidays: 30 million days of holiday (1980). 1 250 000 skiers in 1968, 2 850 000 in 1976 and 4 380 000 in 1980. Estimated figure for 1986: 6 million. 7.9% of French people took a winter holiday in 1980, as against 3.2% in 1972.

(b) Summer holidays: 120 million days of holiday (1980). Uplands are more popular as resorts in the summer season.

(c) 54.3% of French people went on holiday at least once in 1981 (41% in 1965). 22.7% took at least one winter holiday in 1980-81 (17.1% in 1975). Upland areas clearly benefit from these increases.

Upland tourism is no longer simply an extra source of income for local inhabitants. It has grown into a completely independent economic sector.

Table 21

Upland industry

7 upland areas and France

Economic activity		7 upland areas				France				% 7 uplands / France	
		Numbers		%		Numbers		%			
		establishments	Jobs	estab.	Jobs	establishments	Jobs	estab.	Jobs	estab.	Jobs
U 02	*IAA*	*424*	*21 731*	*8.4*	*5.8*	*6 953*	*422 497*	*11.8*	*8.1*	*6.1*	*5.1*
U 03	*Power*	*195*	*9 985*	*3.9*	*2.7*	*736*	*54 317*	*1.2*	*1.0*	*26.5*	*18.4*
T 07	Ferrous ores/metals	27	11 750	0.5	3.1	343	222 693	0.6	4.3	7.9	5.3
T 08	Non-ferrous ores/metals	53	11 244	1.0	3.0	242	56 222	0.4	1.0	21.9	20.0
T 09	Miscellaneous mineral construction materials	269	15 198	5.4	4.0	4 060	190 976	6.8	3.6	6.7	7.9
T 10	Glass industry	22	3 221	0.4	0.8	436	73 754	0.8	1.4	4.5	4.3
T 11	Basic chemicals	47	8 982	0.9	2.4	841	160 194	1.4	3.0	5.6	5.6
T 13	Metal working foundries	746	38 882	14.7	10.4	7 916	490 278	13.4	9.3	9.4	7.9
T 21	Paper/board industry	115	18 782	2.3	5.0	1 060	130 643	1.8	2.6	10.8	13.7
T 23	Rubber/ plastics	261	20 575	5.2	5.5	1 950	227 701	3.3	4.3	13.4	9.0
U 04	*Intermediate goods*	*1 540*	*128 634*	*30.6*	*34.2*	*16 878*	*1 558 461*	*28.8*	*29.6*	*9.1*	*8.2*
T 14	Mechanical engineering	572	36 454	11.4	9.8	7 676	549 578	13.0	10.4	7.4	6.6
T 15	Electrical engineering electronics	131	19 575	2.6	5.2	3 296	583 940	5.6	11.1	4.0	3.3
T 16	Cars and other land-based vehicles	86	16 394	1.7	4.4	1 162	526 057	2.0	10.0	7.4	3.1
T 17	Shipbuilding, aircraft, arms	8	1 731		0.5	616	173 490	1.0	3.3	0.5	1.0
U 05	*Capital goods*	*792*	*74 154*	*15.8*	*19.7*	*12 750*	*1 833 065*	*21.6*	*34.8*	*6.2*	*4.0*
T 12	Parachemical/ pharmaceuticals	41	3 810	0.8	1.0	1 186	179 515	2.0	3.4	3.5	2.1
T 18	Textile industry/ clothing	950	78 786	19.7	21.1	7 880	613 268	13.4	11.6	12.6	12.8
T 19	Leather/ shoes	225	18 156	4.5	4.8	1 333	120 514	2.3	2.3	16.9	15.1
T 20	Wood/furniture	530	24 036	10.6	6.3	4 866	185 830	8.2	3.5	10.9	12.9
T 20	Unclassified	200	13 317	4.0	3.5	2 253	109 748	3.8	2.1	8.9	12.1
T 22	Newspapers/printing	81	3 134	1.6	0.8	4 111	185 444	7.0	3.5	2.0	1.7
U 06	*Everyday consumption*	*2 073*	*141 239*	*41.3*	*37.6*	*21 629*	*1 394 319*	*36.7*	*26.5*	*9.4*	*10.0*
Total excl. construction/P.works		**5 024**	**375 736**	**100**	**100**	**58 946**	**5 262 659**	**100**	**100**	**8.5**	**7.1**
U 07	*Construction / P.works*	*1 755*	*58 346*	*26.0*	*13.5*	*29 986*	*1 253 435*	*33.7*	*19.2*	*5.8*	*4.6*
Total incl. construction/P.works		**6 779**	**434 082**	**100**	**100**	**88 932**	**6 516 094**	**100**	**100**	**7.6**	**6.5**
		Source: Cahiers Sirene and EGE Insee 1976.				*Source:* Unedic at 31.12.1976.					

Processing: Cemagref - Inerm - Centrale d'information montagne = Etude No 180 : *L'industrie en montagne.*

Table 23

Breakdown of accommodation in upland areas

(%)

	Vosges	Jura	Alps North	Alps South	Massif Central North	Massif Central South	Pyrenees	Corsica	Upland areas
Hotels	10.3	11.4	12.9	7.1	9.4	7.9	8.8	5.3	9.9
Other accommodation	13.5	14.7	25.8	12.8	12.7	7.6	16.2	4.6	16.6
Camping	23.6	16.0	14.8	23.9	21.1	23.9	17.0	16.3	19.1
Group holidays	22.3	20.8	15.5	13.7	13.2	12.6	29.9	7.5	16.8
Second homes	30.2	37.0	30.9	42.5	43.5	48.1	28.1	66.3	37.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of places	103 300	113 900	772 300	383 000	490 700	284 600	343 400	46 700	2 539 579

Source: Inventaire communal 1979-80 Insee. Summary: Cemagref - Inerm.

Categories of accommodation:
Hotels: Tourist hotels and guest houses.
Other accommodation: Farm holidays + bed and breakfast and tourist flats.
Camping: Camping and caravan sites + camping on farms and free camping.
Group holidays: Sports centres + holiday villages + family houses + holiday camps.

Table 24

Tourist accommodation in upland areas

Table A

Total capacity 1979-80 [1]

Type of accommodation	Capacity	
Tourist hotels	94 486	rooms
Guest hotels	31 479	rooms
Family hotels	7 100	rooms
Farmhouses	29 873	rooms
Sports centres	16 080	beds
Holiday villages	55 581	beds
Family houses	36 464	beds
Holiday camps	317 921	beds
Youth hostels, mountain huts and refuges	20 126	beds
Campsites, caravan sites	133 649	places
Farm camping, free camping	85 344	places
Bed and breakfast, tourist flats	180 603	rooms

Table B

Hotels in 1980 [2]

Types of hotels	Number of establishments	Number of rooms
Guest hotels	4 815	49 047
Hotels 1*	2 697	48 269
Hotels 2*	1 445	39 173
Hotels 3*	371	14 391
Hotels 4*	52	2 740
Luxury hotels	17	854
Total	9 397	154 474

Table C

Main and second homes according to the last three censuses

Year	second home	main home	% sh / mh
1968[2]	241 837	1 116 244	21.7
1975[2]	358 401	1 176 448	30.5
1979-80[1]	318 120	803 915	39.6

Sources:

1 Municipal inventory 1979-80 (Insee).

2 Register of accommodation of the Tourism Directorate (Ministry for Leisure Time) — Centre for the Processing of Uplands Information Cemagref - Inerm.

Note: The various sources of information have their own definitions of types of accommodation and of the extent of geographical area considered. This must therefore be taken into account when trying to compare given figures.

Multiple activity

The existence of multiple activity is long-established in upland areas, and is primarily due to low incomes. Multiple activity may therefore be a necessity (doing the equivalent of 1.5-2 days' work in one day). Alternatively, it may be a matter of choice (executives and owners of small firms or retailers who also farm), or simply an extra activity (many farmers have additional jobs in the tourist, crafts and marketing sectors). The only statistical data available are on multiple agricultural activities. According to the last general agricultural census (1979-80), 21% of farmers in upland areas had part-time jobs, and 16% had two jobs (the main activity lying outside the agricultural sector). There are 171 300 farmers in upland areas.

Table 25

Multiple activity amongst farmers in upland areas

(%)

Uplands	Part-time farm work [1]	Two jobs [2]
Vosges	72	37
Jura	35	14
Northern Alps	73	26
Southern Alps	60	17
Northern Massif Central	68	11
Southern Massif Central	44	13
Pyrenees	58	18
Corsica	70	15

Source: Besson report, p. 85.

[1] Part-time: farming is main activity.

[2] Two jobs: main activity not farming.

Table 26

Breakdown of farmers and workforce (RGA 79/80) [1]

Uplands	Farmers								Work			Number of UWY/farm		Ha UAA/UYW
	total	working [1]:				Breakdown in age group			Number of UWY[3]	Proportion of farmers	Proportion of salaried workers			
		full time	part-time + half-time	two jobs[2]	(RGA 70)	under 35 years	35 to 54	over 55 years					Farms with 1 UWY and more as % of total farms	
		%	%	%	%	%	%	%		%	%			
Vosges	5 492	28	20	37	(37)	8	46	46	5 864	51	5	1.07	47	10.4
Jura	8 702	65	12	14	(14)	12	50	38	13 358	52	4	1.54	76	19.7
Northern Alps	19 661	27	30	26	(24)	9	43	48	21 523	55	5	1.09	53	15.5
Southern Alps	15 099	40	26	17	(16)	12	41	47	17 981	57	9	1.19	58	31.5
Northern Massif Central	62 547	60	20	11	(10)	12	49	39	89 617	56	5	1.43	77	19.5
Southern Massif Central	35 620	56	17	13	(15)	13	47	40	47 824	56	6	1.34	68	27.5
Pyrenées	18 765	42	23	17	(18)	11	43	46	22 887	55	7	1.22	61	15.8
Corsica	5 444	31	36	15	(18)	15	44	41	6 095	59	23	1.12	48	21.5
Upland areas	**171 300**	**50**	**21**	**16**	**(16)**	**12**	**47**	**41**	**225 148**	**55**	**6**	**1.31**	**67**	**21.1**
France total	**1 262 672**	**55**	**15**	**16**	—	**11**	**47**	**42**	**1 872 339**	**49**	**16**	**1.48**	**68**	**18.0**

Source: Scees / Insee Summary: Cemagref - Inerm.

[1] RGA : General agricultural census.

[2] Main activity outside agricultural sector.

[3] Unit of work per year: amount of work produced by one person working full-time (40 hours per week and over) per annum.

Bibliography

French National Assembly, Report by a Committee of Inquiry, *La situation de l'agriculture et de l'économie rurale dans les zones de montagne et défavorisées* (The situation of agriculture and the rural economy in upland and less-privileged areas), rapporteur: Mr Louis Besson, (MP), April 1982.

Séries statistiques (Statistics series), Insee (Institute national de la statistique et des études économiques) (National institute for statistics and economic studies).

Cemagref (Centre national du machinisme agricole du génie rural des eaux et des forêts) (National centre for agricultural mechanization, rural engineering, water and forestry); Inerm Division (Institut national d'études rurals montagnardes) (Institute for the study of upland rural areas), 'Panorama des massifs' (Uplands survey) June 1982.

Problèmes économiques (Economic problems), Review No 1872.

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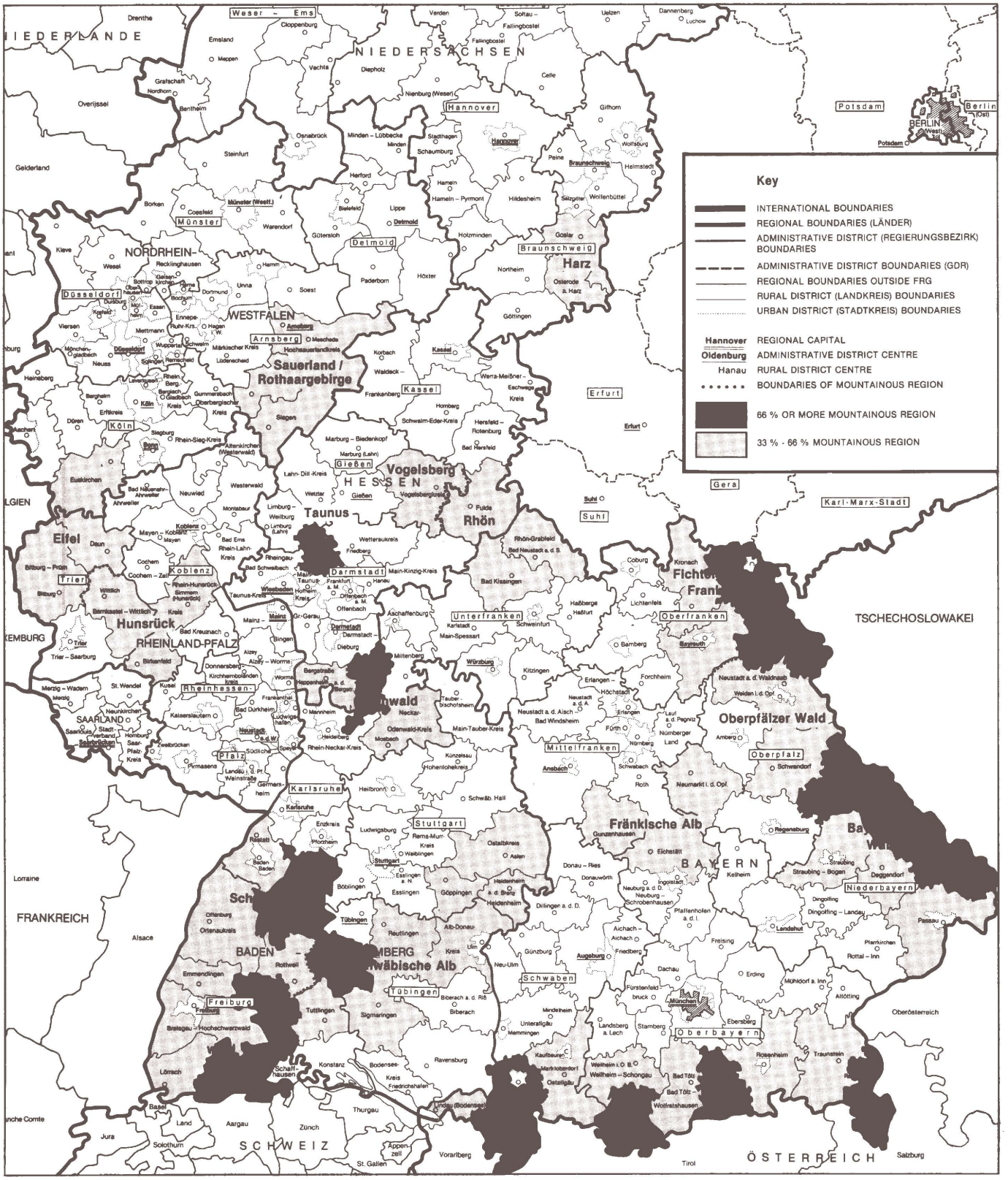

Foreword

The special difficulties of defining upland areas in Germany

Unlike other Member States, Federal German law does not define 'upland areas'. Accordingly, these areas are not treated separately in statistical surveys. [1]

The Section thus had to establish a spatial definition to distinguish the uplands from the other areas of Germany.

The Studies and Research Division has demarcated upland areas on the basis of the information available, and grouped them by *Land* .[2]

The main problem, after demarcating upland areas in the light of relief maps, was to decide which statistics should be employed - the smallest local authority units (Gemeinde), urban or rural districts (Kreise), or administrative regions (Regierungsbezirke).

The use of the *Gemeinde* as a basic statistics unit would have produced relatively accurate figures. However, preparation of the figures would have taken years, and far overshot the deadline for the report.

Use of *administrative regions* was not advisable either, as virtually every administrative region 'with upland areas' also contains plains and hill-country.

The third possibility - urban/rural districts - has been used as the basis for this report. It is precise enough to include virtually all Germany's upland areas, although it has the disadvantage that the statistics had to be processed. This is because many district councils cover both uplands and plains or hill-country.

We divided districts into two categories for statistical analysis: firstly, those with at least 66% uplands, defined as 'mainly upland areas', and secondly those being 'partly' upland areas (i.e. between 33% and 66%). More precisely, uplands comprise 80% of the 'mainly upland areas' and 40% of the 'partly upland areas'.

The criteria used by the rapporteur to define upland areas were used - not just altitude (between 700 and 3 000 metres) but also slope and geographical and climatic disadvantage (see R/CES 435/84 I of 2 May 1984, pp. 2 and 3).

Account was also taken of the slower development of certain regions caused by a combination of these factors. The definition thus took account of the combination of geo-physical and to a lesser extent socio-economic factors used by the rapporteur. The German upland areas, as defined for this report, are mapped in Table 1.

Collection of statistical data

The main problem here was the fact that Germany has *no official statistics* on upland areas. The relevant figures thus had to be extrapolated from various publications using different reference bases, and redrafted to provide figures for 'upland areas'. Only limited recourse could be made to the data of the EEC Statistical Office. Most of the figures analysed are based on the publications of the Federal Statistics Office and on *ad hoc* data from the German Ministries of Agriculture, Fisheries and Food, and Regional and Town Planning and Construction.

The Federal Research Institute for Area Studies and Regional Policy in Bonn was particularly helpful in providing information.

The figures used in the survey which follows mainly cover the period 1975-83 only. Major local and rural district changes were made in the early 1970s and in several *Länder* most statistics for 1960 to 1975 have not yet been re-aggregated for the new administrative units. Also, the Federal offices do not all use the same criteria for their figures, so that they are only partly comparable.

In some districts, figures for certain aspects (e.g. agriculture and the employment situation) have only been compiled in recent years. Consequently, precise statistics for the period 1975 to 1983 are not available for these aspects.

The following survey of population, economic and social trends in Germany's uplands is imprecise in some respects and its figures are not always comparable. The survey is an initial attempt to provide a broad, outline picture. It lays no claim to scientific accuracy. Precise conclusions as to the trends in these very disparate areas would only be possible if the report were expanded and updated over some years.

The Studies and Research Division compiled the statistics tables and assumes responsibility for them. Sources are mentioned in these tables.

We would stress that the classification according to district councils and the division into 'mainly upland areas' and 'partly upland areas' are based on differing criteria to those of Directive 268/75/EEC on Mountain and hill farming in certain less-favoured areas and Regulation 797/85 of 12 March 1985. This is because the criteria drawn up by the rapporteur differed considerably from those of Directive 268/75/EEC.

Finally, we would like to take this opportunity to thank the staff of the Statistical Office of the EEC, Germany and the *Länder* involved for the help and information they have provided.

[1] The term is used only in Council Directive 75/268/EEC of 28 April 1975 on Mountain and hill farming in certain less-favoured areas, and in Regulation 797/85 of 12 March 1985.

[2] See Survey 1 - Map of the upland areas of FR of Germany.

Table 2

Upland areas in the Federal Republic of Germany
Breakdown by district councils

Upland	Mainly upland	Partly upland
Alpen (Bayern)	Berchtesgadener Land Garmisch-Partenkirchen Miesbach Oberallgäu	Bad Tölz-Wolfratshausen Lindau (Bodensee) Ostallgäu Rosenheim Traunstein Weilheim-Schongau
Bayerischer Wald (Bayern)	Freyung-Grafenau Regen	Deggendorf Passau Straubing-Bogen
Oberpfälzer Wald (Bayern)	Cham Tirschenreuth	Neustadt a.d. Waldnaab Schwandorf
Fichtelgebirge/Frankenwald (Bayern)	Hof Wunsiedel i. Fichtelgebirge	Bayreuth Kronach Kulmbach
Fränkische Alb (Bayern)	— — —	Eichstätt Neumarkt i.d. Opf Weissenburg-Gunzenhausen
Rhön (Bayern/Hessen)	— — —	Bad Kissingen (B) Rhön-Grabfeld (B) Fulda (H)
Schwarzwald (Baden-Württemberg)	Calw Freudenstadt Schwarzwald-Baar-Kreis Waldshut	Breisgau-Hochschwarzwald Emmendingen Lörrach Ortenaukreis Rastatt Rottweil
Schwäbische Alb (Baden-Württemberg)	Zollernalbkreis	Alb-Donau-Kreis Göppingen Heidenheim Ostalbkreis Reutlingen Sigmaringen Tuttlingen
Odenwald (Baden-Württemberg/Hessen)	Odenwaldkreis (H)	Bergstrasse (H) Neckar-Odenwaldkreis (BW)
Vogelsberg (Hessen)	— — —	Vogelbergkreis
Taunus (Hessen)	Hochtaunuskreis	— — —
Hunsrück (Rheinland-Pfalz)	— — —	Bernkastel-Wittlich Birkenfeld Rhein-Hunsrück-Kreis
Eifel (Rheinland-Pfalz)	— — —	Bitburg-Prüm (RP) Daun (RP) Euskirschen (NRWF)
Sauerland/Rothaargebirge (Nordrhein-Westfalen)	— — —	Hochsauerlandkreis Olpe Siegen
Harz (Niedersachsen)	— — —	Goslar Osterode am Harz

Federal Republic of Germany - Upland areas:

Bayern	29 district councils
Baden-Württemberg	19 district councils
Hessen	5 district councils
Rheinland-Westfalen	5 district councils
Nordrhein-Westfalen	4 district councils
Niedersachsen	2 district councils

64 district councils and a total of 328 of these, 17 'mainly upland' and 47 'partly upland'.

Extent, geographical situation and special features of the upland areas

The upland areas of the Federal Republic of Germany do not essentially differ from other western European mountainous regions and are, with the exception of the Alps, low mountain ranges.

(i) The Rhine Schiefergebirge basically comprise the Eifel, the Hunsrück and the Taunus, the Sauerland and the Rothaargebirge.

(ii) The Vogelsberg lies in East Hesse and, further eastwards, joins up with the Rhön which extends through two districts. The Harz lies in the south of Lower Saxony.

(iii) The southern part of the upland zone extends from the Black Forest up to the Odenwald, through the Schwäbische and Fränkische Alb to the Oberpfälzer Wald, the Bayerische Wald and the Fichtelgebirge.

The German Alps can be classified as a high mountain area as they include a large section of the Alps. Geographically though, only the northern, mountain range of the Alps and the foothills are in the Federal Republic of Germany.

The total area of the upland areas covered by the districts mentioned above is 67 890 square kilometres or 27.30% of the total area of the Federal Republic of Germany. 16 144 square kilometres (6.49%) are 'mainly upland' and 51 746 square kilometres (20.81%) are 'partly upland'.

It can be assumed that: Uplands cover 80% of the 'mainly upland districts' (80% of 16 144 square kilometres) and 40% of the 'partly upland districts' (40% of 51 746 square kilometres). Put another way, 33 613.6 square kilometres or 13.52% of the total area of the Federal Republic of Germany is 'upland', i.e. approximately 50% of the total area of the districts covered in this documentation.

As regards extent, the following picture emerges:

(i) the only extensive upland areas (5 500 to 11 000 square kilometres are in Bavaria and Baden-Württemberg, i.e. the Alps regions, the Bayerischer and the Oberpfälzer Wald in Bavaria and the Black Forest and the Schwäbische Alb in Baden-Württemberg;

(ii) smaller upland areas are scattered over four further *Länder:* Hesse, Rhineland-Palatinate, North Rhine-Westphalia and Lower Saxony.

(iii) The Taunus, which only covers 482 square kilometres, is the smallest upland area in the Federal Republic of Germany and has a special status in the various sections of the analysis.

Table 3 provides a general overview of the 'extent of upland areas'. It must be remembered that only 80% of the areas classified as 'mainly upland districts', and 40% of the 'partly upland districts', are actually upland.

Table 3

Extent of upland areas [1]

Upland area	Mainly upland	Partly upland	Total
Alpen and Alpenvorland	4 224	6 768	11 010
Bayerischer Wald	1 959	3 594	5 553
Oberpfälzer Wald	2 596	2 901	5 497
Fichtelgebirge/Frankenwald	1 498	2 582	4 080
Fränkische Alb	—	3 527	3 527
Rhön	—	3 539	3 539
Schwarzwald	3 825	6 234	10 059
Schwäbische Alb	918	7 171	8 089
Odenwald	624	1 845	2 469
Vogelsberg	—	1 459	1 459
Taunus	482	—	482
Hunsrück	—	2 938	2 938
Eifel	—	3 788	3 788
Sauerland/Rothaargebirge	—	3 799	3 799
Harz	—	1 601	1 601
Total	16 144	51 746	67 890
as % of the total area of the FRG	6.49 %	20.81 %	27.30 %
'real' upland area. Estimate (80% / 40%)	5.19 %	8.33 %	13.52 %

Source: Statistisches Jahrbuch 1984 fuŕ die Bundesrepublik Deutschland: pp. 54-57.
Publisher: Statistisches Bundesamt Wiesbaden.

[1] Extent of areas in km² as at 1. 1. 1983.

Population trends in the upland areas

Population figures and population density

On 30 June 1983, the mainly and partly upland districts (Kreise) had a population of 8.58 million - giving a population density of 126 inhabitants per square kilometre, or approximately half of the average population density in the FRG (247 inhabitants per square kilometre). In percentage terms, 13.97% of the population of Germany lives in upland areas.

As 40% of the population of 'partly upland districts' and 80% of the population of 'mainly upland districts' live in upland areas, the true upland population is 4.3 million or just 7% of the total population.

Only the estimated total area and total population of the actual upland areas are given here. Apart from Tables 3 and 4, a comparison is not made in the tables.

Population densities in upland areas are given by Table 4a.

Three categories of upland area can be distinguished:

(a) Areas where the population density is only one third or slightly more (approximately 75-100 inhabitants per km²) of the national average.

These include upland areas which lie in western or eastern fringe and border regions at some distance from the conurbations of Germany, i.e. the Bayerische Wald (87), [1] the Oberpfälzer Wald (75), the Frankenwald (95), the Rhön (105) and the German Alps (100). The majority of the Alpine region is a high mountain area. Although its population is relatively sparse, this is one upland area where there has been a marked increase in population in recent years (see below).

(b) Areas where the population density is approximately two-thirds to three-quarters of the national average. Located near industrial and service centres, their recreation potential is high. The Black Forest (176) (centres: the middle and southern part of the Upper Rhine), the Schwäbische Alb (176) (centre: the central Neckar area), the Odenwald (148) (centre: the Rhine-Neckar and the Rhine-Main regions), the Sauerland and the Rothaargebirge (176) (centre: the Ruhr area) and the Harz (162) (centre: the southern part of Lower Saxony).

(c) One upland area, the Taunus, which borders on the Rhine-Main conurbation and where the population density is far higher than the national average - in fact nearly twice as high.

Table 4a

Total population and population density in upland areas

Uplands (1) Mainly upland (2) Partly upland (3) Total		Population as at 30.6.1983	Inhabitants per km² as at 30.6.1983
Alpen and Alpenvorland	(1)	386 000	91
	(2)	716 200	106
	(3)	1 102 200	100
Bayerischer Wald	(1)	147 600	75
	(2)	336 200	94
	(3)	483 800	87
Oberpfälzer Wald	(1)	192 800	74
	(2)	219 800	76
	(3)	412 600	75
Fichtelgebirge/ Frankenwald	(1)	199 600	133
	(2)	245 900	95
	(3)	445 500	109
Fränkische Alb	(1)	—	—
	(2)	281 200	80
	(3)	281 200	80
Rhön	(1)	—	—
	(2)	370 500	105
	(3)	370 500	105
Schwarzwald	(1)	575 100	150
	(2)	1 189 100	192
	(3)	1 773 200	176
Schwäbische Alb	(1)	171 700	187
	(2)	1 254 000	175
	(3)	1 425 700	176
Odenwald	(1)	85 600	137
	(2)	368 400	200
	(3)	454 000	184
Vogelsberg	(1)	—	—
	(2)	108 900	75
	(3)	108 900	75
Taunus	(1)	206 600	429
	(2)	—	—
	(3)	206 600	429
Hunsrück	(1)	—	—
	(2)	284 300	97
	(3)	284 300	97
Eifel	(1)	—	—
	(2)	304 300	80
	(3)	304 300	80
Sauerland/ Rothaargebirge	(1)	—	—
	(2)	668 900	176
	(3)	668 900	176
Harz	(1)	—	—
	(2)	258 900	162
	(3)	258 900	162
Upland areas	(1)	1 965 000	122
	(2)	6 615 600	128
	(3)	8 580 600	126
Federal Republic of Germany		**61 420 700**	**247**

Source: *Statistisches Jahrbuch 1984 für die Bundesrepublik Deutschland:* pp. 54-57.
Publisher: Statistischer Bundesamt Wiesbaden.

[1] Population density per km².

Table 4b

Population trends in upland areas

Uplands (1) Mainly upland (2) Partly upland (3) Total		Population change								
		1961-70		1970-75		1975-80		1980-83		1961-83
		Number	%	Number	%	Number	%	Number	%	Total
Alpen and Alpenvorland	(1)	25 862	7.9	17 822	5.0	13 700	3.7	4 900	1.3	
	(2)	62 216	10.6	47 094	7.3	21 300	3.1	12 700	1.8	20.6
	(3)	88 078	9.6	64 916	6.5	35 000	3.3	17 600	1.6	
Bayerischer Wald	(1)	7 503	5.4	3 321	2.3	— 2 600	— 1.7	500	0.3	
	(2)	19 399	6.4	4 488	1.4	8 300	2.5	3 700	1.1	9.1
	(3)	26 902	6.1	7 809	1.7	5 700	1.2	4 200	0.9	
Oberpfälzer Wald	(1)	9 034	4.7	— 3 596	— 1.8	— 3 600	— 1.8	— 800	— 0.4	
	(2)	16 254	7.7	1 859	0.8	— 9 600	— 4.2	— 1 800	— 0.8	2.6
	(3)	25 288	6.3	— 737	— 0.4	— 13 200	— 3.1	— 2 600	— 0.6	
Fichtelgebirge/ Frankenwald	(1)	— 3 708	— 1.6	— 8 914	— 4.0	— 14 700	— 6.9	— 5 000	— 2.4	
	(2)	5 619	2.2	926	0.4	— 11 300	— 4.4	— 2 800	— 1.1	— 6.7
	(3)	1 911	0.4	— 7 988	— 1.7	— 26 000	— 5.5	— 7 800	— 1.7	
Fränkische Alb	(1)	—	—	—	—	—	—	—	—	
	(2)	20 569	8.4	7 334	2.8	7 400	2.7	3 400	1.2	14.4
	(3)	20 569	8.4	7 334	2.8	7 400	2.7	3 400	1.2	
Rhön	(1)	—	—	—	—	—	—	—	—	
	(2)	26 047	7.6	4 077	1.1	— 3 500	— 0.9	— 300	— 0.1	7.7
	(3)	26 047	7.6	4 077	1.1	— 3 500	— 0.9	— 300	— 0.1	
Bayern		963 907	10.1	350 614	3.3	134 200	1.2	67 300	0.6	15.1
Schwarzwald	(1)	72 661	15.5	26 350	4.9	5 800	1.0	1 200	0.2	
	(2)	145 186	14.6	49.272	4.3	12 000	1.0	5 600	0.5	21.2
	(3)	217 847	14.9	75 622	4.5	17 800	1.0	6 800	0.4	
Schwäbische Alb	(1)	22 361	15.1	4 195	2.5	— 3 000	— 1.7	— 1 400	— 0.8	
	(2)	147 722	13.8	30 384	2.5	8 200	0.7	2 000	0.2	17.3
	(3)	170 083	14.0	34 579	2.5	5 200	0.4	600	0.1	
Baden-Württemberg		1 135 908	14.6	301 952	3.4	59 100	0.6	20 500	0.2	
Odenwald	(1)	8 558	12.2	3 411	4.3	3 300	4.0	1 400	1.7	
	(2)	53 787	17.9	14 871	4.2	— 800	— 0.2	— 600	— 0.2	22.4
	(3)	62 345	16.8	18 282	4.2	2 500	0.6	800	0.2	
Vogelsberg	(1)	—	—	—	—	—	—	—	—	
	(2)	920	0.8	— 700	— 0.6	— 2 400	— 2.2	— 600	— 0.5	— 2.0
	(3)	920	0.8	— 700	— 0.6	— 2 400	— 2.2	— 600	— 0.5	
Taunus	(1)	32 138	23.0	24 877	14.5	9 700	4.9	2 800	1.4	
	(2)	—	—	—	—	—	—	—	—	47.7
	(3)	32 138	23.0	24 877	14.5	9 700	4.9	2 800	1.4	
Hessen		567 268	11.8	181 795	3.4	20 600	0.4	— 3 200	— 0.1	16.1
Hunsrück	(1)	—	—	—	—	—	—	—	—	
	(2)	10 371	3.7	— 2 852	— 1.0	— 3 900	— 1.4	0	0	1.3
	(3)	10 371	3.7	— 2 852	— 1.0	— 3 900	— 1.4	0	0	1.3
Eifel	(1)	—	—	—	—	—	—	—	—	
	(2)	21 135	7.6	1 681	0.6	2 500	0.8	2 000	0.7	9.1
	(3)	21 135	7.6	1 681	0.6	2 500	0.8	2 000	0.7	9.1
Rheinland-Pfalz		228 321	6.7	32 063	0.9	— 44 900	— 1.2	— 6 100	— 0.2	6.4
Sauerland/ Rothaargebirge	(1)	—	—	—	—	—	—	—	—	—
	(2)	64 095	10.6	16 495	2.5	— 14 500	— 2.1	— 7 300	— 1.1	11.0
	(3)	64 095	10.6	16 495	2.5	— 14 500	— 2.1	— 7 300	— 1.1	
Nordhrein-Westfalen		1 002 307	6.3	262 673	1.6	— 275 900	— 1.6	— 139 200	— 0.8	6.3
Harz	(1)	—	—	—	—	—	—	—	—	
	(2)	— 1 956	— 0.7	— 4 835	— 1.8	— 7 800	— 2.9	— 4 700	— 1.8	— 5.3
	(3)	— 1 956	— 0.7	— 4 835	— 1.8	— 7 800	— 2.9	— 4 700	— 1.8	
Niedersachsen		441 478	6.6	144 151	2.0	25 200	0.3	4 900	0.1	9.1
Upland areas	(1)	174 409	10.2	67 466	3.6	8 600	0.4	3 600	0.2	
	(2)	591 364	10.1	170 094	2.6	5 900	0.1	11 300	0.2	13.5
	(3)	765 773	10.1	237 560	2.9	14 500	0.2	14 900	0.2	
Federal Republic of Germany		**4 466 000**	**7.9**	**1 181 200**	**1.9**	**— 411 500**	**— 0.7**	**— 140 000**	**— 0.2**	**9.3**

		Absolute figures				
		6.6.1961	27.5.1970	30.6.1975	30.6.1980	30.6.1983
Total population of the Federal Republic of Germany		56 185 000	60 651 000	61 832 200	61 560 700	61 420 700
Population in upland areas in % of total population	(1)	3.052	3.114	3.164	3.186	3.190
	(2)	10.409	10.617	10.689	10.728	10.770
	(3)	13.460	13.732	13.853	13.914	13.970

Source: Census of 6.6.1961 and 27.5.1970. Publisher: Statistischer Bundesamt, Wiesbaden.
Statistischer Jahrbuch 1976, 1979, 1981, 1984 for Federal Republic of Germany. Section on 'Fläche und Bevölkerung der kreisfreien Städte und Landkreise'.

Table 4c

Age structure of resident population in 1982

(%)

Uplands (1) Mainly upland (2) Partly upland (3) Total		Absolute figures = 100%	Percentage of these aged . . . . to under								
			under 6	6 - 15	15 - 18	18 - 25	25 - 30	30 - 40	40 - 50	50 - 65	65 and over
Alpen and Alpenvorland	(1)	385 700	5.7	10.4	5.1	11.8	6.6	12.7	14.3	16.4	17.0
	(2)	714 200	6.3	11.4	5.3	11.0	6.5	12.8	14.3	16.4	15.9
	(3)	1 099 900	6.1	11.1	5.2	11.3	6.6	12.8	14.3	16.4	16.3
Bayerischer Wald	(1)	147 800	7.4	13.3	5.8	12.5	7.2	11.4	12.9	16.8	12.7
	(2)	335 800	7.3	13.1	5.6	12.1	6.8	11.9	13.0	16.4	13.8
	(3)	483 600	7.3	13.1	5.7	12.2	6.9	11.7	13.0	16.6	13.5
Oberpfälzer Wald	(1)	192 800	7.3	13.0	5.7	11.9	6.5	10.9	13.3	17.1	14.3
	(2)	219 800	7.1	12.7	5.6	12.0	6.7	11.4	13.8	17.4	13.3
	(3)	412 600	7.2	12.8	5.7	11.9	6.7	11.2	13.5	17.2	13.8
Fichtelgebirge/ Frankenwald	(1)	200 700	5.3	10.3	4.7	9.9	5.6	11.3	14.9	19.8	18.2
	(2)	246 100	6.1	11.8	5.2	10.9	6.5	11.4	14.4	18.2	15.5
	(3)	446 800	5.8	11.1	4.9	10.5	6.1	11.4	14.6	18.8	16.7
Fränkische Alb	(1)	—	—	—	—	—	—	—	—	—	—
	(2)	280 900	7.5	12.6	5.8	12.4	6.8	11.8	13.9	16.1	13.1
	(3)	280 900	7.5	12.6	5.8	12.4	6.8	11.8	13.9	16.1	13.1
Rhön	(1)	—	—	—	—	—	—	—	—	—	—
	(2)	370 700	6.4	12.1	5.6	11.9	6.9	11.4	13.4	16.9	15.5
	(3)	370 700	6.4	12.1	5.6	11.9	6.9	11.4	13.4	16.9	15.5
Bayern		10 956 700	6.1	10.8	5.0	11.7	7.2	13.4	14.6	16.5	14.7
Schwarzwald	(1)	576 000	6.4	11.8	5.5	12.0	6.9	12.2	14.6	16.3	14.3
	(2)	1 198 200	6.3	11.8	5.7	12.1	7.1	12.6	14.6	16.1	13.7
	(3)	1 774 200	6.4	11.8	5.6	12.1	7.0	12.4	14.7	16.1	13.9
Schwäbische Alb	(1)	171 800	6.4	12.1	5.5	11.6	6.6	12.2	15.1	16.5	14.0
	(2)	1 254 100	6.7	12.3	5.6	11.9	6.9	12.2	14.6	16.0	13.8
	(3)	1 425 900	6.7	12.3	5.6	11.8	6.9	12.2	14.6	16.1	13.8
Baden-Württemberg		9 270 600	6.2	11.1	5.2	12.1	7.4	13.2	14.9	16.0	13.9
Odenwald	(1)	85 500	6.1	11.1	4.8	10.4	6.5	13.1	14.2	17.8	16.0
	(2)	369 100	6.0	11.4	5.4	11.7	6.9	13.1	14.8	16.7	14.0
	(3)	454 600	6.0	11.3	5.3	11.5	6.8	13.1	14.7	16.9	14.4
Vogelsberg	(1)	—	—	—	—	—	—	—	—	—	—
	(2)	109.200	6.0	11.0	4.9	11.2	6.6	11.2	13.6	18.5	17.0
	(3)	109.200	6.0	11.0	4.9	11.2	6.6	11.2	13.6	18.5	17.0
Taunus	(1)	206 900	5.2	10.2	4.8	9.8	6.1	14.7	16.6	17.0	15.6
	(2)	—	—	—	—	—	—	—	—	—	—
	(3)	206 900	5.2	10.2	4.8	9.8	6.1	14.7	16.6	17.0	15.6
Hessen		5 599 800	5.7	10.3	4.8	11.3	7.4	13.9	14.8	16.8	15.0
Hunsrück	(1)	—	—	—	—	—	—	—	—	—	—
	(2)	284 700	6.1	11.4	5.4	11.8	6.8	11.3	13.6	18.0	15.6
	(3)	284 700	6.1	11.4	5.4	11.8	6.8	11.3	13.6	18.0	15.6
Eifel	(1)	—	—	—	—	—	—	—	—	—	—
	(2)	304 500	6.4	12.0	6.0	11.8	6.3	11.2	14.2	17.9	14.2
	(3)	304 500	6.4	12.0	6.0	11.8	6.3	11.2	14.2	17.9	14.2
Rheinland-Pfalz		3 635 500	5.9	10.7	5.2	12.0	7.2	12.1	14.3	17.5	15.1
Sauerland/ Rothaargebirge	(1)	—	—	—	—	—	—	—	—	—	—
	(2)	670 900	6.5	12.2	5.9	12.2	6.8	11.3	14.4	16.9	13.8
	(3)	670 900	6.5	12.2	5.9	12.2	6.8	11.3	14.4	16.9	13.8
Nordrhein-Westfalen		16 961 200	5.9	10.7	5.2	12.0	7.2	12.1	14.3	17.5	15.1
Harz	(1)	—	—	—	—	—	—	—	—	—	—
	(2)	260 000	4.9	9.9	4.7	11.2	7.0	10.9	13.7	18.3	19.4
	(3)	260 000	4.9	9.9	4.7	11.2	7.0	10.9	13.7	18.3	19.4
Niedersachsen		7 256 800	5.8	11.5	5.4	11.7	6.9	12.5	14.6	16.3	15.3
Upland areas	(1)	1 967 200	6.2	11.4	5.3	11.4	6.6	12.3	14.6	16.9	15.3
	(2)	6 618 200	6.5	11.9	5.6	11.8	6.8	12.0	14.2	16.7	14.5
	(3)	8 585 400	6.4	11.8	5.5	11.7	6.8	12.1	14.3	16.7	14.7
Federal Republic of Germany		61 546 100	5.8	10.7	5.1	11.7	7.2	13.1	14.9	16.6	14.9

Source: Fachserie 1: Bevölkerung und Erwerbstätigkeit; Reiche 1 : Gebiet und Bevölkerung 1982: pp. 192-217.
Publisher: Statistischer Bundesamt, Wiesbaden.

Population trends in the upland areas

The population of Germany increased sharply between 1961-70 (7.9%), increased moderately from 1970-75 (1.9%) and contracted slightly between 1975 and 1983 (dropping by 0.7%). In the *Länder* with the largest area of uplands - Bavaria, Baden-Württemberg and Hesse - the population increased sharply between 1961-83, and less rapidly thereafter. (Table 4b — BY: + 14.6%, BW: + 18.6%, HS: + 15.6%, HS: + 15.6%). While in the other *Länder* in the west and the north, population growth has been slower (North Rhine-Westphalia + 5.5%, Lower Saxony + 9%, Rhineland-Palatinate + 6%).

There was an above-average increase in population over the time-span 1961-83, in the larger upland areas of Bavaria, Baden-Württemberg and Hesse, i.e. the Alps and the Alpine Lowland, the Black Forest, the Odenwald and the Taunus. These are all areas where the countryside is attractive, industrial and service centres are close, transport connections are good or very good and where the tourist season in many cases lasts all the year round. The population increase in these areas lies above the average for each *Land*.

In contrast, the population trend in certain upland zones of Bavaria such as the Fichtelgebirge and the Frankenwald, is clearly negative and approximately 22% below the Bavarian average. In the Oberpfälzer Wald and the Bayerische Wald, however, population is increasing although at a rate considerably below the Bavarian average. The figures for the Fränkische Alb lie just below the Bavarian average.

Among the upland areas of Baden-Württemberg, the Black Forest has had a bigger rate of population increase, than the *Land* as a whole (20.4% as against 18.6%) and the Schwäbische Alb slightly less.

The pattern in the uplands of Hesse is very mixed. The population increase in the Taunus (42.4%) and Odenwald (21.6%) is far higher than the Hesse average (15.6%). As against this, the population in the very sparsely settled area of the Vogelsberg has declined steadily since the early 1970s (- 2%).

The population trends in the upland areas of Rhineland-Palatinate has been varied. In the Hunsrück, the population level has stabilized over the last three years following a decline in the 1970s (overall + 1.3%) while in the Eifel there has been a steady increase which is greater than the average Rhineland-Palatinate increase (+ 9% as against 6.4%).

In North Rhine-Westphalia, the upland areas of the Sauerland and the Rothaargebirge have had an increase in population of + 11.0% which is higher than the *Land* average (+ 6.3%). On closer inspection, however, it can be seen that over the past three years the population of these areas had dropped faster than that of North Rhine-Westphalia (- 1.1% as opposed to - 0.8%).

In Lower Saxony (+ 8.9%), the low mountain range of the Harz has lost 5.4% of its population since 1961. Over this period the population of Lower Saxony as a whole has risen by 8.9% (and has continued to rise in recent years, if only slightly).

To sum up, the population of the Black Forest, Odenwald, Taunus, the Alpenvorland and the German Alps has been rising faster than the average in the *Länder* where they are located. These areas have attractive countryside, good transport connections and are close to service or industrial centres. However, in those upland areas which are mainly remote from service and industrial centres or in border regions of the FRG - the Fichtelgebirge, the Fränkische Wald, the Oberpfälzer Wald - there has been a constant decline in population since 1970. The Vogelsberg and the Harz are also affected by a constant decrease in the population.

The Bundesforschungsanstalt für Raumkunde und Raumordnung has established that these marked variations in upland population trends follow a pattern: as a rule, the natural population trends and migration reinforce each other. This is true both of the areas of population increase (Alps, Black Forest, Odenwald and Taunus) and of areas of population decrease (Harz, the Vogelsberg, the Fichtelgebirge and the Frankenwald).

Age pyramid

Table 4c gives the population structure of upland areas in the *Bundesländer* and the Federal Republic.

The Fichtelgebirge and the Frankenwald in Bavaria and the Vogelsberg and the Taunus in Hesse all have an above-average percentage of inhabitants aged 50 or over.

In contrast with most upland areas the 30-50 age-group is especially dominant in the Taunus (commuter area for the Rhine-Main industrial and service centre).

The percentage in the 6 to 30 age-group is, however, far below average.

In the Harz (Lower Saxony), there is an especially high percentage of the 50-65 age-group and a below-average percentage of the 6-50 age-groups.

The age-groups between 25 and 50 are under-represented in nearly all upland areas. This may be because many people in these age-groups, which make up the majority of the working population, move temporarily from the rural upland areas to towns but return to their home areas when they are older.

In the Alps and the Alpenvorland, the Bayerische Wald, the Oberpfälzer Wald and the Hünsrück, the percentage of younger age-groups (under 18) and also of the older age-groups (over 50) is high while the percentage of the middle age-groups is below average.

A third group of regions can be distinguished where the percentage in the younger age-groups up to approxi-

mately 25 is above average while the percentage in the middle *and* older age-groups is below average. These areas are the Bayerische Wald, the Fränkische Alb and especially the Black Forest and the Schwäbische Alb. The age structure of the population in the Odenwald is closer to the average in Hesse and in the whole country.

To sum up - there are considerable differences between the population structures in the different upland areas. On the one hand, there are areas where the percentage in the over 50 age-groups is above average, for instance Fichtelgebirge/Frankenwald, Vogelsberg/Harz and the Taunus. In other upland areas, such as the Black Forest, the Schwäbische Alb, the Eifel and the Sauerland/Rothaargebirge, the population is relatively young.

It is thus possible to modify the finding of the Bundesantalt für Landeskunde und Raumordnung, which suggests that migration movements negatively affect rural areas and especially, that they are confined to the age-groups between 18 and 25. It has been shown that migration also occurs amongst the economically most active age-groups, i.e. amongst sections of the population aged between 25 and 40.

Economic and social trend: Working population in the various economic sectors

Employment

It is almost impossible to provide a comprehensive picture of the employment trend in the various sectors, for either the self-employed or employees as the statistical data at district level cover only *employees in an obligatory social security scheme*. Nor is it possible from these data to gain an overview of self-employment in farming, manufacturing and the services sector.

Employees covered by an obligatory social security scheme

Approximately 2.5 million workers belonging to *obligatory social security schemes,* i.e. about 10% of the total working population of the Federal Republic, are employed in 'upland' and 'partly upland' rural districts.

This estimated figure for wage-earners in the upland areas must be increased by about 10% for the self-employed and civil servants (approximately 250 000 persons) and by about 8-9% for the unemployed (approximately 230 000 persons).

Hence in 1984 the working population of 'mainly' and 'partly' upland rural districts was about 3 million. At 35% of the total population of these districts, this is below the national average.

Table 5a gives a precise picture of the number of employees in an obligatory social security scheme, broken down by economic sectors. The figures for workers in upland areas show that, generally with the exception of the Alps where the services sector is particularly strong, an above average number of workers are employed in three sectors: agriculture, manufacturing (excluding construction) and construction. Only in the Alps, the Alpine lowland and the Harz can the services sector be added to this list. In the Hunsrück, the Eifel and the Rhön the proportion of workers in the armed forces (Bundeswehr and allied forces) is relatively high.

Table 5b gives the number of employed workers in agriculture (primary sector), manufacturing (secondary sector) and services (tertiary sector).

The figures for 1978 to 1984 show that in the upland areas - with the exception of the Taunus and the Hunsrück - there is an above average number of workers in manufacturing, but that in general - with the exception of the Harz - this figure is declining rapidly. This contraction is almost entirely offset by a rapid rise in the numbers employed in the services sector.

Over this period there was a slight increase in the number of agricultural workers, indicating some consolidation of the position of large farms which, unlike most family farms, employ hired workers.

In line with the pattern in other Member States, Germany's upland areas are not *underindustrialized*. That their level of industrialization is above the Federal average is a testimony to the, mostly successful, efforts made over the decades to establish industries in, above all, the upland areas of Bavaria, Baden-Württemberg, Hesse and North Rhine-Westphalia.

Unemployment trend

Tables 6a and b give the unemployment rates of: (a) the Federal Republic, (b) *Länder* with upland areas and (c) upland areas. Table 6a (position as at 31.10.1984) points to the *above average structural* unemployment. In Bavaria this is the case for the Bayerischer Wald, the Oberpfälzer Wald, the Fichtelgebirge, the Frankenwald and the Rhön, in Hesse for the Vogelsberg, and in Rhineland-Palatinate for the Hunsrück and the Eifel.

As structural unemployment is relatively high in North Rhine-Westphalia and Lower Saxony, the figures for the Sauerland and the Harz, although well above the Federal average, indicate a level of structural unemployment which is still below the average for their respective *Länder*.

Table 6b (winter unemployment as at 31.12.1984) shows that in Bavaria the upland areas Bayerische Wald and Oberpfälzer Wald suffer from a major structural and seasonal lack of employment opportunities. This is also the case, but to a lesser degree, in the Fichtelgebirge, the Fränkische Alb and the Rhön.

In the upland areas of Baden-Württemburg the effects of seasonal bad weather in the Schwarzwald and the

Table 5a

Employees covered by obligatory social security schemes by economic activity: position as at 30.6.1984

Uplands (1) Mainly uplands (2) Partly uplands (3) Together		Total	Agriculture, forestry and fisheries	Energy, water supply, mining	Manufacturing (excluding construction)	Construction	Trade	Transport and communications	Credit institutions and insurance	Services nes	Non-profit organizations + private households	Regional Authorities and social security
Alpen and Alpenvorland	(1)	112 039	2.1	1.4	28.7	10.4	12.4	3.0	2.8	30.7	1.0	7.2
	(2)	196 529	2.6	0.9	43.3	11.0	11.3	2.7	2.9	19.3	1.2	4.8
	(3)	308 568	2.4	1.0	38.0	10.8	11.7	2.9	2.9	23.4	1.2	5.7
Bayerischer Wald	(1)	39 069	2.0	0.3	48.8	12.1	8.4	2.8	2.1	15.5	1.2	6.8
	(2)	82 700	2.8	1.3	46.4	12.9	9.0	3.0	2.7	15.2	1.3	5.4
	(3)	121 769	2.6	1.0	47.2	12.6	8.8	2.9	2.5	15.3	1.2	2.9
Oberpfälzer Wald	(1)	51 716	2.0	0.4	51.6	14.0	9.2	2.2	2.6	12.2	0.8	5.0
	(2)	56 782	2.1	1.7	53.5	9.9	7.4	2.4	2.5	11.1	0.7	8.7
	(3)	108 498	2.1	1.1	52.6	11.8	8.5	2.3	2.6	11.6	0.7	6.9
Fichtelgebirge/ Frankenwald	(1)	68 222	1.0	1.2	63.7	6.4	8.7	2.5	2.1	10.5	0.8	3.1
	(2)	69 552	1.5	0.8	58.8	9.1	9.0	2.4	2.3	11.1	1.0	4.0
	(3)	137 774	1.3	0.9	61.3	7.8	8.9	2.4	2.2	10.8	0.9	3.5
Fränkische Alb	(1)	—	—	—	—	—	—	—	—	—	—	—
	(2)	68 415	2.3	1.0	43.2	15.9	11.0	2.5	2.7	12.9	1.7	6.8
	(3)	68 415	2.3	1.0	43.2	15.9	11.0	2.5	2.7	12.9	1.7	6.8
Rhön	(1)	—	—	—	—	—	—	—	—	—	—	—
	(2)	104 451	1.0	1.9	39.3	10.8	11.6	5.1	2.7	17.0	1.5	9.1
	(3)	104 451	1.0	1.9	39.3	10.8	11.6	5.1	2.7	17.0	1.5	9.1
Bayern		**3 648 099**	**1.3**	**1.1**	**41.5**	**8.9**	**13.3**	**4.2**	**3.9**	**17.9**	**1.9**	**6.0**
Schwarzwald	(1)	185 541	1.3	0.7	49.6	8.8	9.5	2.4	2.4	17.7	1.2	6.4
	(2)	370 125	1.4	0.7	48.8	9.6	10.3	3.8	2.4	15.7	1.2	6.1
	(3)	555 665	1.3	0.7	49.1	9.3	10.1	3.3	2.4	16.4	1.2	6.2
Schwäbische Alb	(1)	68 487	1.0	0.7	65.5	6.5	8.0	2.0	2.1	9.0	0.6	4.6
	(2)	401 894	1.4	0.6	54.6	8.9	9.9	2.6	2.6	12.6	1.1	5.7
	(3)	470 381	1.4	0.7	56.1	8.5	9.6	2.5	2.6	12.0	1.1	5.5
Baden-Württemberg		**3 278 856**	**1.1**	**1.0**	**45.7**	**7.9**	**12.0**	**3.7**	**3.7**	**17.0**	**1.8**	**6.1**
Odenwald	(1)	23 664	1.3	0.5	60.2	7.8	8.5	1.4	2.2	12.5	0.8	4.8
	(2)	89 461	1.0	1.6	44.1	9.7	11.9	3.2	2.4	16.9	1.8	7.4
	(3)	113 125	1.1	1.4	47.5	9.2	11.2	2.8	2.3	16.0	1.6	6.9
Vogelsberg	(1)	—	—	—	—	—	—	—	—	—	—	—
	(2)	25 998	1.8	0.3	46.5	11.3	10.1	2.9	3.2	14.9	1.1	7.9
	(3)	25 998	1.8	0.3	46.5	11.3	10.1	2.9	3.2	14.9	1.1	7.9
Taunus	(1)	53 653	0.8	0.8	35.2	6.0	18.0	2.1	6.1	23.0	2.0	6.0
	(2)	—	—	—	—	—	—	—	—	—	—	—
	(3)	53 653	0.8	0.8	35.2	6.0	18.0	2.1	6.1	23.0	2.0	6.0
Hessen		**1 849 681**	**0.8**	**1.3**	**36.2**	**7.4**	**14.4**	**6.1**	**5.3**	**19.3**	**2.2**	**7.0**
Hunsrück	(1)	—	—	—	—	—	—	—	—	—	—	—
	(2)	77 155	2.6	0.9	35.8	11.0	13.0	3.3	2.7	17.2	1.1	12.4
	(3)	77 155	2.6	0.9	35.8	11.0	13.0	3.3	2.7	17.2	1.1	12.4
Eifel	(1)	—	—	—	—	—	—	—	—	—	—	—
	(2)	70 567	2.6	0.7	35.9	11.7	13.0	3.6	3.2	17.1	1.6	10.6
	(3)	70 567	2.6	0.7	35.9	11.7	13.0	3.6	3.2	17.1	1.6	10.6
Rheinland-Pfalz		**1 074 240**	**1.7**	**1.2**	**39.3**	**8.3**	**13.0**	**3.8**	**3.3**	**17.8**	**1.7**	**9.9**
Sauerland/ Rothaargebirge	(1)	—	—	—	—	—	—	—	—	—	—	—
	(2)	211 635	0.9	1.4	51.8	7.1	11.2	3.3	2.5	14.7	1.5	5.6
	(3)	211 635	0.9	1.4	51.8	7.1	11.2	3.3	2.5	14.7	1.5	5.6
Nordhrein-Westfalen		**5 351 678**	**0.8**	**4.7**	**39.4**	**6.9**	**14.1**	**4.4**	**3.7**	**18.0**	**2.1**	**5.9**
Harz	(1)	—										
	(2)	73 734	1.9	2.7	41.7	7.0	11.9	2.3	2.3	22.9	1.0	6.3
	(3)	73 734	1.9	2.7	41.7	7.0	11.9	2.3	2.3	22.9	1.0	6.3
Niedersachsen		**2 057 355**	**1.0**	**2.7**	**36.0**	**8.2**	**13.9**	**4.3**	**3.7**	**19.8**	**1.8**	**8.2**
Upland areas	(1)	602 391	1.5	0.8	48.4	8.9	10.4	2.4	2.7	18.0	1.1	5.8
	(2)	1 898 998	1.7	1.0	48.0	9.8	10.7	3.1	2.6	15.4	1.2	6.5
	(3)	2 501 389	1.6	1.0	48.0	9.6	10.6	3.0	2.6	16.1	1.2	6.3
Federal Republic of Germany		**20 060 338**	**1.2**	**2.4**	**38.5**	**7.7**	**13.8**	**4.8**	**4.0**	**18.8**	**2.0**	**6.8**

Source: Working documents of Statistischer Bundesamt, Wiesbaden.

Table 5b

Employees covered by obligatory social security schemes by sectors: position as at 30.6.1984 — Trend 1978-84

Uplands (1) Mainly upland (2) Partly upland (3) Together		Total = 100% 30.6.1984	of which as a %					
			Primary Agricultural and forestry		Secondary Manufacturing industy		Tertiary services	
			30.6.1984	Trend 1978 - 84	30.6.1984	Trend 1978 - 84	30.6.1984	Trend 1978 - 84
Alpen and Alpenvorland	(1)	112 039	2.1	0.0	40.5	— 1.8	57.4	+ 1.8
	(2)	196 529	2.6	+ 0.3	55.2	— 4.1	42.2	+ 3.8
	(3)	308 568	2.4	+ 0.2	49.8	— 3.3	47.8	+ 3.1
Bayerischer Wald	(1)	39 069	2.0	—0.4	61.2	—5.4	36.8	5.8
	(2)	82 700	2.8	—0.3	60.6	—4.6	36.6	4.9
	(3)	121 769	2.6	—0.2	60.8	—4.9	36.6	5.1
Oberpfälzer Wald	(1)	51 716	2.0	0.1	66.0	—3.9	32.0	
	(2)	56 782	2.1	—0.1	65.1	—4.3	32.8	4.4
	(3)	108 498	2.1	0.1	65.5	—4.1	32.4	4.0
Fichtelgebirge/ Frankenwald	(1)	68 222	1.0	0.0	71.3	—3.6	27.7	3.6
	(2)	69 552	1.5	—0.1	68.7	—4.0	29.8	4.1
	(3)	137 774	1.3	0.0	70.0	—3.8	28.7	3.8
Fränkische Alb	(1)	—	—	—	—	—	—	—
	(2)	68 415	2.3	—0.2	60.1	—3.9	37.6	4.1
	(3)	68 415	2.3	—0.2	60.1	—3.9	37.6	4.1
Rhön	(1)	—	—	—	—	—	—	—
	(2)	104 451	1.0	0.1	52.0	—4.3	47.0	4.2
	(3)	104 451	1.0	0.1	52.0	—4.3	47.0	4.2
Bayern		3 684 099	1.3	0.0	51.5	—3.7	47.2	3.7
Schwarzwald	(1)	185 541	1.3	0.1	59.1	—4.3	39.6	4.2
	(2)	370 125	1.4	0.3	59.1	—3.5	39.5	3.2
	(3)	555 666	1.3	0.1	59.1	—3.7	39.6	3.6
Schwäbische Alb	(1)	68 487	1.0	0.2	72.7	—3.3	26.3	3.1
	(2)	401 894	1.4	0.2	64.1	—4.4	34.5	4.2
	(3)	470 381	1.3	0.2	65.3	—4.4	33.3	4.1
Baden-Württemberg		3 278 856	1.1	0.2	54.6	—4.6	44.3	4.4
Odenwald	(1)	23 664	1.3	0.1	68.5	—4.1	30.2	4.0
	(2)	89 461	1.0	0.0	55.4	—4.9	43.6	4.9
	(3)	113 125	1.1	0.1	58.1	—4.9	40.8	4.8
Vogelsberg	(1)	—	—	—	—	—	—	—
	(2)	25 998	1.8	0.0	58.1	—4.3	40.1	4.3
	(3)	25 998	1.8	0.0	58.1	—4.3	40.1	4.3
Taunus	(1)	53 653	0.8	0.1	42.0	—8.0	57.2	7.9
	(2)	—	—	—	—	—	—	—
	(3)	53 653	0.8	0.1	42.0	—8.0	57.2	7.9
Hessen		1 849 681	0.8	0.0	44.9	—4.7	54.3	4.7
Hunsrück	(1)	—	—	—	—	—	—	—
	(2)	77 155	2.6	—0.2	47.7	—1.7	49.7	1.9
	(3)	77 155	2.6	—0.2	47.7	—1.7	49.7	1.9
Eifel	(1)	—	—	—	—	—	—	—
	(2)	70 567	2.6	0.4	48.3	—4.0	49.1	3.6
	(3)	70 567	2.6	0.4	48.3	—4.0	49.1	3.6
Rheinland-Pfalz		1 074 240	1.7	0.1	48.8	—3.1	49.5	3.0
Sauerland/ Rothaargebirge	(1)	—	—	—	—	—	—	—
	(2)	211 635	0.9	0.0	60.3	—3.2	38.8	3.2
	(3)	211 635	0.9	0.0	60.3	—3.2	38.8	3.2
Nordhrein-Westfalen		5 351 678	0.8	0.1	51.0	—3.6	48.2	3.5
Harz	(1)	—	—	—	—	—	—	—
	(2)	73 734	1.9	0.3	51.4	0.6	46.7	—0.9
	(3)	73 734	1.9	0.3	51.4	0.6	46.7	—0.9
Niedersachsen		2 057 355	1.9	0.0	46.4	—3.6	51.7	3.6
Upland areas	(1)	602 391	1.5	0.2	58.1	—4.5	40.4	4.3
	(2)	1 898 998	1.7	0.2	58.8	—3.9	39.5	3.7
	(3)	2 501 389	1.6	0.2	58.6	—4.0	39.8	3.9
Federal Republic of Germany		20 040 338	1.2	0.2	48.6	—3.8	50.2	3.6

Source: Working document of Statistischer Bundesamt, Wiesbaden.

Table 6a

Unemployment situation on 31.10.1984 (autumn)

Uplands (1) Mainly upland (2) Partly upland (3) Together		Total unemployment	Unemployment rate	For comparisons: unemployment rate			
				(c) Specially effected districts [1]		(b) *Länder*	(a) Federal Republic of Germany
Alpen and Alpenvorland	(1)	8 087	6.1				
	(2)	14 735	6.3				
	(3)	22 822	6.2				
Bayerischer Wald				Freyung-Grafenau	12.8		
	(1)	5 159	12.2	Regen	11.7		
	(2)	9 675	10.3	Deggendorf	10.7		
	(3)	14 834	10.9	Passau	9.9		
				Straubing-Bogen	10.4	Bayern	
Oberpfälzer Wald				Cham	14.9		
	(1)	6 950	12.2	Tirschenreuth	8.9	6.7	
	(2)	7 510	10.4	Neustadt a.d. Waldnaab	8.9		
	(3)	14 460	11.2	Schwandorf	11.4		
Fichtelgebirge/ Frankenwald	(1)	6 667	8.4	Wunsiedel i. Fichtelgebirge	8.9		
	(2)	7 213	8.4	Bayreuth	8.9		
	(3)	13 880	8.4	Kulmbach	9.2		
Fränkische Alb	(1)	—	—				
	(2)	6 330	7.3				
	(3)	6 330	7.3				
Rhön	(1)	—	—	Rhön-Grabfeld	9.9		
	(2)	10 225	8.4				
	(3)	10 225	8.4				
Schwarzwald	(1)	11 031	5.0				
	(2)	26 014	6.0				
	(3)	37 045	5.6			Baden-Württemberg	
Schwäbische Alb	(1)	3 375	4.5			5.2	8.6
	(2)	27 021	5.6				
	(3)	30 396	5.4				
Odenwald	(1)	1 673	5.3				
	(2)	8 659	6.7				
	(3)	10 332	6.4				
Vogelsberg	(1)	—	—			Hessen	
	(2)	2 681	8.0				
	(3)	2 681	8.0			6.9	
Taunus	(1)	3 862	4.9				
	(2)	—	—				
	(3)	3 862	4.9				
Hunsrück	(1)	—	—	Bernkastel-Wittlich	11.0		
	(2)	8 609	10.2	Birkenfeld	10.3	Rheinland-	
	(3)	8 609	10.2	Rhein-Hunsrück-Kreis	9.3	Pfalz	
Eifel	(1)	—	—	Bitburg-Prüm	10.6	7.5	
	(2)	9 073	10.4	Daun	11.0		
	(3)	9 073	10.4	Euskirchen	10.1		
Sauerland/ Rothaargebirge	(1)	—	—	Olpe	9.0	Nordrhein-	
	(2)	20 490	9.1	Siegen	9.7	Westfalen	
	(3)	20 490	9.1			10.4	
Harz	(1)	—	—	Goslar	10.9	Niedersachsen	
	(2)	10 252	11.0	Osterode am Harz	11.3		
	(3)	10 252	11.0			11.4	
Upland areas	(1)	46 804	6.6				
	(2)	168 487	7.4				
	(3)	215 291	7.2				

Source: Official reports of the Federal Labour Office: ANBA No 1/1985; pp. 26-29.

[1] Unemployment rate is above Federal average.

Table 6b

Unemployment situation on 31.10.1984 (winter)

Uplands (1) Mainly upland (2) Partly upland (3) Together		Total unemployment	Unemployment rate	For comparisons: unemployment rate				
				(c) Specially affected districts [1]		(b) *Länder*	(a) Federal Republic of Germany	
Alpen and Alpenvorland	(1)	10 641	8.0					
	(2)	18 656	8.0					
	(3)	29 297	8.0					
Bayerischer Wald	(1)	9 100	21.6	Freyung-Grafenau	22.2			
	(2)	14 988	15.9	Regen	20.9			
	(3)	24 088	17.6	Deggendorf	15.8			
				Passau	16.3			
				Straubing-Bogen	15.1	Bayern		
Oberpfälzer Wald	(1)	10 580	18.6	Cham	23.6			
	(2)	10 525	14.6	Tirschenreuth	12.4	8.2		
	(3)	21 104	16.3	Neustadt a.d. Waldnaab	12.9			
				Schwandorf	15.7			
Fichtelgebirge/ Frankenwald	(1)	8 026	10.1	Wunsiedel i. Fichtelgebirge	11.1			
	(2)	9 634	11.1	Bayreuth	12.0			
	(3)	17 660	10.6	Kulmbach	11.4			
Fränkische Alb	(1)	—	—	Neumarkt i.d. Opf.	10.5			
	(2)	8 291	9.5	Weissenburg-				
	(3)	8 291	9.5	Gunzenhausen	10.6			
Rhön	(1)	—	—	Rhön-Grabfeld	12.8			
	(2)	12 906	10.6	Bad Kissingen	11.1			
	(3)	12 906	10.6	Fulda	9.5			
Schwarzwald	(1)	12 342	5.6					
	(2)	28 843	6.6					
	(3)	41 185	6.3			Baden-Württemberg		
Schwäbische Alb	(1)	3 780	5.0			5.5	9.4	
	(2)	27 632	5.9					
	(3)	32 412	5.8					
Odenwald	(1)	1 888	6.0					
	(2)	9 179	7.1					
	(3)	11 067	6.9					
Vogelsberg	(1)	—	—			Hessen		
	(2)	3 270	9.7	Vogelsbergkreis	9.7			
	(3)	3 270	9.7			7.4		
Taunus	(1)	3 962	5.0					
	(2)	—	—					
	(3)	3 962	5.0					
Hunsrück	(1)	—	—	Bernkastel-Wittlich	15.3			
	(2)	10 745	12.7	Birkenfeld	11.6	Rheinland-		
	(3)	10 745	12.7	Rhein-Hunsrück-Kreis	11.2	Pfalz		
Eifel	(1)	—	—	Bitburg-Prüm	14.4	8.8		
	(2)	10 914	12.4	Daun	14.2			
	(3)	10 914	12.4	Euskirchen	11.1			
Sauerland/ Rothaargebirge	(1)	—	—	Olpe	10.5	Nordrhein-		
	(2)	22 638	10.1	Siegen	9.9	Westfalen		
	(3)	22 638	10.1	Hochsauerlandkreis	10.0	10.8		
Harz	(1)	—	—	Goslar	12.4	Niedersachsen		
	(2)	11 780	12.7	Osterode am Harz	13.3			
	(3)	11 780	12.7			12.5		
Upland areas	(1)	60 319	8.4					
	(2)	201 000	8.9					
	(3)	261 319	8.8					

Source: Official reports of the Federal Labour Office: ANBA No 1/1985; pp. 26-29.

[1] Unemployment rate is above Federal average.

Schwäbische Alb are almost completely offset by the increase in winter sports and tourism. In Hesse none of the upland districts is particularly affected by seasonal/winter influences.

In Rhineland-Palatinate, on the other hand, there are three districts in the Hunsrück and three in the Eifel (e.g. Bernkastel-Wittlich, Bitburg-Prüm and Daun) where seasonal factors have a substantial effect on unemployment.

Neither in Lower Saxony (Harz) nor in North Rhine-Westphalia (Sauerland/Rothaargebirge) do seasonal factors seem to have an above average impact on the labour market.

Production in the various economic sectors

Agriculture and forestry

The usable agricultural area (UAA) is 2 786 509 ha (1983) and occupies 41.04% of the total surface area of the upland areas; of this, 47.55% is arable land and 51.13% permanent grassland.

Land use in the upland areas is very different from the country as a whole where arable land makes up around 60% of the UAA and permanent grassland approximately 38%.

The difference is even greater in the 'mainly' upland districts: 65.28% permanent grassland, 34.28% arable land.

Agricultural land use and trend

The following conclusions can be drawn from Table 7a, showing the trend in agricultural land use between 1975 and 1983.

In Germany as a whole UAA is contracting by 1.1% per annum on average; this figure is much higher in *most upland areas*, Bavaria being the exception. The contraction is between 1.5 and 2.3% a year on average. Only in the Bavarian uplands was the decline below the national average in the reference period (0.50-0.8% per annum).

The contraction in UAA is particularly marked in the Schwarzwald (approximately 1.5%), the Odenwald (approximately 1.6%) and the Taunus (approximately 2.3%). Therefore in all likelihood there is a correlation with the use of land for weekend plots, construction, transport and infrastructure in the abovementioned, more densely populated upland areas, which are also near to conurbations.

The available sources, however, give no firm indication as to the *new uses* to which land removed from agricultural production or switched from a *more intensive* to another *less labour-intensive* type of use has been put. The signs are, however, that forestry is on the increase in the higher upland areas, while at the middle altitudes the emphasis is more on extensive grazing (e.g. horse and sheep).

In upland regions close to major population centres, such as the Taunus, Black Forest and Odenwald areas, land is increasingly being used for holiday homes, construction and sport and leisure purposes, e.g. riding schools.

Average size of farms

The average size of upland farms varies between 8 and 16 ha. In this respect there is little difference between areas which are 'mainly' upland and those which are 'partly' upland. The average size of the former is 11.90 ha and of the latter 12.40 ha. The average is less than 10 ha in the Black Forest (8.08 ha), the high altitude areas of the Bayerischer Wald (8.28 ha) and the Hunsrück area (9.90 ha).

It should also be noted (see 3.2.1.5. Forest cover) that many farmers in these areas also have a forestry business.

The average size of farms in the above *Kreise* (districts) is below the *Land* average (which varies from 10.78 ha in Baden-Württemberg to 22.03 ha in Lower Saxony) and also below the national average of 15.28 ha. The following areas are above their respective *Land* averages: in Bavaria, the Fichtelgebirge and the Frankenwald (14.6 ha), the Alps and the Alpine lowlands (15.34 ha); in Baden-Württemberg, the Schwäbische Alb (13.29 ha); in Hesse (*Land* average 12.75 ha); the three upland *Kreise* Odenwald (13.49 ha), Vogelsberg (13.09 ha) and Taunus (13.91 ha); and in Rhineland-Palatinate (*Land* average 10.81 ha), the Eifel (15.70 ha).

Agricultural land tends to be split between a large number of small and very small farms, particularly in Baden-Württemberg and in some upland areas in Bavaria, Rhineland-Palatinate and North Rhine-Westphalia. In the Black Forest and in the Hunsrück more than half (56.8% and 54.2% respectively) of the farms are very small, covering less than 2-5 ha; a high proportion of small farms is also to be found in the Odenwald (37.1%), Sauerland/Rothaargebirge (44.7%) and in the Bayerischer Wald (38.2%).

Table 7c shows that between 1979 and 1983 the general trend was for a gradual increase in the number of farms of more than 20 ha. In some cases there was a very sharp decline in the number of farms of less than 20 ha - particularly in the Fichtelgebirge and the Frankenwald, the Oberpfälzer Wald, the Odenwald, the Rhön and the Vogelsberg.

The number of small and medium-sized family farms decline to a varying, but in all cases above average, extent in the Taunus, Hunsrück Eifel, Sauerland/Rothaargebirge and Harz; the number of larger farms of more than 20 ha *also* fell in these areas. There was in other words a general contraction of agriculture in these upland areas.

Upland areas in Bavaria and Baden-Württemberg on the other hand have experienced a slow structural shift towards larger farms (more than 20 ha). This is particularly true of the Bayerische Wald (+ 6.5%), the Black Forest (+ 5.4%) and the Schwäbische Alb (+ 5.3%).

Table 7a

Land use: position 1983 and trend 1975-83

Upland (1) Mainly upland (2) Partly (3) Together		Land use 1983			Trend 1975-83		
		UAA	of which		UAA	Arable land	Permanent grassland
			Arable land	Permanent grassland			
		ha	%	%	%	%	%
Alpen and Alpenvorland	(1)	148 947	2.63	97.07	— 4.27	+ 10.04	— 3.60
	(2)	333 463	14.85	84.48	— 5.15	— 5.64	— 3.83
	(3)	482 410	11.08	88.37	— 4.88	— 4.64	— 3.75
Bayerischer Wald	(1)	63 499	15.78	83.93	— 8.21	— 49.07	+ 10.07
	(2)	219 049	67.32	32.09	— 4.61	+ 1.70	— 13.27
	(3)	282 548	55.74	43.74	— 5.44	— 4.37	— 4.54
Oberpfälzer Wald	(1)	118 491	52.77	46.87	—4.18	—10.01	5.31
	(2)	111 670	61.86	37.60	—7.22	—6.45	5.10
	(3)	230 161	57.18	42.37	—5.68	—8.17	5.22
Fichtelgebirge/ Frankenwald	(1)	70 600	64.59	35.06	—7.29	—4.66	—7.73
	(2)	109 125	61.11	38.27	—8.39	—6.93	—7.44
	(3)	179 725	62.48	37.01	—7.96	—6.02	—7.55
Fränkische Alb	(1)	—	—	—	—	—	—
	(2)	169 665	75.10	24.26	—6.63	—2.38	—14.89
	(3)	169 665	75.10	24.26	—6.63	—2.38	—14.89
Rhön	(1)	—	—	—	—	—	—
	(2)	151 395	65.29	34.29	—11.10	—6.05	—17.55
	(3)	151 395	65.29	34.29	—11.10	—6.05	—17.55
Schwarzwald	(1)	126 779	40.84	58.47	—9.60	—8.12	—8.74
	(2)	213 695	45.60	46.70	—13.47	—14.53	—11.95
	(3)	340 474	43.83	51.08	—12.07	—12.41	—10.61
Schwäbische Alb	(1)	34 996	40.08	59.18	—16.46	—13.19	—16.23
	(2)	341 936	54.50	44.88	—8.22	—5.65	—8.72
	(3)	376 932	53.16	46.20	—9.06	—6.22	—9.68
Odenwald	(1)	17 845	42.98	56.45	—19.34	—24.11	—11.90
	(2)	73 576	69.65	29.47	—12.67	—10.49	—11.19
	(3)	91 421	64.45	34.74	—14.05	—12.54	—11.42
Vogelsberg	(1)	—	—	—	—	—	—
	(2)	66 376	49.72	49.93	—13.25	—6.71	—17.12
	(3)	66 376	49.72	49.93	—13.25	—6.71	—17.12
Taunus	(1)	10 725	68.48	30.77	—19.95	—13.40	—23.52
	(2)	—	—	—	—	—	—
	(3)	10 725	68.48	30.77	—19.95	—13.40	—23.52
Hunsrück	(1)	—	—	—	—	—	—
	(2)	95 232	57.45	36.75	—14.52	—10.01	—19.48
	(3)	95 232	57.45	36.75	—14.52	—10.01	—19.48
Eifel	(1)	—	—	—	—	—	—
	(2)	172 757	43.60	56.09	—11.74	—19.97	—1.60
	(3)	172 757	43.60	56.09	—11.74	—19.97	—1.60
Sauerland/ Rothaargebirge	(1)	—	—	—	—	—	—
	(2)	94 034	34.48	63.82	—14.12	—24.89	—2.93
	(3)	94 034	34.48	63.82	—14.12	—24.89	—2.93
Harz[1]	(1)	—	—	—	—	—	—
	(2)	42 654	76.70	22.75	—1.57	—0.07	—6.13
	(3)	42 654	76.70	22.75	—1.57	—0.07	—6.13
Upland areas	(1)	591 882	34.28	65.28	—7.84	—12.42	—3.32
	(2)	2 194 627	51.14	47.32	—9.05	—7.54	—8.12
	(3)	2 786 509	47.55	51.13	—8.79	—8.32	—6.87
Federal Republic of Germany							

Sources: Fachserie B: Land- und Forstwirtschaft, Fischerei; Reiche 1: Bodennutzung und Ernte 1975: pp. 20-37. Publisher: Statistischer Bundesamt, Wiesbaden.
Fachserie 3: Land- und Forstwirtschaft, Fischerei; Reiche 3: Pflanzliche Produktion 1979: pp. 30-33. 1983: pp. 28-63. Publisher: Statistischer Bundesamt, Wiesbaden.

[1] Harz: Trend 1979-83.

Table 7b

Average size of farms 1983

(%)

Uplands (1) Mainly upland (2) Partly upland (3) Together		Actual area = 100%	Farms: agricultural land of .... ha to .... ha in %							
			under 2	2 - 5	5 - 10	10 - 20	20 - 30	30 - 50	50 or more	Average area in ha
Alpen and Alpenvorland	(1)	8 828	7.8	14.0	18.6	34.9	16.6	8.1		14.95
	(2)	21 014	7.2	11.0	17.3	35.8	19.7	9.0		15.51
	(3)	29 842	7.4	11.9	17.7	35.5	18.8	8.7		15.54
Bayerischer Wald	(1)	7 565	13.1	34.5	23.8	19.4	9.2			8.28
	(2)	17 210	10.9	23.2	22.4	23.7	19.8			12.70
	(3)	24 775	11.6	26.6	22.9	22.4	16.5			11.35
Oberpfälzer Wald	(1)	9 526	8.1	20.5	23.4	27.7	14.1	6.2		12.37
	(2)	7 934	9.1	16.9	21.4	26.6	16.4	9.6		14.02
	(3)	17 460	8.6	18.8	22.5	27.2	15.1	7.8		13.12
Fichtelgebirge/ Frankenwald	(1)	3 575	10.3	10.4	10.9	23.6	23.4	21.4		19.68
	(2)	8 626	11.4	18.0	21.0	29.6	12.9	7.1		12.57
	(3)	12 201	11.1	15.7	18.1	27.8	16.0	11.3		14.65
Fränkische Alb	(1)	—	—	—	—	—	—	—		—
	(2)	12 883	8.2	16.0	26.0	29.6	13.1	7.1		13.11
	(3)	12 883	8.2	16.0	26.0	29.6	13.1	7.1		13.11
Rhön	(1)	—	—	—	—	—	—	—	—	—
	(2)	13 717	4.9	16.6	11.6	10.1	9.1	5.0	1.6	10.98
	(3)	13 717	4.9	16.6	11.6	10.1	9.1	5.0	1.6	10.98
Bayern		254 741	10.3	17.1	22.3	28.4	13.5	6.8	1.6	13.50
Schwarzwald	(1)	12 410	19.2	28.5	21.4	16.3	7.6	5.5	1.5	10.10
	(2)	29 082	33.8	27.0	18.1	13.1	4.4	2.6	1.0	7.21
	(3)	41.492	29.4	27.4	19.1	14.1	5.3	3.5	1.2	8.08
Schwäbische Alb	(1)	3 766	27.0	34.0	17.8	10.8	3.8	3.2	3.4	9.18
	(2)	24 455	13.3	16.2	20.6	26.3	13.9	7.6	2.1	13.92
	(3)	28 221	15.1	18.6	20.3	24.3	12.5	7.0	2.2	13.29
Baden-Württemberg		139 998	24.5	20.9	18.4	19.4	9.7	5.5	1.6	10.78
Odenwald	(1)	1 560	18.6	25.7	15.8	18.6	13.4	6.6	1.3	11.40
	(2)	5 187	16.6	18.4	17.4	22.1	13.3	9.1	3.1	14.12
	(3)	6 747	17.1	20.1	17.1	21.3	13.3	8.5	2.6	13.49
Vogelsberg	(1)	—	—	—	—	—	—	—	—	—
	(2)	5 067	10.9	18.3	22.6	26.9	13.4	6.2	1.7	13.09
	(3)	5 067	10.9	18.3	22.6	26.9	13.4	6.2	1.7	13.09
Taunus	(1)	771	17.2	21.9	19.5	20.2	9.9	6.5	4.8	13.91
	(2)	—	—	—	—	—	—	—	—	—
	(3)	771	17.2	21.9	19.5	20.2	9.9	6.5	4.8	13.91
Hessen		60 685	16.9	23.5	18.0	20.0	11.4	7.9	2.3	12.75
Hunsrück	(1)	—	—	—	—	—	—	—	—	—
	(2)	9 563	31.4	22.7	17.2	13.9	6.1	5.8	2.9	9.90
	(3)	9 563	31.4	22.7	17.2	13.9	6.1	5.8	2.9	9.90
Eifel	(1)	—	—	—	—	—	—	—	—	—
	(2)	10 941	11.2	18.2	20.9	20.6	13.0	12.3	3.8	15.70
	(3)	10 941	11.2	18.2	20.9	20.6	13.0	12.3	3.8	15.70
Rheinland-Pfalz		67 528	29.7	20.0	16.4	16.2	8.5	6.8	2.4	10.81
Sauerland/ Rothaargebirge	(1)	—	—	—	—	—	—	—	—	—
	(2)	7 765	18.7	26.0	17.5	17.3	10.8	7.9	1.8	11.89
	(3)	7 765	18.7	26.0	17.5	17.3	10.8	7.9	1.8	11.89
Nordhrein-Westfalen		98 993	16.4	17.3	14.5	20.1	14.9	12.3	4.5	16.47
Harz	(1)	—	—	—	—	—	—	—	—	—
	(2)	1 922	19.4	18.6	12.1	11.5	9.4	17.6	11.4	22.03
	(3)	1 922	19.4	18.6	12.1	11.5	9.4	17.6	11.4	22.03
Niedersachsen		123 001	16.6	14.3	11.3	16.3	13.6	17.0	10.9	22.26
Upland areas	(1)	48 001	13.8	24.7	21.0	23.3	10.9	4.9	1.4	11.90
	(2)	175 366	16.4	20.3	20.4	23.5	11.7	5.9	1.8	12.40
	(3)	223 367	15.9	21.2	20.5	23.4	11.6	5.7	1.7	12.29
Federal Republic of Germany		785 763	17.2	17.8	17.3	21.3	12.3	9.7	4.4	15.28

Source: Fachserie 3 : Land- und Forstwirtschaft. Fischerei; Reiche 2.1.1 : Betriebsgrössenstruktur 1983: pp. 10-13 and 36-47. Publisher: Statistischer Bundesamt, Wiesbaden.

Table 7c

Development of farms 1979-83

Uplands (1) Mainly upland (2) Partly upland (3) Together		Farms					
		Total		Under 20 ha		Over 20 ha	
		Change 1979-83					
		Number	%	Number	%	Number	%
Alpen and Alpenvorland	(1)	— 541	— 5.4	— 589	— 8.1	85	+ 4.1
	(2)	— 934	— 4.3	— 1 064	— 7.1	130	+ 2.2
	(3)	— 1 438	— 4.6	—1 653	— 7.1	215	+ 2.7
Bayerischer Wald	(1)	— 643	— 7.8	— 745	— 9.8	102	17.1
	(2)	— 1 312	— 7.1	— 1 461	— 9.6	149	4.6
	(3)	— 1 955	— 7.3	— 2 206	— 9.6	251	6.5
Oberpfälzer Wald	(1)	— 771	— 7.5	— 911	— 10.7	140	7.8
	(2)	— 642	— 7.5	— 662	— 10.1	20	1.0
	(3)	— 1 413	— 7.5	— 1 573	— 10.5	160	4.2
Fichtelgebirge/ Frankenwald	(1)	— 375	— 9.5	— 379	— 16.1	4	0.3
	(2)	— 778	— 8.3	— 893	— 11.5	115	7.1
	(3)	— 1 153	— 8.6	— 1 272	— 12.5	119	3.7
Fränkische Alb	(1)	—	—	—	—	—	—
	(2)	— 1 001	— 7.2	— 1 080	— 9.5	79	3.1
	(3)	— 1 001	— 7.2	— 1 080	— 9.5	79	3.1
Rhön	(1)	—	—	—	—	—	—
	(2)	— 1 453	— 9.6	— 1 493	— 11.4	40	1.9
	(3)	— 1 453	— 9.6	— 1 493	— 11.4	40	1.9
Schwarzwald	(1)	— 1 266	— 9.3	— 1 380	— 11.5	114	6.7
	(2)	— 1 948	— 6.3	— 2 045	— 7.1	97	4.4
	(3)	— 3 214	— 7.2	— 3 425	— 8.4	211	5.4
Schwäbische Alb	(1)	— 472	— 11.1	— 485	— 12.6	13	3.4
	(2)	— 2 152	— 8.1	— 2 447	— 11.6	295	5.4
	(3)	— 2 624	— 8.5	— 2 932	— 11.7	308	5.3
Odenwald	(1)	— 186	— 10.7	— 183	— 13.0	— 3	— 0.9
	(2)	— 493	— 8.7	— 464	— 10.7	— 29	— 2.2
	(3)	— 679	— 9.1	— 647	— 11.3	— 32	— 1.9
Vogelsberg	(1)	—	—	—	—	—	—
	(2)	— 472	— 8.5	— 492	— 11.0	20	1.9
	(3)	— 472	— 8.5	— 492	— 11.0	20	1.9
Taunus	(1)	— 91	— 10.6	— 79	— 11.5	— 12	— 6.9
	(2)	—	—	—	—	—	—
	(3)	— 91	— 10.6	— 79	— 11.5	— 12	— 6.9
Hunsrück	(1)	—	—	—	—	—	—
	(2)	— 1 164	— 10.9	— 1 147	— 12.3	— 17	— 1.2
	(3)	— 1 164	— 10.9	— 1 147	— 12.3	— 17	— 1.2
Eifel	(1)	—	—	—	—	—	—
	(2)	— 1 205	— 9.9	— 1 145	— 12.9	— 60	— 1.8
	(3)	— 1 205	— 9.9	— 1 145	— 12.9	— 60	— 1.8
Sauerland/ Rothaargebirge	(1)	—	—	—	—	—	—
	(2)	— 691	— 8.2	— 659	— 9.6	— 32	— 2.0
	(3)	— 691	— 8.2	— 659	— 9.6	— 32	— 2.0
Harz	(1)	—	—	—	—	—	—
	(2)	— 142	— 6.9	— 109	— 8.4	— 33	— 4.3
	(3)	— 142	— 6.9	— 109	— 8.4	— 33	— 4.3
Upland areas	(1)	— 4 308	— 8.2	— 4 751	— 10.9	443	5.1
	(2)	— 14 387	— 7.6	— 15 161	— 9.8	774	2.2
	(3)	— 18 695	— 7.7	— 19 912	— 10.0	1 217	2.8
Federal Republic of Germany							

Sources: Fachserie 3 : Land- und Forstwirtschaft, Fischerei; Reihe 2.1.1 : Betriebsgrössenstruktur 1979 : pp. 36-47. 1983: pp. 36-47. Publisher: Statistischer Bundesamt. Wiesbaden.

From this it is possible to conclude that some of the farms in Bavaria and Baden-Württemberg which are smaller than the national average have a relatively good chance of increasing their size, and thus their numerical strength within this particular group. Hesse, Rhineland-Palatinate, North Rhine-Westphalia and Lower Saxony (with the exception of the Vogelsberg) on the other hand are experiencing an overall decrease in the number of farms of all sizes. But this does not mean that the size of individual farms cannot be improved gradually.

Stock raising and livestock numbers

There are no statistics on farm production and revenue at *Kreis* level. The only figures we have are livestock numbers (see Table 7d).

An average 11.95% increase in upland sheep numbers between 1975 and 1982 points to a general increase in the use of medium-altitude land for grazing. This tendency is particularly marked in the Fichtelgebirge, the Black Forest, the Schwäbische Alb and the Eifel.

The slight increase (average 3.57%) in sheep farming in 'mainly' upland areas suggests that former agricultural land is being used for afforestation.

Four areas in which sheep farming is on the increase, namely the Fichtelgebirge/Frankenwald, the Fränkische Alb, the Black Forest and the Schwäbische Alb also show an increase in horse numbers - a further indication of the increased use of land for grazing.

Whilst the total number of dairy cattle in the upland areas as a whole rose slightly, there was a significant decline in numbers in the areas mentioned above. This suggests that in some upland areas there is a trend away from intensive meat and milk production towards more extensive enterprises.

Part-time farming

Because of the unfavourable conditions for farm production in the medium-altitude areas of Germany, less than 30% of full-time enterprises achieve a standard income of DM 30 000 per annum. In the Bayerische Wald, the Black Forest and the Oberpfälzer Wald farm income often has to be supplemented by income from forestry and tourism to ensure survival.

Woodlands

29.5% of West Germany is covered by forest. Between 1973 and 1983 total forest area increased by 0.2% annually, or 2% over the 10-year period.

The percentage of forest land, at 39.71%, is much higher, however, in upland areas. In several upland areas, e.g. the Harz, the Sauerland/Rothaargebirge over 55% is forest. The figure for the Hunsrück, the Black Forest and the Taunus lies between 45 and 51%. Unfortunately there is no statistical information at *Kreis* level on changes in the total area or ownership of forest land.

A considerable part of the more extensive upland areas, such as the German Alps, the Black Forest and the Bayerische Wald, consists of forest land owned by small farmers or the local authority.

Trade, crafts and tourism

Upland areas are not dealt with separately in the available statistics, such as 'census of craft industries 1977' (Handwerkszählung 1977), 'Distribution and hotel trade employees 1979' (Beschäftigte im Handel und Gaststättengewerbe 1979) and 'Hotel capacity analysed by area and broken down into seasonal and non-seasonal businesses' (Kapazität der Beherbergungsstätten nach Reisegebieten und Jahres- und Saisonbetrieben).

The 1977 census of craft industries does, however, make it clear that the larger upland areas of Bavaria and Baden-Württemberg do not differ significantly from the *Land* or national average. An exception to this rule, however, are the woodworking craft industries, which in most upland areas are more numerous than the *Land* or national average (average 11.1% as against a national average of 9.0%).

Other industries with a signficantly above average representation are the clothing, textile, leather and food industries (approximately 1% in each case). Small metal-working industries are underrepresented in upland regions (-1.4%).

The 1979 figures for distribution and hotel trade employees are no longer particularly relevant. It is, however, interesting to note that 40% of Bavaria's hotel employees work in *upland areas*.

The corresponding figure for Baden-Württemberg (Black Forest and Schwäbische Alb) is 41%. The number of hotel employees in upland areas in other *Länder* is relatively low as the areas themselves are much smaller. For example the figure for North Rhine-Westphalia is only 5%, Lower Saxony 7%, Hesse 11% and Rhineland-Palatinate 19%.

This clearly demonstrates the high degree to which tourism has been developed in some areas and the considerable importance of the hotel trade for the upland areas of Bavaria and Baden-Württemberg.

Summary

On the basis of available statistical information no more than an approximate assessment is possible of population and employment changes in the upland areas. It is, however, possible to draw certain conclusions as to the distribution of employed workers between the primary, secondary and tertiary sectors.

Some insights were also obtained into the size of farms, although information on the structure of production is inadequate.

Table 7d

Livestock: situation in 1982 and change 1975-82

Uplands (1) Mainly upland (2) Partly upland (3) Together		Livestock					Change 1975-82				
			Cattle					Cattle			
		Horses	Total	Incl. dairy cattle	Pigs	Sheep	Horses	Total	Incl. dairy cattle	Pigs	Sheep
							%	%	%	%	%
Alpen and Alpenvorland	(1)	3 855	204 679	105 369	17 282	12 116	+ 14.94	+ 5.11	+ 2.77	— 23.85	+ 5.14
	(2)	7 967	628 974	314 337	66 998	14 939	+ 14.77	+ 9.32	+ 6.39	— 13.11	+ 7.60
	(3)	11 822	833 653	419 706	84 280	27 055	+ 14.82	+ 8.26	+ 5.45	— 15.55	+ 6.48
Bayerischer Wald	(1)	1 136	86 682	46 045	7 965	3 027	— 2.07	12.50	12.92	— 34.21	— 22.48
	(2)	2 872	243 793	94 833	438 485	15 224	7.53	— 0.41	— 4.33	29.16	12.04
	(3)	4 008	330 475	140 878	446 450	18 251	4.62	2.68	0.70	26.98	4.33
Oberpfälzer Wald	(1)	1 251	175 169	75 803	59 044	1 988	3.13	17.71	23.90	— 10.17	— 11.76
	(2)	953	149 069	63 103	80 754	4 177	— 1.04	16.51	15.47	— 6.29	22.82
	(3)	2 204	324 238	138 906	139 798	6 165	1.29	17.15	19.93	— 7.97	9.04
Fichtelgebirge/ Frankenwald	(1)	798	83 379	31 647	64 445	4 112	3.50	7.44	16.19	— 9.94	15.70
	(2)	1 539	132 864	58 275	86 020	6 640	19.39	1.64	2.98	— 13.70	51.60
	(3)	2 337	216 243	89 922	150 465	10 752	13.45	3.80	7.28	— 12.13	35.52
Fränkische Alb	(1)	—	—	—	—	—	—	—	—	—	—
	(2)	1 589	212 202	83 621	263 383	21 008	30.46	12.41	7.60	— 13.08	17.59
	(3)	1 589	212 202	83 621	263 383	21 008	30.46	12.41	7.60	— 13.08	17.59
Rhön	(1)	—	—	—	—	—	—	—	—	—	—
	(2)	2 027	149 327	52 863	208 426	13 465	0.65	— 0.94	— 7.86	0.12	12.62
	(3)	2 027	149 327	52 863	208 426	13 465	0.65	— 0.94	— 7.86	0.12	12.62
Schwarzwald	(1)	3 824	150 852	56 825	96 928	13 554	24.20	0.12	— 1.89	— 11.19	10.36
	(2)	6 821	204 684	75 992	197 530	25 174	10.59	— 0.24	— 9.43	— 13.90	22.58
	(3)	10 645	355 536	132 817	294 458	38 728	15.12	— 0.08	— 6.35	— 13.02	18.01
Schwäbische Alb	(1)	1 254	20 913	6 761	17 823	9 806	12.77	— 16.50	— 19.93	— 19.15	8.75
	(2)	8 654	464 474	166 909	544 172	59 472	30.25	4.04	4.05	0.89	19.97
	(3)	9 908	485 387	173 670	561 995	69 278	27.75	2.95	2.85	0.11	18.24
Odenwald	(1)	1 206	28 949	10 330	15 529	2 915	— 4.81	4.05	— 2.51	— 24.20	4.74
	(2)	2 672	85 990	25 872	87 124	9 004	6.20	1.77	— 4.75	— 3.28	— 17.88
	(3)	3 878	114 939	36 202	102 653	11 919	2.51	2.34	— 4.12	— 7.15	— 13.30
Vogelsberg	(1)	—	—	—	—	—	—	—	—	—	—
	(2)	1 351	91 377	33 679	94 353	5 194	6.29	0.25	— 4.81	— 11.30	— 6.75
	(3)	1 351	91 377	33 679	94 353	5 194	6.29	0.25	— 4.81	— 11.30	— 6.75
Taunus	(1)	1 308	7 772	2 564	7 365	3 249	7.48	— 17.06	— 23.69	— 25.65	— 12.14
	(2)	—	—	—	—	—	—	—	—	—	—
	(3)	1 308	7 772	2 564	7 365	3 249	7.48	— 17.06	— 23.69	— 25.65	— 12.14
Hunsrück	(1)	—	—	—	—	—	—	—	—	—	—
	(2)	2 062	106 210	34 732	87 501	10 421	16.30	— 9.45	— 9.34	— 14.91	10.61
	(3)	2 062	106 210	34 732	87 501	10 421	16.30	— 9.45	— 9.34	— 14.91	10.61
Eifel	(1)	—	—	—	—	—	—	—	—	—	—
	(2)	3 557	233 184	98 524	129 337	22 749	4.80	7.98	10.61	4.02	24.08
	(3)	3 557	233 184	98 524	129 337	22 749	4.80	7.98	10.61	4.02	24.08
Sauerland/ Rothaargebirge	(1)	—	—	—	—	—	—	—	—	—	—
	(2)	4 300	131 151	45 118	70 135	16 296	— 5.52	1.59	4.12	2.56	10.39
	(3)	4 300	131 151	45 118	70 135	16 296	— 5.52	1.59	4.12	2.56	10.39
Harz [1]	(1)	—	—	—	—	—	—	—	—	—	—
	(2)	1 947	28 089	10 814	46 556	4 716	— 4.51	— 4.82	— 8.25	— 3.91	— 23.68
	(3)	1 947	28 089	10 814	46 556	4 716	— 4.51	— 4.82	— 8.25	— 3.91	— 23.68
Upland areas	(1)	14 632	758 395	335 344	286 381	50 767	11.08	6.65	7.47	— 14.17	3.57
	(2)	48 311	2 861 388	1 158 672	2 400 774	228 479	11.18	4.53	2.51	— 0.91	14.00
	(3)	62 943	3 619 783	1 494 016	2 687 155	279 246	11.16	4.97	3.58	— 2.52	11.95

Sources: Fachserie B: Land- und Forstwirtschaft, Fischerei; Reiche 3: Viehwirtschaft 1975: pp. 24-30. Publisher: Statistischer Bundesamt, Wiesbaden.
Fachserie 3: Land- und Forstwirtschaft, Fischerei; Reiche 4: Viehbestand und tierische Erzeugung 1982 : pp. 18-29. Publisher: Statistischer Bundesamt, Wiesbaden.
Harz: Statistisches Jahrbuch Niedersachsen 1978: pp. 164-165. Publisher: Niedersächsisches Landesverwaltungsamt - Statistik.

[1] Harz: Change 1977-82.

Table 7e

Woodlands - Situation in 1975

Uplands (1) Mainly upland (2) Partly upland (3) Together		Commercially exploited area	consisting of			
			Agriculture		Forestry	
		ha	ha	%	ha	%
Alpen and Alpenvorland	(1)	416 228	155 585	37.4	160 822	38.6
	(2)	669 179	351 560	52.5	203 405	30.4
	(3)	1 085 407	507 145	46.7	364 227	33.6
Bayerischer Wald	(1)	200 074	69 180	34.6	113 619	56.8
	(2)	353 443	229 626	65.0	87 361	24.7
	(3)	553 517	298 806	54.0	200 980	36.3
Oberpfälzer Wald	(1)	246 270	123 654	50.2	99 523	40.4
	(2)	271 296	120 359	44.4	112 318	41.4
	(3)	517 566	244 013	47.1	211 841	40.9
Fichtelgebirge/ Frankenwald	(1)	147 753	76 148	51.5	55 699	37.7
	(2)	254 363	119 124	46.8	108 325	42.6
	(3)	402 116	195 272	48.6	164 024	40.8
Fränkische Alb	(1)		—	—	— —	—
	(2)	332 999	181 710	54.6	109 531	32.9
	(3)	332 999	181 710	54.6	109 531	32.9
Rhön	(1)	—	—	—	—	—
	(2)	350 661	170 297	48.6	134 044	38.2
	(3)	350 661	170 297	48.6	134 044	38.2
Schwarzwald	(1)	375 311	140 243	37.4	192 630	51.3
	(2)	610 024	246 951	40.5	273 800	44.9
	(3)	985 515	387 194	39.3	466 430	47.3
Schwäbische Alb	(1)	92 487	41 892	45.3	37 107	40.1
	(2)	714 839	372 572	52.1	255 103	35.7
	(3)	807 326	414 464	51.3	292 210	36.2
Odenwald	(1)	60 379	22 125	36.6	32 224	53.4
	(2)	176 504	84 246	47.7	68 594	38.9
	(3)	236 883	106 371	44.9	100 818	42.6
Vogelsberg	(1)	—	—	—	—	—
	(2)	147 827	76 515	51.8	55 057	37.2
	(3)	147 827	76 515	51.8	55 057	37.2
Taunus	(1)	46 882	13 398	28.6	23 724	50.6
	(2)	—	—	—	—	—
	(3)	46 882	13 398	28.6	23 724	50.6
Hunsrück	(1)	—	—	—	—	—
	(2)	293 400	111 409	38.0	133 604	45.4
	(3)	293 400	111 409	38.0	133 604	45.4
Eifel	(1)	—	—	—	—	—
	(2)	376 677	195 733	52.0	128 067	34.0
	(3)	376 677	195 733	52.0	128 067	34.0
Sauerland/ Rothaargebirge	(1)	—	—	—	—	—
	(2)	385 906	109 496	28.4	223 143	58.0
	(3)	385 906	109 496	28.4	223 143	58.0
Harz [1]	(1)	—	—	—	—	—
	(2)	157 578	43 333	27.5	88 052	55.9
	(3)	157 578	43 333	27.5	88 052	55.9
Upland areas	(1)	1 585 384	642 225	40.5	715 348	45.1
	(2)	5 093 876	2 412 931	47.4	1 980 404	38.9
	(3)	6 679 260	3 055 156	45.7	2 695 752	40.4

Sources: Fachserie B: Land- und Forstwirtschaft, Fischerei; Reihe 1: Bodennutzung und Ernte 1975: pp. 20-37. Publisher: Statistischer Bundesamt, Wiesbaden.
Harz: Statistisches Jahrbuch Niedersachsen 1978: pp. 156-157. Publisher: Niedersächsisches Landesverwaltungsamt - Statistik.

[1] Harz: 1977.

It is also possible to assess in general terms the importance of tourism in upland areas. But the statistical data is inadequate to permit an exact reconstruction of changes in this area.

There are no statistics on land ownership or State support for upland areas.

Despite the incompleteness of the data, the following conclusions could be drawn:

The upland areas of Germany have *developed in very different ways*.

They can be roughly divided into two groups:

(a) *The first group* consists of the German Alps and Alpine lowlands, the Black Forest and the Odenwald.

The following features are characteristic: continued above average population growth, highly developed tourist industry and infrastructure, a generally good employment situation which differs only insignificantly from the *Land* average with little structural or seasonal unemployment.

The more serious problems affecting these upland areas (and particularly the Black Forest) are: small farms, serious environmental damage (death of trees) which cannot yet be statistically measured but which may in the long term cause a serious loss of income for the forestry sector and reduce these areas' attractiveness to tourists, particularly in the case of the Black Forest and part of the German Alps.

(b) *The second group* are typically more remote from major population centres, they have relatively poor communications and a *generally unfavourable* economic structure. This group includes the Fichtelgebirge/Frankenwald, the Rhön, parts of the Bayerische Wald, the Oberpfälzer Wald, the Vogelsberg, the Hunsrück, parts of the Eifel, and to a lesser extent the Harz.

These areas generally suffer from a declining population, falling levels of agricultural activity and high structural and seasonal unemployment.

A still sharper decline in these areas has been prevented by an often determined application of regional policy measures at *Land*, district and regional level.

Regional development policies consistently implemented over decades and specifically aimed at promoting tourism and structural improvements in agriculture and attracting new industry seem to have major successes or to their credit in these very disadvantaged areas (see Table on the Bayerischer Wald).

(c) The Taunus is increasingly a focal point for service industries and a popular residential area for the Rhine-Main conurbation. It is, therefore, no longer strictly comparable with the other two groups of upland areas.

In almost all West Germany's upland areas *agriculture* is in difficulties, and in some areas it is going through a critical period of change. Typical problems are adverse production conditions and small farm units - leading to low incomes and the abandonment of some uneconomic holdings. The result is reforestation, where possible, in the high-altitude areas and in some cases a trend towards extensive farming in the medium-altitude areas.

Bibliography

Statistische Jahrbücher für die Bundesrepublik Deutschland: 1976, 1979, 1981, 1984.

Statistische Jahresbücher der Bundesländer: Bayern, Baden-Württemberg, Hessen, Rheinland-Pfalz, Nordrhein-Westfalen und Niedersachsen.

Volkszählung vom 6 June 1961 und 27 May 1970.

Fachserie 1: Bevölkerung und Erwerbstätigkeit: Reihe 1: Gebiet und Bevölkerung 1982.

Fachserie B: Land- und Forstwirtschaft, Fischerei: Reihe 1: Bodennutzung und Ernte 1975.

Fachserie 3: Land- und Forstwirtschaft, Fischerei: Reihe 3: Pflanzliche Produktion 1979, 1983.

Fachserie B: Land- und Forstwirtschaft, Fischerei: Reihe 3: Viehwirtschaft 1975.

Fachserie 3: Land- und Forstwirtschaft, Fischerei: Reihe 4: Viehbestand und tierische Erzeugung 1982.

Fachserie 3: Land- und Forstwirtschaft, Fischerei: Reihe 2.1.1.: Betriebsgrößenstruktur 1979-83.

Unterlagen des Statistischen Bundesamtes Wiesbaden über: Versicherungspflichtig beschäftigte Arbeitnehmer nach Wirtschaftsbereichen 30 June 1978 and 30 June 1984.

Amtliche Nachrichten der Bundesanstalt für Arbeit: ANBA No 1/1985 and No 3/1985.

Handwerkszählung 1977.

Handels- und Gaststättenzählung 1979.

Fachserie 6: Handel, Gastgewerbe, Reiseverkehr: Reihe 7.2.: Beherbergungskapazität 1981.

BfLR: Laufende Raumbeobachtung (Heft 17). Aktuelle Daten zur Entwicklung der Städte, Kreise und Gemeinden 1984.

United Kingdom

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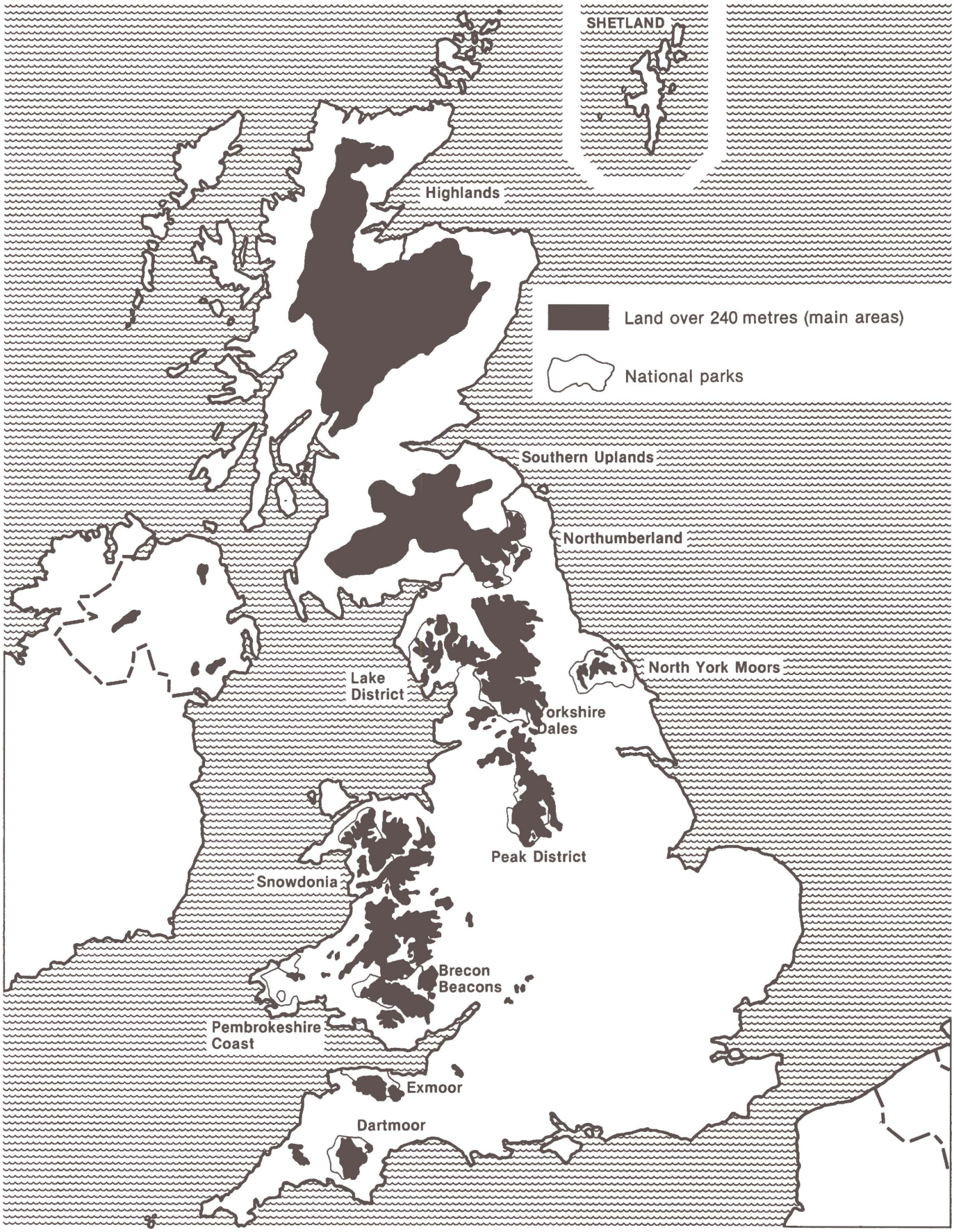
Upland areas of the United Kingdom



Introduction

This text covers the three countries of England, Wales and Scotland, i.e. the whole of the United Kingdom except Northern Ireland. In these countries 'uplands' are normally defined [1] as land more than 240 metres above sea level. A line running from the River Exe in the south-west, to the River Tees in the north-east, gives a broad idea of where the uplands in Britain are to be found: all uplands are north of this line. There is also a geological reason for this division: the older rocks of the north and west are separated from the younger south-eastern strata by the course of the contours at the 200 - 240 metres level. By continental standards the mountains in these areas are not high. Ben Nevis, the highest mountain in Scotland is only 1 342 metres high, and the highest mountains in Wales and England are even smaller. But it should be remembered that the northerly latitude of the British upland areas makes them climatically harsher than their southern counterparts, notwithstanding their low altitude. July temperatures in the north of England and the highlands of Scotland are usually 10°C lower than the uplands of Italy and five degrees lower than most of the Massif Central in France, a fact which has considerable repercussions on agricultural production.

There are within these areas, as will be seen, wide local and regional variations, but they have in common their rugged terrain, harsh climate (wet winters and cold summers), poor soil and less intensive land use. Most of the upland areas are distant from centres of population and from rail and road communications.

In addition to the term 'upland areas' there are a number of other definitions which are important for these areas:

(1) *Less-favoured farming areas* within the meaning of Directive 75/268/EEC. Less-favoured farming areas (LFAs) are defined for the UK by Directive 75/276/EEC, which lists the parishes qualifying for LFA treatment. Many of them are situated above the 240 metres contour line. There are two types of LFA: 'severely disadvantaged' and 'disadvantaged'. LFAs in the UK were redefined in 1984, and the areas extended.

(2) *National parks* are areas in England and Wales which have been designated as such by the Countryside Commission. They are mainly in upland areas, although not all upland areas are national parks. The national parks are 'protected landscapes' in the terminology of the International Union for the Conservation of Nature and Natural Resources, and not national parks in the US sense. Land remains in the ownership of individuals (about 25% is publicly owned) and there is no automatic right of access. In Scotland, there are national scenic areas and no national parks.

(3) The Countryside Commission may designate *areas of outstanding natural beauty* (AONBs) and the Nature Conservancy Council *sites of special scientific interest* (SSSIs). Some of these may be in upland areas (but others may be in coastal regions or areas like the Cotswolds, not qualifying as uplands because not high enough). *Country parks* are normally small areas of countryside near to conurbations to which the public have access for recreational purposes. They are not usually in upland areas.

(4) Some UK publications distinguish between hill sheep farms on the one hand (where the land is mainly rough grazing) and the upland farms (where there

[1] Countryside Commission, *What future for the uplands*, Cheltenham 1983. The use of the 240 metre contour is based on a 1975 study by the Department of the Environment and the Institute of Terrestrial Ecology, published in 1979 by the Countryside Commission as *Upland land use*. The *Encyclopedia Britannica* (15th edition, 1976) defines the UK uplands as being those areas above the 700 foot contour (213 metres).

Table 1

	England	Wales	Scotland
Land conservation and recreation	Countryside Commission		Countryside Commission for Scotland
Nature conservation	Nature Conservancy Council		
Rural development	Development Commission	Development Board for Rural Wales. Wales Development Agency	Highlands & Islands Development Board (HIDB). Scottish Development Agency.
Tourism (British Tourist Association)	English Tourist Board	Welsh Tourist Board	Scottish Tourist Board
Forestry	Forestry Commission		
Agriculture	Ministry of Agriculture, Fisheries & Food	Welsh Office	Scottish Office (Dept. of Agriculture & Fisheries for Scotland)

is a much higher proportion of enclosed grassland) on the other. Except where it is necessary to draw this distinction, this text uses the term 'uplands' for both hills and uplands.

The fact that there are different types of area within the uplands (LFAs, national parks, AONBs, etc.) reflects the many different interests at stake, some of which may at times be in conflict. In England and Wales, at least, policy for the uplands is not just a policy for agriculture, but also a policy for people and services, for protection of the countryside and access to it for recreational purposes of the people living in towns. The same is true for Scotland, but the remit of the Highland and Islands Development Board is much wider than that of other comparable authorities and covers a wide range of economic and social functions as well as problems relating to islands and coastal areas. Table 1 shows the principal bodies other than the local authorities. It should be noted that these bodies have a sectoral role which is not limited to the uplands, and that their work is supplemented by that of the local authorities.

Surface area and geographical features

England and Wales

The upland areas of England and Wales, including the towns and villages which form an integral part of the economy and community, cover some 2 million hectares, about 13% of the surface of England and Wales (9% of England and 39% of Wales). The main areas are Dartmoor and Exmoor in the south-west of England, the Welsh mountains running from the Brecon Beacons in South Wales to Snowdonia in the north, the Pennines (the so-called backbone of England, running from the Peak District between Manchester and Sheffield up to Northumberland, and the Lake District which lies to the west of the 'backbone'. Main features are the mountains, open heaths and moors, wooded valleys and the dispersed buildings and settlements, as well as the rugged climate already alluded to. Forest and woodland account for some 11% of the land area, there having been a very substantial increase in afforestation in certain areas, particularly Wales and north-east England. The area of coniferous forest has nearly doubled since the Second World War, mainly as a result of planting policies of the Forestry Commission, as well as tax incentives which encourage coniferous planting as a crop. Following criticism that coniferous forests were changing the whole nature of the uplands in England and Wales, the rate of new planting has decreased, but coupled with the decline in deciduous woodlands on upland farms, the result is a preponderance of coniferous woodland (in 1978, 84% of the total trees). Moorland has also declined as a result of afforestation, but also as a result of ploughing and grassland improvement by farmers. It is thought that over the last 30 years some 5 000 hectares of moorland have been lost in this way: an important factor for the success of farming enterprises but an equally important one as regards freedom of access to land by city-dwellers for purposes of recreation.

The uplands of England and Wales do not form an administrative unit or administrative units. Local authorities in these countries have been constituted with reference to historical and economic considerations and not by reference to the 240 metre contour, so that statistical information on the upland areas as such is sparse. The Countryside Commission overcomes this by using what statistical information is available for the national parks, since the areas of the national parks fit broadly the upland areas of Dartmoor and Exmoor, the Lake District and the North York Moors. In the Pennines, there are three national parks (Northumberland,

Table 2

Land use cover types in the national parks

	Land use cover type [1] Percentage of national park area							Total area (100 km²)	Date of survey	
	Grassland	Bracken and gorse	Heather and berry	Bog	Total	Woodland	Other		Vegetation	Woodland
Brecon Beacons	29	9	12	1	51	8	41	13	1970/2	1975
Dartmoor	28	8	20	2	57	8	35	9	1963/6	1974
Exmoor	10	6	15	1	32	11	57	7	1962/4	1974
Lake District	29	13	9	3	54	8	38	22	1962/8	1973
Northumberland	40	5	20	13	77	16	8	10	1963/8	1975
North York Moors	1	18	22	0	40	18	42	14	1963/4	1975
Peak District	18	3	15	10	46	3	51	14	1963/9	1975
Pembrokeshire Coast	20	6	5	0	31	3	66	6	1970/2	1975
Snowdonia	36	8	15	5	63	15	22	22	1967/2	1975
Yorkshire Dales	42	2	13	16	73	2	25	18	1963/8	1975
Total	**27**	**8**	**14**	**6**	**55**	**9**	**35**	**136**	**1962/72**	**1973/75**

[1] Data calculated by systematic point-frequency sampling from vegetation maps compiled for the Second land utilization survey of Great Britain.

Source: G. Sinclair, Environment Information Services, quoted in TRRU Research Report No 47.

Yorkshire Dales, Peak District), but there are largish upland areas outside these parks. In Wales, there are national parks in the north (Snowdonia) and in the south (Brecon Beacons) but the upland area of mid-Wales is outside the area of these parks, and the Pembrokeshire Coast Park is not uplands.

Despite these shortcomings, it has been decided to use the same approach in this text, i.e. to use the data for the national parks as indicative of the economic and social situation of the upland areas as a whole in England and Wales.

Highlands of Scotland

The Highlands and Islands is one of the most sparsely populated and remote areas of the European Community. It covers some 3.7 million hectares, representing around one-half of the total land area of Scotland and one-sixth of the total land area of the UK. The landscape is dominated by moorland and mountain, but there are areas - the alluvial lands of the eastern coastal belt between Nairn and Dornoch - where there are good quality soils and high quality mixed farming. On the moors, sheep and cattle farms are vulnerable to high transport costs and imported winter feed. Large parts of the north and west are held under crofting tenure, totalling some one fifth of the total area. The arable croft land is held by the individual crofter while the hill grazing land is held in common by the crofters of the region or township. Most of these crofters are part-time farmers whose farming activities take up less than two days per week, their remaining time being spent on other activities, e.g. fishing, crafts, commerce.

Some 11% of the Highland region is under commercial forest, a total of some 275 000 hectares. Timber production is an important industry, but expansion will need careful planning to avoid conflict with farming interests.

The mainland area is predominantly upland, and this applies equally to some of the islands to the west (Skye, Rum, Islay, etc.) The Western Isles are less rugged in contour, as are Orkney and Shetland to the north, but the poor quality of the soil and their remote location provide essentially the same problems as those faced by the people of the Highlands. 'In the Shetlands', it has been said, 'the uplands start at sea level'. Where possible the data refers to the mainland area only.

The southern uplands of Scotland

The southern uplands cover parts of the Borders Region and parts of the Dumfries and Galloway Region. There is no body similar to the HIDB responsible for the economic and social development of the southern uplands as a whole, and no national park area as in England (the National Scenic Area of Upper Tweeddale covers only a small part of the southern uplands). Economic development is primarily the responsibility of the Scottish Development Agency and the Borders Regional Council (the local authority).

Demographic aspects

England and Wales

The Industrial Revolution of the eighteenth and nineteenth centuries, coupled with the enclosure of common land and the advent of free trade, led to the population of England and Wales becoming more concentrated in the lowland areas. A series of agricultural depressions coupled with the effects of free trade ren-

Table 3

Population change in national parks in England and Wales, 1951-81

	Population			Population change 1951-81	
	1951 (000)	1971 (000)	1981 (000)	Number (000)	% of 1951
Brecon Beacons	35.8	34.8	32.2	— 3.6	— 10.1
Dartmoor	27.1	28.1	29.6	+ 2.5	+ 9.2
Exmoor	11.7	10.0	10.4	— 1.3	— 11.1
Lake District	43.5	44.4	39.8	— 3.7	— 8.5
Northumberland	4.0	3.2	2.2	— 1.8	— 45.0
North York Moors	22.3	21.7	21.7 [1]	— 0.6	— 2.7
Peak District	36.1	34.9	37.4	+ 1.3	+ 3.6
Pembrokeshire Coast [2]	19.7	19.7	21.5	+ 1.8	+ 9.1
Snowdonia	28.8	23.8	23.8	— 5.0	— 17.4
Yorkshire Dales	17.6	15.9	16.8	— 0.8	— 4.5
All national parks	246.6	236.7	235.4	— 11.2	— 4.5

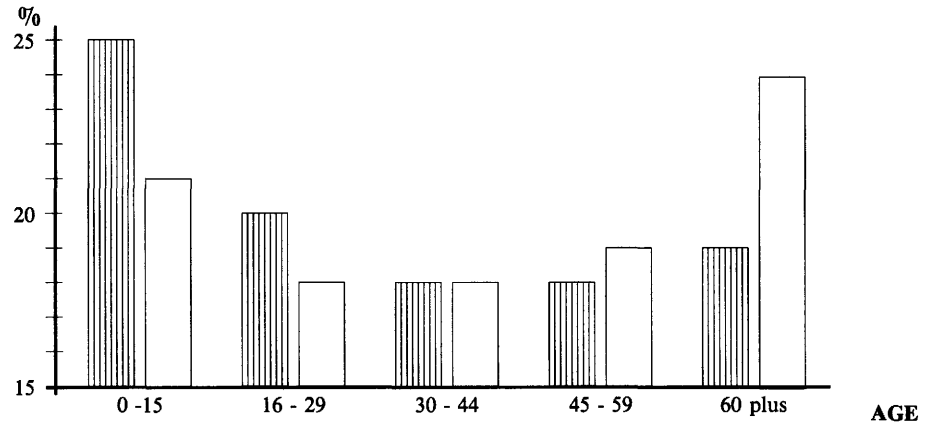
Source: Countryside Commission, *What future for the uplands* and *A better future for the uplands*, Cheltenham 1983, 1984.

[1] No 1981 figure available.

[2] Not strictly an upland area.

Table 4

Age structure of the population - 1971



National average: England and Wales.

National parks

Source: Countryside Commission. *What future for the uplands*, Cheltenham 1983.

dered the farming economy of the uplands even more precarious and over the last century there was a continuous exodus from the uplands to the lowlands, which was exacerbated as employment possibilities in agriculture dwindled and mining activity declined.

As already stated, upland areas do not coincide with statistical boundaries and for that reason it is difficult to determine the precise figures for population change. The figures for the national parks give some idea of the variation between 1951 and 1981 (1981 being the last year when a full census of the population was taken in the UK) (see Table 3).

The increases and decreases shown in the different national parks will not show movement within the park areas themselves, i.e. increasing populations in those towns included within the park boundaries and decreasing populations in the hill farms and more outlying areas. It is not possible to determine with any accuracy how far those areas which show a growth in population may have benefited from the growth of the tourist industry (in many parks most of the tourists are day tourists) or from people coming to live in the park areas but commuting to work (thanks to increased car ownership) in towns outside the parks.

Figures for age structure of the population show that there were in 1971 wide variations between the 0 - 15 and 60-plus age groups in the national parks as compared with England and Wales as a whole (Table 5).

The evidence of the 1981 census shows that between 1971 and 1981 the proportion of persons over 65 years of age

Table 5

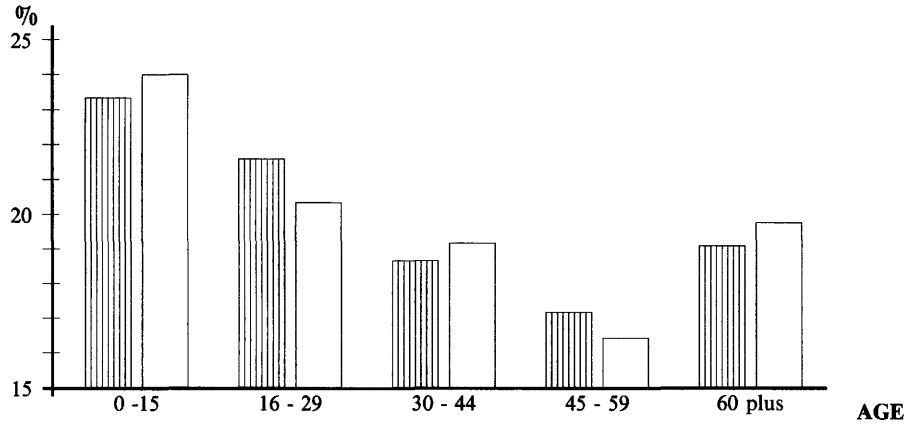
Population change in the Scottish Highlands, 1951-81

	Population			Population change 1951-81	
	1951 (000)	1971 (000)	1981 (000)	Number (000)	% of 1951
Badenoch & Strathspey	9.5	8.7	9.9	+ 0.4	+ 4.2
Caithness	22.7	27.8	27.6	+ 4.9	+ 21.5
Inverness	45.6	49.0	57.1	+ 11.5	+ 25.2
Lochaber	15.5	18.7	19.5	+ 4.0	+ 25.8
Nairn	8.7	8.3	9.9	+ 1.2	+ 13.8
Ross & Cromarty	33.1	34.6	46.9	+ 13.8	+ 41.6
Skye & Lochalsh	9.8	9.6	10.6	+ 0.8	+ 8.2
Sutherland	14.4	13.6	13.3	— 1.1	— 7.6
Argyll & Bute	71.1	67.7	66.4	— 4.7	— 6.6
Total	230.4	238.0	261.2	+ 30.8	+ 13.3

Source: Highland Regional Council.

Table 6

Age structure of the population in the Highlands, 1981



National average, Scotland.

Highlands (Highland Region area + Argyll & Bute)

Source: Highlands Regional Council. The figures cover Highland Region, plus Argyll & Bute.

in upland areas increased even further. In Exmoor, for instance, there was a 4% increase in persons over 65 in the 10 years from 1971 to 1981. This reflects not just the difficulties of young people in obtaining employment in the upland areas, but also the problems relating to housing, closing of schools and bus services, and the other social problems dealt with below.

Highlands of Scotland

Table 5 shows the population changes in the Highlands for the period 1951-81. In this period there was a steady but slight increase of population in the area as a whole. As has already been stated in regard to England and Wales, some of the population movements may relate to people leaving the more remote areas to come to live in towns like Inverness, particularly since most of the islands (Shetland, Orkney, Lewis and Harris, etc.) showed a decrease of population in this period. The impact of the atomic energy and oil industries may also help to explain increases in Caithness, Ross and Cromarty and Inverness.

The age structure of the population shown in Table 6 shows that there is a more balanced structure than is the case with the national park areas in England and Wales. In part this reflects the fact that the Highlands area covers not just uplands but the whole area of the north of Scotland, whereas the national parks in England and Wales do not cover such a wide cross-section of economic and social life. It is possible that some national parks may be attractive to town dwellers as retirement homes, e.g. Exmoor and Dartmoor, whereas the north of Scotland may have less attraction for people in the lowlands because of its remoteness from large towns, and its harsher climate.

No information has been received regarding population structure in the southern uplands of Scotland.

Economic and social aspects

Employment - England and Wales

Statistics are not easily obtained and the nearest approximation is the figures available for the national parks. These show that the service sector is predominant in upland areas, though the figures vary from area to area. In the North York Moors and Exmoor, where tourism is not so well established, agriculture and tourism are broadly in equilibrium: this is not so in the Lake District, where agriculture provides less than one-quarter of all employment and services well over one-half. It is clearly the effect of tourism which is boosting the service sector and helping to maintain or develop new types of services (hotels, camp sites, recreational facilities) to serve visitors and which supplant the dwindling services (schools, bus services) provided for the resident population.

Employment - Scotland

The HIDB area (including the Islands) shows the following employment structure at 1981. Although there appear to be similarities, in fact the nature of service employment differs considerably in the Highlands and Islands from that in Scotland as a whole.

The primary sector (agriculture, forestry, fishing, mining and quarrying) is of greater importance than in Scotland as a whole while the manufacturing sector is of less importance. The figures exclude some 15 000 self-employed farmers. It should also be noted that employment of women has been increasing steadily, probably concurrently with the growth of the service sector. In 1971, 36.4% of employees in the HIDB area were women, but by 1981 this figure had risen to 40.2%. This parallels a similar growth in women's employment in the upland areas of England and Wales.

Table 7

The structure of the agricultural workforce: National parks and England and Wales, 1976

(% total workforce)

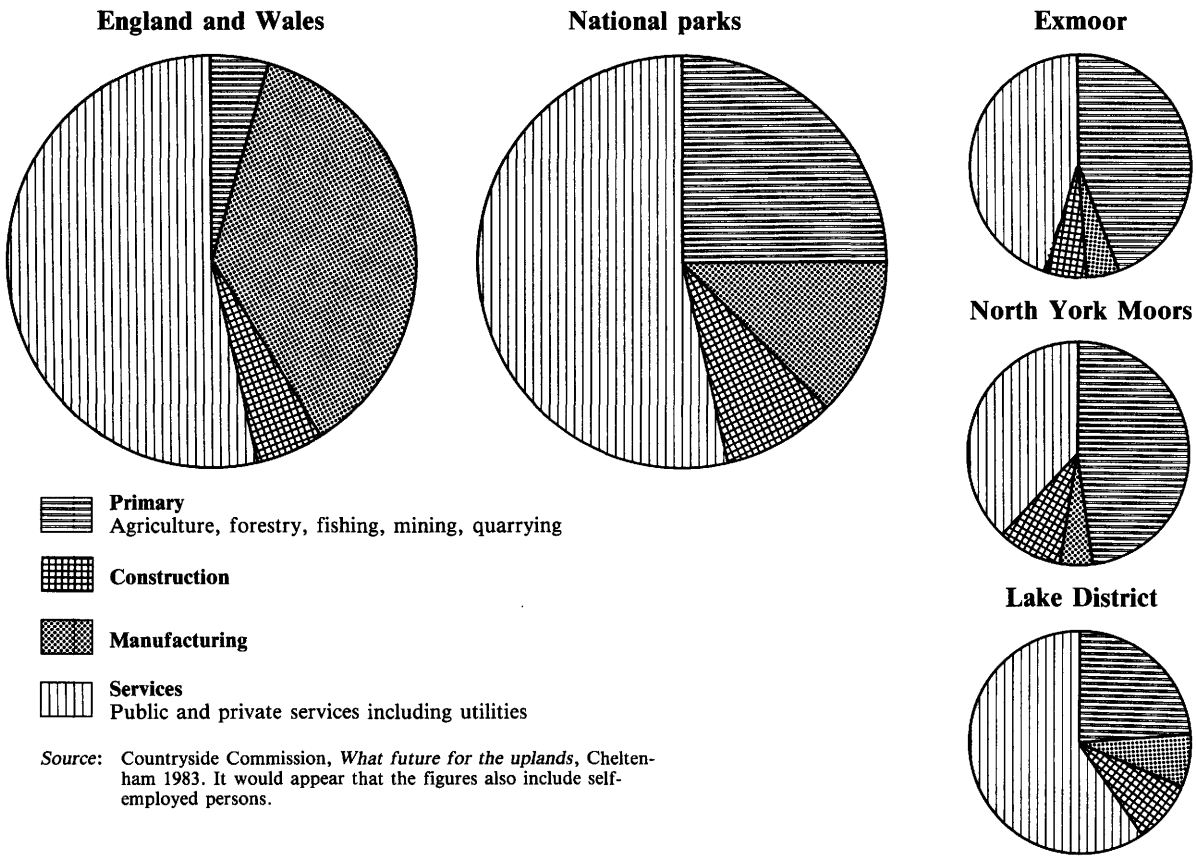
	Farmers, partners and directors		Salaried manager(s)	Family				Hired				Seasonal or casual		Total farmers and farm workers (00)
				Regular full-time		Regular part-time		Regular full-time		Regular part-time				
	full-time	part-time		male	female	male	female	male	female	male	female	male	female	
Brecon Beacons	48	11	*	7	4	2	3	8	1	2	1	10	3	xx
Dartmoor	43	14	1	6	2	3	3	10	1	4	2	10	2	22
Exmoor	41	10	1	6	2	2	3	17	1	5	1	8	2	15
Lake District	50	10	1	8	3	2	3	11	*	2	1	7	1	30
Northumberland	37	7	1	6	1	1	3	27	1	3	2	9	2	9
North York Moors	43	10	1	8	3	2	3	16	1	3	2	6	2	35
Peak District	44	15	*	9	3	4	4	7	1	2	1	8	2	40
Pembrokeshire Coast	30	8	1	7	3	1	2	11	1	1	1	16	18	29
Snowdonia	46	14	*	9	4	4	3	7	1	3	1	8	1	23
Yorkshire Dales	53	8	*	7	3	2	3	10	1	3	1	7	2	23
Total national parks	**44**	**11**	**1**	**8**	**3**	**2**	**3**	**11**	**1**	**3**	**1**	**9**	**4**	**255**
England and Wales	**32**	**12**	**1**	**6**	**2**	**2**	**2**	**22**	**2**	**3**	**4**	**7**	**5**	**6 820**

* Less than 0.5 %.

Source: Ministry of Agriculture, Fisheries and Food, Agricultural and Horticultural Census; Ministry of Agriculture, Fisheries and Food, Annual Review of Agriculture, 1981 (quoted in TRRU Research Report No 47).

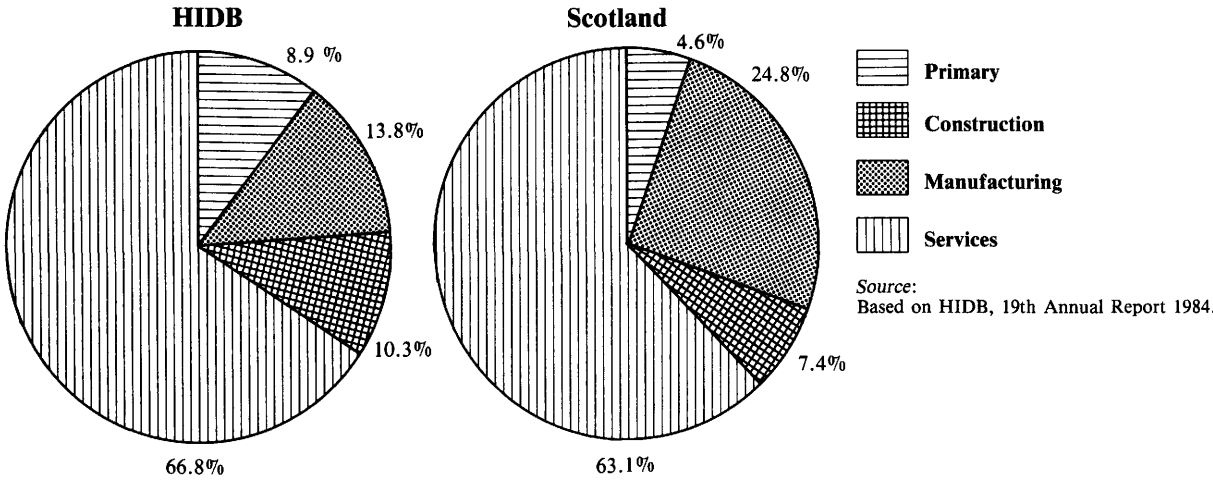
Figure 1

Employment in the national parks (%)



Source: Countryside Commission, *What future for the uplands*, Cheltenham 1983. It would appear that the figures also include self-employed persons.

Figure 2



Source:
Based on HIDB, 19th Annual Report 1984.

Unemployment continues to be a problem in the HIDB area. In 1984, average unemployment in the HIDB area was 16.2% for men and 11.2% for women, compared with all-Scotland averages of 18.3% and 11.0%. The summer tourist industry takes unemployment down to around the Scottish average, but the absence of alternative employment in the winter increases the level.

Structure of production

Agriculture and forestry - England and Wales

There are some 2 million hectares of upland in England and Wales, the majority being under agriculture. Table 8 shows the breakdown of the agricultural land for the north of England and Wales. There are broadly two types of farming in the uplands: 'hill farms', which lie on higher ground, producing mainly sheep, and relying on rough grazing land on moors, much of which is open. 'Upland farms' are based on livestock and their lands are enclosed with hedges, forming pastures or in some cases being used to grow crops for feeding livestock. Over the years, as farming has become more efficient, there has been a tendency for upland farming to move onto higher ground, using fertilizers to render rough grazing land more suitable for cattle, ploughing previously unploughed land, enclosing what was previously open land, and so on. A 1983 study of upland area parishes showed a steady decrease in semi-natural vegetation and increased areas of crops, grass and forestry. Increased productivity on upland farms also resulted in increased stocking density, especially of sheep, reduction of the labour force, and generally increased farm size. While in 1955 one worker tended 50 livestock units, by 1976 one worker was tending 133 units. [1]

Many upland farms depend on government support. In England and Wales HLCAs (Hill land compensatory allowances) account for some 17% of net income and these grants total some 25% of all grants and subsidies for agriculture, although output from hill and upland farming accounts for only 5% of the total gross output of agriculture. [2] Nevertheless, the hills and uplands produce nearly 50% of British sheep and wool output and 20-25% of beef cattle output.

1 Allaby M. *The changing uplands*, Countryside Commission, Cheltenham, 1983.

2 Countryside Commission, *Upland land use in England and Wales*, Cheltenham, 1978.

Table 8

Estimated area of hill land in the north of England and Wales — 1971 (000 hectares)

	North of England		Wales		Total
	Sheep [1]	Cattle [2] and sheep	Sheep [1]	Cattle [2] and sheep	
Total agricultural land	200	680	340	470	1 690
Rough pasture	160	380	250	140	930
Grass	40	250	80	280	650
Tillage	—	50	10	50	110
Rough pasture as a percentage of total	*84*	*55*	*74*	*30*	*55*

Source: Countryside Commission, *Upland land use*, Cheltenham 1978.

[1] Livestock rearing : mainly sheep
[2] Livestock rearing : cattle and sheep
according to the classification of farm holdings in MAFF returns.

Table 9

Woodland in England and Wales and the EEC, 1978

Area	Woodland area						
	State-owned		Private and other		As a proportion of land area	Per head of population	Total
	ha (000)	%	ha (000)	%	%	ha	ha (000)
England	255	28	650	72	7	0.02	905
Wales	135	59	95	41	11	0.09	230
England and Wales	390	34	745	66	8	0.02	1 135
EEC	5 380	17	26 245	83	20	0.13	31 625

Source: Forestry Commission, 1978 (in TRRU Research Report No 47).

Table 10

Employment in agriculture:
Change in structure in the national parks and England and Wales, 1969-76

		Type of labour[1]			
		Regular full-time	Regular part-time	Seasonal or casual	Total workers
Brecon Beacons	1969	677	113	234	1 024
	1976	579	239	363	1 181
	%change	*— 14*	*+ 112*	*+ 55*	*+ 15*
Dartmoor	1969	597	152	170	919
	1976	444	256	274	974
	%change	*— 26*	*+ 68*	*+ 61*	*+ 6*
Exmoor	1969	570	99	115	784
	1976	397	158	147	702
	%change	*— 30*	*+ 60*	*+ 28*	*— 10*
Lake District	1969	919	141	157	1 217
	1976	723	244	247	1 214
	%change	*— 21*	*+ 73*	*+ 57*	[2]
Northumberland	1969	418	34	30	482
	1976	337	85	102	524
	%change	*— 19*	*+ 150*	*+ 240*	*+ 9*
North York Moors	1969	1 330	223	201	1 754
	1976	999	373	288	1 660
	%change	*— 25*	*+ 67*	*+ 43*	*— 5*
Peak District	1969	1 026	194	228	1 448
	1976	758	446	412	1 616
	%change	*— 26*	*+ 130*	*+ 81*	*+ 12*
Pembrokeshire Coast	1969	793	156	891	1 840
	1976	688	139	989	1 816
	%change	*— 13*	*— 11*	*+ 11*	*— 1*
Snowdonia	1969	776	140	202	1 118
	1976	461	228	207	896
	%change	*— 41*	*+ 63*	*+ 2*	*— 20*
Yorkshire Dales	1969	601	112	114	827
	1976	479	206	205	890
	%change	*— 20*	*+ 84*	*+ 80*	*+ 8*
Total national parks	1969	7 707	1 364	2 342	11 413
	1976	5 865	2 374	3 234	11 473
	%change	*— 24*	*+ 74*	*+ 38*	*+ 1*
England and Wales	1969	249 812	42 223	61 350	333 565
	1976	177 512	63 658	70 778	311 948
	%change	*— 29*	*+ 51*	*+ 15*	*— 12*

[1] Excluding farmers and wives.

[2] Less than 0.5%

Source: Ministry of Agriculture, Fisheries and Food, Agricultural and Horticultural Census (Parish Returns) (Quoted in TRRV Research Report No 47.)

Table 11

Type of farming in national parks: Change in farm holdings, 1969-76

Type of holding	Total national parks		
	1969	1976	% change
Full-time farm holdings			
Specialist dairy	2 195	1 609	— 27
Mainly dairy	1 821	900	— 51
Livestock: mostly cattle	358	409	+ 14
mostly sheep	1 086	995	— 8
cattle & sheep	2 148	1 978	— 8
Pigs & poultry	162	102	— 37
Cropping	259	169	— 35
Horticulture	86	81	— 6
Mixed	802	288	— 64
Part-time farm holding	7 477	7 137	— 5
Total farm holding	16 394	13 668	— 17

Source: Ministry of Agriculture, Fisheries and Food, Agricultural and Horticultural Census (Parish Returns). (Quoted in TRRU Research Report No 47).

Forests and woodland account for some 11 % of the land area in the uplands, a substantial increase having taken place between 1968 and 1978. The new afforestation areas lie particularly in Wales and north-east England: some are owned and managed by the Forestry Commission, others by private landowners (see Table 9). 84% of the tree cover in the uplands is represented by coniferous trees: this is primarily due to the fact that coniferous woodlands grow faster and come to maturity sooner than deciduous trees, so that forest owners prefer coniferous timber for financial reasons. Given the dependence of the UK on imported timber, it is certain that the government will continue to encourage afforestation. However, conservation groups are increasingly active against the afforestation of moorlands, especially with non-native species of trees, and current policy provides for a more sensitive approach to afforestation, including the provision of access for recreational purposes.

Agriculture and forestry - Scotland

Because of the geographical features and the climate, upland and hill farms in Scotland tend to have a higher percentage of their land as rough grazing than similar farms in England. The higher hill farms may have as much as 97% of their land as rough grazing, compared with 84% in the north of England and 74% in Wales.[1] This means that upland farming in general tends to be more directed to the breeding of hill ewes rather than beef cattle. There are other factors as well which make it difficult to compare upland agriculture in Scotland with that of England and Wales. The first is the presence of larger holdings in some areas: this is reflected by the amounts of HLCAs paid in Scotland. The second is the presence of the crofting tenure, a form of multi-activity relatively widespread in the west of Scotland. The typical crofter leases or owns a house, 'garden', and croft land which he cultivates, together with grazing land which is leased or owned in common with other crofters. In addition however, the crofter will normally undertake other activities, e.g. fishing, public services or crafts for tourism. The interests of crofters are represented by the Crofters Union and contacts with the government are via the Crofters Commission. In recent years there has been a general upsurge of interest in crofting. Table 12 shows detail of the number of crofts in existence at 31.12.1984.

The most important body for forestry is the Forestry Commission, whose role until 1958 was to build up a strategic reserve of timber, either by afforestation on public land or by encouraging private landowners to plant forests on a commercial basis. Since 1970 most of the new afforestation has taken place in Scotland rather than in England or Wales, and this in part reflects the success of the conservationist lobby in resisting the afforestation of English moorland with non-native species. In recent years the Forestry Commission has seen its role change, with less emphasis on the strategic reserve of timber (nothwithstanding its continued importance) and more on the role of forestry as a provider of jobs in afforested areas. At the same time many agriculturalists have been concerned to see the extent of new forests in the Scottish uplands and Highlands, since they

[1] Eadie J. 'Trends in agricultural land use: the hills and uplands', paper presented at ITE Symposium No 13, 1984.

Table 12

Crofts registered at 31.12.1984

Former country and geographical division within the country	Number of crofts [1]		Number of owner-occupied crofts [2]	
	1984	1983	1984	1983
Argyll				
Mainland	555	562	162	148
Islands	519	521	70	66
Caithness	1 031	1 033	319	295
Inverness				
East Mainland	481	490	153	144
West Mainland	374	376	38	35
Skye and small isles	1 837	1 837	168	162
[3] Outer Isles (including Harris, Barra, North and South Uist)	2 370	2 371	32	27
Orkney	522	525	274	267
Ross and **Cromarty**				
East Mainland	565	569	156	140
West Mainland	1 264	1 263	68	60
[3] Lewis	3 601	3 601	6	6
Sutherland				
East	834	839	119	108
West	1 086	1 086	72	61
Shetland	2 717	2 719	618	592
Total	**17 756**	**17 792**	**2 255**	**2 111**

Source: The Crofters Commission, Annual Report 1984.

[1] Including owner-occupied crofts.

[2] This is the number known to the Commission: see paragraph 64.

[3] Integrated development programme area.

Note: The Crofting Reform (Scotland) Act 1976 repealed section 2(1) of the Crofters (Scotland) Act 1961 under which new crofts could be created. Any increase in the number of crofts shown above is not due therefore to the creation of new crofts but to other reasons for example the subdivision of existing crofts (see paragraph 44) and the identification and registration of existing holdings which had not previously been entered in the Register of Crofts.

have sometimes been planted on land which prima facie would be suitable for grazing sheep or cattle.

Within the HIDB area, fishing is a very important industry, but consideration of this industry has been excluded from this report.

Changes in land use and the conflict of interests

England, Wales and Scotland

It is sometimes difficult to reconcile the different interests that are active in the uplands, and it is even paradoxical that different bodies set up by statute can be in conflict with each other. On the one hand, farmers in the uplands are anxious (if only because it must be clear that without government subsidies their businesses would be unprofitable) to maximize productivity on their land, by improving grazings, by fencing-in open moors, by afforestation, by drainage, better farm buildings. They are assisted in their endeavours by government grants for capital expenditure, and in some cases, tax incentives. On the other hand, conservationist interests, while not wishing to put the clock back, point to the changes in the essential nature of the uplands which these improvements create, and so resist afforestation of moorland, limitation of access to walkers and tourists, elimination of areas containing rare plant or insect species, and so on. They can point to a government policy which in the past encouraged a farmer to construct a new building rather than repair an old one, and where agricultural and environmental interests are potentially in conflict. Coupled with these are the social problems of the upland areas: particularly in England and Wales, the purchase of second homes by people from the lowlands often means that the price of houses in the uplands goes up beyond the means of the people who live and work there. Young couples looking for a home thus leave the uplands for the lowlands, and this in turn gradually reduces demand for the village school, for the village bus service, for the services and amenities of the local authority.

Conservation interests are not limited to resisting changes in agricultural land use. Within England and Wales, 21 400 hectares of the uplands are occupied by nature reserves under the management of the following organizations:

Table 13

	Number of reserves	Area in ha
Nature Conservancy Council	40	15 000
Royal Society for the Protection of Birds	4	900
County Trust Reserves	161	3 700
Local nature reserves	5	1 300
	210	21 400

Source: Countryside Commission, *Upland land use in England and Wales*, Cheltenham, 1978.

Table 14

Land ownership in the national parks, 1979

	Land ownership				Land held by						
	Total area of national parks	Land owned and managed by national park authority	Land leased to and managed by national park authority	Land managed by national park authority through agreement with landowner	Other local authority	National Trust	Forestry Commission	Water authority	Ministry of Defence	Nature Conservancy Council	Other public ownership
	000 ha	ha	ha	ha	ha	ha	ha	ha	ha	ha	ha
Brecon Beacons	134	50	2	5[1]	20	4 733[3]	11 078[4]	NA	1 006[5]	779	798[8]
Dartmoor	95	1 175	8	801	469	1 882	1 807	4 710	13 987	302	27 952[9]
Exmoor	69	1 533	10	0	142	6 605	1 344	332	0	0	2 422
Lake District	224	2 259	876	0	2 000	37 833	11 646	15560	461[6]	216	NA
Northumberland	103	131	0	0	0	767	22 298	1 202	22 700	36	0
North York Moors	143	865	0	0	190[2]	1 200	23 690	271	768	0	0
Peak District	140	805	81	NA	NA	14 200	2 600	19 940	1 200[7]	139	NA
Pembrokeshire Coast	58	38	46	15	155	1 741	720	0	2 710	313	NA[10]
Snowdonia	217	770	5	0	19	19 130	26 330	2 400	300	1 140	7 759
Yorkshire Dales	176	84	0	0	0	1 721	424	221	716	11	NA

Source: Countryside Commission, 1980 (quoted in TRRU Research Report No 47).

1 Plus 57 ha managed jointly with owner.
2 63 ha managed as national nature reserve.
3 Including 283 ha leased by Ministry of Defence to National Trust.
4 Including land leased from Welsh Water Authority.
5 64 ha managed by Nature Conservancy Council.
6 Land and foreshore: clearance and firing rights held over a further 484 ha mostly foreshore.
7 Held under licence.
8 57 ha British Waterways Board : 741 ha National Coal Board.
9 Duchy of Cornwall.
10 Foreshore (Crown ownership).
NA Not available.

Note: There may be overlap in the statistics presented. For example, where one body owns an area of land and leases it to another the area of land will be recorded twice.

The number and size of nature reserves in the uplands is not likely to increase significantly, but they are an important element for the conservation of flora and fauna and also have an educational and recreational role.

Some 3.7% of the uplands of England and Wales are occupied for training and testing purposes by the Ministry of Defence. Much of this land is moorland and rough grazing, and in some cases the land continues to be grazed by cattle. As a result of restricted or prohibited access for tourists, there is the somewhat paradoxical result that use of land for battle training may increase its nature conservancy value.

It would be wrong to think that this conflict of interests is the direct result of government policy, or of the fact that so many sectoral bodies with sectoral interests have a role to play. In some instances, it is the result of the law. Right of access is important to walkers in England and Wales because of the law of trespass, which does not exist in Scotland. In Scotland, the tenant of a farm may not have the right to take the fish in the rivers or the game on the hills, and if he plants trees, the trees may belong to the owner of the land.

Mining and quarrying

About 8 400 hectares of the uplands of England and Wales are affected by active mineral working. A further 10 000 hectares are covered by planning permission for such working, but are not yet affected.

Minerals being actively extracted include china clay, igneous and metamorphic rocks being quarried for building purposes, limestone, coal, sandstone, flourspar, and barytes. Other minerals (copper, lead, zine, tungsten, gold) occur in the upland areas but are not mined in quantity. In the Highlands substantial deposits of minerals have recently been identified.

Extraction of some minerals is decreasing or ceasing because either the reserves have become exhausted, or because cheaper imports or substitute materials have rendered extraction no longer economic. This is the case with lead ore, and slate (largely replaced by roofing tiles in the building industry). Other minerals are in demand, e.g. fluorspar for the oil industry, and production is increasing. Changes in world market prices, e.g. for copper may lead to the resumption of production in low grade ore mines in the uplands of Wales.

Industry - England and Wales

The figures for employment in the national parks (see above) show that less than 25% of civilian employment is in construction and manufacturing, as compared with around 33% in the UK as a whole. At a time when the manufacturing sector is shrinking annually in favour of the service sector, the predominance of the latter sector in the uplands reflects not only the increasing importance of tourism but also the fact that the uplands were never really industrialized. But remoteness from manufacturing centres and poor communications have tended to keep industry from becoming established in areas where there was no industrial tradition except in mining and where incentives for manufacturers could be matched by incentives in less prosperous industrial areas in the lowlands. The work of the Development Commission (in England) and the Development Board for Rural Wales (in Wales) has concentrated on getting new industries into towns within or adjacent to the upland areas, rather than trying to establish industries in the uplands themselves, a policy that would have encountered opposition from conservationists, the local authorities and the national park boards.

Industry - Scotland

In the HIDB area there has been a conscious attempt to develop all kinds of industry by means of financial assistance and other incentives, e.g. the provision of advance factories. Following the closure of the aluminium smelter at Invergordon, built in 1968, which closed in 1982 with a loss of 1 000 jobs, the government set up an Enterprise Zone at Invergordon. The pulp mills at Corpach, intended to tap the maturing timber sources of the Highlands, closed in 1980-81, with a loss of some 500 jobs. A more successful industry is that of atomic energy, where the Dounreay research centre and nuclear reactor has provided a source of jobs since the 1950s. The Cromarty Firth has become a major service centre for the oil industry and many rigs are sent there for inspection, repair and maintenance. It should be recalled, however, that these industries are not strictly in the uplands. In the upland areas of the HIDB area investment is mainly in the processing of natural resources, distilling, textiles, knitwear and food production. HIDB has a wide range of services and grants to assist new and developing industries and crafts.

Tourism - England and Wales

The upland areas have long been a favourite area for tourism, especially the Lake District, but large-scale tourism only began after the formation of the national parks. The fact that many upland areas are within 2 - 3 hours driving distance of major conurbations make them ideal for day tourism, and the authorities responsible for tourism - the local authorities, the Countryside Commission, and the national park boards - have done much to encourage tourism by the provision of facilities.

Many farmers have also found tourism to be an additional source of income. 'Bed and breakfast' on farms, farm holidays, and farm campsites offer tourists a convenient base from which to explore walks and trails in the uplands.

In recent years the increase in the price of petrol has put day tourism beyond the pockets of many potential visitors to the upland areas of England and Wales, but even in 1977 a survey showed that 63% of national park visitors were on a day trip from home rather than on a holiday trip. It should also be noted that some national

Table 15

Holiday and recreational visits to national parks by residents of England and Wales, 1977

	Percentage of total visits [1] to all national parks			Percentage composition of visits [1] to each national park	
	Holiday trip	Day trip from home	Total	Holiday trip	Day trip from home
Brecon Beacons	2	6	8	24	76
Dartmoor	3	5	8	41	59
Exmoor	1	3	4	35	65
Lake District	7	10	17	42	58
Northumberland	1	1	2	50	50
North York Moors	4	3	7	53	47
Peak District	4	20	24	14	86
Pembrokeshire Coast	3	6	9	33	67
Snowdonia	8	2	10	82	18
Yorkshire Dales	4	7	11	43	57
Total	37	73	100	37	63

Source: Countryside Commission, (quoted in TRRU Research Report No 47).

[1] Based on the National Survey of Countryside Recreation undertaken in the summer of 1977. The base is the two most recent trips undertaken by respondents in the four weeks previous to interview.

parks (Brecon Beacons, Snowdonia, Exmoor, Dartmoor) are relatively close to holiday coastal areas, so that they benefit frequently from day trips by visitors who are on holiday in coastal resorts.

Tourism - Scotland

Over 30% of its financial investment under grants and loans has been provided by HIDB for tourism and HIDB has been active in many ways to stimulate this sector, particularly in view of its importance for women's jobs. Particular actions have concentrated on improvement of hotel accommodation and the improvement of craft industries via marketing and other schemes. Tourism in the Highlands is however seasonal (despite efforts to organize the winter holiday market, climatic conditions are not identical to those of the Alps) and because of distance from centres of population there is much less scope for day tourism than in England and Wales.

Because of the climate, substantial investment is required in infrastructure such as roads, information centres, modern accommodation, and wet weather facilities.

General trends in hotel occupancy show that the average from April to October is around 50%, a figure somewhat lower than competing areas (e.g. the English Lake District). HIDB has aided the tourism industry in a number of ways:

(1) introduction of computer booking systems;
(2) nationwide advertising campaigns;
(3) production of promotional literature;
(4) support for the area tourist boards in the Highlands;
(5) grant and loan assistance to the private sector (totalling UKL 3.3 million in 1984).

Tourism employs over 11 000 people in the Highlands, and they cater for the needs of some 2 million visitors per year. The average visitor stays about seven nights in the area. Total tourist accommodation can be summarized as follows:

625 hotels with 23 500 beds;
276 guesthouses with 3 500 beds;
1 200 bed and breakfast houses with 8 000 beds;
3 200 self-catering flats with 19 000 beds;
1 600 permanent caravans with 10 500 beds;
47 youth hotels with 2 850 beds;
4 000 touring caravan spaces;
3 400 tent spaces.

Conclusion

In England and Wales, the problems of upland areas are not just the problems of farmers. The interests of forestry, nature conservation, tourists, hoteliers, walkers and others form the background to economic and social policy in the uplands. Any policy for the uplands will need to take account of the special position of these areas and their sometimes conflicting interests. Many problems of the upland areas in England and Wales are very different from those of other upland areas in the Community.

In Scotland, the economic and social problems of the Highlands are perhaps closer to the problems of the major upland areas of continental Europe. The answer to these problems has been to establish a single body - the Highlands and Islands Development Board - which together with the Highland Regional Council has undertaken a wide range of projects designed to improve employment possibilities, halt depopulation, and improve the facilities available to the people of the region. The successes (and the failures) of the HIDB may be useful to those looking for policy guidelines elsewhere in the Community.

Table 16

Hotel and self-catering occupancy

	A	M	J	J	A	S	O		A	M	J	J	A	S	S
% 1982	30	43	49	56	63	56	34	% 1982	42	56	71	86	87	60	35
% 1983	32	48	59	66	71	59	35	% 1983	42	67	74	91	89	68	44

Source: HIDB.

Bibliography

Countryside Commission, *The changing uplands*, Cheltenham 1983.
Idem, *A better future for the uplands*, Cheltenham 1984.
Idem, *What future for the uplands*, Cheltenham 1983.
Idem, *Mid-Wales uplands study*, Cheltenham 1985.
Idem, *Upland land use in England and Wales*, Cheltenham 1978.
Eadie J. *Trends in agricultural land use: the hills and uplands* presented at ITE Symposium No 13, March 1984.
Highlands and Islands Development Board, *18th and 19th Reports,* 1983 and 1984.
Idem, *The Highlands and Islands*, a contemporary account.
Crofters Commission, *Annual Report 1984.*
Development Board for Rural Wales, *Annual Report 1984-85.*
Tourism and Recreation Research Unit, *Research Report No 47.*
The economy of rural communities in the national parks of England and Wales, Edinburgh 1981.

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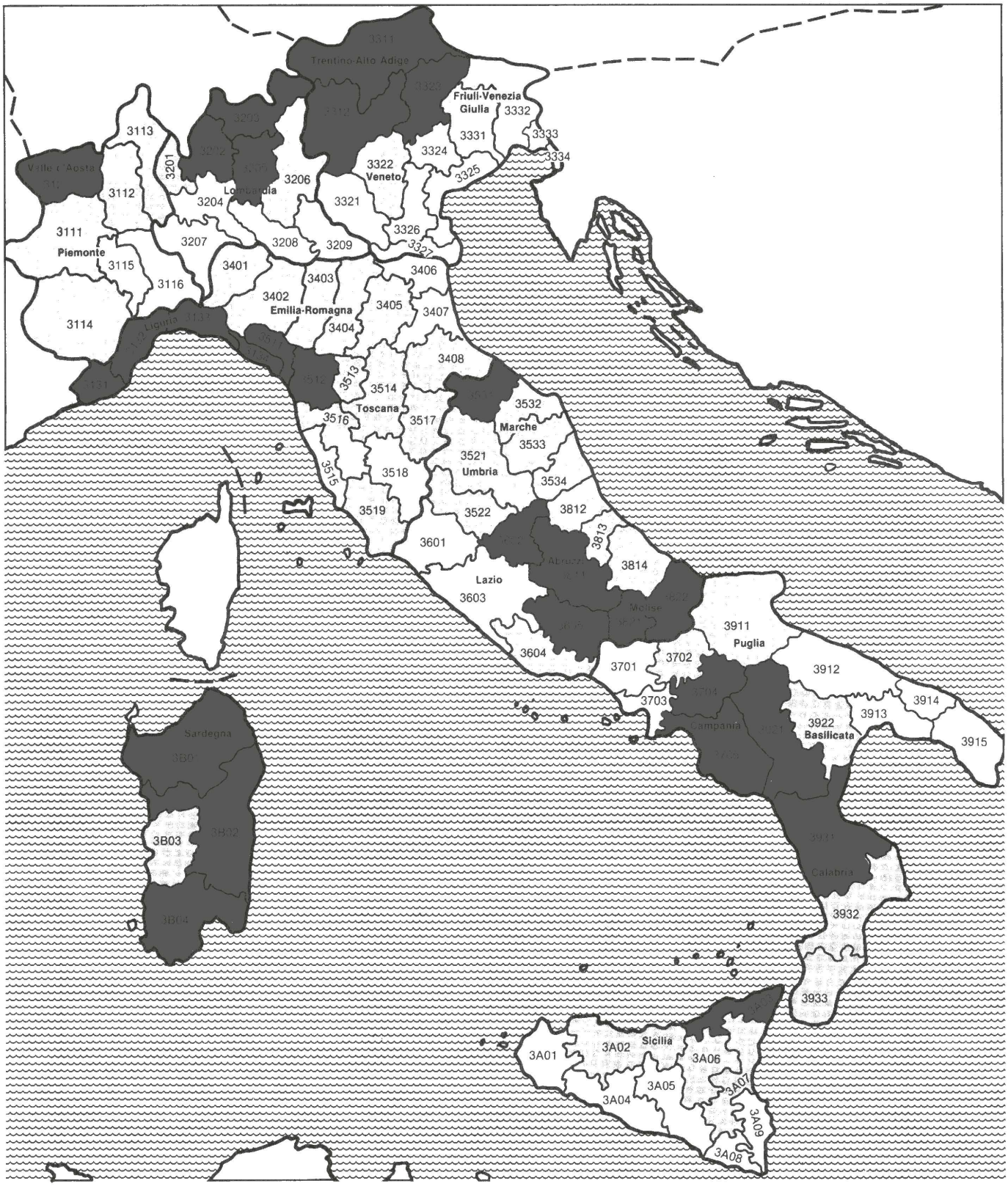
Italy

Contents

Upland areas in Italy



Background information

Surface area and geographical features

Italy's uplands cover 149 013.05 km², or 49.46% of Italy's total surface area.

All regions of Italy contain uplands to varying degrees. 27 provinces are considered 'mainly' upland[1] and 37 provinces 'partly' upland.[2] These two categories cover 4 153 communes (comuni)[3] (see Tables 1 and 2).

The uplands in Italy are formed in the North by the Alps - western, central and eastern - and on a north-south axis by the Apennines; these form a broad system.

There are geological, environmental and socio-economic differences between the various upland areas.

These differences mean that the upland areas vary greatly in terms of landscape, economic development and cultural features.

Demographic aspects

Population

The *total population* of the uplands is 9 215 741 or 16.2% of the Italian population.

Depopulation of the uplands is not a recent phenomenon, nor is it confined to Italy. Its various causes include emigration due to the lack of job opportunities and the move to towns in the plains below.

Leaving aside these general conditions, analysis of the population tables (Tables 3b and c) gives a more complete picture of demographic trends.

Density

Average population density in the uplands is 69 inhabitants per km². The national average is 189 (see Table 3a).

The lowest population density is found in the Sardinian Apennines (42 per km²) and in the western Alps (43 per km²). The highest apart from the central Alps is 60 per km² in the central Apennines and 69 in the southern Apennines. The central Alps provide a dramatic exception with 162 inhabitants per km² (see Table 3a).

Population trends

In the period 1961 to 1971 the fall in population in the central, southern and island Apennines was offset by an increase in the Alps and in the northern Apennines (Table 3b). This population shift is the result of people moving to the industrialized north in search of work.

During the decade 1971 to 1981, population movements stabilized. The population generally rose, and by a largely uniform percentage. Reasons for this may include the economic development of the centre, south and islands; the drop in emigration to the north; and higher fertility rates in the south.

Analysis of the variations over the period 1961 to 1981 shows that the highest rises were in the western Alps (18%) and central Alps (20.9%); the lowest in the southern Apennines (1.3%) and Sardinian Apennines (1.5%) (see Table 3b).

Age groups

The upland areas with a higher percentage of young people (age groups 0-9 and 10-19) than the Italian upland average are the southern Apennines (16% and 18.5%) and the Sardinian Apennines (15.7% and 18.4%).

The upland areas with a higher percentage of old people (age groups 60-69 and 69+) than the Italian upland average are the eastern Alps (9% and 11.3%) and the northern Apennines (10.9% and 11.7%) (see Table 3c).

Economic and social aspects

Employment and the structure of production in the uplands have followed the same trends as in the country as a whole.

Employment structure

Sectoral analysis shows that:

(i) Employment in agriculture in the uplands averages 12.9%. It is highest in the southern Apennines (27.8%) and the Sicilian Apennines (19.6%), and lowest in the eastern Alps (6%) and the central Alps (3.6%).

(ii) Employment in industry in the uplands averages 40.61%. It is highest in the central Alps (59.3%) and the western Alps (45.9%), and lowest in the southern Apennines (30.1%) and the Sicilian Apennines (28.8%).

(iii) Employment in other sectors (services etc.) in the uplands averages 46.5%. It is highest in the Sardinian Apennines (51.5%) and the Sicilian Apennines (51.1%), and lowest in the southern Apennines (41.8%) and the central Alps (36.9%).

---

1 Uplands cover over 66.66% of the province.

2 Uplands cover over 33.33% but less than 66.66% of the province.

3 *Source:* Uncem (National Union of Communes, Development Boards and other bodies in upland areas).

Statistical classification of Italian regions and provinces 1.6.1985

Country	Regions	Provinces
3	Italie	
31		
311	Piemonte	
3111		Torino
3112		Vercelli
3113		Novara
3114		Cuneo
3115		Asti
3116		Allessandria
312	Valle d'Aosta	
313	Liguria	
3131		Imperia
3132		Savona
3133		Genova
3134		La Spezia
32	Lombardia	
3201		Varese
3202		Como
3203		Sondrio
3204		Milano
3205		Bergamo
3206		Brescia
3207		Pavia
3208		Cremona
3209		Mantova
33		
331	Trentino-Alto Adige	
3311		Bolzano-Bozen
3312		Trento
332	Veneto	
3321		Verona
3322		Vicenca
3323		Belluno
3324		Treviso
3325		Venezia
3326		Padova
3327		Rovigo
333	Friouli-Venezia	Giulia
3331		Pordenone
3332		Udine
3333		Gorizia
3334		Trieste
34	Emilia-Romagne	
3401		Piacenza
3402		Parma
3403		Reggio Emilia
3404		Modena
3405		Bologna
3406		Ferrara
3407		Ravenna
3408		Forli
35		
351	Toscana	
3511		Massa-Carrara
3512		Lucca
3513		Pistoia
3514		Firenze
3515		Livorno
3516		Pisa
3517		Arezzo
3518		Siena
3519		Grosseto
352	Umbria	
3521		Perugia
3522		Terni
353	Marche	
3531		Pesaro e Urbino
3532		Ancona
3533		Macerata
3534		Ascoli Piceno
36	Lazio	
3601		Viterbo
3602		Rieti
3603		Roma
3604		Latina
3605		Frosinone
37	Campania	
3701		Caserta
3702		Benevento
3703		Napoli
3704		Avellino
3705		Salerno
38	Abruzzi-Molise	
381	Abruzzi	
3811		L'Aquila
3812		Teramo
3813		Pescara
3814		Chieti
382	Molise	
3821		Isernia
3822		Campobasso
39		
391	Puglia	
3911	Foggia	
3912		Bari
3913		Taranto
3914		Brindisi
3915		Lecce
392	Basilicata	
3921		Potenza
3922		Matera
393	Calabria	
3931		Cosenza
3932		Catanzaro
3933		Reggio Calabria
3 A	Sicilia	
3 A01		Trapani
3 A02		Palermo
3 A03		Messina
3 A04		Agrigento
3 A05		Caltanissetta
3 A06		Enna
3 A07		Catania
3 A08		Ragusa
3 A09		Siracusa
3 B	Sardegna	
3 B01		Sassari
3 B02		Nuoro
3 B03		Oristano
3 B04		Cagliari

Source: Eurostat.

Table 1

Mountain ranges, regions, and provinces

(% province area defined as uplands)

Areas	Regions	Mainly upland provinces [1]		Partly upland provinces [2]	
Western Alps	Piémont			Cueno	62.33
				Novara	62.99
				Torino	58.81
				Vercelli	45.47
	Aosta	Aosta	99.79		
Central Alps	Lombardia	Bergamo	68.26	Brescia	58.13
		Como	72.82	Varese	39.06
		Sondrio	100.0		
Eastern Alps	Trentino	Trento	100.0		
	Alto Adige	Bolzano	100.0		
	Veneto	Belluno	100.0	Vicenza	43.74
	Friouli-Venezia			Udine	58.46
	Giulia			Pordenone	58.97
Northern Apennines	Liguri	Imperia	80.49		
		Savona	80.10		
		Genova	75.50		
		La Spezia	75.84		
	Emilia Romagna			Piacenza	41.33
				Parma	57.80
				Reggio Emilia	42.28
		Modena Bologna	44.29		
	Toscana			Forli	49.80
		Massa-Carrara	71.91	Firenze	47.52
		Lucca	67.99	Pisa	34.32
				Arezzo	61.35
				Grosseto	45.67
				Pistoria	55.71
Central Apennines	Umbria			Perugia	63.46
				Terni	33.39
	Marche	Pesaro	78.40	Macerata	63.90
				A. Piceno	46.74
	Lazio	Rieti	81.69	Latina	36.63
		Frosinone	68.56		
	Abruzzi	Aquila	98.05	Pescara	44.30
				Chieti	64.90
				Terano	51.32
	Molise	Isernia	94.35		
		Campobasso	69.54		
Southern Apennines	Campania	Avellino	72.77	Benevento	53.32
		Salerno	76.83		
	Puglia			Foggia	37.25
	Basilicata	Potenza	89.73	Matera	36.61
	Calabria	Cosenza	81.67	Catanzaro	48.36
				R. Calabria	59.98
Sicilian Apennines	Sicilia	Messina	70.31	Catania	35.21
				Palermo	60.50
				Enna	56.39
Sardinian Apennines	Sardegna	Sassari	66.86	Oristano	53.88
		Nuoro	95.17		
		Cagliari	68.97		
		Total provinces :	27	Total provinces :	37
		Average value:	82.7	Average value:	37.05

Source: Comuni montani e Comunità montana in Italia, Uncem (Unione nazionale comuni enti montani) 1983.

Analysis of uplands areas is based on **provinces:**

[1] Provinces with over 66.66% upland.

[2] Provinces with between 33.33% and 66.66% upland.

Table 2

Surface area of Italy's uplands

Areas	Regions	Total km²	Area **Mainly upland**[1]	Area **Partly upland**[2]	Total upland[3]	%
Western Alps	Piemonte	23 589.94	—	11 917.95	11 917.95	46.92
	Valle d'Aosta	3 262.26	3 255.55	—	3 255.55	99.79
		26 861.20	**3 255.55**	**11 917.95**	**15 173.50**	**73.35**
Central Alps	Lombardia	23 856.66	6 601.35	3 248.69	9 850.06	41.28
		23 856.66	**6 601.35**	**3 248.69**	**9 850.06**	**41.28**
Eastern Alps	Trentino	13 620.34	13 620.34	—	13 620.34	100.0
	Veneto	18 363.89	3 678.08	1 190.83	4 868.91	26.51
	Friouli	7 846.46	—	4 202.26	4 202.26	53.55
		39 830.69	**17 298.42**	**5 393.09**	**22 691.51**	**60.02**
Northern Apennines	Liguria	5 416.12	4 369.55	—	4 369.55	80.67
	Emilia Romagna	22 123.18	—	8 319.55	18 319.55	37.60
	Toscana	22 992.34	2 266.35	7 262.02	9 528.37	41.44
		50 531.64	**6 635.90**	**15 581.57**	**22 217.47**	**53.23**
Central Apennines	Umbria	8 456.04	—	4 728.62	4 728.62	55.92
	Marche	9 693.49	2 267.93	2 748.35	5 016.28	51.74
	Lazio	17 202.69	4 466.82	818.49	5 285.31	30.72
	Abruzzo	10 794.09	4 936.65	3 134.48	8 071.13	74.77
	Molise	4 437.64	3 465.26	—	3 465.26	78.08
		50 583.95	**15 136.66**	**11 429.94**	**26 566.60**	**58.24**
Southern Apennines	Campania	13 595.34	5 813.91	1 104.23	6 918.14	50.88
	Puglia	19 347.77	—	2 676.70	2 676.70	13.83
	Basilicata	9 992.27	5 873.31	1 262.67	7 135.38	71.74
	Calabria	15 080.27	5 431.14	4 477.21	9 878.35	65.50
		58 015.65	**17 118.36**	**9 520.21**	**26 608.57**	**50.48**
Sicilian Apennines	Sicilia	25 708.84	2 283.25	5 715.80	7 999.05	31.11
		25 708.84	**2 283.25**	**5 715.80**	**7 999.05**	**31.11**
Sardinian Apennines	Sardegna	24 089.88	16 488.72	1 417.54	17 906.29	74.33
		24 089.88	**16 488.72**	**1 417.54**	**17 906.29**	**74.33**
Total Italy		**301 277.61**	**84 818.23**	**64 224.82**	**149 013.05**	**49.46**

Source: Comuni montana e Comunità montana in Italia, Uncem 1983.

[1] Provinces with over 66.66 % upland.

[2] Provinces with between 33.33% and 66.66% upland.

[3] Total of previous two.

Sectoral employment trends

Over the period 1971 to 1981:

(i) employment in farming fell in the uplands by an average of 6.6%. The fall was most pronounced in the central Apennines (14.2%) and the southern Apennines (11%), and least so in the northern Apennines (3.6%) and the central Alps (1%);

(ii) employment in industry rose by an average 2.3%. The highest rise was in the Sardinian Apennines (17.1%) and the central Apennines (9.9%). It fell in the western Alps (1.8%) and the Sicilian Apennines (10.1%);

(iii) employment in the services sector rose by an average of 12%. The rise was greatest in the Sardinian Apennines (14.9%) and the central Apennines (14.4%) and lowest in the central Alps (10.6%) and the northern Apennines (9.9%) (see Tables 4 and 5).

Table 3a

Upland population

Areas	Regions		Population	Population density / km²
Western Alps	Piemonte	(1)	—	—
		(2)	640 058	62
		(3)	640 058	62
	Valle d'Aosta	(1)	77 128	24
		(2)	—	—
		(3)	77 128	24
			717 186	**43**
Central Alps	Lombardia	(1)	705 161	123
		(2)	439 841	201
		(3)	1 145 002	162
			1 145 002	**162**
Eastern Alps	Trentino	(1)	873 413	64
		(2)	—	—
		(3)	873 413	64
	Veneto	(1)	220 335	60
		(2)	97 423	82
		(3)	317 818	71
	Friouli	(1)	—	—
		(2)	151 270	37
		(3)	151 270	37
			1 342 501	**57**
Northern Apennines	Liguria	(1)	334 051	70
		(2)	—	—
		(3)	334 051	70
	Emilia Romagna	(1)	—	—
		(2)	348 442	42
		(3)	348 442	42
	Toscana	(1)	164 931	72
		(2)	303 767	43
		(3)	468 698	57
			1 150 800	**56**
Central Apennines	Umbria	(1)	—	—
		(2)	249 611	46
		(3)	249 611	46
	Marche	(1)	135 286	60
		(2)	123 717	45
		(3)	259 003	52
	Lazio	(1)	281 953	63
		(2)	72 809	89
		(3)	354 762	76
	Abruzzi	(1)	253 987	51
		(2)	225 459	70
		(3)	479 446	60
	Molise	(1)	244 156	69
		(2)	—	—
		(3)	244 156	69
			1 580 978	**60**
Southern Apennines	Campania	(1)	564 836	96
		(2)	89 569	81
		(3)	654 405	89
	Puglia	(1)	—	—
		(2)	171 567	64
		(3)	171 567	64
	Basilicata	(1)	373 869	64
		(2)	49 065	39
		(3)	422 934	51
	Calabria	(1)	425 736	78
		(2)	358 469	71
		(3)	784 205	74
			2 033 111	**69**
Sicilian Apennines	Sicilia	(1)	156 396	68
		(2)	316 427	59
		(3)	472 823	64
			472 823	**64**
Sardinian Apennines	Sardegna	(1)	712 568	46
		(2)	54 772	39
		(3)	767 340	42
			676 340	**42**
Total upland areas			**9 215 741**	**69**
Total Italy			**56 557 000**	**189**

Source: Comuni montana e Comunità montana in Italia, Uncem 1983.

(1) Mainly upland areas (1981).
(2) Partly upland areas (1983).
(3) Total 1 + 2.

Structure and agricultural production

Structure of agricultural holdings

The Italian uplands contain 913 840 farms (32% of the national total), covering 5 274 009 hectares (33.2% of utilized land) (Table 6).

Classification of upland agricultural holdings by acreage of AA shows the relation between size and land use (Tables 7 and 7a). Of the eight upland areas considered:

(i) the Central Alps and southern Apennines contain the highest proportion of small farms of less than 5 hectares of AA (85.4% and 82.9% respectively);

(ii) the Sardinian Apennines contain a particularly high proportion of medium (30-50 hectares of AA) and large (over 50 AA) farms (4.3% and 6.8% respectively).

The real significance of these figures lies in their comparison with the uplands average. The high percentage of small farms in the first two upland areas mentioned (Central Alps and southern Apennines) can be accounted for by a marked tendency towards fragmentation of agricultural land (which is extremely fertile in these areas) and, to a certain extent, by their vicinity to the major urban areas of the North. The number of large farm holdings in the Sardinian Apennines, even in relatively barren areas, can, on the other hand, be attributed to the difficult nature of the terrain, which hampers farming activities.

Lastly, figures for the uplands should be compared with those for the rest of Italy. It transpires that, on average, small farms are more common in the uplands than in the rest of the country, whereas large farms are more frequently to be found in lowland or hilly areas.

Utilization of agricultural land and trends

A study of the utilization of agricultural land in upland areas points to special climatic conditions caused by altitude, steep slopes and a lack of adequate communications. These are all elements which have a direct bearing on farming. (See Tables 8a and 8b for more detailed information.)

A general study of agriculture in the uplands shows that the cereals and grain sector is less developed than in the rest of the country. According to the 1983 Eurostat survey, the proportion of agricultural land under these crops in recent years is 18.8%, a drop of 2.3% on the 1975 figures, whereas the national average is 37.9%.

The permanent crops sector tells a similar tale: the percentage of agricultural land given over to permanent crops in the uplands is about half the national average (7.5% as opposed to 13.2%). There was, however, an increase of 1.5% between 1975 and 1983.

Table 3b

Upland population and population trends[1]

(number and percentage)

Areas	Regions		pop. 1961	pop. 1971	pop. 1981	Variation 1961-71	%	Variation 1971-81	%	Variation total 1961-81 %
Western Alps	Piemonte	(1)	—	—	—	—	—	—	—	—
		(2)	3 221 033	3 730 583	3 797 547	509 550	+ 16.0	66 965	+ 1.8	+ 17.8
		(3)	3 221 033	3 730 583	3 797 547	509 550	+ 16.0	66 965	+ 1.8	+ 17.8
	Valle d'Aosta	(1)	100 959	109 150	112 353	8 191	+ 8.1	3 203	+ 3.0	+ 11.1
		(2)	—	—	—	—	—	—	—	—
		(3)	100 959	109 150	112 353	8 191	+ 8.1	3 203	+ 3.0	+ 11.1
			3 321 982	**3 839 733**	**3 909 900**	**517 741**	**+ 16.0**	**70 168**	**+ 2.0**	**+ 18.0**
Central Alps	Lombardia	(1)	1 528 252	1 718 631	1 846 105	190 379	+ 12.4	124 474	+ 7.4	+ 19.8
		(2)	1 464 477	1 683 509	1 805 105	219 032	+ 14.9	121 641	+ 7.2	+ 22.1
		(3)	2 992 729	3 402 140	3 651 255	409 411	+ 13.7	246 115	+ 7.2	+ 20.9
			2 992 729	**3 402 140**	**3 651 255**	**409 411**	**+ 13.7**	**246 115**	**+ 7.2**	**+ 20.9**
Eastern Alps	Trentino	(1)	785 967	841 886	873 413	55 919	+ 7.1	31 527	+3.7	+ 10.8
		(2)	—	—	—	—	—	—	—	—
		(3)	785 967	841 886	873 413	55 919	+ 7.1	31 527	+ 3.7	+ 10.8
	Veneto	(1)	234 921	221 155	220 335	— 13 766	— 5.8	— 820	— 3.7	— 9.5
		(2)	615 507	677 884	726 418	62 377	+ 10.1	48 534	+ 7.1	+ 17.2
		(3)	850 428	899 039	946 753	48 611	+ 5.7	47 714	+ 5.3	+ 10.8
	Friouli	(1)	—	—	—	—	—	—	—	—
		(2)	767 908	770 816	805 617	2 908	+ 0.4	34 801	+ 4.5	+ 4.9
		(3)	767 908	770 816	805 617	2 908	+ 0.4	34 801	+ 4.5	+ 4.9
			2 404 303	**2 511 741**	**2 625 783**	**107 438**	**+ 4.5**	**114 069**	**+4.5**	**+ 4.9**
Northern Apennines	Liguria	(1)	1 735 349	1 853 578	1 807 893	118 229	+ 6.8	34 801	+ 4.5	+ 11.3
		(2)	—	—	—	—	—	—	—	—
		(3)	1 735 349	1 853 578	1 807 893	118 229	+ 6.8	34 801	+ 4.5	+ 11.3
	Emilia Rom.	(1)	—	—	—	—	—	—	—	—
		(2)	2 933 903	3 111 240	3 217 741	177 337	+ 6.0	106 501	+ 3.4	+ 9.4
		(3)	2 933 903	3 111 240	3 217 741	177 337	+ 6.0	106 501	+ 3.4	+ 9.4
	Toscana	(1)	568 521	581 311	589 406	12 790	+ 2.2	8 095	+ 1.4	+ 3.6
		(2)	2 137 529	2 299 300	2 389 870	161 771	+ 7.6	90 570	+ 3.0	+ 10.6
		(3)	2 706 050	2 880 611	2 979 276	174 561	+ 6.4	98 665	+ 3.4	+ 9.8
			7 375 302	**7 845 429**	**8 004 910**	**470 127**	**+ 6.4**	**239 967**	**+ 3.0**	**+ 9.4**
Central Apennines	Umbria	(1)	—	—	—	—	—	—	—	—
		(2)	794 745	775 783	807 552	— 18 962	— 2.4	31 769	+ 4.0	+ 1.6
		(3)	794 745	775 783	807 552	— 18 962	— 2.4	31 769	+ 4.0	+ 1.6
	Marche	(1)	314 741	316 383	333 488	1 642	+ 0.5	17 105	+ 5.4	+ 5.9
		(2)	627 039	626 913	645 499	— 126	— 0.02	18 586	+ 3.0	+ 2.98
		(3)	941 780	943 296	978 987	1 516	+ 0.1	35 691	+ 3.8	+ 3.7
	Lazio	(1)	600 659	565 792	603 189	— 34 867	— 5.8	37 397	+ 6.6	+ 0.8
		(2)	319 056	376 238	434 086	57 182	+ 17.9	57 848	+ 15.3	+ 33.2
		(3)	919 715	942 030	1 037 275	22 315	+ 2.4	95 245	+ 10.1	+ 12.5
	Abruzzi	(1)	328 989	293 066	926 049	— 35 923	— 10.9	— 1 324	— 0.4	— 11.3
		(2)	877 277	873 628	926 049	— 3 649	— 0.4	52 421	+ 6.0	+ 5.6
		(3)	1 206 266	1 166 694	1 217 791	— 39 572	— 3.2	51 097	+ 4.3	+ 1.1
	Molise	(1)	358 052	319 807	328 371	— 38 245	— 10.0	8 564	+ 2.6	— 7.4
		(2)	—	—	—	—	—	—	—	—
		(3)	358 052	319 807	328 371	— 38 245	— 10.0	8 564	+ 2.6	— 7.4
			4 220 558	**4 147 610**	**4 369 976**	**— 72 948**	**— 1.7**	**222 366**	**+ 5.3**	**+ 3.6**
Southern Apennines	Campania	(1)	1 377 169	1 383 847	1 447 800	6 678	+ 0.4	63 953	+ 4.6	+ 5.0
		(2)	313 020	287 613	289 143	— 25 407	— 8.1	1 530	+ 0.5	— 7.6
		(3)	1 690 189	1 671 460	1 736 943	— 18 729	— 1.1	67 483	+ 4.0	+ 2.9
	Puglia	(1)	—	—	—	—	—	—	—	—
		(2)	665 286	657 292	681 595	— 7 994	— 1.2	24 303	+ 3.6	+ 2.4
		(3)	665 286	657 292	681 595	— 7 994	— 1.2	24 303	+ 3.6	+ 2.4
	Basilicata	(1)	444 166	408 435	406 616	— 35 731	— 8.0	— 1 819	— 0.4	— 8.4
		(2)	200 131	194 629	203 570	— 5 502	— 3.7	8 941	+ 4.5	+ 0.8
		(3)	644 297	603 064	610 186	— 41 233	— 6.3	7 122	+ 1.1	— 5.2
	Calabria	(1)	694 398	691 659	743 255	— 2 739	— 0.3	51 596	+ 7.4	+ 7.1
		(2)	1 350 649	1 296 392	1 317 927	— 54 257	— 4.0	21 535	+ 1.6	— 2.4
		(3)	2 045 047	1 988 051	2 061 182	— 56 996	— 2.7	73 131	+ 3.6	+ 0.9
			5 044 819	**4 919 867**	**5 089 906**	**— 106 223**	**— 2.1**	**172 039**	**+ 3.4**	**+ 1.3**
Sicilian Apennines	Sicilia	(1)	685 260	654 703	669 323	— 30 557	— 4.4	14 620	+ 2.2	— 2.2
		(2)	2 234 065	2 264 419	2 395 091	30 354	+ 1.3	130 672	+ 5.7	+ 7.0
		(3)	2 919 325	2 919 122	3 064 414	— 203	0.0	145 292	+ 4.9	+ 4.9
			2 919 325	**2 919 122**	**3 064 414**	**— 203**	**0.0**	**145 292**	**+ 4.9**	**+ 4.9**
Sardinian Apennines	Sardegna	(1)	1 419 362	1 324 515	1 439 132	— 94 847	— 6.6	114 617	+ 8.6	+ 2.0
		(2)	—	149 285	155 043	—	—	5 758	+ 3.8	—
		(3)	1 419 362	1 473 800	1 594 175	- 94 847	— 6.6	120 375	+ 8.1	+ 1.5
			1 419 362	**1 473 800**	**1 594 175**	**— 94 847**	**— 6.6**	**120 375**	**+ 8.1**	**+ 1.5**
Total upland areas			**29 698 080**	**31 059 442**	**32 310 319**	**1 229 496**	**+ 3.7**	**1 330 386**	**+ 4.8**	**+ 8.5**
Total Italy			**50 624 000**	**54 136 500**	**56 557 000**	**3 512 500**	**+ 6.4**	**2 420 500**	**+ 4.2**	**+ 10.5**

Source: Population censuses Istat 1961, 1971 and 1981.

[1] The figures are taken from statistics for the provinces as a whole. Provinces are classified as follows:
(1) Provinces with over 66.66% uplands;
(2) Provinces with between 66.66% and 33.33% uplands
(3) Total 1 + 2.

Table 3c

Upland population by age group

(number and percentage by region and upland areas)

Areas	Regions		Population total	Population by age group							
				under 9 years	10-19	20-29	30-39	40-49	50-59	60-69	over 69 years
Western Alps	Piemonte	(1)	—	—	—	—	—	—	—	—	—
		(2)	3 797 547	11.4	14.4	13.6	14.0	14.4	13.1	9.0	10.1
		(3)	3 797 547	11.4	14.4	13.6	14.0	14.4	13.1	9.0	10.1
	Valle d'Aosta	(1)	112 353	11.2	14.5	13.9	14.4	14.1	13.4	9.4	9.1
		(2)	—	—	—	—	—	—	—	—	—
		(3)	112 353	11.2	14.5	13.9	14.4	14.1	13.4	9.4	9.1
			3 909 900	**11.3**	**14.45**	**13.7**	**14.2**	**14.25**	**13.3**	**9.2**	**9.6**
Central Alps	Lombardia	(1)	1 846 105	13.4	16.7	14.7	17.3	13.5	11.7	7.8	7.9
		(2)	1 805 150	13.0	16.3	14.3	14.4	13.9	12.1	8.0	8.0
		(3)	3 651 255	13.2	16.5	14.5	14.3	13.7	11.9	7.9	7.9
			3 651 255	**13.2**	**16.5**	**14.5**	**14.3**	**13.7**	**11.9**	**7.9**	**7.9**
Eastern Alps	Trentino	(1)	873 413	7.6	17.4	14.9	13.6	12.3	9.8	7.9	16.5
		(2)	—	—	—	—	—	—	—	—	—
		(3)	873 413	7.6	17.4	14.9	13.6	12.3	9.8	7.9	16.5
	Veneto	(1)	220 335	11.1	14.8	13.5	13.7	12.6	13.1	10.2	12.0
		(2)	726 418	13.2	17.3	14.4	14.1	13.0	11.6	8.6	7.8
		(3)	946 753	12.1	16.0	13.9	13.9	12.8	12.3	9.4	9.9
	Friouli	(1)	—	—	—	—	—	—	—	—	—
		(2)	805 617	11.4	14.9	13.5	14.3	13.1	12.5	9.9	10.4
		(3)	805 617	11.4	14.9	13.5	14.3	13.1	12.5	9.9	10.4
			2 625 783	**10.1**	**16.1**	**14.1**	**13.9**	**12.7**	**11.8**	**9.0**	**11.3**
Northern Apennines	Liguria	(1)	807 893	9.1	13.2	11.9	12.6	14.0	14.6	11.6	13.0
		(2)	—	—	—	—	—	—	—	—	—
		(3)	807 893	9.1	13.2	11.9	12.6	14.0	14.6	11.6	13.0
	Emilia Rom.	(1)	—	—	—	—	—	—	—	—	—
		(2)	3 217 741	10.3	13.6	13.0	13.5	13.9	14.1	10.8	10.8
		(3)	3 217 741	10.3	13.6	13.0	13.5	13.9	14.1	10.8	10.8
	Toscana	(1)	589 406	11.0	14.2	12.8	13.8	13.2	13.7	10.3	12.0
		(2)	2 389 870	10.7	13.7	13.2	13.6	13.6	13.8	10.4	11.0
		(3)	2 979 276	10.8	13.9	13.0	13.2	13.4	13.7	10.3	11.5
			8 004 910	**10.0**	**13.5**	**12.6**	**13.1**	**13.7**	**14.1**	**10.9**	**11.7**
Central Apennines	Umbria	(1)	—	—	—	—	—	—	—	—	—
		(2)	807 552	11.3	13.6	12.9	13.1	13.5	14.5	10.8	10.3
		(3)	807 552	11.3	13.6	12.9	13.1	13.5	14.5	10.8	10.3
	Marche	(1)	333 488	12.1	14.9	13.4	13.0	13.1	13.3	10.1	10.1
		(2)	645 499	11.7	14.4	13.9	12.5	13.6	13.8	10.1	10.0
		(3)	978 987	11.9	14.6	13.6	12.7	13.3	13.5	10.1	10.1
	Lazio	(1)	603 189	14.0	15.7	14.2	12.6	11.9	12.7	9.3	9.6
		(2)	434 086	16.1	17.9	14.9	14.0	12.5	10.9	7.1	6.6
		(3)	1 037 275	15	16.6	14.5	13.3	12.2	11.8	8.2	8.1
	Abruzzi	(1)	291 742	12.7	14.7	14.2	11.9	11.6	13.7	10.4	10.8
		(2)	926 049	13.3	16.1	13.7	12.4	12.8	12.8	9.3	9.6
		(3)	1 217 791	13.0	15.4	13.9	12.1	12.2	13.2	9.8	10.4
	Molise	(1)	328 371	13.3	15.9	14.0	11.5	12.2	12.8	9.6	10.7
		(2)	—	—	—	—	—	—	—	—	—
		(3)	328 371	13.3	15.9	14.0	11.5	12.2	12.8	9.6	10.7
			4 369 976	**12.9**	**15.2**	**13.7**	**12.5**	**12.6**	**13.1**	**9.7**	**9.9**
Southern Apennines	Campania	(1)	1 447 800	15.5	18.2	14.9	11.9	11.8	12.0	7.8	7.9
		(2)	289 143	14.3	17.4	13.4	11.1	11.9	12.9	10.2	8.8
		(3)	1 736 943	14.9	17.8	14.1	11.5	11.8	12.4	9.0	8.3
	Puglia	(1)	—	—	—	—	—	—	—	—	—
		(2)	681 595	17.4	19.6	14.4	11.9	11.0	10.6	7.4	7.7
		(3)	681 595	17.4	19.6	14.4	11.9	11.0	10.6	7.4	7.7
	Basilicata	(1)	406 616	14.8	18.0	14.6	11.1	12.1	12.1	8.3	9.0
		(2)	203 570	16.5	18.2	14.9	12.1	12.1	11.2	7.3	7.7
		(3)	610 186	15.7	18.1	14.7	11.6	12.1	11.6	7.8	8.3
	Calabria	(1)	743 255	16.0	18.7	15.4	12.1	11.7	11.0	7.5	7.6
		(2)	1 317 927	16.6	18.9	15.0	11.7	10.7	10.7	7.9	8.5
		(3)	2 061 182	16.3	18.8	15.2	11.9	11.2	10.8	7.7	8.0
			5 089 906	**16.0**	**18.5**	**14.6**	**11.7**	**11.5**	**11.3**	**7.9**	**8.0**
Sicilian Apennines	Sicilia	(1)	669 323	14.4	16.5	14.2	12.0	11.5	12.4	9.5	9.5
		(2)	2 395 091	16.2	17.9	14.9	12.5	11.5	11.3	7.9	7.8
		(3)	3 064 414	15.3	17.2	14.5	12.2	11.5	11.8	8.7	8.6
			3 064 414	**15.3**	**17.3**	**14.5**	**12.2**	**11.5**	**11.8**	**8.7**	
Sardinian Apennines	Sardegna	(1)	1 439 132	16.5	18.8	15.5	13.2	11.4	10.1	7.0	7.5
		(2)	155 043	14.9	17.8	14.2	12.2	11.4	11.2	8.5	9.8
		(3)	1 594 175	—	18.4	14.8	12.6	—	10.6	7.7	8.6
			1 594 175	**15.7**	**18.4**	**14.8**	**12.6**	**11.4**	**10.6**	**7.7**	**8.6**
Total upland areas			**32 310 319**	**13.06**	**16.2**	**14.2**	**13.06**	**12.6**	**12.2**	**8.8**	**10.0**
Total Italy			**56 557 000**	**13.3**	**16.3**	**14.0**	**13.3**	**13.0**	**12.4**	**8.8**	**8.9**

Source: Population censuses, Istat 1981.

(1) Mainly upland areas (1981).
(2) Partly upland areas (1983).
(3) Total 1 + 2.

Table 4

Employment in Italy's uplands

(Total, sectoral breakdown and % variation 1971-81 by region and upland area)

Areas	Regions		Total employed	Agriculture		Industry		Other activities	
			1981	1981 %	1971-81 %	1981 %	1971-81 %	1981 %	1971-81 %
Western Alps	Piemonte	(1)	—	—	—	—	—	—	—
		(2)	1 564 090	6.7	— 2.3	52.3	— 2.4	41.0	10.7
		(3)	1 564 090	6.7	— 2.3	52.3	— 2.4	41.0	10.7
	Valle d'Aosta	(1)	45 265	8.6	— 3.7	39.5	— 1.3	51.8	10.7
		(2)	—	—	—	—	—	—	—
		(3)	45 265	8.6	— 3.7	39.5	— 1.3	51.8	13.4
			1 609 355	**7.6**	**— 3.9**	**45.9**	**— 1.8**	**46.4**	**12.0**
Central Alps	Lombardia	(1)	755 195	3.3	— 1.0	59.0	3.5	37.6	10.9
		(2)	744 953	4.0	— 1.1	59.6	4.5	36.3	10.3
		(3)	1 500 148						
			1 500 148	**3.6**	**— 1.0**	**59.3**	**4.0**	**36.9**	**10.6**
Eastern Alps	Trentino	(1)	345 918	4.9	— 4.4	39.1	— 1.9	55.9	14.3
		(2)	—	—	—	—	—	—	—
		(3)	345 918	4.9	— 4.4	39.1	— 1.9	55.9	14.3
	Veneto	(1)	83 948	4.9	— 4.0	47.6	1.0	47.3	7.7
		(2)	297 965	6.4	— 2.2	58.2	9.5	35.2	9.7
		(3)	381 913	5.6	— 3.1	52.9	9.7	41.2	8.7
	Friouli	(1)	—	—	—	—	—	—	—
		(2)	314 853	7.5	— 4.5	47.1	2.9	45.2	11.9
		(3)	314 853	7.5	— 4.5	47.1	2.9	45.2	11.9
			1 042 689	**6.0**	**— 4.0**	**46.3**	**3.5**	**47.4**	**11.6**
Northern Apennines	Liguria	(1)	637 789	5.1	— 2.3	33.3	— 4.6	61.4	7.8
		(2)	—	—	—	—	—	—	—
		(3)	637 789	5.1	— 2.3	33.3	— 4.6	61.4	7.8
	Emilia Rom.	(1)	—	—	—	—	—	—	—
		(2)	1 395 762	10.4	— 5.1	44.3	5.0	45.1	11.0
		(3)	1 395 762	10.4	— 5.1	44.3	5.0	45.1	11.0
	Toscana	(1)	210 647	5.9	— 3.5	45.1	— 0.5	48.9	10.8
		(2)	974 424	6.4	— 3.6	47.8	1.7	45.7	11.4
		(3)	1 185 071	6.1	— 3.5	46.4	0.6	47.3	11.1
			3 218 622	**7.2**	**— 3.6**	**41.3**	**1.5**	**51.2**	**9.9**
Central Apennines	Umbria	(1)	—	—	—	—	—	—	—
		(2)	300 473	10.6	— 7.7	44.4	6.1	44.8	12.3
		(3)	300 473	10.6	— 7.7	44.4	6.1	44.8	12.3
	Marche	(1)	127 907	9.8	— 8.9	45.4	7.5	44.7	11.2
		(2)	263 861	13.7	— 15.2	49.6	12.6	36.5	9.5
		(3)	391 768	11.7	— 12.0	47.5	10.0	40.6	10.3
	Lazio	(1)	190 878	12.6	— 13.6	44.1	7.4	43.2	11.3
		(2)	143 770	15.8	— 1.6	40.8	3.9	43.3	14.8
		(3)	334 648	14.2	— 15.2	42.4	5.6	43.2	13.0
	Abruzzi	(1)	90 891	10.1	— 14.2	37.8	3.0	51.9	12.3
		(2)	315 203	15.6	— 10.9	39.8	47.9	44.4	12.6
		(3)	406 094	12.8	— 12.5	38.8	25.4	48.1	12.4
	Molise	(1)	108 852	27.4	— 23.7	32.5	2.4	40.0	24.4
		(2)	—	—	—	—	—	—	—
		(3)	108 852	27.4	— 23.7	32.5	2.4	40.0	24.4
			1 541 835	**15.3**	**— 14.2**	**41.1**	**9.9**	**43.3**	**14.4**
Southern Apennines	Campania	(1)	443 265	24.7	— 10.9	33.0	— 3.7	42.1	11.6
		(2)	91 738	37.1	— 17.2	24.9	4.1	37.8	9.5
		(3)	535 003	30.9	— 14.5	28.9	2.0	39.9	10.5
	Puglia	(1)	—	—	—	—	—	—	—
		(2)	196 294	29.0	— 13.0	27.6	— 2.5	43.3	11.0
		(3)	196 294	29.0	— 13.0	27.6	— 2.5	43.3	11.0
	Basilicata	(1)	133 232	29.2	— 13.4	32.9	— 2.4	37.7	11.2
		(2)	66 625	25.5	— 9.8	34.5	12.7	39.8	12.7
		(3)	199 875	27.3	— 11.6	33.7	5.1	28.7	11.9
	Calabria	(1)	226 088	23.8	— 6.9	32.6	— 5.7	43.4	15.1
		(2)	370 198	24.3	— 10.5	28.1	— 8.1	47.5	13.6
		(3)	596 286	24.0	— 8.7	30.3	— 6.9	45.4	14.3
			1 527 458	**27.8**	**— 11.0**	**30.1**	**— 5.7**	**41.8**	**11.9**
Sicilian Apennines	Sicilia	(1)	199 320	22.6	— 9.1	26.4	— 4.4	50.8	9.7
		(2)	650 613	16.7	— 6.5	31.2	— 15.9	51.9	12.5
		(3)	849 933	19.6	— 7.8	28.8	— 10.1	51.3	11.1
			849 933	**19.6**	**— 7.8**	**28.8**	**— 10.1**	**51.1**	**11.1**
Sardinian Apennines	Sardegna	(1)	433 180	12.0	— 5.5	34.5	34.5	53.3	14.4
		(2)	45 187	21.4	— 10.1	28.7	— 0.3	49.7	15.4
		(3)	478 363	16.7	— 7.8	31.6	17.1	51.5	14.9
			478 363	**16.7**	**— 7.8**	**31.6**	**17.1**	**51.5**	**14.9**
Total upland areas			**11 768 398**	**12.9**	**— 6.6**	**40.6**	**2.3**	**46.8**	**12.0**
Total Italy			**20 246 337**	**11.0**	**— 6.2**	**41.6**	**— 2.7**	**47.4**	**8.9**

Source: Istat data from population censuses 1971 and 1981.
Figures based on statistics for provinces.

Table 5

Employment in Italy's uplands

(Total employed and sectoral breakdown in %)

Areas	Regions		Total employed	Agri-culture	Industry	Construc-tion	Elec-tricity	Com-merce	Trans-port	Credit	Services	Public admini-stration
Western Alps	Piemonte	(1)	—	—	—	—	—	—	—	—	—	—
		(2)	1 564 090	6.7	44.6	6.7	0.9	14.4	5.0	2.2	15.2	4.1
		(3)	1 564 090	6.7	44.6	6.7	0.9	14.4	5.0	2.2	15.2	4.1
	Valle d'Aosta	(1)	45 265	8.6	26.1	10.9	2.4	19.2	5.4	1.5	16.5	8.9
		(2)	—	—	—	—	—	—	—	—	—	—
		(3)	45 265	8.6	26.1	10.9	2.4	19.2	5.4	1.5	16.5	8.9
			1 609 355	**7.6**	**35.3**	**8.8**	**1.6**	**17.8**	**5.2**	**1.8**	**15.8**	**6.5**
Central Alps	Lombardia	(1)	755 195	3.3	47.1	10.9	0.8	14.5	4.0	1.9	14.0	3.5
		(2)	744 953	4.0	50.1	8.7	0.7	14.2	3.6	1.8	13.4	3.1
		(3)		3.6	48.6	9.8	0.75	14.3	3.8	1.85	13.7	3.3
			1 500 148	**3.6**	**48.6**	**9.8**	**0.75**	**14.3**	**3.8**	**1.85**	**13.7**	**3.3**
Eastern Alps	Trentino	(1)	345 918	4.9	22.7	10.4	0.9	22.9	5.1	2.1	17.9	6.9
		(2)	—	—	—	—	—	—	—	—	—	—
		(3)	345 918	4.9	22.7	10.4	0.9	22.9	5.1	2.1	17.9	6.9
	Veneto	(1)	83 948	4.9	31.5	14.8	1.2	21.2	3.8	1.1	15.2	5.8
		(2)	297 965	6.4	49.8	7.8	0.5	13.4	3.7	1.6	12.8	3.5
		(3)	381 913	5.6	40.6	11.3	0.8	17.3	3.75	1.3	14.0	4.6
	Friouli	(1)	—	—	—	—	—	—	—	—	—	—
		(2)	341 853	7.5	33.8	12.5	0.7	16.4	4.7	1.7	15.6	6.7
		(3)	341 853	7.5	33.8	12.5	0.7	16.4	4.7	1.7	15.6	6.7
			1 042 684	**6.0**	**32.3**	**11.4**	**0.8**	**18.8**	**4.5**	**1.7**	**15.8**	**6.0**
Northern Apennines	Liguria	(1)	637 789	5.1	24.3	8.1	1.2	20.6	11.5	2.7	18.3	8.1
		(2)	—	—	—	—	—	—	—	—	—	—
		(3)	637 789	5.1	24.3	8.1	1.2	20.6	11.5	2.7	18.3	8.1
	Emilia Rom.	(1)	—	—	—	—	—	—	—	—	—	—
		(2)	1 395 762	10.4	35.7	8.0	0.7	16.5	5.0	22.7	16.2	4.7
		(3)	1 395 762	10.4	35.7	8.0	0.7	16.5	5.0	22.7	16.2	4.7
	Toscana	(1)	210 647	5.9	35.1	9.1	0.9	18.2	5.9	1.8	16.7	6.0
		(2)	974 424	6.4	39.9	7.0	0.8	16.1	15.4	2.1	15.3	6.6
		(3)	1 185 071	6.2	37.5	8.0	0.85	17.1	15.7	1.9	16.0	6.3
			3 218 622	**7.2**	**32.5**	**8.0**	**0.1**	**18.0**	**7.4**	**0.9**	**16.8**	**6.3**
Central Apennines	Umbria	(1)	—	—	—	—	—	—	—	—	—	—
		(2)	300 473	10.6	33.0	10.3	0.9	13.7	5.7	1.7	16.6	6.9
		(3)	300 473	10.6	33.0	10.3	0.9	13.7	5.7	1.7	16.6	6.9
	Marche	(1)	127 907	9.8	34.6	10.2	0.5	15.0	4.6	1.7	17.0	6.2
		(2)	263 861	13.7	39.8	9.1	0.7	12.7	3.8	1.4	13.6	4.7
		(3)	391 768	11.7	32.2	9.6	0.6	13.8	4.2	1.58	15.3	5.4
	Lazio	(1)	190 878	12.6	31.2	12.0	0.8	12.8	6.0	1.3	14.9	7.9
		(2)	143 770	15.8	27.9	11.7	1.1	13.9	5.4	1.1	14.6	8.0
		(3)	334 648	14.2	29.5	11.85	0.95	13.3	5.7	1.2	14.8	7.9
	Abruzzi	(1)	90 891	10.1	21.6	15.0	1.1	14.1	7.0	1.4	18.2	10.9
		(2)	315 203	15.6	26.3	12.7	0.8	14.8	5.0	1.3	16.3	6.8
		(3)	406 094	12.8	25.9	13.8	0.95	14.4	6.0	1.3	17.2	8.8
	Molise	(1)	108 852	27.4	16.6	15.0	0.7	11.3	4.0	1.0	14.9	8.7
		(2)	—	—	—	—	—	—	—	—	—	—
		(3)	108 852	27.4	16.6	15.0	0.7	11.3	4.0	1.0	14.9	8.7
			1 541 835	**15.3**	**28.0**	**12.1**	**0.8**	**13.3**	**5.1**	**1.3**	**15.7**	**7.5**
Southern Apennines	Campania	(1)	443 265	24.7	20.1	12.3	0.5	11.6	5.1	0.9	17.4	6.8
		(2)	91 738	37.1	12.8	11.4	0.5	8.8	5.4	0.8	15.6	7.0
		(3)	535 003	30.9	16.4	11.8	0.5	10.2	5.25	0.85	16.5	6.9
	Puglia	(1)	—	—	—	—	—	—	—	—	—	—
		(2)	196 264	29.0	15.1	11.8	0.6	12.0	6.2	1.0	16.5	7.4
		(3)	196 264	29.0	15.1	11.8	0.6	12.0	6.2	1.0	16.5	7.4
	Basilicata	(1)	133 232	29.2	11.7	20.1	1.0	9.3	4.0	0.9	15.3	8.0
		(2)	66 625	25.5	17.6	15.8	1.0	9.9	4.0	1.0	16.0	8.7
		(3)	199 857	27.3	14.6	17.9	1.0	9.6	4.0	0.95	15.7	8.4
	Calabria	(1)	226 088	23.8	11.8	19.9	0.8	11.1	5.1	1.3	17.6	8.1
		(2)	370 198	24.3	18.7	14.7	6.0	6.4	8.1	4.9	10.8	13.0
		(3)	596 286	24.0	15.2	17.3	3.4	8.7	6.6	3.1	14.2	10.5
			1 527 410	**27.8**	**15.3**	**14.7**	**1.3**	**10.1**	**5.5**	**1.4**	**15.7**	**8.3**
Sicilian Apennines	Sicilia	(1)	199 320	22.6	13.7	11.7	0.9	13.9	7.7	1.5	17.7	9.9
		(2)	650 612	16.7	16.6	13.5	1.0	15.4	6.8	2.0	19.1	8.4
		(3)	849 933	19.6	15.1	12.6	0.95	14.6	7.2	1.7	18.4	9.1
			849 933	**19.6**	**15.1**	**12.6**	**0.95**	**14.6**	**7.2**	**1.7**	**18.4**	**9.1**
Sardinian Apennines	Sardegna	(1)	433 180	12.0	18.7	14.4	1.3	16.0	6.6	1.4	19.6	9.4
		(2)	45 187	21.4	12.8	14.7	1.0	15.3	5.6	1.1	18.6	8.9
		(3)	**478 367**	**16.7**	**15.7**	**14.5**	**1.15**	**15.7**	**6.1**	**1.25**	**19.1**	**9.2**
			478 367	**16.7**	**15.7**	**14.5**	**1.15**	**15.7**	**6.1**	**1.25**	**19.6**	**9.2**
Total upland areas			**11 768 354**	**13.1**	**27.9**	**11.7**	**1.0**	**15.4**	**5.7**	**1.6**	**16.5**	**7.1**
Total Italy			**20 246 337**	**11.0**	**31.2**	**9.4**	**0.9**	**15.3**	**6.1**	**2.1**	**17.3**	**6.7**

Source: Istat data from 1981 population census.

Figures based on statistics for provinces.

Table 6

Number of farms in various utilized agricultural land brackets (UAA)

	Uplands	Italy
< 5 UAA		
Number of farms	729 870	2 218 530
Hectares	1 175 148	3 474 261
5 - 20 UAA		
Number of farms	151 640	498 030
Hectares	1 358 628	4 508 206
20 - 50 UAA		
Number of farms	21 630	86 870
Hectares	639 959	2 594 693
> 50 UAA		
Number of farms	10 700	37 790
Hectares	2 100 279	5 279 420
Total		
Number of farms	913 840	2 832 420
Hectares	5 274 009	15 857 794

Source: FSSR inquiry into farm structures, Eurostat, 1983.

Table 7b

Classification of agricultural holdings according to size

(%)

	AA categories (ha AA)						
	< 5	5-10	10-20	20-30	30-50	> 50	Average AA
Western Alps	76.3	14.7	5.8	1.6	0.2	1.4	8.6
Central Alps	85.4	8.7	3.1	0.8	0.4	1.6	6.4
Eastern Alps	77.2	13.7	5.7	1.3	0.9	1.2	6.0
Northern Apennines	74.3	14.1	7.5	1.8	1.2	1.1	5.4
Central Apennines	81.6	11.1	4.5	1.2	0.8	0.9	5.4
Southern Apennines	82.9	9.6	4.4	1.2	0.9	1.0	4.7
Sicilian Apennines	80.2	10.2	5.2	1.9	1.2	1.3	5.2
Sardinian Apennines	70.1	9.2	6.5	3.1	4.3	6.8	16.0
Total uplands	79.8	11.3	5.2	1.5	0.9	1.3	5.7
Total Italy	78.3	11.3	5.8	1.7	1.4	1.5	5.5

Source: FSSR inquiry into farm structures, Eurostat, 1983.

The technical/economic orientation of agricultural holdings

This is basicallly the agricultural enterprises engaged in. We see that in the uplands

— agriculture is less developed than in the country as a whole;

— the environment favours stockfarming;

— in general, mixed farms (multicrop, and/or multistock) are typical (Table 9).

Table 7a

AA area of farms

(%)

AA categories	Uplands	Italy
1 - 5 ha (AA)	79.8	78.3
5 - 10 ha (AA)	11.3	11.3
10 - 20 ha (AA)	5.2	5.8
20 - 30 ha (AA)	1.4	1.8
30 - 50 ha (AA)	1.0	1.3
50 - 100 ha (AA)	0.7	0.9
+ 100 ha (AA)	0.6	0.6
Average AA	5.7	5.5
Total farms	913 840	2 832 420

Source: FSSR inquiry into farm structures, Eurostat, 1983.

Table 8a

Agricultural land use

Agricultural land use	Uplands		Italy	
	Area, ha	%	Area, ha	%
Forests	3 284 353	34.9	4 562 822	20.6
Unused	832 801	8.9	1 718 689	7.8
Permanent pasture	2 782 632	29.7	4 498 989	20.3
Permanent crops	708 253	7.5	2 943 149	13.2
Alloments	7 004	0.2	17 244	0.2
Grain	1 776 188	18.8	8 398 551	37.9
Total	9 391 231	100	22 139 444	100

Source: FSSR inquiry into farm structures, Eurostat, 1983.

Table 8b

Land use in the Italian uplands (1983)

(%)

	Forests	Unused	Perma. pastures & meadows	Perma. crops	Allot-ments	Grain
Western Alps	36.1	9.2	45.2	3.5	0.3	5.7
Central Alps	37.6	10.4	48.1	2.0	0.3	1.6
Eastern Alps	47.6	12.1	32.3	4.0	0.3	3.4
Northern Apennines	42.4	8.3	18.2	7.6	0.3	23.2
Central Apennines	31.8	8.8	27.9	5.8	0.3	25.4
Southern Apennines	26.1	7.6	22.6	13.6	0.2	29.9
Sicilian Apennines	13.2	5.1	25.9	15.9	0.3	39.6
Sardinian Apennines	43.0	7.8	37.7	3.5	0.3	7.0
Total uplands	34.9	8.9	29.7	7.5	0.2	18.8
Total Italy	20.6	7.8	20.3	13.2	0.2	37.9

Source: FSSR inquiry into farm structures, Eurostat, 1983.

Table 9

Classification of farms by product — 1983

(%)

	Uplands	Italy
Mixed	18.6	25.1
Fruit and vegetable	1.1	1.3
Permanent crops	36.0	39.9
Grass	16.4	9.2
Grains	0.4	0.5
Multi-crops	16.1	15.4
Multi-stock	3.5	15.4
Stock	7.9	6.1

Source: FSSR inquiry into farm structures, Eurostat, 1983.

Upland forests

There are 3 284 353 hectares of forested land in the uplands, representing 71.9% of national forests and 34.9% of utilized agricultural land in the uplands. The uplands are about 60% more forested than the rest of Italy (34.9% and 20.6%) (Table 10).

Forestry is one of the most important sectors of upland farming. The percentage of forested uplands rose from 26.2% in 1975 to 34.9% in 1983. These percentage values are far in excess of the national figures.

395 560 farms of all sizes contain wooded areas (58.5% of the national total). The percentage values for small farms (16.7% in the 0-5 AA category) and small/medium-sized farms (28.9% in the 5-20 AA category) are higher than the national average (Table 10).

Policies on the development of the uplands do not yet contain a fully-fledged strategy on the exploitation and protection of forests. The rural exodus has meant that many forested areas in the uplands have been abandoned, particularly where problems of access make them difficult to exploit.

Upland areas which have not been designated national parks and have therefore not benefited from conservation measures have fallen into degradation, which has provoked changes in the ecological balance. This in turn has affected surrounding valleys and lowlands. Undergrowth which has been allowed to grow unchecked has been the cause of numerous forest fires in the summer periods, causing irreparable damage to the natural environment.

A policy on the conservation of the uplands and their forests should also include special measures to protect fauna and flora threatened by extinction.

Double jobbing

Although farming is the oldest and most important economic component of the uplands economy, it is often combined with non-agricultural jobs.

Double jobbing, which is not confined to upland areas, is tied up with the seasonal nature of some agricultural activities and their inability to provide an adequate livelihood.

30% of farmers have a secondary source of income. Of these, 88.9% derive their main source of income from outside their farm (Table 11).

Table 10

Classification of farms by AA and wooded area (ha)

(Absolute figures and %)

		< 5 ha		5 - 20 ha		> 20 ha		Total	
		Uplands	Italy	Uplands	Italy	Uplands	Italy	Uplands	Italy
<5 AA	ha	263 710	443 260	20 910	26 720	2 240	3 290	286 473	473 270
	%	*79.1*	*76.3*	*42.9*	*37.3*	*16.7*	*14.2*		
5 - 20 AA	ha	62 520	117 900	21 990	31 470	3 910	5 840	88 420	155 210
	%	*18.7*	*20.2*	*45.2*	*44.1*	*28.9*	*25.4*		
20 - 50 AA	ha	5 620	15 320	4 330	9 090	2 910	5 340	12 860	29 750
	%	*1.7*	*2.7*	*8.9*	*12.7*	*21.6*	*23.2*		
> 50 AA	ha	1 530	4 420	1 460	4 190	4 430	8 550	7 420	17 160
	%	*0.5*	*0.8*	*3.0*	*5.9*	*32.8*	*37.2*		
Total	ha	333 380	580 690	48 690	71 470	13 490	23 020	395 560	575 390
	%	*100*	*100*	*100*	*100*	*100*	*100*		

Source: FSSR inquiry into farm structures, Eurostat, 1983.

Table 11

Scale of part-time farming

(Absolute figures and %)

	Uplands		Italy	
	ha	%	ha	%
Farmers devoting less than 50% of their time to their farms	228 130	88.9	730 460	88.6
Farmers devoting more than 50% of their time to their farms	28 350	11.1	93 770	11.4
Farmers with two economic activities — Total	256 480	100	824 230	100

Source: FSSR inquiry into farm structures, Eurostat, 1983.

Table 12

Farmers' second jobs

(Absolute figures and %)

	Upland		Italy	
Farm tourism	610	0.3	1 200	0.2
In-farm craft	5 170	2.1	16 690	2.1
Other in-farm employment	1 950	0.8	5 630	0.7
Agricultural work away from the farm	35 070	13.6	171 540	20.8
Forestry / fisheries	4 260	1.6	6 930	0.8
Other employment away from the farm	209 420	81.6	622 240	75.4
Total part-time farmers	256 480	100	824 230	100

Source: FSSR inquiry into farm structures, Eurostat, 1983.

Nature of farmers' second jobs

In some cases, farmers engage in additional economic activities on their farm (tourism, craft trades (2.1%), etc.).

Of the farmers who have part-time jobs outside their farm, 13.6% are engaged in agricultural work and 81.6% in non-agricultural work (Table 12).

Age of farmers

Farmers tend to be slightly older than their counterparts in the non-agricultural sectors. This seems to confirm that there are relatively fewer young people in the uplands labour force, especially its agricultural segment (Table 13).

Table 13

Age of farmers

(Absolute figures and %)

Age group	Uplands	Italy
Up to 35	7.2	7.6
35 - 44	12.0	13.4
45 - 45	24.0	25.4
55 - 64	27.0	26.9
over 65	29.6	26.9

Source: FSSR inquiry into farm structures, Eurostat, 1983.

Spain

Contents

Upland agriculture in Spain

General Secretariat of the ESC, Studies and Research Division

Source: Ley de Agricultura de Montaña Ministerio de Agricultura 1985 (Law on upland agriculture Ministry of Agriculture 1985).

General comments

Spain only implemented an uplands policy in 1982. There are consequently very few national statistics.

The autonomous communities are adopting laws on their upland areas.

This will presumably lead to a coordination of national and regional provisions, and allow the implementation of the uplands policy at regional and national level.

The Ministry of Agriculture's Commission for upland agriculture, in liaison with the autonomous communities, is producing economic and social studies. It is thought that these studies will be terminated in 1986, and provide economic and social data on all the Spanish uplands.

On 6 March 1985 the Ministry of Agriculture made an initial demarcation of the areas which might be declared uplands. [1] This initial demarcation will probably be coordinated with those of the autonomous communities. The programmes for upland agriculture are however being drawn up by the authorities of the autonomous communities.

In short, Spanish uplands policy is still being worked out.

This is why only a few statistics are given here, and the layout used for the other Member States has not been employed.

More detailed figures are given in the survey of Catalonia and the Basque area.

Geography

The uplands cover 131 195 km², some 26% of Spain.

Castille and Leon	(32 347 km²)
Castille-La Mancha	(16 900 km²)
Andalusia	(16 252 km²)
Aragon	(13 274 km²)
Galicia	(7 962 km²)
Catalonia	(7 909 km²)
Asturias	(7 813 km²)
Valencia	(5 389 km²)
Extramadura	(4 442 km²)
Navarre	(4 072 km²)
Cantabria	(3 791 km²)
Basque country	(3 009 km²)
La Rioja	(2 163 km²)
Canary Isles	(2 069 km²)
Madrid	(1 819 km²)

Upland areas are found in 50 provinces and 2 076 communes (Table 1).

[1] See map.

Table 1

Upland agriculture zones (first delimitation)

CC.AA [1] and provinces		Number of Communes	Areas (ha)
Andalusia	Almería	*48*	*341 562*
	Cadiz	*5*	*34 809*
	Cordoba	—	—
	Grenada	*66*	*584 392*
	Huelva	—	—
	Jaén	*41*	*527 475*
	Málaga	*22*	*136 966*
	Sevilla	—	—
	Total	182	1 526 204
Aragon	Huesca	*60*	*627 470*
	Teruel	*107*	*699 986*
	Zaragoza	—	—
	Total	167	1 327 456
Canarias	Las Palmas	*18*	*46 393*
	Sta. Cruz de Tenerife	*44*	*160 599*
	Total	62	206 992
Cantabria		54	379 129
Castilla-La Mancha	Albacete	*26*	*402 806*
	Ciudad Real	—	—
	Cuenca	*67*	*444 311*
	Guadalajara	*180*	*842 939*
	Toledo	—	—
	Total	273	1 690 056
Castilla-Leon	Avila	*146*	*553 384*
	Burgos	*94*	*451 719*
	León	*90*	*914 964*
	Palencia	*22*	*184 109*
	Salamanca	*41*	*116 574*
	Segovia	*100*	*322 547*
	Soria	*94*	*502 801*
	Valladolid	—	—
	Zamora	*22*	*188 628*
	Total	609	3 234 753
Catalonia	Barcelona	*24*	*78 255*
	Gerona	*32*	*124 370*
	Lérida	*71*	*588 277*
	Tarragona	—	—
	Total	127	790 902
Madrid		43	150 337
Navarra		92	407 243
Valencia	Alicante	*41*	*94 625*
	Castellón	*62*	*289 320*
	Valencia	*21*	*155 040*
	Total	124	538 985
Extra-madura	Badajoz	*12*	*134 262*
	Cáceres	*56*	*310 031*
	Total	68	444 293
Galicia	La Coruna	*2*	*30 769*
	Lugo	*18*	*317 519*
	Orense	*36*	*419 066*
	Pontevedra	*3*	*28 917*
	Total	59	796 271
Balearic Isles		18	47 424
La Rioja		54	216 333
Basque Country	Alava	*13*	*89 390*
	Guipúzcoa	*41*	*87 345*
	Biscaya	*40*	*124 193*
	Total	94	300 928
Principality of Asturias		50	781 317
Murcia		2	181 964
Total		2 076	13 119 587

Source: 'Ley de agricultura de montaña' (law on upland agriculture), Ministry of Agriculture publication, 1985, p. 497.

[1] CC.AA: Autonomous communities.

Delimitation of upland areas

Delimitation

Law 25 of 30 June 1982 and Royal Decree 2164 of 31 October 1984 distinguish two types of upland agriculture: upland agriculture areas and comparable areas.

Upland agriculture zones: homogeneous areas in 'commarcas' or communes with one or more of the following features:

(a) 80% higher than 1000 m;

(b) average slope exceeds 20%, or more than 400 m between maximum and minimum altitude.

Comparable areas: Homogeneous, predominantly agricultural areas having exceptional characteristics which are a significant constraint on agriculture.

Declaration

Upland and comparable areas are declared by government decree at the proposal of the upland agriculture commission. The proposal for a declaration must be accompanied by a 're-organization and promotion' programme and a contract between the authorities concerned (central government, autonomous communities, commune, etc.).

Geographical characteristics

Spain is one of the most mountainous countries in Europe. It consists of plateaux located between two mountain chains - the Pyrenees to the north and the Cordillera to the south.

In the north, Spain is separated from the rest of Europe by the Pyrenees, a west-running chain comprising several steep-sloped blocks. Stretching nearly 430 km, it is 150 km wide at its widest part, slopes steeply to the north, and falls in a number of steps on the south. A number of small chains - La Pena, Guara, Montsech and Cadi complete the Pyrenees. Between these chains and the Ebro valley is a belt of scarps crossed by numerous rivers (Aragon, Gallego, Cinca, Segre, etc.). This belt widens at the centre to form the Somantano and the Condado de Ribagorza. There is considerable precipitation on the northern slopes; on the west, rain is even throughout the year; the east is influenced by the Mediterranean. The Pyrenees are semi-arid in the central area, sheltered from sea winds and open to the influences of the Meseta. Permanent snow begins at 2 700 m and there are only a few plateaux above 3 000 m (close to Pic de Vignemale, Mont Perdu and Massif de la Maladetta).

The Pyrenees are linked to the Cantabrian Mountains (Basque provinces, Cantabrian region and Asturias) by a series of low rolling hills. At the coast, they form a rocky scarp. The maritime climate of the Basque provinces is dominated by the north-west winds, which attenuate temperature fluctuations and bring rain. Very dense vegetation is found, mainly broad-leaf forests.

The Cantabrian regions is a series of folds, with south-running rivers (Ebro, for instance). Inland are enormous 1 500 m plateaux, followed by mountain chains of medium altitude. The region has an average width of 80 km.

The Asturias and the Cantabrian coasts are a series of zones parallel to the coast, linked by mountain blocks. Between the sea and the mountains is a belt of hills rising to the 'Pics d'Europe', which is more than 2 600 m high. Between the latter and the Basque basin, the five mountains of the chain border a coastal platform (Marina). Along the Cantabrian coastal region the climate is typically maritime. Precipitation is heavy on the northern slopes, where there are numerous rivers. On the southern slopes there is a short dry season - heralding the climate of the interior.

The Meseta (plateau), the largest central region of the country, is bordered on the north, east and south by the Cantabrian, Iberian and Sierra Morena mountain chains. On the west the land slopes gradually to the basins of major rivers - Douro, Tagus and Guadiana. The central part of the Meseta is crossed by low mountain chains: the Sierra de Guadarrama, the Sierra de Gredos and the Sierra de Gata. The chains divide the plateau in two, forming two basins drained by the Douro and the Tagus (these two parts correspond to Old Castile and New Castile). The Toledo uplands form part of a series of ridges separating the middle basin of the Tagus from that of the Guadiana at the centre of Extramadura. The climate of the Meseta is continental: harsh winters, dry hot summers. It is basically a steppe region.

The provinces of the Levant (Valencia and Murcia) open on the Mediterranean and stretch along the coastal region between the delta of the Ebro and the Cape de Palos. They comprise a number of sub-regions: El Maestrazgo, Sierra d'Espadan, Sierra Martés and Sierra de Enguera. The south-west region comprises a series of ridges linking the last uplands of the Iberian chain and the pre-Betic chain.

Andalusia, bordered on the north by the Sierra Morena, on the Atlantic side by the alluvial plain of the Guadalquivir and by the Mediterranean (though it is walled off to some extent from the Mediterranean by a series of upland areas). The main one of these, the Sierra Nevada, rises to the Cerro Mulhacen (3 478 m). To the south the land rises steeply to the Betic mountain chains (Sierra Magina, Sierra de Segura, etc.) which forms, with the Sierra Nevada, the Sierra de los Filabres and the Sierra de Baza, a mountain area with numerous faults. To the south of Sierra Nevada and parallel to the coast are a number of other ridges (Sierra de l'Almihara, Sierra Contraviesa, Sierra Gador, Sierra de Alhamilla) which border the coastal belt of the Costa del Sol. The climate and vegetation of this region are Mediterranean.

Rivers: The westward slope of the Meseta and the absence of mountain chains parallel to the western coast result in most Spanish rivers flowing to the Atlantic. The five largest rivers are: Ebro (910 km), which rises in the Cantabrian chain and flows to the Atlantic; the Guadiana (834 km) which flows to the Gulf of Cadiz; the Tagus (910 km) and the Douro (770 km) which flow to the Atlantic, the Guadalquivir (550 km) which drains the Sierra Nevada and the Sierra Morena and flows to the Gulf of Cadiz.

Demography

Population

According to the first delimitation of upland areas established by the central government the uplands have 2 751 411 inhabitants, i.e. 7.2% of the total population.

Population of autonomous communities and provinces

. Castilla and Leon (438 370);
main province Leon (204 889)

. Andalusia (426 452);
main province Jaén (153 470)

. Asturias (308 283)

. Basque country (295 730);
main province Bizcaya (195 375)

. Canary Isles (220 667);
main province Santa Cruz de Tenerife (152 900)

. Galicia (209 877);
main province Orense (125 027)

. Catalonia (188 942);
main province Lerida (55 889)

. Cantabria (161 452)

. Castille-La Mancha (94 236);
main province Albacete (37 893)

. Extramadura (86 407);
main province Caceres (69 093)

. Aragon (79 811):
Huesca (43 470)

. Balearic Isles (72 714)

. Navarre (68 119)

(see Table 2)

Population density

Average population density in the uplands is 20 inhabitants per km². This is 3.7 times lower than the national average. The lowest densities are in the autonomous communities of La Rioja, Castilla-La Mancha and Aragon; the highest are in the Balearic Islands, the Canaries and the Basque country (see Table 2).

Table 2

Initial basic data on the population of the upland agricultural areas

CC.AA [1] and provinces		Population 1981	Density Inhab./km²
Andalusia	Almería	*47 828*	*14*
	Cadiz	*21 323*	*61*
	Cordoba	—	—
	Grenada	*149 490*	*26*
	Huelva	—	—
	Jaén	*153 470*	*29*
	Málaga	*54 341*	*40*
	Sevilla	—	—
	Total	426 452	26
Aragon	Huesca	*43 470*	*7*
	Teruel	*36 341*	*5*
	Zaragoza	—	—
	Total	79 811	6
Canarias	Las Palmas	*67 767*	*146*
	Sta. Cruz de Tenerife	*152 900*	*95*
	Total	220 667	107
Cantabria		161 452	43
Castilla-La Mancha	Albacete	*37 893*	*9*
	Ciudad Real	—	—
	Cuenca	*21 133*	*5*
	Guadalajara	*35 210*	*4*
	Toledo	—	—
	Total	94 236	6
Castilla-Leon	Avila	*95 762*	*17*
	Burgos	*36 837*	*8*
	León	*204 889*	*22*
	Palencia	*30 447*	*17*
	Salamanca	*35 763*	*30*
	Segovia	*33 012*	*10*
	Soria	*33 842*	*6*
	Valladolid	—	—
	Zamora	*14 818*	*7*
	Total	485 370	15
Catalonia	Barcelona	*28 015*	*36*
	Gerona	*35 038*	*28*
	Lérida	*55 889*	*9*
	Tarragona	—	—
	Total	188 942	15
Madrid		18 195	12
Navarra		68 119	16
Valencia	Alicante	*19 386*	*20*
	Castellón	*32 531*	*11*
	Valencia	*14 363*	*9*
	Total	66 280	12
Extra-madura	Badajoz	*17 314*	*12*
	Cáceres	*69 093*	*22*
	Total	86 407	19
Galicia	La Coruna	*14 239*	*46*
	Lugo	*51 995*	*16*
	Orense	*125 027*	*30*
	Pontevedra	*18 616*	*64*
	Total	209 877	26
Balearic Isles		72 714	153
La Rioja		9 562	4
Basque Country	Alava	*41 785*	*47*
	Guipúzcoa	*58 567*	*67*
	Biscaya	*195 375*	*157*
	Total	295 730	98
Principality of Asturias		308 283	39
Murcia		29 344	16
Total upland agr. area		2 751 411	20
Total Spain (1983)		38 173 000	75

Source: 'Ley de agricultura de montaña' (law on upland agriculture), publication by the Ministry of Agriculture, 1985, p. 497.

[1] CC.AA: Autonomous Communities.

Economic aspects

General information on economic activity in the uplands

The agricultural areas of the uplands cover 13 million hectares. Two million hectares of these are used for crops; only half of the remaining 11 million hectares is wooded.

There are virtually no *large or medium-sized industrial firms* in the uplands. Small firms and craft industries alone are found.

Tourism has traditionally been concentrated on the coast, but in recent years has also begun to develop in the uplands.

The use of *hydraulic resources* provided many jobs while the facilities were being installed, but has not brought lasting benefits to the uplands population.

The main economic problems of the uplands are: low agricultural yield, insufficient woodland, lack of industry, soil erosion, and increasing desertification.

Agricultural production

Upland agriculture covers about 26% of the national total. Tilled land in the uplands covers 12.4% of total tilled land. Meadow and pastureland cover 37% of the Spanish total, and upland forests 39% of the Spanish total.

UAA in the uplands is *18% of the national UAA*. Agricultural workers form 18% of the national total; farms form 16% of the national total; livestock 23% of the national total; farmers 15% of the national total.

The UAA of the upland agricultural area is 32.5% of the total upland agricultural area. 57% of the upland agricultural area is worked by farms of less than five hectares.

30% of upland farmers are over 65 years of age.

The geographical distribution of upland agriculture among the three geographical areas (Mediterranean, mixed, Atlantic) is fairly uniform; the Atlantic area is the least important.

60% of the tilled land is in the Atlantic area; 45% of the meadow and pastureland is in the mixed region, as is most of the woodland; most of the farms are in the Mediterranean area, with livestock concentrated in the Atlantic area and farmers in the Mediterranean area (see Tables 3 and 4).

Economic aims of uplands policy

Overall aim: to encourage economic and social development, to fight the depopulation of the uplands, and to protect the environment.

In addition to this, the following aims and measures are being pursued:

(i) *Land improvements and restoration*: improvement of farmland (fight against soil erosion and desertification), protection of flora and fauna, development of woodland, better allocation of land use, improvement of meadowland.

Table 3

Extrapolation at national level (Ministerial Order of 6.6.1985) of the results of the sample analysed by the National Statistics Institute

National upland agricultural area	13 100
% analysis total upland agricultural area	29.5
% breakdown of this area	
— tilled	16.5
— meadow & pastureland	16
— forest	28.5
% UAA upland agricultural area	32.5
Agricultural workers	169 518
Farm (UAA)	
— total	377 601
— % < 5 ha	57
Number of livestock	1 139 000
Farmers	
— total	352 128
— % > 65 years	30

Source: Reply to ESC questionnaire. Data provided by the Spanish Ministry of Agriculture.

Table 4

National upland agricultural area indicators: breakdown by upland area

National upland agricultural indicators

UTA/farm: 0.45
UGB/farm: 3.0
UAA/farm: 11.2
UGB/SAU: 0.27

Basic data: % breakdown by upland area

	Mediterranean	Mixed	Atlantic	Total
% of total upland agricultural area	36%	37%	27%	100
% national upland agricultural area				
— tilled	60%	32%	8%	100
— meadow & pastureland	21%	45%	34%	100
— forest	36%	40%	24%	100
No of farm workers	43 032	29 908	96 578	169 518
Farms (UAA)	179 446	103 479	94 676	377 601
Livestock (total)	192 467	454 598	491 933	1 139 000
No of farmers	136 764	116 328	99 036	352 128

Source: Reply to ESC questionnaire. Data provided by the Spanish Ministry of Agriculture.

(ii) *Promotion and protection*: improvement of livestock quality, development of high quality upland production, increase in the area under irrigation, promotion of agricultural cooperatives, development of small and medium-sized industry, craft firms and tourism.

Upland policy focuses mainly on farm production (crops, livestock, forestry), but also covers the overall development of the uplands as regards industry, services and environment protection.

Institutional machinery and instruments of upland policy

Institutional machinery

The Upland Agriculture Commission, which reports to the Ministry of Agriculture, has the following remit:

(i) establish criteria for physical planning programmes;

(ii) inform government regarding declaration of upland areas;

(iii) lay down priorities for implementation of physical planning programmes in accordance with the interests of the Spanish economy;

(iv) monitor investment made as a result of State finance.

The chair is taken by the Vice-Minister for Agriculture. The Commission comprises senior civil servants (Ministries of Agriculture, the Economy, Public Works, Industry and Education) and a representative (General Director) from each of the automomous communities.

Upland coordination committees. Each upland area is to have a committee responsible for formulating, evaluating and coordinating the implementation of physical planning programmes and the development of the area. The committtees are tripartite - representatives of the central government, the autonomous communities and local authorities. Upland associations attend meetings but do not have a vote.

Instruments

Physical planning programmes and contracts. Joint measures to develop upland areas are carried out through the vehicle of the physical planning programmes.

Each programme comprises:

(i) socio-economic analysis and assessment of the physical geography;

(ii) detailed description of the specific objectives of the programme;

(iii) description of the proposed measures;

(iv) estimate of investment by each party concerned (central government, autonomous community, local authorities);

(v) inventory of possible grants;

(vi) orientation of agricultural production;

(vii) socio-economic and environmental evaluation enabling an assessment by the Upland Agriculture Commission (in the light of the upland policy and potential of the zone concerned).

Programmes must cover a period of at least four years.

Contracts: each programme is the subject of a contract in which the parties spell out the financing, implementation, monitoring of technical assistance, etc. When the contract is signed, the programme contains a notion of concertation.

Bibliography

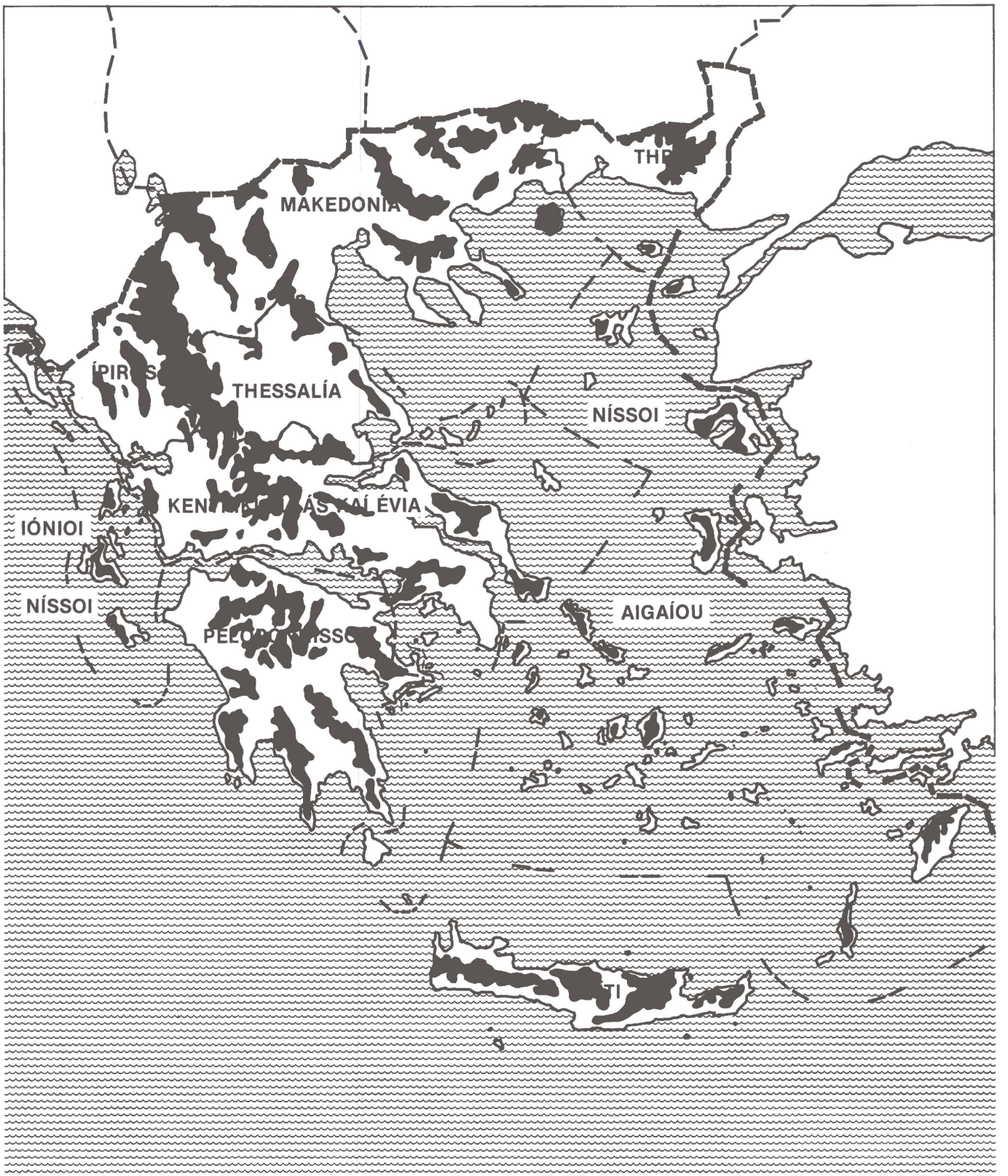
Law of 30 June 1982 on upland agriculture.
Royal Decree 2717 of 5 October 1983 on the Upland Agriculture Commission.
Royal Decree 2164 of 31 October 1984 on application of law 25/1982.
Agriculture Ministry order of 6 March 1985 on the first delimitation of upland areas.
Ley de agricultura de montaña. Publication of Ministerio de Agricultura, pesca y alimintacion, Centro de Publicaciones, 1985.
Statistics provided by the Agriculture Ministry in reply to questionnaire of the ESC Division for Studies and Research.

Greece

Contents

[1] Owing to a lack of statistics, this survey has only very general information on the crafts, industry and services.

Upland areas in Greece



Definition of upland areas

The Greek Statistical Office has drawn a distinction between *upland, semi-upland and flatland regions* in the country's 52 districts. This distinction is specified in the brochure entitled 'Survey of Greek municipalities in flatland, semi-upland and upland regions', which is based on data preceding the 1980 census and applies specific criteria of altitude and geographical features.

According to the Greek Statistical Office's definition 'upland areas' are regions where the ground is very steep or uneven, crossed by ravines or covered by sheer high plateaux which, through the nature of their formation, give rise to frequent and major irregularities leading, in certain municipalities, to differences in level of over 400 metres in places. The definition also includes all municipalities situated at an altitude of 800 metres or more above sea level.

Upland farming areas are defined by Directive 84/148/EEC (OJ L 56, p.85) amending Directive 81/645/EEC on the Community list of less-favoured farming areas within the meaning of Directive 75/268/EEC (Greece), which takes account of the criteria used in this matter.

Under the terms of the Community's final definition of *upland and less-favoured* regions (Directive 85/148/EEC) 4 720 Greek municipalities fall into this category. They cover 81% of the country's surface area; 3 345 of them have been designated *upland areas*, covering 7.9 million hectares or 60% of the country's surface area.

Cultivated areas and pasture land account for 1.33 and 3.69 million hectares respectively, or 33.5% of the country's surface area.

Out of these 4 720 municipalities (upland areas, less-favoured areas and others) cultivated areas account for 2.54 million hectares and pasture land for 4.73 million hectares.

Because of this, some of the data below cover *upland and semi-upland areas*, and the percentages refer to these two factors taken together. But this double concept of 'upland + semi-upland' is still specified, otherwise the figures refer solely to uplands as defined by the Statistical Office.

Surface and geographical features

Upland areas in Greece cover a total of around 79 000 km², or 60% of the country's surface area (131 900 km²) (see Table 1).

Demographic aspects

The **total population** of the upland areas, according to the 1981 data of the Statistical Office, was 941 973 or 9.67% of the total population. For the trend in upland population per region (1961, 1971 and 1981) see Table 2. Table 3 shows the populations of the flatlands, semi-uplands and uplands per geographical region (April 1981).

Table 1

Area, population and population density of uplands by region (1981)

Regions	Total area of region (km²)	Uplands area (km²)	% of total	Uplands population	Population density per km² (uplands)
Continental Greece (except Athens)	24 391	14 640	60	149 848	10
Peloponnese	21 379	12 840	60	174 309	13
Ionian Islands	2 307	1 380	59	13 242	10
Epirus	9 203	5 520	59	23 216	4
Thessaly	14 037	8 400	59	107 179	13
Macedonia	34 177	20 520	60	163 164	8
Thrace	8 578	5 100	59	41 195	8
Aegean Islands	9 123	5 460	59	77 470	14
Crete	8 336	4 980	59	92 350	18
Total Greece	131 957	78 840	59	941 973	12

Source: Greek statistical yearbook, pp. 17 & 18.

Table 2

Breakdown and development of uplands population (years 1961-1971-1981) by region and in relation to total population of Greece

Regions	1961	1971	1981		
			Total	Uplands population	% of population
Total Greece	8 388 553	8 768 641	9 740 417	941 973	9.67
Capital (Athens)	1 852 709	2 540 241	3 027 330	—	—
Central Greece - Euboea	969 105	991 004	1 099 841	149 848	13.63
Peloponnese	1 096 390	986 912	1 012 528	174 309	17.22
Ionian Islands	212 573	184 443	182 651	13 242	7.25
Epirus	352 604	310 334	324 541	23 216	37.97
Thessaly	691 771	660 986	695 654	107 179	15.41
Macedonia	1 896 112	1 890 684	2 121 953	163 164	7.69
Thrace	356 555	329 582	345 220	41 195	11.93
Aegean Islands	477 476	417 813	428 533	77 470	18.08
Crete	483 258	456 642	502 165	92 350	18.39

Source: Greek statistical yearbook, pp. 17, 18 & 23.

The highest concentration of uplands population is to be found in Epirus (37.97%), Crete (18.39%), the Aegean Islands (18.08%), the Peloponnese (17.22%) and in Thessalia (15.41%).

Table 3

Population of flatlands, semi-uplands and uplands by region (Census 5.4.1981)

Region	Population				Distribution (%)			
	Total	Flatlands	Semi-uplands	Uplands	Total	Flatlands	Semi-uplands	Uplands
Total Greece	9 740 417	6 712 870	2 085 574	941 973	100	68.92	21.41	9.67
Greater Athens	3 027 331	2 413 946	613 385	—	100	79.74	20.26	—
Central Greece & Euboea	1 099 841	527 856	422 137	149 848	100	47.99	38.38	13.63
Peloponnese	1 012 528	632 272	205 947	174 309	100	62.44	20.34	17.22
Ionian Islands	182 651	135 573	33 836	13 242	100	74.23	18.52	7.25
Epirus	324 541	139 947	61 378	123 216	100	43.12	18.91	37.97
Thessaly	695 654	499 859	88 616	107 179	100	71.85	12.74	15.41
Macedonia	2 121 953	1 579 118	379 671	163 164	100	74.42	17.89	7.69
Thrace	345 220	228 775	75 250	41 195	100	66.27	21.80	11.93
Aegean Islands	428 533	247 005	104 058	77 470	100	57.64	24.28	18.08
Crete	502 165	308 519	101 296	92 350	100	61.44	20.17	18.39

Source: Greek statistical yearbook, pp. 17, 18 & 23.

Population movements

There have been a fair number of population movements within the various regions. Internal migration has involved a large proportion of the population which has moved to either the Athens or Salonica regions.

Regions such as Crete, the Aegean Islands and the Peloponnese, with major upland areas, have suffered from population loss.

Population density

Population density in the Greek uplands is not very high. The figures (in persons/km²) are 18 for Crete, 14 for the Aegean Islands, 13 for Thessaly and the Peloponnese, 10 for the Ionian Islands and Continental Greece, 8 for Northern Greece (Macedonia and Thrace) and 4 for Epirus. Thus the average for uplands as a whole is 12 persons/km² (see Table 1).

Economic aspects

Some general information on economic activity in uplands

Employment

Table 4 shows that 28% of the population are employed in agriculture, 19% in the secondary sector and 48%, i.e. almost half, in the tertiary sector (services, and particularly tourism).

Table 4

Working population by sector in uplands

Sector	Number of persons employed	% of uplands population
Primary	99 500	28
Secondary	66 430	19
Tertiary	170 500	48
Young first-time job-seekers	8 900	2.5
Undeclared	8 700	2.5
Total	354 030	100

Source: Greek Statistical Office.

Some data on agricultural production

According to the Statistical Office (see Table 5a) cultivated land in 1982 amounted to 35 649 km², of which 21 060 km² was situated in the flatlands, 8 538 in semi-uplands and 6 051 km² in uplands; this last figure represents 7.65% of Greece's total uplands (79 000 km²) and 16.97% of the country's cultivated land.

Table 5 (intermediate data for 1982) [1] shows that out of Greece's total arable land of 2 419 million hectares, uplands and semi-uplands accounted for 0.849 million hectares, or around 35% of the national total.

[1] In the interests of accuracy Table 5b has been added. This contains the final figures for 1982, but the figures do not cover all types of agricultural production.

Table 5a

Cultivated and irrigated land
Main crops in flatland, semi-upland and upland municipalities

(intermediate data for 1982) (million ha)

	Total Greece	Flatlands	Semi-uplands	Uplands
Total all types of cultivated land	4.062	2.270	1.015	0.776
Irrigated areas	0.938	0.668	0.157	0.113
Arable land	2.419	1.569	0.511	0.338
Irrigated areas	0.616	0.472	0.087	0.056
Vegetables and other kitchen crops	0.116	0.074	0.025	0.015
Irrigated areas	0.104	0.068	0.022	0.013
Grapes and vines	0.186	0.094	0.051	0.041
Irrigated areas	0.022	0.015	0.004	0.002
Fruit trees	0.844	0.370	0.264	0.210
Irrigated areas	0.196	1.112	0.042	0.040
Cereals	1.623	1.078	0.348	0.197
Vegetables	0.048	0.024	0.011	0.102
Industrial crops (tobacco, cotton, etc.)	0.287	0.220	0.047	0.019
Fodder	0.369	0.187	0.086	0.096
Melons, potatoes	0.088	0.056	0.018	0.013
Vegetables (tomatoes, onions, etc.)	0.114	0.074	0.025	0.015

Source: Greek Statistical Office.

Table 5b

Cultivated and irrigated land
Main crops in flatland, semi-upland and upland municipalities

(1982 data) (million ha)

Crops	Total Greece	Flatlands	Semi-uplands	Uplands
Total all types of cultivated land	3.564	2.106	0.853	0.605
Irrigated areas	0.967	0.681	0.166	0.119
Arable land	2.416	1.562	0.515	0.338
Irrigated areas	0.632	0.482	0.092	0.058
Vegetables and other kitchen crops	0.125	0.080	0.028	0.016
Irrigated areas	0.105	0.068	0.022	0.014
Grapes and vines	0.179	0.091	0.049	0.038
Irrigated areas	0.025	0.017	0.005	0.002
Fruit trees	0.843	0.371	0.260	0.211
Irrigated areas	0.204	0.114	0.045	0.044

Source: Greek Statistical Office.

Out of a total of 938 000 hectares of cultivated and irrigated land, irrigated land in uplands and semi-uplands accounts for 270 000 hectares, or around 29% of the total irrigated land in Greece.

Table 5 also shows that the most important crops in uplands and semi-uplands are fodder (50% of cultivated land), grapes and vines (50%) and, to a lesser extent, cereals (around 33%) in relation to the total for Greece of the products involved.

Table 6

Production of main agricultural products on arable land in flatland, semi-upland and upland municipalities

(intermediate data for 1982) (000 tonnes)

Crop	Total Greece	Flatlands	Semi-uplands	Uplands	Uplands and semi-uplands as % of national total
Cereals	5 520.5	3 997.9	1 024.5	498.1	27.58
Dried vegetables	58.1	31.9	13.6	12.6	45.09
Industrial crops (tobacco, cotton, beet, etc.)	2 858.6	2 535.8	267.3	55.5	11.29
Fodder	2 090.4	1 391.9	368.9	330.4	33.45
Various melons	1 713.9	1 220.7	309.4	183.8	28.77
Vegetables	2 330.3	1 812.5	378.9	138.9	22.22
Vineyards-wines	892.2	546.4	236.5	109.3	38.75
Oranges, lemons, clementines	957.2	739.6	145.6	72	22.73
Other fruit	998.7	691.4	119.9	187.4	30.77
Dried fruit	73.9	34.1	18.6	21.2	53

Source: Greek Statistical Office.

Table 7a

Distribution of farmland
Sample survey on farm structure 1977-78

(surface areas in ha)

	Total Greece	Flatlands	Other
All farms			
Number of farms	957 040	494 890	466 460
Surface area	3 454 861	1 938 338	1 518 443
Cultivated land			
Number of farms	949 750	492 220	459 920
Surface area	3 227 456	1 868 280	1 359 176
Pasture land			
Number of farms	102 700	26 000	76 700
Surface area	196 892	58 439	138 453
Forests			
Number of farms	18 860	7 230	11 630
Surface area	11 957	3 812	8 145
Other			
Number of farms	20 650	8 340	12 310
Surface area	10 230	4 014	6 216
Surfaces occupied by buildings			
Number of farms	595 590	27 080	32 510
Surface area	8 326	3 793	4 533

Source: Greek Statistical Office.

Table 6 shows that the most important upland and semi-upland crops in national terms are dried fruit and vegetables (53 and 45.09%) and vine products (38.75%). The least important are industrial crops: tobacco, cotton, beet (only 11.29%).

Livestock

Some data

According to the Greek Statistical Office *milk* production in upland and semi-upland municipalities in 1982 amounted to 825 574 tonnes, or 49% of the national total of 1 678 235.

As regards *dairy products* (cheese, butter), 84 821 tonnes, or 53% of the national total of 158 347 tonnes, came from uplands and semi-uplands in 1982.

In 1981 *meat* production in uplands and semi-uplands came to 219 843 tonnes, or 43% of the national total of 508 284 tonnes.

Forests

In 1981-83 forests covered around 29 800 km², or 22.6% of the country's total surface area. Fires over the past three years have cut this figure to 19%.

Firewood production in 1982 totalled 1 239 200 tonnes, of which 1 001 279 tonnes or 80% came from uplands and semi-uplands.

National production of other woods (oak, pine, etc.) reached 444 000m³ in 1982, of which 312 000m³ or 70% came from uplands and semi-uplands.

Structure and size of farms

Greek Statistical Office data are only available for 1977-78. They can be found in Tables 7a and 7b.

They show that there are 462 150 upland farms (48% of the national total) (Table 7a).

Of these, 101 740 are small farms of between 1 and 1.9 hectares. Large farms of over 100 hectares are much rarer.

Tourism

Greece has many tourist attractions because most regions, including the uplands, have major beauty spots and attractive historical sites. In the uplands the infrastructure is very little developed, and information on the possibility of tourism in upland areas is largely lacking.

Table 7b

Distribution of farmland according to farm size

Size of farms	Number of farms			Surface area		
	Greece	Flatlands	Other	Greece	Flatlands	Other
0.1 - 0.4 ha	98 930	48 810	50 120	26 599	13 015	13 584
0.5 - 0.9 ha	120 430	58 520	61 910	80 716	38 925	41 791
1 - 1.9 ha	194 210	92 470	101 740	267 464	127 232	140 232
2 - 2.9 ha	144 360	72 610	71 750	340 099	170 892	169 207
3 - 4.9 ha	181 710	98 910	82 800	679 755	370 063	309 692
5 - 9.9 ha	150 850	83 660	67 190	995 109	552 461	442 648
10 - 19.9 ha	48 030	28 800	19 230	617 403	372 306	245 097
20 - 29.9 ha	8 970	5 860	3 110	206 240	134 975	71 265
30 - 49.9 ha	3 700	2 320	1 380	132 567	83 905	48 662
50 - 99.9 ha	1 330	830	500	81 430	50 593	30 937
100 ha	210	180	30	27 249	24 071	3 408

Source: Greek Statistical Office.

Survey of the area and population of the upland areas in the following three countries of the European Community:

Belgium — Ireland — Luxembourg

(not covered in the survey of individual Member States)

Area and population of upland areas in Belgium, Ireland and Luxembourg [1]

Member State	Total population in millions	Population of uplands in millions	Population of uplands as % of total population	Area of country in km²	Area of uplands in km²	Area of uplands as % of area of country
Belgium (1) (1979)	9.84	0.47	5	30 513	5 490	18
Ireland (3) (1971)	2.98	0.03	1	70 283	7 030	10
Luxembourg (2)(1981)	0.36	0.026	7	2 586	803	32

[1] Estimated figures only.

(1) Notes on Belgium

If we assume that all land over 300m can be classified as uplands, the distribution of upland areas between the provinces concerned is as follows:

Province of Luxembourg : 60%
Province of Liège : 30%
Province of Namur : 10%

It has been estimated on the basis of these figures that approximately 18% of Belgian territory consists of uplands.

Estimates of how many Belgians live in upland areas are based on the following total population figures (1979):

Province of Luxembourg : 221 000
Province of Liège : 1 007 000
Province of Namur : 402 000

Given these approximate figures, the population of Belgian upland areas has been estimated at 474 900 (1979). In other words, the uplands population is about 5% of the total Belgian population of 9.84 millions (1979).

This means that upland areas cover about 18% of the territory of Belgium and account for about 5% of the total population.

Source: *Alexander Weltatlas,* Stuttgart, 1982;
Meyers Lexikon der Staaten, Mannheim/Vienna, 1983.

(2) Notes on Luxembourg

See the detailed internal document of the Division for Studies and Research: survey of the Grand Duchy of Luxembourg.

Source: Statistical yearbook of Luxembourg.

(3) Notes on Ireland

Using a large-scale map and taking uplands to be land situated at a height of 200m and more, 10% of the total area of Ireland can be regarded as uplands.

Taking a small-scale map and allowing for cartographic inaccuracies, the population living in Ireland at an altitude of 200m and more was estimated in 1971 to be approximately 30 000. (Areas situated at an altitude of 300m or more accounted for about 6% of the total area of Ireland, with a population estimated at about 25 000 inhabitants (1971); areas situated at an altitude between 150m and 300m formed about 50% of the country's total area).

Given a total population of 2 978 248 in 1971, this meant that approximately 1% of Ireland's total population was living above 200m. Above 300m the percentage was approximately 0.8%.

The estimates thus indicate that in 1971 approximately *1%* of the population was living in upland areas (above 200 m) and these upland areas formed about 10% of the total area of Ireland.

In 1981, Ireland's total population had risen to 3.44 million. Assuming that towns in the flatter parts of the country (where almost all large towns are situated) had grown more quickly and that migration from the country to the town had remained unchanged (just as emigration had remained stable since 1966, the conclusion to be reached is that the uplands population must have fallen as a percentage of the total population.

Source: *Atlas of Ireland,* Dublin, 1979;
Meyers Lexicon der Staaten, Mannheim/Vienna, 1983.

Upland policies: Community, national and regional legislation

Digest[1]

Legislation: type, level, sectors covered

The EEC has drawn up skeleton rules to promote joint action by the Member States. They are designed to further the CAP objective of improving *farm structures* - which require special measures in the upland areas.

Member State laws often cover much more than this straightforward objective.

The United Kingdom, for instance, has no framework legislation. It has adopted a host of laws relating to the economic and social condition of *upland areas* (defined in the broad sense) and to their development. Three areas are distinguisled: England, Wales and Scotland.

Neither does the *Federal Republic of Germany* have legislation devoted solely to the uplands. Specific measures are adopted by the *Länder*. National laws (e.g. physical planning), including those on joint objectives of the *Bund* and the *Länder,* apply *inter alia* to upland areas. Bavaria seems to concentrate heavily if not exclusively on this aspect.

The position is not the same in the other Member States.

In *France* there is a recent law of 1985 on the development and protection of uplands. It is implemented by decisions at government and departmental level.

In *Italy* several national provisions have been adopted concerning the *development* of uplands, and especially in order to implement Community directives on farming in upland areas. These provisions are also, to a certain extent, implemented in varying degrees at regional level.

Greece has national laws on upland regions, forests and agricultural activities.

Only *Spain* has planned a constitutional instrument providing for a special policy in favour of uplands. In addition, a 1982 law concerns upland farming, and a royal decree governs joint action (by the regions) towards the integral development of uplands and other equivalent areas (in the country).

Catalonia has issued a regional law on the protection of uplands and the *integral development* of upland areas (in Catalonia).

Political aims

Community rules come under the general framework of the common agricultural policy and *competition* policy: specific aid schemes are authorized under certain conditions to help farming in upland areas and support farmers' incomes.

In the *United Kingdom*, the laws and action by the relevant specialist bodies take account of the *specific problems* of uplands, such as forestry, rural development and the protection of nature.

In the *Federal Republic of Germany* there is not really a separate policy for uplands. What is applied in these areas is a general *regional policy* deriving from the law on land-use planning. This regional policy may be supplemented by specific laws on upland areas. The economic and social conditions and cultural facilities need to be improved in regions where living conditions lag behind. The aims of regional structural policy are growth, stability and balance (between regions).

There are indications that *French law* has a highly social purpose, because it seeks to give upland dwellers the resources necessary to develop their area and ensure that their incomes and living conditions are comparable to those in other regions.

In Italy, the avowed aim of policy is described as involving the local community in a (restored) economic and social equilibrium. To do this, the law has set up an *aid scheme* to preserve and increase agricultural activity, maintain the population at an adequate level and safeguard the environment. Italy's uplands policy seems particularly geared to protecting land and the environment.

In *Greece*, uplands promotion policy was harmonized with Community policy in 1981. Its aims, as in many other countries, are to maintain incomes and population, and to upgrade natural and environmental resources.

[1] Compiled from fact sheets on national laws and objectives with respect to upland areas.

This is also the aim of *Spanish* law, and here too the aim is to develop agriculture, forestry and stockrearing. In *Catalonia*, there is a specific policy for the integral development of uplands, the main aims of which are to develop *available resources* (not only those in agriculture), upgrade the ecological, economic, cultural and tourist aspects of uplands and improve uplands infrastructure.

Definition of uplands

In *Community rules and regulations*, as in national rules, the criteria most used when defining uplands are climatic conditions, altitude, nature of the terrain or a combination of these factors.

Climatic conditions seem to be the determining factor in the *United Kingdom*, where uplands start at an altitude of 240 metres.

Other criteria are also considered, sometimes those of an administrative nature.

Thus in *France* a 'massif' is a geographical entity made up of each upland area and the areas immediately adjacent to it.

In *Italy* the regional authorities are empowered to lay down additional standards and criteria of an administrative or financial nature supplementing the basic rules for defining uplands.

In *Greece* it seems that reference is made to Community criteria, especially those in Directive 85/148/EEC, and to a definition of the national statistics service taking account of altitude, productive capacity and geographical features.

Two types of area are defined in *Spain* using criteria decided on by the government following a proposal from the uplands farming commission: one type using 'traditional' geographical criteria and another type using criteria based on exceptional circumstances which make farming very difficult. A distinction is drawn between upland and comparable areas. In Catalonia the upland areas correspond to two administrative units, one laid down by law, the other by an administrative body.

There is no legal geographical delimitation for upland areas in the Federal Republic of Germany.

Bodies and institutions

There is nothing specific to be mentioned here either in the *Federal Republic of Germany* or at *Community* level, except for the strictly limited role of the European Agricultural Guidance and Guarantee Fund (EAGGF).

However, the situation is quite different in the *United Kingdom*, where several local authorities and sectoral bodies (in traditional areas other than upland areas) are empowered to apply appropriate policies or intervene in decisions. Their geographical areas of intervention overlap.

In *France*, the national uplands council, which is chaired by the prime minister and includes representatives of the various massifs and interested groups, is an advisory and proposing body, as are the massif committees.

In *Italy*, a public institution, the 'Communità Montana', deliberates on and implements measures. Its operations are governed by regional laws.

In *Greece* it is the Ministry of Agriculture, with its regional offices and specialist institutes, which is mainly responsible for uplands. Other ministries, such as that for the environment, intervene where necessary. It seems that the Agricultural Bank of Greece also plays a vital role through its loans and other financial measures.

In *Spain* two institutions take part in the framing and implementation of uplands promotion policy: the uplands farming commission referred to earlier seems to have quite a large degree of autonomy within the Ministry of Agriculture. Its brief is to propose, carry out and supervise investments and to coordinate action. At a more local level there are committees for coordinating, evaluating and implementing 'improvement and promotion programmes' for each upland area. Each of these is made up of representatives from the central government, the regional authorities and local corporations. In Catalonia there are three institutions: one for consultation and proposals, another covering the representation and defence of the general interests of a type of upland area, and the third dealing with the implementation of a policy decided at the appropriate level, especially development plans (for land) and public works, including education and sport!

Aid for uplands

At *Community* level, aid is governed by Directive 75/268, Regulation 797/85 and the European Agricultural Guidance and Guarantee Fund.

The main thing about the Community provisions is that they are a *framework regulation*, with which the Member States may comply using their own administrative and financial instruments. The Community merely grants certain reimbursements or payments, provided that the planned national measures are eligible under the directive and regulation referred to above (Community aid varies between 25 and 50% of expenditure).

Aid from the EAGGF covers agriculture (indemnity to offset natural handicaps, direct investments), forestry (afforestation, improvement of wooded areas), the exploitation of agricultural areas of ecological or environmental interest, specific training (training courses, vocational training centres). The EAGGF's contribution is assessed differently depending on the case.

As regards the environment, the Member States are authorized to introduce special schemes in sensitive areas, which may include uplands.

United Kingdom

The array of aid schemes available in the *United Kingdom* cannot be summed up in a few words. Apparently the Community has helped the growth of aid in that country.

The action taken with the help of this aid obviously depends on the powers of the authorities concerned. We think it is worth mentioning that:

(i) there is no aid specifically for vocational training (except in Scotland and except for courses eligible for aid from the European Social Fund);

(ii) there is an extensive system of administrative authorizations in a whole series of areas;

(iii) aid is granted to agricultural associations and bodies which defend certain interests (multiple employment, seasonal work);

(iv) subsidies are provided for trade and crafts; and

(v) tourist bodies help each other out (coordination).

The tourism and leisure sector, which is acknowledged to be of great importance in upland areas, may benefit from a large number of aid schemes.

Different aid schemes, depending on the regions, are provided for site development. Such aid is of particular importance to uplands.

Not all financial aid schemes are available everywhere: some are available throughout the country, others in certain regions or certain upland areas. Generally, the sectors covered are mainly investment and development policy, assistance and counselling (but no aid is granted solely in upland areas), and research and development. For agriculture, aid is available in less-favoured areas as defined in a decision of the Council of the European Communities in 1984. Apart from aid provided for in European directives and regulations, investment subsidies and premiums may be of interest to upland farming.

France

The general framework for aid granted in *France* seems simpler. General provisions are adapted to upland areas. The various aid schemes are coordinated by the national plan and regional plans.

Within these frameworks various economic and social development measures are encouraged by the government, such as the setting-up of companies and associations, a single regional information counter, operations to conserve land and promote tourism, and measures to boost trade and service facilities.

Two financial funds are used: one is provided for by the law, the other is the inter-ministerial land use committee, which decides on sectoral aid for crafts, tourism, agriculture and trade, and general programmes for research and training designed to reduce the energy dependence of upland areas and rehabilitate upland infrastructure, transport, jobs, education, vocational training (particularly taken into account in the 'massifs' in regional teaching programmes), multiple employment and seasonal work.

In addition, there is a regional job premium. The state helps finance the extra costs involved in increasing or extending this premium in upland areas.

Italy

In *Italy* aid is provided for under the national economic programme and regional programmes. No financial aid is granted in addition to the socio-economic development plans of the 'upland communities'.

Encouragement is given to specific vocational training to foster agricultural, zootechnical and industrial development in upland areas.

Specific aid is granted in 'traditional' areas of socio-economic development, infrastructure and crafts, especially various forms of compensation, and other financial aid is given to investments, not to mention infrastructure programmes.

Greece

In *Greece* too the aid scheme is simple.

The general framework is that of the Community's directives and integrated Mediterranean programmes. The law also provides for encouragement to investment in uplands.

Four ministries and various schools and institutions are involved in vocational training, to which should be added the seven-year forestry works plan based on Regulation 619/84/EEC.

Financing covers all areas of EEC legislation. In addition, there are laws on aid for the development of tourism and crafts in upland areas and on environmental protection.

Spain

In *Spain* aid is provided for in the light of programmes issued by the local coordination committees, and is granted, it seems, under contracts concerning the implementation of the different laws.

These programmes must provide aid for vocational training, agriculture, stockrearing, forestry, crafts, small businesses, the environment and infrastructure. Tourism also has to be integrated into these programmes.

As far as means of payment are concerned, different types of aid are planned as compensatory allowances. Financial resources are distributed among the State, the autonomous communities ('camarcas') and the municipalities.

In Catalonia guidelines for aid are laid down by law. They concern crop farming, livestock farming, forestry,

tourism, trade and crafts. Aid is granted under a five-year plan of the 'upland comarca'. The environment also has its own specific policy. Aid takes the form of subsidies and budgetary payments by various authorities.

FRG

In the *Federal Republic of Germany* the law provides for three types of economic and social development measure:

(i) aid applying to any development region in the country as a whole or a federal State, or covered jointly by the federal government and the States in the areas referred to as traditional above;

(ii) aid applying to specific regions in the federation or a State, or covered jointly (several upland areas);

(iii) aid granted solely for upland areas under a highly variable regional policy. Such is the case in Bavaria as regards agriculture and infrastructure (see, for example, the programmes for the Bavarian Alps and medium-sized mountains, and the 'Alpine plan', which is financed from various sources, with tasks being carried out jointly when developing farming structures and the Bavarian fund).

Such aid varies in importance, the field covered, in form and in the sums involved. Each measure is the subject of special provisions.

There is no specific legislation for uplands concerning the environment and land use planning. Neither does there seem to be any training specifically organized for or geared to upland areas.

Conclusions

(1) Although laws concerning uplands are laid down at national level,[1] they do have the following features:

(i) they adopt a similar approach to defining areas (geographical criteria, support for and development of agriculture, aid for incomes, upgrading of the environment and local resources);

(ii) they provide for implementation on a regional basis, with powers being exercised by regional authorities or bodies representing local interests;

(iii) their policy aim is not exclusively the support of agricultural activities, although agricultural conditions are a determining factor in defining upland areas.

(2) Because of the number of institutions set up everywhere and the diversity of interests taken into account when developing upland areas, the taking of political decisions in the Member States is probably very slow.

Some countries act through improvement or development plans. The development or improvement of upland infrastructure is generally taken into account. Programmes are not derived solely from the EAGGF.

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[1] As is the case in France, Italy, Spain and Greece.

European Parliament

Position regarding upland areas

The European Parliament has on two occasions given its opinion regarding the economic problems of upland areas:

(1) OJ C 37, p. 56, 4.6.1973 on the Commission proposal for a Directive on agriculture in mountain areas and in certain other poorer farming areas; (this proposal became Directive 75/268/EEC and may be found in OJ L 128, 19.5.1975).

(2) OJ L 327, 24.11.1982 when the above Directive was amended as regards its application in certain areas of Greece.

(1) The opinion of the Parliament on the original Directive was concerned with the problems of agriculture in these areas.

It was thought that the special difficulties which exist for agriculture in these areas had brought about a worsening of the income and living conditions of farmers, and that this could lead to depopulation and the 'final deterioration' of the countryside by reason of the abandonment of cultivation.

The Parliament took the position that it is in the general interests of society for a minimum population to remain in such areas and for this reason suitable means have to be sought to offset the natural handicaps which prevent farmers in upland areas from making a living similar to that of workers elsewhere.

The Parliament also stated that in the past it had drawn attention to the special needs of farmers in such areas (1971, concerning the modernization of farms; 1972, concerning environmental policy) and wondered whether the compensation proposed would do enough to offset the existing handicaps for farmers with small-sized holdings. The Parliament invited the Commission to present further proposals for encouraging afforestation and to consider the problems arising in national parks and conservancy areas by virtue of the regulations adopted in connection with environmental policy.

(2) In 1982 Directive 75/268/EEC was amended with respect to certain areas of Greece. This has been preceded by amendments relating to the Mezzogiorno and the West of Ireland (Directive 80/666/EEC of 24 June 1980) which reduced the minimum utilized agricultural area per holding from three to two hectares, and the rate of reimbursement for certain expenditure from 25 to 50%. The Parliament's opinion indicates that it fully approved these amendments, particularly the application of the same treatment to Greece as for the West of Ireland and the Mezzogiorno, in view of the parlous state of Greek agriculture.

(3) It should be noted that in both these opinions, the interests of persons other than farmers do not appear to have been considered (primarily because the proposals in both cases concerned agriculture).

(4) The European Parliament's Commission for Regional Policy is shortly expected to commence work on a report on the problems of upland areas (Rapporteur: Mr Musso (RDE)). It is unlikely that this report will be adopted by the Parliament before the end of 1986.

Economic and Social Committee Opinions mentioning upland areas

References to upland areas in certain ESC Opinions

Proposal for a Council Directive on agriculture in upland areas and certain other less-favoured regions
OJ C 100, 22.11.1973, p. 20

(1) The Economic and Social Committee considers that account should be taken of the general contribution of upland areas to agriculture in the Community in the form of local quality products and stock farming. (p. 22)

(2) The Committee also proposed that the text of the Directive be amended to read as follows:
in the case of less-favoured upland farming areas only, the following shall be taken into account in calculating compensatory allowances: dairy cattle producing milk for sale and apple, pear and peach orchards exceeding 50 acres in area. (p. 23)

Opinion on a proposal for a Directive supplementing the provisions of Title V of the Directive on agriculture in upland areas and other less-favoured regions, adopted by the Council on 21 January 1974, and on proposals for Directives concerning the list of the Community's less-favoured agricultural areas within the meaning of the Directive on agriculture in upland areas and other less-favoured regions, adopted by the Council on 21 January 1974. OJ C 62, 15.3.1975, p. 19

(3) The criteria used for the definition and delimitation of less-favoured and upland areas ought to take account of the fact that in the more densely populated areas the cultivation of less fertile land, the continuation of which is desirable for environmental reasons, is increasingly being abandoned. When re-examining the delimitation criteria, efforts should be made, where necessary, to correct omissions made when the list of upland areas was drawn up and/or to alleviate the hardships likely to arise within the less-favoured areas in relation to the adjoining areas not included on the list. (p. 20)

Proposal for a Council Directive amending Council Directive 75/268/EEC of 28 April 1975, concerning agriculture in upland areas and other less-favoured regions. OJ C 181, 31.7.1978, p. 16

(4) Limited incentives for the small-scale investment of income would enable many farmers working on family-owned farms in upland or other depressed areas, and having attained a specified age, to continue farming their land under satisfactory conditions until the time of their early retirement. (p. 17)

(5) Structural policy is inseparable from regional policy. The Commission proposals on drainage and farming in upland and other less-favoured areas of the Community are a positive aspect of a policy which unfortunately in other respects is distinguished by its lack of resources and overall conception or regional imbalances in the Community as a whole. (p. 18)

Reform of the common agricultural policy
OJ C 348, 31.12.1981, p. 27

(6) The handicaps peculiar to upland areas and other less- favoured regions are not likely to disappear. If the complete depopulation of these areas is to be prevented, long-term measures are needed. (p. 30)

Outlook for the common agricultural policy
OJ C 330, 20.12.1985, p. 12

(7) Agriculture and forestry, as the main sources of food, raw materials and renewable energy, have always borne the cost of contributing to the formation and preservation of environment and countryside. This applies particularly to hill, and more especially mountain, regions which without agriculture and forestry would no longer be habitable and would not support any gainful activity. (p. 18)

(8) Efforts are already being made in the context of agricultural policy to reduce these disparities, thanks particularly to the 'Mediterranean package' and special measures in favour of upland areas and other less-favoured regions. (p. 20)

(9) The Committee believes that particular attention should be paid to upland areas, islands in the south of the Community and less-favoured Mediterranean and northern regions where agriculture is a major source of employment. (p. 21)

Survey of Council of Europe activities and decisions

Spheres covered by the Council of Europe and bodies set up under its initiative

A large number of resolutions and recommendations dealing with development problems in upland areas have been adopted by the Council of Europe and by the bodies set up under its initiatives, such as the Conference of Local and Regional Authorities of Europe (CLRAE) and the European Conference of Ministers responsible for Regional Planning (Cemat).

The Council of Europe sees many difficulties in connection with development of these upland areas, several of which have to contend with:

(i) a gradual drift away from farming, with repercussions such as a larger scale rural exodus to urban areas, socio-economic decline, under-use of land and serious deterioration of the countryside in the absence of crops;

(ii) haphazard tourist development resulting in irrational and uncontrolled building, deterioration of the landscape, excessive costs [1] for the regions concerned, risks and dangers to the natural environment and ecological balance and a build-up of different forms of pollution.

The mountain regions - many of them economically disadvantaged - are none the less ideal recreation sites. They offer scope for leisure activities and their network of communications are important to trade. With their natural resources and plentiful flora, fauna and natural sites, which must be preserved, they therefore play a role in the conservation of oxygen and water resources and in maintaining the biological balance.

In connection with the implementation of a European policy on mountain regions, the Council of Europe advocates:

(1) Preservation of satisfactory living conditions in mountain communities, namely guaranteeing:

(i) a modern life-style compatible with the rural environment,

(ii) a reasonable income, by means of appropriate aid and economic development schemes,

(iii) maintenance and, if need be, introduction of public services (education and training, health care, transport, cultural facilities) and satisfactory infrastructure.

(2) The need to:

(i) encourage agriculture and forestry as prerequisites for conservation of the environment and natural resources and protection of the countryside;

(ii) promote trade, crafts and (to a limited degree) industry so as to ensure balanced economic growth in these areas);

(iii) supervised expansion of tourism, the main hope of development, in keeping with the principles of rational planning and development, bearing in mind that local inhabitants must be the main beneficiaries;

(iv) assist new farmers (especially young farmers) in starting up and encourage efficient family farms by obviating legal and administrative obstacles.

(3) The need for a comprehensive, broad and permanent policy on the mountain regions as regards regional planning and all-round, practical, integrated and long-term plans and action programmes as the key to development based on scientific data and bearing in mind any detrimental side-effects on the human and natural environment.

(4) Decentralization designed to stimulate local and regional initiative.

(5) Transfrontier cooperation to help solve problems of common interest (a Council of Europe Outline Convention on this matter came into force on 22 December 1981).

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[1] Costs = undesirable effects of human activities or certain types of land use on the environment.

Work of the Council of Europe and bodies set up under its initiative

Body/activity and document	Subject — Scope [1] and general guidelines	Proposed and/or implemented policies/measures
1. Parliamentary level		
A. Parliamentary Assembly		
1968: Recommendation 517 (follow-up to Leitner report)	**Farming in mountain regions** — Current situation — Agricultural development measures	— Seeks to improve general socio-economic conditions by setting up and preserving adequate infrastructure such as transport, communications, school buildings, hospitals, etc. as part of an overall policy also aimed at improving land structures and providing for training programmes and planning of industrial, residential and farming zones.
1974: Resolution 570	**European role of the Alpine regions** Survey of the Alps, their role in regional planning and vital function in terms of recreation, communications and trade, regeneration of natural resources	
1979: Resolution 687	**European regional planning and the role and function of the Alpine regions**	— Advocates framing of a European Regional Planning Charter to underpin a genuine European regional planning policy. — Stresses the importance of - Alpine cooperation - tourism as the main hope for development, alongside agriculture, industry and crafts.
1981: Resolution 744	**Agriculture and energy** (importance of new sources of energy)	
1982: Recommendation 935	**Rebirth of disadvantaged rural areas**	— Stresses urgency of helping farmers (especially young farmers), halting the disappearance of farmland, assisting efficient family farms, framing a code of conduct, eliminating legal and administrative obstacles hampering farmers of other nationalities
Recommendation 764	**Establishment of farmers in Europe**	
1983: Recommendation 764	on the **Conference of Pyrenean Regions**	
B. Committee of Ministers		
1974: Resolution (74) 7	**'European Declaration on the economic and social problems of mountain regions'** — encompasses - hill-farming and forestry - industry, crafts and trade - education, training and rehabilitation - tourism - protection of the environment and countryside — specifies factors to be taken into account in fixing the boundaries of mountain regions: - physical features - altitude - topography - climate - physical isolation - socio-economic conditions	— mountain regions provide living space for the resident population and a natural heritage for all Europeans; — an optimum population level must be maintained to ensure permanent occupation of mountain areas; with this in mind, good living conditions for the local inhabitants must be guaranteed; — agriculture, industry, crafts and tourism must be developed in a manner consistent with the environment, bearing in mind the local population - agriculture protects the countryside and natural resources (soil, water, biological balance) - crafts and tourism must be encouraged by adequate financial support and primarily benefit the local population - environment protection must be seen in a broad perspective (protection and diversity of countryside, conservation of natural resources (notably water), regulations protecting fauna and flora) — bases of policy on mountain regions, including: - general and specific support measures - continuity of action by public authorities - a development programme - action by local communities - maintenance of public services
1975: Resolution (75) 9	**Endangered Alpine regions** — draws attention to the critical and dangerous state of mountain areas due to tourist development and random building	— Recommends that Member States adopt the general principle that planning and management of Alpine regions should be based on scientific data and avoid all harmful effects on the human and natural environment — Stresses the need to promote transfrontier cooperation — Attention to be given to regions threatened by avalanches, reinforcement of protective measures (reafforestation), improved cooperation between prevention services and information campaign to impress the need to protect the biological environment.

[1] Unless otherwise specified, work relates to Europe as a whole.

Body/activity and document	Subject — Scope [1] and general guidelines	Proposed and/or implemented policies/measures
1976: Resolution (76) 26	**Steps which can be taken to reduce depopulation of rural regions**	Rural development policy to secure population - employment balance and natural resource development to establish a self-sustaining rural economy and society. Scope: - basic infrastrucutre - local enterprises - recreation and tourism - modern agricultural techniques - decentralization - long-term regional development plan
1976: Resolution (76) 34	**Ecological Charter for Mountain Regions in Europe** The common natural environment and living space embodied in the European mountain regions calls for general protection	(The common natural heritage of the mountain (regions must be preserved. We all have a duty to (see that this is done. (Each mountain region must have a proper policy for (planning, development and promotion of mountain (communities. (Development of tourism, transport and industry must (be based on rational management of natural (resources; preservation of the typical features of (the mountain environment is vital in preserving (rural life. (The following must be protected: (- countryside and natural, semi-natural and cultural environments (- fauna and flora, grazing, forests, game (- biogenetic reservations (hence international cooperation must be established (in the areas of research, training and information; (harmonization of European laws for ecological (management of these regions.
1979: Recommendation R(79) 4	**Principles for a strategy for tourism development in mountain regions** — mainly concerned with tourism — recommends 27 principles for tourism development regarding: - setting-up of new tourist resorts - financing of basic amenities - reception capacity of resorts and integration of tourism into local rural structures - ways of enabling adjacent valleys to benefit from seaside or lakeside tourism these principles are basically: — respect for traditional values — all-round development of the regions concerned — integrated planning - socio-economic master plan - land-use master plan - financial master plan — integration of tourist activity into the local economy without disruption — respect for town planning	
2. Regional and local government		
Conference of Local and Regional Authorities of Europe (CLRAE) This Council of Europe organ regularly brings together elected representatives of European regional and local authorities. It adopts resolutions based on more restricted conference work, e.g. the Conference of Alpine Regions and the Conference of Pyrenean Regions.		This new specifically Alpine policy proposes: — a shift in development aims towards long-term interests — emphasis on strategy to restore regional balance (by practical, deliberate planning) — regional and sectoral financial support subject to development programmes — stepping-up of inter-regional cooperation — development of scientific and applied research — preparation of action programmes at several levels - local - regional - national - European — establishment of a **Council of Alpine Regions**
A. Conference of Alpine Regions		
1978 CLRAE [2]	— **Lugano Declaration:** - New policy for the Alps - specifically concerned with the Alps	— promotion of a local and regional action policy — implementation of a comprehensive permanent policy for mountain regions — encouragement of transfrontier cooperation
1979: Resolution 109	— on the **Conference of Alpine Regions** — contains recommendations to local and regional authorities, the governments of countries with Alpine regions, the Committee of Ministers of the Council or Europe and the EC Commision with a view to	— establishment of a Council of Alpine Regions
1982: Resolution 132	**Rural and agricultural regions and mountain regions** based on the report of the 17th CLRAE session, with particular reference to: — limitations on 'profitability' and various forms of aid — exaggerated emphasis on models	— active policy to preserve farming jobs in disadvantaged regions — encouragement of diversified regional production — provision of a modern life-style compatible with the rural environment — a European Campaign (1986-87) for the countryside ('Living and working in the countryside')

[1] Unless otherwise specified, work relates to Europe as a whole.

[2] Resolution adopted by the Conference at Council of Europe level as opposed to a specific regional Conference.

Body/activity and document	Subject — Scope [1] and general guidelines	Proposed and/or implemented policies/measures
1982: Resolution 133	on the **Conference of Pyrenean Regions** This resolution is based on the final Conference declaration, which embraces the following areas: — economic and agricultural activities — regional planning — policy on tourism — crafts and industry (to limited degree) — self-development and upgrading of assets with aid — importance of freshwater — communications — cultural heritage Pyrenean regions periphicial, and relates to the mountain and frontier — Aquitaine — Aragon — Catalonia — Languedoc-Roussillon — Midi-Pyrenées — Navarre and — Basque country — Principality of Andorra	The Conference calls for the promotion of active cooperation between all Pyrenean local authorities and the development of a strategy to restore balance and halt haphazard tourist development. The Pyrenean region's role as link between northern and southern Europe is constantly progressing owing to expanding economic relations. The representatives of the Pyrenean regions advocate a Working Community of Pyrenean regions, giving priority to e.g. the creation of a network of road and rail communications as basis for development of the entire Pyrenean territory.
1983: Resolution 143	**Cooperation between the Alpine regions** Basis for cooperation and growth: 1972: setting-up of a Working Community of Central Alpine Regions **Arge-Alp** 1973: setting-up of a committee to initiate cooperation between the Alpine regions 1977: setting-up of the Working Community Alpen-Andria grouping regions in the eastern Alps 1982: Community of cantons and regions in the western Alps **(Cotrao)**	— The foundations have now been laid for effective and regular cooperation between the three Alpine Working Communities (Arge-Alp/Alpen Adria/Cotrao) with a view to cooperation among all Alpine regions — It is now hoped to establish a parent body embracing all 3 communities to allow exchanges of information and mutual consultation on: - joint problems - development of inter-regional cooperation - ways of taking more effective action
1983: Resolution 145	**Local and regional authorities faced with the challenge of unemployment** The Conference insists on the scope for job creation, e.g. in connection with environment protection, improvement of living conditions and maintenance of activity in rural and mountain areas; it spells out ways of achieving this end	
3. Intergovernmental committees		
(A) Steering Committee for Regional and Municipal Matters *set up in 1971*	Has carried out various studies ultimately leading to the adoption by the Committee of Ministers of the Council of Europe of: — Resolution 74 (7) European Declaration on Mountain Regions — Recommendation R (79) 4 '27 principles for a strategy for tourism development in mountain regions'	
(B) European Committee for Conservation of Nature and Natural Resources	— Study on endangered Alpine regions and preventive measures — Committee of Ministers Resolution (75) 9 on endangered Alpine regions — 3rd course on applied ecology — European technical conference on recreation and nature conservation (studying certain problems specific to mountain areas, the role of ecology, reafforestation, recreation facilities) — Ecological Charter for Alpine Regions in Europe (Resolution (76) 34) — Study of the impact of tourism on the natural environment in Alpine countries — International seminar on access to nature in mountain regions	Colloquium on matters relating to the problems of Alpine regions as a natural environment: enhancement and costs, protection and development measures, legal bases for international cooperation
(C) Steering Committee for Regional Planning (CDAT) grouping senior officials responsible for regional planning in Council of Europe member countries	(1) Place of Alpine regions in the development of Europe (2) Role of Pyrenees in European integration and transfrontier cooperation requirements (3) Mountain regions of the Mediterranean countries of Europe	

[1] Unless otherwise specified, work relates to Europe as a whole.

Body/activity and document	Subject — Scope [1] and general guidelines	Proposed and/or implemented policies/measures
(D) European Conference of Ministers responsible for Regional Planning (Cemat) Since 1970 regular meetings (every two years) are held under the auspices of the Council of Europe and are attended by the Regional Planning Ministers of the 21 member countries and some observer countries	The Conference's aim is to lay the foundations for and organize, European cooperation in the sphere of regional planning and to promote harmonious, balanced development of the regions in Europe.	
1970: Bonn Conference	— Importance of recognizing the ecological role of the mountain regions	
1973: 2nd Conference, La Grande Motte Special Resolution No 3	— Mountain regions and regional planning	Contains recommendations aiming to promote government action in mountain regions with a view to: — acknowledging the increasing difficulties of these regions - falling population - economic decline - threatened natural environment — giving attention to economically backward regions where the process of physical and socio-economic deterioration is most pronounced — coordinating mountain region plans for development, as well as promotion of tourism, economic matters, protection of the countryside, flora and fauna — study and organization of development of the urban fabric — functional land use — definition of the boundaries of 'costs' and measures ensuring development — development of concerted planning and transfrontier cooperation.
1976: 3rd Conference, Bari Resolution No 4	— Problems of mountain regions in connection with town planning	
1978: 4th Conference, Vienna Grindelwald Seminar	— Future of the rural environment from the angle of town-country relations — Problems relating to the costs [2] of living space and regional planning in mountain areas	
(E) European Ministerial Conference on the Environment Forum for discussion of environment protection and conservation problems	The Conference deals with matters serving as starting-points for Council of Europe action e.g. development of modern methods used in agriculture, compatible with conservation requirements.	

[1] Unless otherwise specified, work relates to Europe as a whole.

[2] Costs = undesirable effects of human activities or certain types of land use on the environment

Detailed survey of pilot areas

Lower Salernitano

Italy

Summary of the integrated development project
Sele-Calore-Diano-Cilento

Area chosen for case study
Development Authority of Calore Salernitano

Introduction

The Sele-Calore-Diano-Cilento integrated project encompasses an area with all the distinctive features of the uneven and distorted development characteristics of southern Italy, which is one of the two major economic regions of the country. Development in the plain is spasmodic and structurally weak, being subject to persistent crisis and recurrent outflows of profits to the prosperous regions of Italy. The inland areas are characterized by low earnings, high unemployment and large-scale depopulation. This area is also particularly vulnerable to the vicissitudes of Mediterranean farming - Salernitano accounts for 62% of olive production and is a major fruit and vegetable producer. With enlargement of the EEC these disadvantages could build up.

For purposes of truly integrated planning, from the very start provision was made for a contract with IPSG specialized firms, the university and both sides of industry whereby all parties undertake to supply high-technology-production projects, to work as a team and to make advance provision for planning costs: these costs are to be recuperated, together with the revenue due, from the funds earmarked for this purpose in the project budget.

To satisfy various conditions, the integrated project is divided into 'area sub-projects' covering the plain and the adjacent valleys and 'sectoral sub-projects' relating to all areas. Some are given as an example below. They are based on instruments that embrace the various entrepreneurial, institutional and research objectives, in coordinated executive schemes.

What we have is an organic system of operators and projects ensuring an operational restructuring strategy:

(i) a programme contract for the entire integrated project guaranteeing guidance, coordination and operational support from all local, regional and national institutions concerned, specialized State-holding companies, university, public and private R&D institutes and the various operators working on sub-projects; for purposes of efficiency, it is recommended that this contract should take the form of a limited liability consortium;

(ii) cooperative consortia in the Calore Alto Sele, Alburno, Tanagro, Diano and Cilento valleys to promote and coordinate production schemes sited on public and private land, set up under Law No 11/81 and comprising municipal cooperatives established on the same basis;

(iii) agri-food centre (See Piano Sele, 2.2.1.);

(iv) technical centre to promote small and medium and craft industries (see 3.1.1.);

(v) tourism, research, planning and promotion consortium (see 3.2.1.);

(vi) joint association for mechanization (units set up under Law No 784) in the form of a joint stock company, to ensure purposeful management including productive uses (agricultural and industrial) of methane and coordination with other sources of energy and energy conservation;

(vii) limited liability agencies for productive environmental schemes, (see section 3.3.2.); these agencies are coordinated with a 'business association' responsible for programming capital projects and local development, including historic centres;

(viii) association for vocational training and socio-economic promotion (see 3.4.1.).

This framework is flexible and linked to operational development projects to be specified later.

Area sub-projects

The Calore sub-project — linchpin of the entire integrated project promoted by the Upland Development Authority — plays a key role in the agri-forestry sector in inland areas. The Calore valley is, incidentally, among the most disadvantaged: it rises from the rich agriculture/tourism plains to Monte Cervati (2 000 m). At the same time its immense land, woodland, ecological and tourist resources provide scope for fast-moving development.

The sub-project covers an area of 20 000 hectares of publicly owned land made available by the titular authority, (participating as partner), to large producer cooperatives under Law No 11/81 for agri-forestry (and related) projects laying stress on high technology and productivity and acting as a catalyst for private firms. Such cooperatives are already active in Piaggine, Magliano, Felitto, Capaccio, Laurine, Campora and Sanza. A cooperative consortium has also been set up, grouping municipal cooperatives, municipalities, the Upland Development Authority the agricultural development organization and individual producers and experts. This consortium:

(a) provides guidance, coordination and services for its partners (and others);

(b) assists in programming and implementation along the lines laid down;

(c) assumes responsibility pending establishment of a local cooperative.

Plans are drawn up by the specialized associations mentioned above and by local technical experts on the basis of the contract also described above, which has already entered into operation in the shape of project contracts binding on each cooperative for a given activity and link up between contracts concerning a single venture. Some consortia have been asked to join the cooperatives as consultants on technical assistance or to carry out specific activities on a contract basis under an association contract.

Projects focus on various possible activities, enlisting a combination of new technologies, located on extensive sites in the inland area:

(i) forestry: recuperation of mature, under-used or deteriorated woodland and creation of new woodland areas via:

(a) use of new technologies for afforestation and timber haulage,

(b) compliance with both economic and ecological criteria, and

(c) a combination of quick-growing tree species and species of aesthetic and natural value. In all cases schemes must bear in mind the financial costs, profitability and employment;

(ii) forestry/animal husbandry: interaction between forestry and sheep and cattle rearing on a development-generating economic basis, using up-to-date sheltered/wild and valley/mountain cattle-rearing methods: specific fodder crops are sown in the forests so as to provide grazing areas; fields and pastures are regenerated; new crops are grown (triticali, medica cespugliata acacia pabulare) on dry hill slopes; strains of cattle and sheep are bred for long-term sheltered rearing, providing high quality meat and milk (for typical local cheeses). Animals are born in valley farms and grow up wild in the hills; calves for fattening and dairy production return to the stock-farms at 13 months. Forest waste products are used for fodder purposes using EEC-recommended biotechnologies already tried out in Sardinia by Marsilva Finam;

(iii) small fruits: intensive farming of new species of raspberries, blackberries, bilberries using fast-growth methods; wild strawberries on specially prepared woodland sites and micorizzated truffles; rationalized collection of mushrooms and medicinal plants; introduction of exotic species and reactivation of declining local species; link-up with bee-keeping and snail-breeding; collection and prior processing centres;

(iv) chestnut-growing: forest improvements; biological methods of eliminating diseases connected with farm and wild animals etc. to boost earnings; collection and processing centre - a theme to be considered in connection with other types of fruit growing to be promoted or consolidated (olives, vines);

(v) wild animals, reared for food purposes in isolated areas (deer, roebuck, chamois); scientific survey to be conducted by Unavi as a partner in the cooperative, generating income through stock rearing and hunting; wildfowl breeding under similar agreements with hunters; environmentally-protected herds in the Park area (Cervati, coast);

(vi) agriculture and rural tourism: restoration of houses and buildings on publicly owned and privately rented land; organized rural accommodation and small camping sites or hostels; all such schemes are run by agri-forestry cooperatives on publicly owned land with a view to promoting local agriculture;

(vii) environment conservation: to be incorporated in the projects of the various cooperative ventures; to play a key part in the 'productive park area' independently run on municipally owned land by the cooperative to which the land has been assigned, with the support of environment organizations acting as partners, as is planned on Monte Cervate and for the coastal forest.

Mention can also be made of hydrological and regional development works, and social promotion projects. The reader is refered to the *ad hoc* sub-projects.

The Calore sub-project consists of five business projects involving cooperatives which have been assigned publicly-owned land by the municipalities, acting as partners. These projects reflect and incorporate, depending on the particular case, all or some of the activities described above. [1]

(i) The Piaggine project encompasses an area of 4 500 ha made available by the municipal authority to the Cervate cooperative; project contracts have been signed by six associations for specific activities, under the umbrella of a master plan. The activities include: forestry and stockfarming, fodder from forest waste products; deer and roebuck farm; small-fruit and micorizzated truffle farming, along with organized collection of mushrooms and medicinal plants; camping site and hostel; walking, hiking and pony riding on the Cervati-Alburno. The 1 000 ha Cervati Nature Park is supplemented by similar schemes covering an area 2 000 ha at Sanza.

(ii) The Magliano-Stio-Monteforte project extends over 1 000 ha. The municipality of Magliano has assigned land to the cooperative consortium which will manage it in conjunction with local cooperatives. The scheme is similar to the one for Piaggine, plus a 'chestnut' project, involving the organization of chestnut woods, pest control and a collection and prior processing plant to be connected up with the Roccadaspide project.

(ii) The Roccadaspide project covers 500 ha municipally owned land and 500 ha in private ownership - the chestnut woods run by the 'Il Maronne' cooperative (200 members). It has the same activities as Magliano and a second centre for harvesting and processing chestnuts run by a joint committee and linked with the S. Nicola Varco food-product centre.

(iv) The Felitto project encompasses 500 ha of municipal land assigned to the Difesa Nuova and Rinascita Calore cooperatives. Activities: small-fruit farming; organized collection in the woodland area of mushrooms and medicinal plants, collection and prior processing of small-fruit, mushrooms, medicinal plants, etc., where the machinery is already installed. The Rinascita Cooperative is an operational

[1] The outline plans, with the full text of the integrated project were submitted to the ESC Study Group on Upland Areas during its visit of 16 and 17 October 1985.

member of the cooperative consortium for development along similar lines of the land made available by municipalities.

(v) The Capaccio-Trentinara project covers 700 ha of Capaccio Alto to be assigned to the cooperative, thereby extending the existing forestry project to the entire area and to the various livestock farming - wild life - tourism activities described above.

(vi) The Sanza project, though outside the area with which we are concerned, is vital for a complete description of the Cervati region. It resembles the Piaggine project, with the significant difference of covering almost twice the area (500 ha chestnut woods to be improved; 2 000 ha lavender for picking and processing).

The Sele sub-project covers farm and food industry activities which are a key element of the integrated project and will further agriculture/forestry/stock development of the inland regions (including research).

The multipurpose agriculture/food industry centre identifies market outlets and promotes production innovations. It is housed in the buildings erected by the Minister for Agriculture at San Nicola Varca, costed at 25 000 million lire plus 10 set aside in the three-year plan for the earthquake areas. The vehicle is to be a cooperative comprising the product cooperatives to be set up at S. Cecilia and Persano, individual producers and their cooperatives and associations, the three municipalities of the plain, Ersac, and specialist companies such as Italtrade, Finam, Ifagraria, Cori/ENI, Agronica, Tecnagro, Asca and Sinergia. A top management team is to deal with the marketing aspect, and provide farmers with inputs required for innovation/redevelopment. There is also to be a storage area, with refrigeration facilities; the emphasis is to be on joint ventures with specialist national and Community groups, and on promoting new ventures. In particular, there is to be a biotechnology research/experiment unit.

Research/experiment/production schemes are to be proposed for public land (6 000 hectares) in the plain. These will provide valuable work for the agriculture/food industry centre and promote the inland economy.

(i) Fruit and vegetable scheme at S. Cecilia, on 1 500 hectares of level land belonging to the Istituto Universitario Orientale. This is to be a pilot unit for fruit and vegetable growing in the plain and inland. It incorporates two projects in Agronica. The vehicle is a cooperative whose members are: Istituto Orientale, which is providing the land; Ersac, which is providing the technology and capital; the plain and valley cooperatives, which are to use the new technology; neighbouring farmers, with whom there is to be a service link-up; employees; specialist companies such as Agronica, Ifagraria, ENI ricerca, Tecnagro, Italtrade.

(ii) The Persano-Serre-Postiglione project (farm/forestry) is to cover 380 hectares of woodland and 240 of level land of Demanio Militare, together with 1 000 hectares in the upland area of Serre-Postiglione.

(iii) The S. Nicola V biotechnology project comprises a unit for research into production in the internal areas. Support is to be provided by Enea, CNR, Finam, Iasm, and Eniricerca. The aim is to recover fertilizer and alcohol from forest, farm, food industry, and urban waste.

(iv) The timber project at Improsta is supported by SAG (ENCC). The aim is to develop new techniques for forestry and timber processing.

(v) The Fauna Paestum project covers 800 hectares of coastal forest, stretching from Battipaglia to Paestum and owned by the provincial authorities. This land is to be let to a cooperative of young farmers who will raise deer for meat - with surplus stock being culled - for environmental purposes and for research.

(vi) The Bufale Imposta project is centred on the SAF/ENCC farm, where stock is kept on a permanent basis. The project is concerned with research into stockraising and mozzarella production technology, with a view to reducing marketing problems.

The Piano sub-project also involves grants to long-established consortia.

Sectoral sub-projects

The small/medium industry sub-project aims at developing production patterns and processes capable of triggering self-sustaining growth in the inland regions, so as to counter the pressures making for disequilibria. This is to be done by developing local resources, increasing the local value-added component of products and generally shifting towards more sophisticated economic activities. At present, the local economy has three outstanding features:

(i) many of the plain-based industries which sprang up in the 1960s and 1970s are ailing, and there is a major need for restructuring and redevelopment;

(ii) Creation of industrial areas in the earthquake zone (almost entirely in the uplands), on the basis of a blueprint for industrial penetration of the inland parts of the region;

(iii) need to ensure a healthy economy (especially important in these zones) by providing companies with services, by process and product innovation and by promoting new ventures.

The project is thus to be a vehicle for services/innovation/promotion, and is to push through a number of specific schemes.

The instrument is to be the Technical-Promotional Centre for Small and Medium-sized Industry, set up

under Law No 240/81 as a consortium (cooperative or limited-liability company) of entrepreneurs, regional authorities and research/technology companies. The Centre provides: high-grade services, supplementing those already supplied by organizations and private persons; process/product innovations (including transfer of technologies developed by specialist units) which increase the amount of value-added locally; promotion of initiatives (and economic activities) which create jobs and further innovation.

The members of the Centre are: the three regional districts of the plain (Battipaglia, Eboli, Capaccio); the consortia of the inland industrial and craft-sector areas; regional and Mezzogiorno financing agencies; specialist companies (Italimpianti, Italtrade, Italstat, Agensud, Sinergia, Eniricerca); and 20 businessmen (initially).

The following new ventures are scheduled:

(i) A modular unit for producing fertilizers and alcohol from domestic, urban, forestry and farm waste; the aims are those specified above.

(ii) Plant producing mobile units for processing forestry waste supplied on the spot by light-weight machinery. There is a major national market for such units, given the 3 million hectares of public land which are, or can be forested, and the scope for exports to developing countries.

(iii) Deep-freeze unit attached to the S. Nicola Varco Centre, gerared to new technologies and new products such as small fruit and game.

(iv) Precooked pasta unit, using sterilization (Sogeas project) or 6-10 day freeze technology with *ad hoc* transport/collection channels (French technique).

(v) Plant for making earthquake-safe prefabricated units, employing new materials and construction technologies. These units are, for instance, to be used for rehabilitating existing buildings.

The Centre is to carry out further investigations into the above possibilities.

The tourist sub-project is to develop the tourism resources of the area. Tourism can be a major force for economic development, but there is the usual imbalance between the coastal and inland regions, and excessive concentration in a few weeks of the year. Steps need to be taken to spread tourism more evenly over the year, to increase the local financial return and to ensure multi-purpose use of assets - including benefits for the local population.

Recently established consortium of R & D concerns - Insud, SEMI, Valtur, Promotur, Anagritur,[1] local authorities (Valva, Piaggine, Paestum). The consortium is to be concerned with: research on tourist flows, and their organization; shift from crowded coastal areas to inland areas, which are rich in historical, cultural and nature assets; extension of tourism to winter season on Cervati and Alburno (cross-country skiing) and to intermediate seasons (trekking, horse riding, sport, archeology trips, caving, nature observation etc.); a potentially very profitable scheme for providing hotel accommodation at castles, villas and monasteries; rehabilitation of isolated houses and buildings and historic town centres (including use of prefabricated units); establishment of camping sites and hostels in wooded areas away from main tourist centres.

Tourism circuit (sea/mountains, nature/health/culture) in the Valva-Paestum-Cervati triangle. There is universal agreement that this scheme is worthwhile.

(i) The purpose of the Valva project is to rehabilitate the castle of the Knights of Malta, and the Contursi spa, and to build a luxury hotel centre on the plateau. The first step is to rehabilitate the wooded areas belonging to the local authorities (800 hectares) and the Knights of Malta (20 hectares), and let them to a cooperative on the lines of the LR 11/81, in which SAF is an associate. The cooperative will be responsible for laying out paths, and for wildlife facilities over 300 hectares (sheep to be reared on the rest of the area) in conjunction with tourist activities. Prefabricated units, no longer needed for earthquake victims, will be used to erect a new type of tourist village with 50 beds and a restaurant. Other buildings, some of historical value (18th century mill) will be added later, together with rural houses for agritourism. There are also to be sport, cultural and educational activities (e.g. courses) in the castle park, where concerts are already held; and facilities are to be provided for tennis, riding and golf. Together with similar schemes at Capagna, Oliveto, Colliano, Laviano etc., there will eventually be a whole area of non-centralized tourism.

(ii) The Paestum project is the most sensitive, because of its intrinsic value and the damage which could be caused. An international idea competition has been launched to find proposals for the urban areas, but the emphasis is on three rapid, pragmatic solutions: rehabilitation of the coastal forest; establishment of an archaeology unit in Argiva, in conjunction with the work on the Sele banks for tourism purposes; construction of a 'light' unit of bungalows along the banks of the Sele for summer, autumn and spring tourism (archaeology, educational and linking up with the Capaccio camping centre).

(iii) The Cervati project is part of the farm/forestry scheme on public land in Piaggine (4 500 hectares) and Sanza (8 000 hectares), and the Parco Cervati development. It comprises havens for royal eagles and hawks, and a 700 hectare park for deer. There are also 2 000 hectares of land for game. The first action is construction of a camping site and a hostel

[1] Insud: Finanziarie Meridionale; SEMI: ENN; VALTUR: INSUD/privati; Promotur: Lege Coop.; Agritur: rural tourism consortium of Confagricoltura, Coldiretti, Confcoltivatori.

on the two slopes for tourists who come for hunting (summer), cross-country skiing, field studies and caving.

(iv) The Alburno project is similar to that of Cervati and based on the grotto of Castel Civita and the attractions of the plateau.

(v) The Terme Contursi project involves a joint promotion company which will rehabilitate the disused spa facilities and upgrade those in use (link up with Valva project) and plans to set up non-centralized tourist facilities in Valle.

(vi) The Turismo sub-project links up with other schemes being established (coast of Palinura a Capitello, archeology unit of Novi Velia, tourist-cultural itineraries from the 'Strada di Pisacane' from Sapri (Karst area) to Certoso di Padula and Monte Cervati, with associated Pisacane museum at Sanza).

Physical planning and environmental subproject. This is absolutely crucial to the proposed development. Physical planning is a necessary though not a sufficient condition for avoiding damage and developing resources. Protection of the environment is an end in itself. Development, in an area with a precarious hydrological balance (apart from earthquakes), requires a systematic strategy operating through the projects listed above. This strategy covers erosion hazards and the associated protective forest cover and dykes; irrigation and the associated crop changes; a proper road network; urban planning, with rehabilitation of historic town centres and buildings of value; anti-pollution plant and regulations; upgrading of the natural environment.

Upgrading of the environment - closely linked with physical planning, tourism and farm/forestry development - focuses on five production parks, where defence of the environment has developed into scientific resource utilization, based on new technologies and carried out by public agencies, associated producers, research and environmental units. Public land has been let to the cooperatives (LR,11/81), who have established consortia with the local authorities (districts, province, region etc.) and environmental associations.

(i) Upgrading of historic urban centres, with restoration (for social or cultural purposes or for accommodation) of valuable buildings and provision of modern facilities and services for the inhabitants; plus rehabilitation of isolated buildings (castles, villas, monasteries) under the tourist plans listed above.

(ii) Work on archaeological sites and cultural heritage.

(iii) Counter-pollution systems, with underground network for waste discharge or regional waste-treating units for factories and farms. Above all with new biotechnology processes for recovering useful solids and liquids such as bioprotein, biofertilizers and bioalcohols. Such systems can handle: forest waste (subsidiarily helping to reduce fire hazards); other types of farm waste, at low cost to the farmer; waste water treated with spiruline to yield bioproteins (using technology developed by Florence University); solid waste treated with Canadian lombrico to yield biofertilizers. These systems are expected to eliminate pollution from Sele and Persano, and are to operate in conjunction with a fish farm and work on the banks of the river (afforestation etc.)

The *training sub-project* is part of the drive to secure employment and active participation of the local community. This sub-project is crucial, especially in an area caught in a downward spiral of underdevelopment. An agency (comprising Ersac, specialist corporations and Formez-IASM) has been set up.

This is an instrument of the programme contract for organizing the implementation of the integrated project.

There are two major projects.

(i) Development operators and socio-economic project leaders are needed to mobilize active participation. There are to be 90 field operatives, with a single central unit and specialist units detached to the five areas.

(ii) Managerial training is essential to implement and administer projects. The first step is a course for 20 people from the cooperatives renting public land. These include the managers of the various projects and 10 promoters of new initiatives elsewhere in southern Italy. Participants go on to take part in the formulation and implementation of projects.

(iii) Specific vocational courses ranging from tree cutting, game-management, tourism to the industrial activities covered by the various schemes.

Maximum employment is a major aim of the various schemes, but is to be achieved on the basis of a maximum productivity/profitability. It is hoped to create jobs mainly through new economic activities.

Cooperatives occupying public land are to be open to all, but when jobs are allocated priority will be given to the oldest members and those in greatest need. Attempts will be made to provide continuing employment, where necessary having resort to new technologies and by-products. The same applies to the agriculture/food centre, the scheme for small and medium-sized industry, the tourist consortia, etc.

All this provides a framework for the work of the training agency and the various labour and placement laws the law on youth cooperatives, the laws on joint action to help southern Italy and ailing companies (legge Marcora).

Detailed survey of pilot areas

Haute-Savoie

Northern Alps
France

Contents

General survey

The main area covered by this part of the survey is the department of Haute-Savoie. To place it in its broader context, an overview of the northern Alps precedes the case study on Haute-Savoie.

Basic data

The French upland area of the northern Alps contains 630 communes (70 of which overlap into other areas). It has a surface area of 12 808 km². It consists of three departments (Haute-Savoie, Savoie, Isère) and is in the Rhône-Alps region. Its population in 1975 was 570 920. Average population density is 44.5 inhabitants per km².

Agriculture

Number of farms 19 661
% with full-time farm-manager 27
average UAA ..... 14 hectares
UAA (1980) ..... 274 758 ha
Final agricultural production (FAP) ..... 80% animal
20% crops

Industry

Number of jobs in industry (1976) 74 702
Number of industrial companies (1976) 918
Industrialization level 13.4%
Proportion of large companies 16.5%
(over 100 jobs)

Tourism

Accommodation for ..... 912 000 people
of which: 26.2% second homes
13.1% holiday centres and camps
12.5% camping
10.9% hotels

Sectoral breakdown of the workforce:

Primary sector 9.9%
Secondary sector 43.3%
Tertiary sector 46.8%

Since 1968, the population has increased by 7.5%. This is the largest increase in an upland area. (*NB:* these statistics come from *Panorama du massif*, Report No 183, Inerm).

The Haute-Savoie is a mountainous border department which in the last 25 years has had an outstanding growth record. Uplands account for 80% of the total area, 76% of UAA and 43% of the population. There are 188 communes in the uplands; 174 of these are situated entirely in upland areas and 14 partially. Uplands thus account for 60% of the communes in the department.

Area and geographical features

With an area of 4 391 km², Haute-Savoie is bounded on the north by Lake Geneva and Switzerland, on the east by the central Alps and Italy, on the west by the Rhône and on the south by the department of Savoie.

The western part of the department, known as the 'avant pays', is a vast plateau stretching across the areas of St Julien, Annemasse and Rumilly. It is punctuated by limestone outcrops such as the Balme uplands and the Usses and Fier river trenches.

The Pre-Alps mountains include the massifs of Bauges, the Genevois and Chablais. Divided into small valleys, this area extends to the banks of Lake Geneva and the holiday resorts of Thonon and Evian.

There are two large lowland areas between these uplands: the transverse valley of Annecy and an area which is half industrial (St Jorioz) and half residential (Veyrier).

Lastly, there is the massif of Mont Blanc and the valley of Chamonix. This is the highest and most prestigious part of the French Alps.

Demographic aspects

Total population

In March 1982 the population of Haute-Savoie was 494 000. This represented almost 10% of the total population of the Rhône-Alps region. The *upland population* (217 607) accounts for around 43% of the total.

Population trends

The population rose from 329 230 in 1960 to 494 500 in 1982, an increase of 50% in 22 years. The *upland population* rose from 154 976 in 1962 to 216 984 in 1982, an increase of 40% in 20 years (see Table 1).

The population of the department continued to rise during the period from 1975 to 1982, growing by 46 700 (10.4%). This was considerably higher than the rate for

Table 1

Population of the Haute-Savoie department

Year	Population	Variations		Percentage change
		Periods	In figures	
1921	235 668	1921-1911	— 19 469	— 7.63
1936	259 961	1936-1921	+ 24 293	+ 10.31
1946	270 565	1946-1936	+ 10 604	+ 4.08
1954	293 852	1954-1956	+ 23 287	+ 8.60
1960	329 230	1962-1954	+ 35 378	+ 12.03
1968	378 550	1968-1962	+ 49 320	+ 14.98
1975	447 795	1975-1968	+ 69 245	+ 18.29
1982	494 505	1975-1982	+ 46 710	+ 10.04

Source: *Revue Agence économique départementale* (1983) Haute-Savoie.

Table 2

Rural and urban population trends in Haute-Savoie

	Population in 1982 (no double counting)		Variation over 7 years						Average annual % variation		
			indigenous growth		growth due to net immigration		total variation				
	total	%	1986 - 75	1975 - 82	1968 - 75	1975 - 82	1968 - 75	1975 - 82	1962 - 68	1968 - 75	1975 - 82
Rural Communes [1]	149 202	30.2	+ 2 868	+ 2 695	+ 10 266	+ 18 447	+ 13 134	+ 21 142	+ 0.4	+ 1.6	+ 2.2
Urban Communes [1]	345 303	69.8	+ 20 506	+ 18 168	+ 35 605	+ 7 400	+ 56 111	+ 25 568	+ 3.3	+ 2.8	+ 1.1
Total Haute-Savoie	494 505	100.0	+ 23 374	+ 20 863	+ 45 871	+ 25 847	+ 69 245	+ 46 710	+ 2.4	+ 2.4	+ 1.4

Sources: Insee — Article by Jean-Paul Verdier, Direction regionale de l'Insee, Lyon, in collaboration with Mireille Berthet and Jean-Louis Deschamps. *Points d'appui pour l'economie Rhône-Alpes No 25 - 1983.*

[1] Using 1975 definitions.

Table 3

Population trends

	1 municip. population 1962 census	2 municip. population 1968 census	3 municip. population 1975 census	4 municip. population 1982 census	5 Popul. growth trend 1962 - 68 census %	6 Indige-nous growth 1962 - 68 %	7 Popul. growth trend 1968 - 75 census %	8 Indige-nous growth 1968 - 75 %	9 Popul. growth trend 1975 - 82 census %	10 Indige-nous growth 1975 - 82 %	11 Popul. growth trend 1962 - 82 census %	12 Indige-nous growth 1962 - 82 %
Higher upland areas	71 587	76 335	82 424	89 167	6.6	5.5	8.0	5.4	8.2	4.2	24.6	16.1
Lower upland areas	83 389	90 584	110 051	127 817	8.6	3.5	21.5	4.2	16.1	3.3	53.3	12.5
Total Haute-Savoie 74	154 976	166 919	192 475	216 984	7.7	4.4	15.3	4.7	12.7	3.7	40.0	14.1
Total Northern Alps	524 122	572 733	611 961	667 050	9.3	4.0	6.8	3.9	9.0	2.8	27.3	11.5

Sources: Censuses (1,2,3,4,5,7,9,11); General Registry Office (6,8,10,12); Processing : Cemagref — Inerm Observatoire Montagne.

Table 4

Breakdown of the Haute-Savoie population by age group

Age group [1]	1962	1968	1975	1982 [2]
1 - 19	33.0	33.0	31.7	30.3
20 - 59	51.4	51.3	53.0	54.6
60 years and over	15.6	15.7	15.3	15.1
Total	100	100	100	100

Sourse: Insee - Censuses.

[1] Age reached during the year of the census (those under 1 year of age excluded).

[2] Survey 1/20.

Table 5

Age structure of total population urban and rural communes

(1975 survey)

Age group (men and women)	Urban communes total	%	Rural communes total	%
0 - 19 years	102 705	31.9	40 780	31.7
20 - 64 years	186 340	58.0	69 975	54.3
65 years and over	32 500	10.1	18 095	14.0
Total	321 545	100	128 850	100

Source: Simone Chabret, *La documentation française.* Collection, notes et études documentaires, Haute-Savoie, 1979.

Table 6

Total population and farm population according to age group

(%)

Age group	Total population 1975	Farm population			
		1968 Men + Women	1975 Men + Women	Men	Women
0 - 19 years	31.9	31.8	24.2	23.7	24.7
20 - 64 years	56.9	55.2	49.9	52.5	47.0
65 years and over	11.2	13.0	25.9	23.8	28.3
Total	100	100	100	100	100

Source: Simone Chabret, op.cit. p. 22.

Rhône-Alps (+ 4.9%) or France (+ 3.3%). However, the rate was slower than it had been between 1968 and 1975 (+ 18.3%).

The population increase between 1975 and 1982 is due both to a rise in the indigenous population (+ 20 900) and to immigration (net increase of 25 800). Immigration remains the major factor (56% of the increase), although lower than it was between 1968 and 1975 when it accounted for 66% of demographic growth. However, this was partly because of the exceptional economic growth of the department in the period from 1960 to

1975. The figures for the period 1975 to 1982 can thus be seen as a return to the norm, and evidence of the attraction of the department.

Population trends from 1975 to 1982 were accompanied by changes in settlement patterns. The upland cantons improved their position and small towns grew faster than large ones. For the first time since 1962 the rural communes grew more rapidly than the urban ones. This rural revival is due to the net increase in immigration (see Table 2).

The upland population has increased (taking several reference periods) by + 7.7% (62 to 68), + 15.3% (68 to 75), + 12.7% (75 to 82) and + 40% (62 to 82) over a 20-year period. A breakdown of this increase shows that natural growth accounts for 57% (62 to 68), 30% (68 to 75) and 30% (75 to 82), whilst immigration levels account for 43% (62 to 68), 70% (68 to 75) and 70% (75 to 82) (see Table 3).

Population breakdown by age group

The age pyramid for the total population of the department shows that the population is younger than in France and the French uplands as a whole. From 1962 to 1982 there was a fall in the age group 1-19, a rise in the group 20-59, and a slight fall in the 60+ group. This trend is unusual in that the fall in the number of young people is not accompanied by a rise in the over-60 population, while over the same period the 20-59 age group increases substantially. This is due to a high level of immigration (potential workforce) caused by economic expansion, and the drop in the birth rate which began in the 1970s (see Table 4).

Comparison of the age structure of urban and rural areas respectively illustrates the ageing of the rural areas (see Table 5). This ageing is even more noticeable among the farm population (see Table 6).

There has been no study on a departmental basis of the *upland population* as such. However, statistics for the farm population of each upland area show greater ageing than for the farm population in general (see Table 7).

It should be noted that this table refers to the northern Alps as a whole, so that the figures only give an approximate idea of the situation in Haute-Savoie.

Economic and social aspects: employment and production structure

Employment

Analysis of the department workforce prompts the following observations (Tables 8, 9 and 10):

(i) large drop in the farm workforce, from 14% in 1968 to 5.4% in 1982;

(ii) move towards the tertiary sector; this is the most striking aspect of the period 1968 to 1982. In 1968 the tertiary sector accounted for 42.4% of jobs; this rose to 54% in 1982. The rise of tourism and cross-frontier jobs accounts for this important trend;

(iii) industrial employment rose steadily until 1975, and has since fallen;

(iv) comparison between Haute-Savoie, Rhône-Alps and France as a whole. The department still has a markedly lower unemployment level. However, around 1980 the increase in the number of job-seekers was the same as the French average; and in 1983 the local economy was no longer able to find immediate employment for all youngsters leaving school and college at the end of the summer term (comments from the Haute-Savoie Chamber of Industry and Commerce, 1984 report, p. 23).

Frontier workers (those crossing the border each day to work in Switzerland) are a basic feature of local economic life. The phenomenon largely affects 77 communes which account for 80% of frontier workers; the metropolitan area of Annemasse-St Julien alone accounts for 50%. The number of frontier workers rose from 2 000 in 1960 to 24 478 in 1974, falling to 21 000 in 1982 and rising again to 24 212 in 1984.

Table 7

Breakdown of the farm population by age group : Uplands

(%)

Population / Massifs	FARMS									Total uplands as a whole
			Alps		Massif Central				upland areas	
	Vosges	Jura	North	South	North	South	Pyrenees	Corsica		
Under 35 years	40.6	45.7	**37.0**	34.6	39.4	40.1	33.7	28.0	38.6	48.1
35 to 54 years	22.5	23.3	**22.5**	24.1	24.9	24.5	24.2	32.3	24.5	24.4
55 to 64 years	9.6	10.0	**12.6**	13.0	11.2	11.4	12.6	18.6	11.7	9.7
65 years and over	27.3	21.0	**27.9**	28.3	24.5	24.0	29.5	21.1	25.2	17.8
55 years and over	*36.9*	*31.0*	***40.5***	*41.3*	*35.7*	*35.4*	*42.5*	*39.7*	*36.9*	*27.5*
Total	100	100	**100**	100	100	100	100	100	100	100

Sources: Insee: 1975 Census. Processing: Centrale Information Montagne Cemagref - Inerm.

Table 8

Workforce by sector of activity (1968-82)

Economic sectors	1968		1975		1982	
	Number employed	%	Number employed	%	Number employed	%
Agriculture	22 488	14.0	13 570	6.9	11 442	5.4
Energy	1 420	0.9	1 495	0.8	1 483	0.7
Industry	50 056	31.0	64 740	33.0	62 722	29.6
Bld. & Pub. Works	18 912	11.7	21 220	10.8	21 613	10.2
Tertiary	68 376	42.0	95 300	48.5	114 637	54.1

Sources: Simone Chabret, op.cit., p. 26 and
Service Information èconomique, 1983, p. 1.

Table 9

Development of the workforce (1962-82)

Year	Number employed	Numerical variation	Percentage variation
1962	140 700		
1968	155 400	+ 14 700	+ 1.7 per year
1975	182 100 (+ 19 350 frontier workers)	+ 26 700	+ 2.3 per year
1982	211 900 (+ 21 000 frontier workers)	+ 29 800	+ 2.1 per year

Source: Service Information èconomique,
Chambre de commerce et d'industrie de la Haute-Savoie, 1983.

Table 10

Employment — Comparison between Haute-Savoie, Rhône-Alps and France

Unemployment rate	Haute-Savoie	Rhône-Alps	France
1982	6.7	7.5	9.2
1983	6.5	7.8	9.6
1984	7.4	9.1	10.7

Source: Chambre de commerce de la Haute-Savoie, Annual Report 1984.

There are virtually no statistics at departmental level on *employment in upland areas*. The only figures available are: number employed in industry (22 029), totalling 35% of industrial employment in the department (1982), the number of farmers (7 128), totalling 62% of the farm workforce (1982) in the department.

Production structure

Agriculture

Agriculture is handicapped by its upland situation. The natural restrictions imposed by the climate, exposed situation, altitude and relief cause various problems: low productivity, high-cost prices, fragmented structures. There is a marked difference between lowland agriculture and upland agriculture (see Table 11).

Table 11

Comparison of upland and lowland farming

	Upland	Lowland
Average age of the farm-manager	55 years	52 years
Managers aged over 55	53.5 %	45.9 %
Managers with a second job	36.1 %	27.8 %
Area farmed	12 ha	15 ha
Number of dairy cows per hectare	0.42	0.62
Milk production per cow	2,700 l	3,200 l
Average number of calves under 6 months per farm	10.9	15.9
Gross income per worker 1975	17 000 FF	28 000 FF

Source: Simone Chabert, *La documentation française*. Collect., notes et études documentaires No 4505, p. 43.

Table 12

Agricultural production 1976

	Total value in million FF	%
Crops	65.6	12.4
of which cereals	9.1	1.7
vegetables	18.6	3.5
fruit	14.8	2.8
wine	5.8	1.1
other	17.3	3.3
Animal products	465.4	87.6
of which milk	243.1	45.7
beef and veal	163.1	30.7
poultry and rabbit	54.1	10.2
other	5.1	1.0
Total	**531.0**	**100.0**

Source: Direction départementale de l'Agriculture.

The *final agricultural production* of the department is 87.6% animal products and 12.4% crop products. Milk and meat are the main animal products. Cereals, vines, tobacco, fruit and market garden produce are typical of the crops produced (see Table 12).

The *final agricultural production of the upland area* is 86.3% animal products and 13.7% crop products. The percentage of FAP taken by crops rose during the period 1970 to 1979 (see Table 13). This trend is also evident in the technical/economic breakdown of farms (see Table 14).

The department's *usable agricultural area (UAA)* (174 000 hectares in 1976) is shrinking by over 1 000 hectares per year as the land is put to other economic uses. Farmland has a high market value which is rising steadily (+14% for 1975-76). The UAA in the uplands accounted for 76% of the department's total UAA in 1980. It had fallen from 104 194 hectares in 1970 to 102 523 in 1980. This is an annual drop of 0.2%, compared to the fall of 0.8% for the whole department. In the French uplands as a whole, there was an average rise in UAA of 0.1% (see Table 15).

Table 13

Some economic features of upland farming in Haute-Savoie

Final agricultural production trends (%)										Final agricultural production (million FF)		Employment as % of resources [1]					
Production 1970					Production 1979							1970			1979		
crop prod.	animal prod.	of which milk (cows)	of which meet (beef + veal)	of which meat (sheep + horse)	crop prod.	animal prod.	of which milk (cows)	of which meet (beef + veal)	of which meat (sheep + horse)	1970	1979	IC	taxes	RBE prod.	IC	taxes	RBE prod.
8.8	91.2	51.9	15.6	0.9	13.7	86.3	46.3	20.2	1.2	333.2	722.2	28	10	62	45	12	43

[1] Resources: final agricultural production + Subsidy + Insurance refund (disasters, accidents). *Source:* SCEES - Processing Cemagref - Inerm.

Table 14

Technical-economic breakdown of farms (%)

(Upland area of Haute-Savoie)

General farming		Horti-culture		Permanent crops		Mixed crops		Crops + stock-farming		Cattle						Other grazing animals [1]		Fodder animals [2]		Mixed stock-farming	
										milk		meat		mixed							
1970	1979	1970	1979	1970	1979	1970	1979	1970	1979	1970	1979	1970	1979	1970	1979	1970	1979	1970	1979	1970	1979
2.3	1.3	1.1	1.3	1.6	2.6 [3]	0.5	0.6	5.5	5.7	60.7	54.7	3.5	5.6	11.0	5.6	2.0	19.0	6.2	2.2	5.5	1.3

[1] Sheep-goat in separate herds or mixed herds of cattle and sheep (with cattle > 2/3). *Source:* SCEES - Processing Cemagref - Inerm

[2] Pigs-poultry.

[3] The increase in permanent crops in 1976 is due to inclusion of 6 new communes with a strong wine industry.

* *The technical-economic figures are not strictly comparable for the two censuses as they are based on slightly different definitions. They should therefore be viewed with caution.*

Table 15

Utilized agricultural area

(Upland area)

General agricultural survey 1979/80 Area (ha)	General agricultural survey 1970 Area (ha)	Annual rate of change
102 523	104 194	— 0.2

Source: SCEES/Insee. Summary: Cemagref - Inerm.

Land use in the uplands: 82% of UAA is permanent grassland, and 18% arable land. The 17 933 hectares of arable land are used for cereal crops (34.9%) and fodder crops (57.3%) (see Table 16). The term 'permanent grassland' covers permanent meadowland, heathland and common pasture, much of which is abandoned or under-used. 22.2% of the UAA of the northern Alps consists of heathland and common pasture (no statistics are available on abandoned land as such).

The number of farms has been falling steadily. For the department as a whole (lowland and upland), the number of farms dropped by an annual 4% between 1955 and 1970, and 2.9% between 1970 and 1980. In 1955 there were 22 250 farms, in 1963 15 480 and in 1976 10 250. *The annual drop in the upland area* of the department between 1970 and 1980 (1%) is much less than that in the department as a whole (2.9%) and the French upland areas as a whole (2.7%). *The average farm size in the upland area of the department* rose between 1970 and 1980 from 11.7 to 14.4 hectares. This is smaller than the French average of 16.9 hectares in 1970 and 21.8 in 1980 (see Table 18). Breakdown of farms by size shows that farms below 5, 10 and 20 hectares predominate (see Table 17).

Table 16

Breakdown of crops

	Utilized agricultural area (ha)	Arable land (ha)	Cereal crops (ha)	Cereals arable (%)	Fodder crops (ha)	Fodder/ Arable (%)	Permanent grass-land	Permanent grass-land/UAA	Drained area	Drained area/UAA (%)	Irrigated area	Irrigated area/UAA (%)
Higher upland areas	34 693	2 134	567	26.6	1 231	57.7	32 553	0.94	0	0.00	3	0
Lower upland areas	67 656	15 799	5 686	36.0	9 015	57.3	51 504	0.76	819	1.25	34	0
Total Haute-Savoie	102 349	17 933	6 253	34.9	10 276	57.3	84 057	0.82	819	0.83	37	0

Source: RGA 80. Processing: Cemagref - Inerm Observatoire montagne.

Table 17

Breakdown by size

	Number of farms	UAA — 5 ha/ % of all farms	UAA 5-10 ha/ % of all farms	UAA 10-20 ha/ % of all farms	UAA 20-35 ha/ % of all farms	UAA 35-50 ha/ % of all farms	UAA 50-100 ha/ % of all farms	UAA + 100 ha/ % of all farms	UAA	Owner-occupied	% of UAA which is owner-occupied
Higher upland areas	2 653	37.62	26.95	19.37	7.12	1.32	1.58	0.38	34 693	13 613	39.2
Lower upland areas	4 475	29.18	18.77	24.13	16.20	3.84	1.36	0.09	67 656	31 825	47.0
Total Haute-Savoie	7 128	32.32	21.82	22.36	12.82	2.90	1.45	0.20	102 349	45 438	44.4

Source: RGA 80. Processing: Cemagref - Inerm Observatoire montagne.

Table 18

Number and size of farms
Haute-Savoie (Upland area)

Number of farms			UAA per farm			
RGA 79/80	RGA 70	Annual growth rate	1979/80 Average (ha)	Ind.	1970 Average (ha)	Ind.
7 392	8 930	—1.0	14.4	66	11.7	69

Source: SCEES/Insee.
Summary Cemagref-Inerm.

Forestry

There are 126 880 hectares of woodland in Haute-Savoie, covering 29% of the department and 44% of the department's uplands. The afforestation rate is 44.2% (1976). Deciduous trees cover 25.0% of the wooded areas, and conifers 74.1%. 61% of woodland is privately owned, 25% State-owned and 14% belongs to the communes. In 1982 the Haute-Savoie woodlands produced 292 351 m³ of constructional timber (1.6% of French production), 6 289 m³ of wood for industry (6.8% of French production), and 2 224 m³ of fuel wood (1.6% of French production).

Industry

Industry has a major role in the Haute-Savoie economy. It has played a constant part in the considerable development of the department over the last 25 years.

Industry is spread throughout almost all the department. The main *industrial sectors* are: capital goods (33.5% of the industrial workforce), intermediate products (33.5% of the industrial workforce), and consumer goods (22.8% of the industrial workforce). The metal and engineering industries predominate (70% of the industrial workforce). Machine tool work, done under contract, plays an important role in overall industrial activity (60% of French machine tooling). The timber and furniture industries also play a major role in the region (see Table 19).

With 57 229 employees in 1984, industry has lost 4 317 jobs between 1977 and 1984. The strong industrial growth from 1965 to 1974 began to tail off in 1975.

Table 19

Main industrial activities (1977 and 1984)

	1977		1984
	Number employed	% of the industrial workforce	% of the total
Capital goods	20 595	33.5	34.2
Engineering	12 725	20.7	
of which: industrial plant	*4 479*		
precision instruments and material	*7 210*		
Electrical and electronic	4 381	7.1	
of which: electronic, household and industrial	*3 492*		
Motor vehicles and aviation	3 489	5.1	
Intermediate goods	20 627	33.5	35.9
Ferrous and non-ferrous metals	? 054	6.3	
Foundries and metal working	15 099	24.5	
of which: metal working	*14 305*		
Other: building, materials, glass, chemicals, paper, paperboard, plastics	3 474	5.6	
Agri-food industry	6 105	9.9	11.1
of which: milk	*2 471*		
beverages	*1 742*		
Consumer goods	14 019	22.8	18.6
Timber and furniture	3 963	6.4	
Miscellaneous: sports equipment, toys, jewellery, articles for smokers	5 277	8.6	
Textiles, clothing	2 419	3.9	
Other: pharmaceutical, printing, publishing	2 360	3.8	
Energy	200	0.3	0.2
Total	**61 546**	**100**	**100**

Source: Simone Chabret, op.cit. p. 49 and Annual Report, op.cit. p.10.

Two features characterize the *structure of industry* in Haute-Savoie: firstly, the large number of small firms (64% of firms employ less than 10 people); secondly, 63% of employees belong to firms with over 100 employees, and 33% to firms with over 500 employees. Small firms thus exist alongside large and medium-sized firms. Firms in the electrical, electronic, metal and engineering sectors are the largest employers (see Table 22).

Industry in the upland areas plays a major role compared to the department as a whole: 35% of the industrial workforce and more than 60% of industrial firms. The most widespread sectors are, in descending order, intermediate products, non-durable consumer articles, and capital goods. There is a greater concentration of small firms in the upland areas than in the department as whole (see Tables 20 and 21).

Table 20

Secondary sector (1982)

(Upland area)

	Inter-med. goods work-force	Capital goods work-force	Non-durable consumer goods workforce	Total Indus-trial work-force	Construc-tion + public works workforce	Agri-food work-force	Timber/ furniture work-force	Energy Industry work-force	Loc. indus. employees as % of indus. workforce	Heavy indus. work-force	Light indus. work-force	Recent indus. work-force	Ext. res. workforce as % of industrial workforce
Higher upland areas	3 377	1 161	1 402	9 718	3 074	627	339	77	42.4	3 271	1 002	1 328	57.4
Lower upland areas	3 115	2 467	2 689	12 311	3 250	786	935	4	40.4	2 315	2 424	2 597	59.6
Total Haute-Savoie 74	6 492	3 628	4 091	22 029	6 324	1 413	1 274	81	41.3	5 586	3 426	3 925	59.7

Source: Unedic. Processing: Cemagref - Inerm Observatoire montagne.

Table 21

Breakdown of industrial workforce (1982)

(Upland area)

	Second. tertiary firms No	Indus. work-force No	Second. firms No	No of firms with 1 - 9 employees	No of firms with 10-49 employees	No of firms with 50-199 employees	No of firms with 200-499 employees	No of firms with over 500 employees	Firms of 1 - 9 employees as % of indus. workforce	Firms of 10-49 employees as % of indus. workforce	Firms of 50-199 employees as % of indus. workforce	Firms of 200-499 employees as % of indus. workforce	Firms of over 500 employees as % of indus. workforce
Higher upland areas	3 319	9 718	899	708	169	17	4	1	23.6	34.8	15.2	16.5	9.8
Lower upland areas	2 400	12 311	1 033	828	172	24	7	2	22.1	29.2	17.4	16.5	14.8
Total Haute-Savoie 47	5 719	22 029	1 932	1 536	341	41	11	3	22.8	31.7	16.5	16.5	12.6

Source: Unedic. Processing: Cemagref - Inerm Observatoire montagne.

Industry in Haute-Savoie looks largely to external markets. Exports have risen every year since the 1970s. Since then, the industrial activity of the department has depended to a large extent on its export figures (see Table 23).

Crafts sector

The crafts sector plays an important part in the Haute-Savoie economy, employing around 13% of the workforce (see Table 24).

Table 22

Breakdown of firms by number of employees

(1 January 1977)

Number of employees	Firms Number	Firms %	Employees Number	Employees %
1 to 4	915	45.6	1 960	3.2
5 to 9	377	18.8	2 533	4.1
Under 10	1 292	64.4	4 493	7.3
10 to 19	248	12.4	3 375	5.5
20 to 49	266	13.3	3 268	13.5
50 to 99	94	4.7	6 703	10.9
from 10 to 100	608	30.4	18 346	29.9
100 to 199	41	2.1	5 511	9.0
200 to 499	39	2.0	12 951	21.1
499 and over	22	1.1	20 045	32.7
over 100	102	5.2	38 507	62.8
Total	**2 002**	**100**	**61 546**	**100**

Source: Simone Chabret, op.cit. p. 55.

Table 23

External trade in Haute-Savoie

('000 FF at current value)

	1977	1970
Exports	2 857 365	812 731
Imports	1 915 758	591 644

Annual growth in exports

(%)

1970	1971	1972	1973	1974	1975	1976	1977
+ 35.9	+ 22.4	+ 12.0	+ 27.1	+ 39.5	+ 2.9	+ 22.4	+ 14.6

Source: Simone Chabert, op. cit. p. 57.

Table 24

Breakdown of the workforce

	1977	1984
Owners and associates	10 400	12 300
Family helpers	2 400	2 500
Paid assistants	13 100	15 500
Apprentices	1 100	1 350
Total	**27 000**	**31 600**

Source: Simene Chabret, op.cit. p. 63 and Annual Report 1984, Chambre de commerce et d'industrie, Haute-Savoie, p. 15.

The *number of firms* has risen steadily since the 1970s, by an annual average of 2.5% which peaked at 3.2% in 1976. The rise halted in 1981 and 1982 but resumed in 1984. The number of firms was: 9 251 in 1974, 9 697 in 1976, 10 022 in 1977, 10 898 in 1981, 10 833 in 1982, 10 803 in 1983 and 11 017 in 1985. This confirms that the crafts sector has acted as a safety net since 1973.

The crafts sector permeates *most* economic activities. However, it is strongest in the production area: building, machine tool industry, engineering, woodwork, furniture (see Table 25).

Table 25

	No	%
Building	4 813	44.3
Production	1 781	16.4
Emergency services, repairs	1 619	14.9
Services	1 581	14.6
Food	1 064	9.8
Total	**10 858**	**100.0**

Source: Annual Report 1984, Chambre de commerce Haute-Savoie, p. 15.

The rise in tourism accounts both for the economic importance of craft firms and for their spread throughout the territory (35% being in rural communes).

Tourism

Tourism plays a key role in the Haute-Savoie economy. It provides many areas of the local economy with direct or indirect income: hotels, catering, camping, furniture, ski-lifts, local services and trade, financial services, etc. It is thus difficult to assess turnover. Some statistics provide an idea of the economic importance of tourism: expenditure on board and lodging alone is thought to have totalled about 1.5 thousand million francs in 1976; around 30 000 people have jobs in the tourist industry (30% of the tertiary sector workforce and 45% of the services sector workforce); ski-lift investment in 1984 totalled 123 483 500 francs (Simone Chabert, op.cit. pp. 69 to 141, and Annual Report, op.cit., page 22).

Haute-Savoie is the leading French department for tourism. This covers two seasons: summer tourism which has long been important and winter tourism which has been increasing in the 1980s.

Tourist accommodation has risen steadily. It has risen from 330 000 beds in 1976 to 455 600 in 1982 (170 000 in second homes and furnished flats, 76 000 camping, and 50 000 hotel beds). Tourist facilities also include: 30 ski resorts, 20 000 hectares of land with skiing facilities, 660 ski-lifts, 900 km of cross-country skiing tracks, 3 spas, 16 harbours for pleasure craft, etc.

The uplands provide the majority of tourist accommodation in the department (see Table 26).

Summary

Haute-Savoie

(i) *188 communes* in the uplands (60% of the department's communes).

(ii) *329 230 residents* in 1960, 494 500 in 1982 - an increase of 50% in 22 years (department as a whole). The uplands population has risen from 154 976 in 1962 to 216 984 in 1982 - a 40% rise in 20 years. The increase is mostly due to immigration.

(iii) *Population* of the department younger than the French and French uplands average. However, the upland population is older than the departmental average.

(iv) *Breakdown of the department's workforce* (1982); Agriculture (5.4%), energy (0.7%), industry (29.6%), building and public works (10.2%), tertiary (54.1%), unemployed 7.4% (1984). 24 212 frontier workers (1984).

(v) *Agriculture*: For the department (1970): animal products (87.6%), crops (21.4%). For the uplands (1980): animal products (86.3%), crops (13.7%). UAA of the department 174 000 hectares in 1976. UAA in the uplands has dropped from 104 194 hectares in 1970 to 102 523 in 1980. Average farm size in the uplands has risen from 11.7 hectares in 1970 to 14.4 in 1980.

Table 26

Tourist accommodation (1982)

	Tourist accommodation for	Family hotels/ pensions (beds)	Hotels (beds)	Holiday centres and camps (beds)	Private furnished accomm. (beds)	Rented accomm. run by local authority	Farm camping (beds)	Caravan camping (beds)	Other holiday homes (beds)
Higher upland areas	225 847	28 476	25 558	46 063	47 544	1 286	2 187	16 114	84 177
Lower upland areas	119 036	10 398	9 282	14 690	20 940	1 520	1 392	23 625	46 471
Total Haute-Savoie	344 883	38 874	34 840	60 753	68 484	2 806	3 579	39 739	130 648

Source: Inv com. Processing: Cemagref - Inerm Observatoire montagne.

(vi) *Industry*: 30% of the workforce, 35% of them in the uplands. Main industrial sectors throughout the department: capital goods, intermediate goods, consumer goods (metal and engineering industry account for 70% of the industrial workforce). Many small firms as well as large ones.

(vii) *Crafts*: 13% of the workforce. Steady increase in firms. Particular concentration in production activities (building, machine tool industry).

(viii) *Tourism*: Key role in Haute-Savoie industry, particularly in the uplands. Around 30% of tertiary sector employment. Steady rise in tourist accommodation: 455 600 beds in 1982. Largest tourist accommodation and turnover of any French department. Tourism covers summer and winter seasons.

Bibliography

Simone Chabret, *Haute-Savoie, Documentation française, 1979.*

Panorama du massif Alpes du Nord, Cemagref-Inerm, 1982.

Statistics: Zones montagnes, Alpes du Nord, Cemagref-Inerm, 1982.

Annual Report 1984, Chambre de commerce et d'industrie d'Annecy et de la Haute-Savoie.

Service information économique, Chambre de commerce et d'industrie de la Haute-Savoie.

Hubert de Mauroy, *La filière forêt-bois en Rhône-Alpes,* Revue points d'appui pour l'économie Rhône-Alpes, No 29, 1984.

Jean P. Verdier (Direction régionale de l'Insee - Lyon) *Les habitants de la Haute-Savoie*, Revue points d'appui pour l'économie Rhône-Alpes, No 25, 1983.

Detailed survey of pilot areas

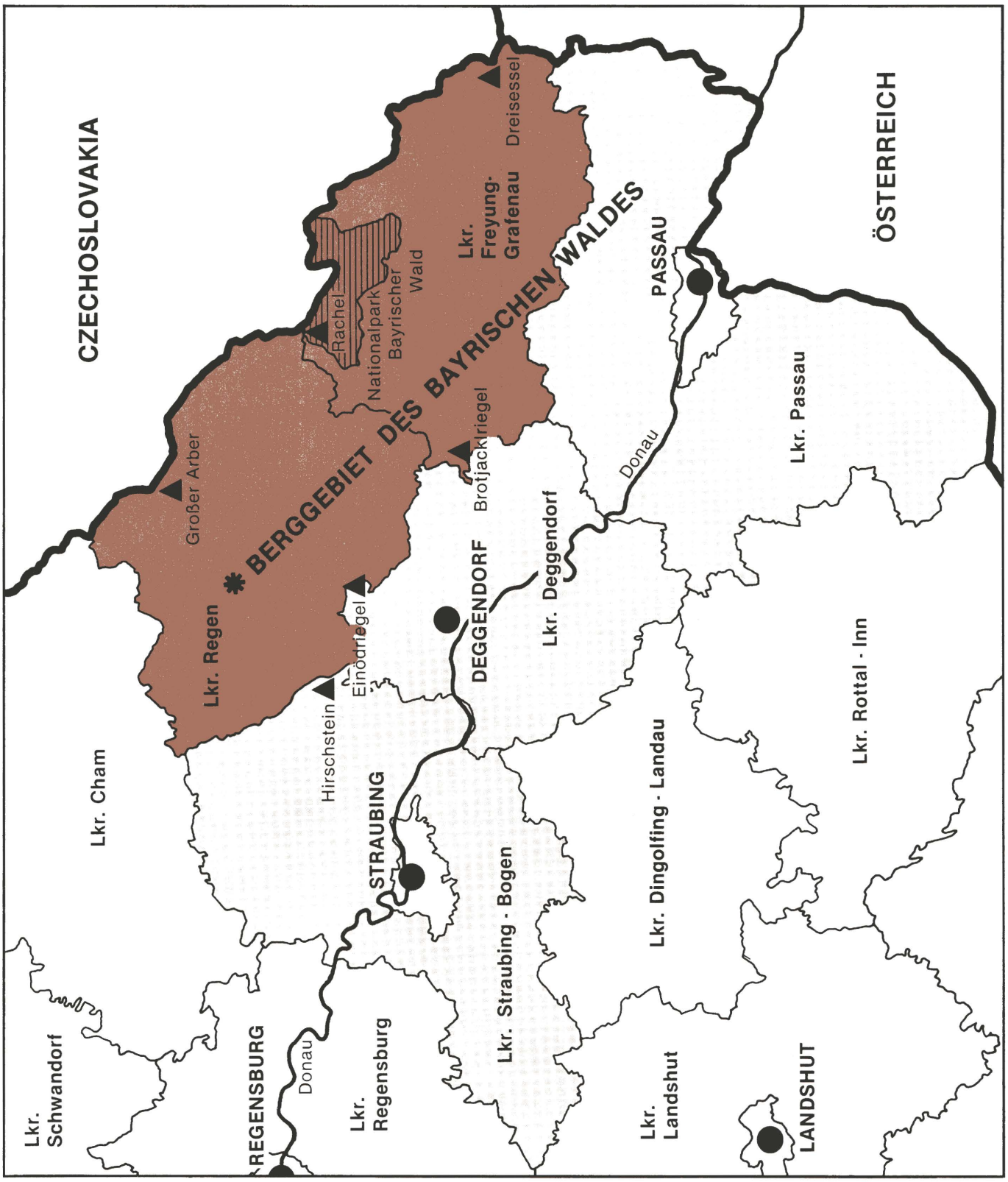
Bavarian Forest uplands

Federal Republic of Germany

Contents

Upland areas in the Federal Republic of Germany

Region of Bavarian Forest



✱ Mountains of the Bavarian Forest

66% or more mountainous region

33 – 66% mountainous region

General Secretariat of the ESC, Studies and Research Division

Introduction

The Bavarian Forest uplands cover the Freyung-Grafenau/Regen rural districts and the former rural district of Wegscheid, located south east of the Freyung-Grafenau rural district and now part of the Passau rural district.

The former rural district of Wegscheid is not covered by the present paper (since the 1972 district reform data have only been compiled for the *Gemeinde* of Wegscheid).

According to local experts and organizations, the comments made in this paper broadly apply to Wegscheid.

The 'Bavarian Forest plus adjoining Danube Valley' is defined as the five rural districts of Freyung-Grafenau, Regen Passau, Deggendorf and Straubing-Bogen. The last three districts are 'semi-upland' (see map of German upland regions, second part of Information Report on Uplands, II Federal Germany).

The urban districts of Straubing and Passau, and the town of Deggendorf (all located on the Danube) are referred to for comparison.

Location

The Bavarian Forest has a peripheral location in Germany, in the eastern part of Bavaria on the frontier with Czechoslovakia and Austria.

The Bavarian Forest occupies the south-east heights of the Bavarian-Bohemian uplands.

The SW strip of the Bavarian Forest is interlinked with the Danube Valley; the NE strip occupies the peak ridges of the Bavarian-Bohemian mountains.

The SW strip reaches heights around 1 100 metres (1 191 Einödriegel, 1 091 Hirschenstein). The NE strip is substantially higher, though it becomes slightly lower towards the south east (Grosser Arber 1 456 m, Rachel 1 453 m, Lusen 1 373 m, Dreisessel 1 332 m). The greatest heights are reached at the frontier with Austria and Czechoslovakia.

Broadly, the rural districts of Freyung-Grafenau and Regen (which is located further north) occupy the ridges of the Bavarian Forest, and thus its core.

The main rocks are granite and gneiss. Soils are mainly shallow or medium depth, mostly very stony (in some cases also loamy), acid and poor.

This is in contrast with the fertile areas of the Danube Valley (with its sedimentary deposits, terrace gravels, limestone, and loess) and, to the south, the loam loess area of the Isar-Inn upland (500-550 m).

The core of the Bavarian Forest, the upland proper, has very wet summers - partly because of the continental location, partly because of the interplay of wind and relief. Precipitation increases with height, reaching 950 mm per year in Regen (as against Federal German average of 650 mm).

June, July and August are the wettest months of the year - a fact which has a major impact on tourism. Storms, which are especially frequent in summer and spring, are another adverse factor.

The driest seasons are late autumn and late winter (March). There may consequently be scope for more tourism in these periods.

The average annual temperature is 8-9° in the Danube Valley, 7° in the south-east strip of the Bavarian Forest, 6° in the north-west strip and 4° on the ridges.

In the uplands, snow falls from mid/late November to mid-April; on the ridges, snow falls are common till mid-May. In this period the snow cover is almost unbroken, extreme frosts are frequent. This means, for instance, that it is impossible to work in the fields until 10 April in all areas above 550 m (information from Landwirtschaftsamt in Regen).

The border with Czechoslovakia is not an 'open' frontier, so the Bavarian Forest has lost its traditional economic links to the east. Most enterprises have been forced to establish economic links to the west, despite the high transport costs.

To overcome this handicap, especially for inter-regional traffic, the Bavarian Forest should be provided with good transport facilities and with transport links to the business centres of Bavaria and the rest of Federal Germany.

Many links have been built, especially roads (e.g. Regensburg-Passau national motorway). But the connections with the national transport network, in particular, need to be improved.

A number of local passenger lines have been shut in the Bavarian Forest. It is obviously hard to provide an attractive, financially viable service given the low population density. But there is a very strong case for providing equivalent transport substitutes for the lines closed down, in order not to accentuate the transport disadvantages of the area.

To offset their locational disadvantages, the areas along the eastern frontiers of Federal Germany - especially those with Eastern bloc countries - receive special grants under the Zonenrand development law in addition to regional-development support.

Under this law the Bavarian Forest upland, which is one of these border areas, receives industry and industrial infrastructure grants.

The establishment in 1970 of the 130-km² Bavarian Forest National Park, in the largest unbroken forested area in central Europe, can be looked on as a special type of economic - and especially tourist - development. This park, located in the northern part of Freyung-Grafenau along the frontier with Czechoslovakia, has two main aims - nature conservation and promotion of tourism in a structurally disadvantaged frontier area. The latter aim has certainly been successfully pursued so far. [1]

[1] For further details see G. Kleinherz, *Fremdenverkehr und National Park*, Grafenau 1982.

Population

Total population, density

The Bavarian Forest had 150 000 inhabitants on 30 June 1984, giving a population density of 75 per square kilometre. The northern part of the uplands, with a density of 77 per square kilometre, is more densely populated than the southern part.

In the period under review (1975-84) the population density of the uplands was approximately 70% below that of Federal Germany as a whole (246/km²) [1] and approximately 15% below that of the Bavarian Forest plus adjoining Danube Valley (87/km²). [1]

Population trends

Between 1975 and 1984 the upland population contracted by 1.7%, i.e. more than the population of the Federal Republic (-1.1%). The population of the Bavarian Forest plus adjoining Danube Valley rose 1.5%, and that of Bavaria rose by 1.4%.

The period can however, be split into two. Between 1975 and 1978 the population of the Bavarian Forest uplands shrank by 2.1%, far more than Bavaria (-0.2%). The trend then levelled off, in the period between 1978 and 1984.

Between 1978 and 1981 the population expanded 0.2%, markedly less than the population of the Bavarian Forest plus adjoining Danube Valley (+0.9%), Bavaria (+1.2%) and Federal Germany (+0.6%).

Between 1981 and 1984 the upland population expanded by 0.2% (Bavarian Forest plus adjoining Danube Valley, +0.8%; Bavaria, -0.01%; Federal Germany, -0.8%). This suggests that population has settled at a low level, with slight upward and downward changes from year to year.

Natural growth and migration have differing effects on the population in the upland area. The rate of natural increase used to be very substantial in the uplands, though it has dropped in recent years. By contrast, deaths exceed births in Federal Germany as a whole, and in Bavaria.

Apart from this, migration plays a crucial role in the uplands.

In the southern part of the uplands (Freyung-Grafenau) the net reproduction rate is slightly above unity and there is modest immigration from other parts of Germany; but out-migration is marked even though between 1981 and 1984 it only led to a net population drop in 1983. In the northern part of the uplands (Regen), there is a (small) natural population increase and net in-migration from the rest of Germany.

Table 1

Population trends

Population trends	km² [1] as at 30.6.1984	Total population ('000)	Population density (per km²)
Bavarian Forest uplands	1 959.87	147.6	75
% change 1975 to 1984	*— 3.1%*	*— 1.7%*	*+ 1.3%*
Bavarian Forest [2] with adjoining Danube Valley	5 553.47	485.1	87
% change 1975 to 1984	*— 1.0%*	*+ 1.5%*	*+ 2.3%*
Bavaria	70 553	10 958	155
% change 1975 to 1984	*+ 0.008%*	*+ 1.4%*	*+ 1.3%*
Federal Germany	248 706	61 175	246
% change 1975 to 1984	*+ 0.04%*	*— 1.1%*	*— 1.2%*

Sources: 1. *Statistisches Jahrbuch für die Bundesrepublik Deutschland* 1985; 2. *Statistisches Jahrbuch für die Bundesrepublik Deutschland* 1976.

[1] Changes in area result from changes in German and Bavarian frontiers, and in borders of rural districts.

[2] Bavarian Forest plus adjoining Danube Valley: five rural districts of Regen, Passau, Straubing-Bogen, Freyung-Grafenau and Deggendorf.

Almost continuously between 1981 and 1984, both rural districts had an outflow of population to Bavaria and a net inflow from Germany. [2]

Age pyramid

A disproportionately high percentage of the population of the Bavarian Forest (40.8% between 1974 and 1983) is aged 25 or less; conversely, the 25-50 age group (30.8%) and the older-than-50 group (28.4%) are disproportionately large. The population of the Bavarian Forest plus adjoining Danube Valley shows a similar though less marked pattern (see table for Federal Germany). The age pyramid in Bavaria and Federal Germany as a whole is much more balanced, with each of the major age groups accounting for approximately a third (see table for Federal Germany).

The differences between the two Bavarian Forest regions and the rest of Germany and Bavaria became less marked in the period between 1974 and 1983. In all cases the proportion of people aged less than 25 fell, that of people aged 25 to 50 rose slightly, and that of people aged more than 50 rose more sharply.

This trend is attributable to the decline in the birth rate, found in all areas to a varying extent.

[1] *Statistisches Jahrbuch für die Bundesrepublik Deutschland,* 1985, pp. 57, 31, 40.

[2] Grenzlandberichte 1983.

The relatively small size of the 25-60 (i.e. most economically active) and over 65 age groups in the Bavarian Forest plus adjoining Danube Valley and in the Bavarian Forest uplands - particularly the latter - is due to out-migration and low rate of return after retirement from economic activity.

Data is not sufficient to allow a definitive assessment, but it looks as if out-migration from the Bavarian Forest Uplands is far more marked among the young than among the middle-aged or the elderly. It also looks as if the younger generations were less willing to leave their home region in 1983 than in 1974. A major factor here may be the general deterioration in employment opportunities in the favourite target area for migration, i.e. other parts of Bavaria.

Aspects of economic and social trends: Labour force and main economic sectors

Labour force

District figures are only available for recent years, and it is hard to identify the trend. The position in 1983 is given below.

In the Bavarian Forest uplands, 21.2% of the labour force was employed in agriculture and forestry. This compares with 10.3% in Bavaria, 5.4% in Federal Germany and 24.1% in the more fertile area of the Bavarian Forest plus adjoining Danube Valley.

45.5% of the labour force was employed in industry in the Bavarian Forest uplands as against 43.8% in the Bavarian Forest plus adjoining Danube Valley, 43.5% in Bavaria and 41.9% in Federal Germany.

10.6% of the labour force was employed in trade and transport in the Bavarian Forest uplands and the Bavarian Forest plus adjoining Danube Valley. This was markedly below the figure for Bavaria (15.5%) and Federal Germany (18.3%).

22.7% were employed in the rest of the service sector, far fewer than in Bavaria (30.7%) and Federal Germany (34.4%). Only in the Bavarian Forest plus adjoining Danube Valley was the percentage smaller, probably due mainly to the exclusion of the regional administrative centres, the towns of Passau and Straubing.

More detailed assessments, in particular of the sectoral breakdown, have to be based on the figures for wage earners since no other statistics are available at district level (see paper on Federal Germany).

Wage earners

Between 1974 and 1983 the number of wage earners increased by 11.6% as against 14.3% in the Bavarian Forest plus adjoining Danube Valley (the number of male workers increased less than that of female workers). As against this, the number of foreign wage earners dropped 5.2% (by 21.1% in the Bavarian Forest plus adjoining Danube Valley).

In 1983, 34% of the labour force in the Bavarian Forest were self-employed, and 66% were wage earners (as against 63.5% in the Bavarian Forest plus adjoining Danube Valley and 71.4% in Bavaria as a whole).

The percentage of self-employed in the agriculture/ forestry labour force is of course substantial (93% in the uplands and in the Bavarian Forest plus adjoining Danube Valley, markedly above the figure for Bavaria (71.4%) and below the figure for Federal Germany (83.5%); this high level is doubtless due to the large number of small farms).

In the secondary sector, the percentage of self-employed is substantially smaller in the uplands and in the Bavarian Forest plus adjoining Danube Valley (10% as against 14.9% in Bavaria and 5.7% in Federal Germany). In the services sector the figures are 29.1% for the uplands, 28.7% for the Bavarian Forest plus adjoining Danube Valley, 38.4% for Bavaria and 28.4% for Federal Germany.

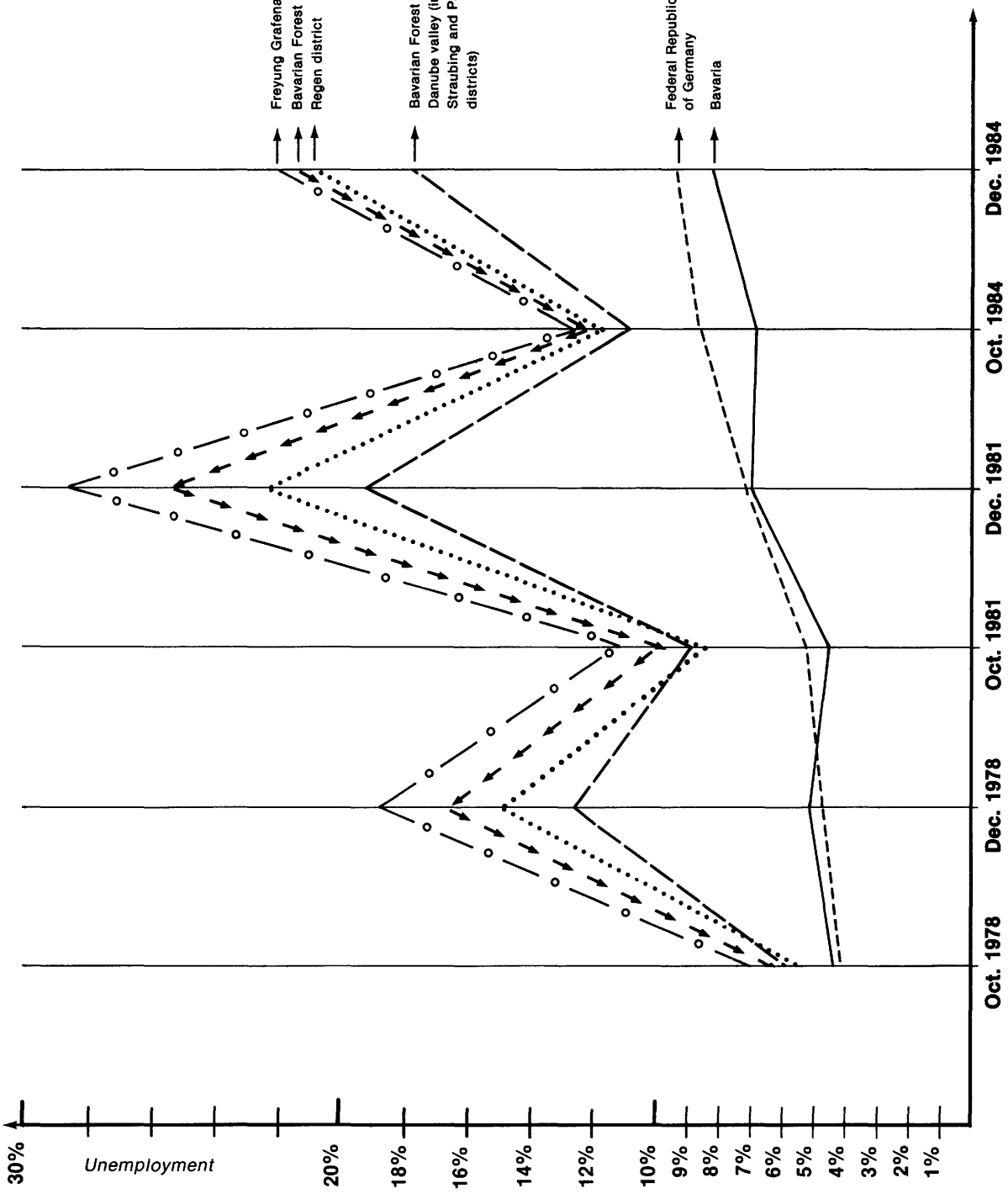
Table 2

Labour force 1983

	Bavarian Forest uplands [1]	Bavarian Forest + adj. Danube Valley [2]	Bavaria [3]	Federal Germany [4]
Total	58 596	188 845	5 117 000	25 228 000
Agriculture and forestry	21.2%	24.1%	10.3%	5.4%
Industry	45.5%	43.8%	43.5%	41.9%
Tertiary sector				
Trade and transport	*10.6%*	*10.6%*	*15.6%*	*18.3%*
Other services	*22.7%*	*21.5%*	*30.7%*	*34.4%*
Total	33.3%	32.1%	46.3%	52.7%

Sources: 1. Kreisdaten 1985 (Bayr. Stat. Landesamt);
2. Kreisdaten 1985 (Bayr. Stat. Landesamt);
3. Statistisches Jahrbuch für die Bundesrepublik Deutschland 1984, p. 41;
4. Statistisches Bundesamt (answer to inquiry).

Figure 1 Unemployment Rates [1]



[1] *Compiled by ESC Studies and Research Division; Regional Case Study - Bavarian Forest.*

Source : Arbeitsämter Passau and Regensburg.

As regards the sectoral breakdown, in the uplands close on half the labour force is employed in industry, and just under a third in building and general services (1983 figures). These two sectors also bulk large in the Bavarian Forest plus adjoining Danube Valley (just as they do in Bavaria and Federal Germany as a whole), but fewer are employed in them and the regional economy is more evenly balanced also.

Broadly, a structural change is clearly under way in the uplands though a precise assessment would require a detailed investigation. The period 1977-83 saw a drop in the numbers employed in agriculture and forestry (-8.9%) and in the secondary sector (-5.4%), and a rise in the number employed in the service sector (+24.3%). The increase was 47% bigger than the drop in the primary and secondary sectors. The trend was less marked in 1977-80 than in 1980-83.

The pattern found in the uplands also obtains for the Bavarian Forest plus adjoining Danube Valley.

Unemployment trends

A comparison of the unemployment figures from October 1978 to December 1984 in the Bavarian Forest and adjacent Danube Valley, on the one hand, and the uplands (and their sub-regions), on the other, shows that unemployment is *above average*, *sustained* and consequently *structural* in both areas, though it is more pronounced in the uplands than in the Bavarian Forest and adjacent Danube Valley.

The highest unemployment figures are found in the southern uplands, whereas the unemployment rate in the northern uplands tends to resemble more closely that of the Bavarian Forest and adjacent Danube Valley.

The unfavourable economic climate has undoubtedly exacerbated unemployment, which has risen much more markedly in these two areas than in Germany as a whole or Bavaria, particularly the latter.

A comparison of the unemployment figures also reveals that, there is marked seasonal unemployment in the uplands (this is also the case in the Bavarian Forest and adjacent Danube Valley, though to a lesser extent). Seasonal unemployment is more pronounced in the southern uplands than in the northern. Unemployment figures for December 1984 were not quite as high as in 1981. The unemployment office in Passau put this down to the mild weather which persisted into December, and enabled people with jobs in weather-dependent sectors of the economy to go on working in some cases. These are precisely the sectors which, as a rule, contribute most to seasonal unemployment (construction, quarrying and forestry).

Commuting

The latest figures are for 1972 (census).

The staff of the Passau Arbeitsamt think that few people commute to the Bavarian Forest but many commute from it, and that there are a particularly large number of long-distance commuters. Most short-distance commuters work in the Danube Valley, especially the towns of Passau and Straubing, and in Dingolfing. Most long-distance commuters work in the Munich and Nuremberg areas.

A distinction must be made between all-year and seasonal long-distance commuters. The latter add to the unemployment pool in the Bavarian Forest in the off-season periods.

Main economic sectors

Agriculture and forestry

Land utilization

In 1983 63 499 hectares (32%) of the uplands were farmed. Of this approximately 15.8% was ploughed and 83.9% permanent pasture (of which 96.8% were meadows, 2% mountain pasture without huts).

In the Bavarian Forest plus adjoining Danube Valley, ploughed land accounted for 55.7% and permanent pasture for 43.8% (similar sub-division to uplands); the share of ploughed land was still higher in Bavaria as a whole (60.1%) and in Federal Germany as a whole (59.9%).

The proportion of horticultural land was lowest in the uplands (0.3%), highest in Federal Germany as a whole (1.8%).

Between 1977 and 1983, the proportion of ploughed land rose by 0.7% in Federal Germany as a whole and by 0.8% in Bavaria. Over the same period it sank slightly in the Bavarian Forest plus adjoining Danube Valley (-0.8%) and significantly in the Bavarian Forest uplands (-6.1%). It can be added that the proportion of permanent grassland rose in the latter two regions, and sank in Federal Germany and Bavaria as a whole.

The picture is much more dramatic if we look at the absolute figures. The period under review saw a relative contraction of farmland in all four areas - least in the Bavarian Forest uplands (-1.9%), most in the Federal Republic as a whole (-1.9%). But in terms of absolute figures arable land in the Bavarian Forest uplands contracted by 28.7%, as against only 2.5% in the Bavarian Forest plus adjoining Danube Valley, 0.5% in Bavaria and 0.8% in Federal Germany.

Over the same period permanent pasture expanded 6.9% (Bavarian Forest plus adjoining Danube Valley, +0.6%; Bavaria -3.5%; Federal Germany, -3.4%).

The contraction of farmland is not attributable to the creation of the national park.[1] Causes include loss of land to housing etc., and land consolidation.

[1] Or so the national park authorities claimed on 5 December 1985 ('solely less intensive use of meadows').

Table 4

Farmland (1983)

(ha)

	Total	Farmland	Horticultural	Permanent pasture		
			Combined	Meadows	Mountain pasture	Total
Bavarian Forest uplands	63 499	10 019	182	51 576	1 052	53 297
%	*100%*	*15.8%*	*0.3%*	—	—	*83.9%*
	—	—	—	*96.8%*	*2.0%*	*100%*
change since 1979 (absolute figures)	*— 0.9%*	*— 28.7%*	*+ 1.6%*	*+ 7.6%*	*+ 0.4%*	*+ 6.9%*
change since 1979 (%)	—	*— 6.1%*	*± 0%*	—	—	*+ 6.1%*
Bavarian Forest + adj. Danube Valley	282 545	157 488	1 473	118 698	3 224	123 584
%	*100%*	*55.7%*	*0.5%*	—	—	*43.8%*
	—	—	—	*96.0%*	*2.6%*	*100%*
change since 1979 (absolute figures)	*— 1.2%*	*— 2.5%*	*— 12.5%*	*+ 1.4%*	*— 10.8%*	*+ 0.6%*
change since 1979 (%)	—	*— 0.8%*	*— 0.1%*	—	—	*+ 0.9%*
Bavaria	3 476 360	2 089 418	27 794	1 216 926	94 538	1 359 148
%	*100%*	*60.1%*	*0.8%*	—	—	*39.1%*
	—	—	—	*89.5%*	*6.9%*	*100%*
change since 1979 (absolute figures)	*— 1.7%*	*— 0.5%*	*— 7.6%*	*— 2.5%*	*— 10.0%*	*— 3.5%*
change since 1979 (%)	—	*+ 0.8%*	*— 0.1%*	—	—	*— 0.7%*
Federal Republic of Germany	63 499	10 019	182	51 576	1 052	53 297
%	*100%*	*15.8%*	*0.3%*	—	—	*83.9%*
change since 1979 (absolute figures)	*— 0.9%*	*— 28.7%*	*+ 1.6%*	*+ 7.6%*	*+ 0.4%*	*+ 6.9%*
change since 1979 (%)	—	*— 6.1%*	*± 0%*	—	—	*+ 6.1%*

Source: Land- und Forstwirtschaft, Fischerei, Fachserie 3, Reihe 3, Bodennutzung u. pflanzl. Erzeugung 1983 und 1979.

[1] Including tree nurseries, willows used for baskets, poplar plantations, Christmas tree plantations, areas planted to grapes. Original figures slightly changed.

In 1982 55% of the Bavarian Forest uplands were forested (approximately 62% of economically utilized land). Of this total approximately 43% was State-owned, 0.1% owned by the central-Federal authorities, approximately 1% owned by Community bodies and approximately 56% owned by private persons. There is however, a major distinction between the northern and southern parts of the Bavarian Forest uplands, the proportion of State-owned in the former being 10% higher and that in the latter 10% lower. There is relatively more privately owned forest in the northern than in the southern part.

Farm sizes

The average size of farm holdings in the upland areas of the Bavarian Forest in 1983 was about 8.3 hectares, whereas the average size of holdings in the Bavarian Forest plus adjacent Danube Valley was about 11.5 hectares; both figures were below the Bavarian average (13.8 hectares) and the national average (16.1 hectares). [1]

Over the 1974-83 period there was a distinct increase in the average size of holdings in all the areas under comparison, with the increase in the upland areas (+ 19.3%) a shade higher than the national increase (+ 19.2%). In the Bavarian Forest plus adjacent Danube Valley, there was an increase of + 17.7%, whereas in Bavaria the increase was only 15.8%.

However, the relative differences in size remained unchanged: the average holding in the Bavarian uplands continued to be about half the size of the national average and about 2/3 of the average for the Bavarian Forest plus adjacent Danube Valley.

The size of holdings in upland areas was clearly increasing in this period. In 1974 the 22.9% of holdings in the over-10 hectares bracket covered 54.9% of agricultural land; in 1983 these figures were 28.6% and 63.2%. [2]

In 1974 the 37.6% of holdings in the 2-5 hectare bracket had an 18.3% share of agricultural land; by 1983 these figures had dropped to 34.6% and 14.6%.

Finally, it should be pointed out that the uplands are still characterized by small farm holdings, though there is an unmistakeable trend towards larger - and possibly more efficient - holdings.

[1] In order to improve the comparability of figures, holdings of less than 1 hectare are not taken into account, as from 1980 they were no longer recognized as taxable farm holdings; inclusion of these holdings could be misleading.

[2] Holdings of between 2 and 5 hectares in upland areas are weekend holdings worked by their owners in their spare time. Those of up to 10 hectares are usually farmed part-time. Those of over 10 hectares are usually worked by full-time farmers.

Table 5

Farm sizes
Number of farms/farmland (FL)

	Farmland, from 1 to +30 hectares													
	1974							1983						
	1-2	2-5	5-10	10-20	20-30	+30	Total	1-2	2-5	5-10	10-20	20-30	+30	Total
Bavarian Forest uplands														
— % farms	16.2	37.6	23.3	17.9	4.2	0.8	100	12.9	34.6	23.9	19.4	7.2	2.0	100
— % FL	3.4	18.3	23.4	36.5	14.1	4.3	100	2.3	14.6	19.9	33.3	20.6	9.3	100
Bavarian Forest + adj. Danube Valley [1]														
— % farms	12.4	30.3	23.8	21.9	7.2	4.4	100	10.7	27.0	23.0	22.6	10.0	6.7	100
— % FL	1.9	10.6	17.3	32.1	17.7	20.4	100	1.3	8.1	14.4	28.4	21.0	26.8	100
Bavaria														
— % farms	9.4	19.9	24.8	29.7	10.9	5.3	100	8.4	17.5	22.8	29.1	13.8	8.5	100
— % FL	1.1	5.7	15.3	35.9	22.1	19.9	100	0.9	4.4	12.3	30.5	24.3	27.8	100
Federal Germany														
— % farms	13.7	21.1	19.8	23.6	11.6	10.2	100	12.5	18.8	18.3	22.5	13.0	14.9	100
— % FL	1.4	5.2	10.7	25.4	20.9	36.0	100	1.1	3.9	8.3	20.3	19.8	46.6	100

Sources: Land- und Forstwirtschaft, Fischerei, Fachserie B, Reihe 5, I. Betriebsgrößenstruktur 1974, St-Bundesamt;
Land- und Forstwirtschaft, Fischerei, Fachserie 3, Reihe 2.1.1., Betriebsgrößenstruktur 1983 und 1984, St-Bundesamt.

[1] Five rural districts of Regen, Passau, Freyung-Grafenau, Straubing-Bogen, Deggendorf.

Only a few, brief comments can be made about the size and structure of holdings in the forestry sector. [1]

In 1974, approximately 4.5% of forested areas in the southern part of the Bavarian uplands (Freyung-Grafenau Landkreis) were privately owned (9 estates, each of more than 50 hectares), with the remaining 95.5% of forested areas being owned by farmers.

In the same year, approximately 34.9% of forested areas in the northern part of the Bavarian uplands (Regen Landkreis) were privately owned (82 estates of over 50 hectares), whereas only about 65.1% of forested land was owned by farmers.

Crops

Only 57.6% of arable land is under cereals in the uplands (1983), considerably less than the figure for the Bavarian Forest plus adjoining Danube Valley (64.8%), Bavaria (63.5%) and Federal Germany as a whole (69.7%). Similarly, only 9.1% of farmland is under cereals in the uplands (as against 36.6% for the Bavarian Forest plus adjoining Danube Valley, 38.2% for Bavaria and and 41.8% for Federal Germany).

These figures undoubtedly reflect the general poor quality of the upland areas, which are mostly unsuitable for arable farming.

Summer barley takes up the largest proportion of cereal land (30.3%). This cereal is relatively 'undemanding'.

The only other cereals of importance were oats (16.3% of the area under cereals, 9.4% of arable land, 1.5% of farmland).

The figures elsewhere are: Bavarian Forest plus Danube Valley: summer barley 9.8% and oats 13.8%; Bavaria: summer barley 20.6% and oats 9.9%; Germany: summer barley 15.4%, oats 11.9%.

Between 1979 and 1983 the cereal area contracted by 31.1% (though its share of the arable area, which also fell, only contracted by 2%). This contraction was far greater than that of cereal land in the Bavarian Forest plus adjoining Danube Valley (-2.5%), Bavaria (-1.8%) or Federal Germany (-4.8%).

With the exception of summer cereals, yields per hectare were (in some cases considerably) below those of the Bavarian Forest plus adjoining Danube Valley, [2] Bavaria and Federal Germany. The poor soil, weather and relatively short growing season are factors here.

Yields per hectare in the uplands were higher in 1983 than in 1979 (exactly the opposite of the basic trend in the other three reference regions). This is attributable to the contraction of the cereals area in the uplands (it was the infertile areas that were abandoned).

[1] *Source*: Information Office, Lower Bavaria Administration, Landshut.

[2] Except winter wheat.

Table 6

Main cereals (acreage, yield) 1983

	Farmland		Total			Winter wheat		Rye		Maize		Summer barley		Oats		Summer mix. cereals	
	Total	Arable	Area	Yield per ha	Harvest	Area	Yield per ha	Area	Yield per ha	Area	Yield per ha	Area	Yield per ha	Area	Yield per ha	Area	Yield per ha
	%		%	dt	t	dt	t	dt	t	dt	t	dt	t	dt	t	dt	t
Bavarian Forest uplands	100	15.8	9.1	31.0			38.8		28.4		56.4		30.4		28.4		32.4
	////////	100	57.6	/////	/////	4.3	////	5.6	////	0.1	////	17.5	////	9.4	////	5.5	////
	////////	////////	100	/////	/////	7.5	////	9.7	////	0.2	////	30.3	////	16.3	////	9.5	////
Bavarian Forest & Danube Valley	100	56.5	36.6	38.0			37.2		26.2		62.9		31.2		30.2		26.7
	////////	100	64.8	/////	/////	19.4	////	1.5	////	11.1	////	6.4	////	8.9	////	3.7	////
	////////	////////	100	/////	/////	29.9	////	2.4	////	17.2	////	9.8	////	13.8	////	5.7	////
Bavaria	100	60.1	38.2	46.0			55.0		36.7		57.4		33.6		37.8		33.4
	////////	100	63.5	/////	/////	21.6	////	3.0	////	2.6	////	13.1	////	6.3	////	2.3	////
	////////	////////	100	/////	/////	33.9	////	4.8	////	3.5	////	20.6	////	9.9	////	3.6	////
Federal Republic of Germany	100	59.9	41.8	45.7			55.1		36.0		57.1		32.8		34.4		32.4
	////////	100	69.7	/////	/////	21.5	////	6.2	////	2.3	////	10.7	////	8.3	////	1.8	////
	////////	////////	100	/////	/////	30.8	////	8.8	////	3.3	////	15.4	////	11.9	////	2.5	////

Source: Land- und Forstwirtschaft, Fischerei 1983, Fachserie 3, Reiche 3 : Bodennutzung und pflanzl Erzeugung.

Root crops accounted for 11.7% of the arable land in 1983. The main one (approximately 89.2%) was (medium-early, late) potatoes. The area devoted to potatoes expanded slightly between 1979 and 1983, while the total devoted to root crops contracted slightly.

Green maize accounted for 79% of the area sown to feed crops. The area devoted to feed maize expanded 47.7% between 1979 and 1983 (concurrent with increase in cattle herd).

Stock farming

The period 1976 to 1984 saw an above-average increase (+21.4%) in the cattle herd in the uplands (Bavarian Forest plus adjoining Danube Valley, +8.5%; Bavaria, + 12.5%; Federal Germany, +8.2%).

There was also an above-average increase (+18.5%) in the number of dairy cattle (Bavarian Forest plus adjoining Danube Valley, +5.2%; Bavaria, +5.5%; Federal Germany, +3.6%). In 1984 dairy cattle accounted for 52.4% of the cattle herd. In 1982 each dairy farm had an average of 7 dairy cows. [1]

Over the same period, pig farming contracted sharply in the uplands (-36.3%) and rose, sometimes sharply, in the other regions (Bavarian Forest plus adjoining Danube Valley, +26.1%; Bavaria, + 3.0%; Federal Germany, +14.7%).

Between 1976 and 1984 the number of horses dropped (1.0%) in the uplands and rose elsewhere (+0.8%) in the Bavarian Forest plus adjoining Danube Valley; +18.8% in Bavaria +4.2% in Federal Germany.

Over the same period the number of sheep dropped (by 16.4%) in the uplands and rose elsewhere (+3.0% in the Bavarian Forest plus adjoining Danube Valley, 16.6% in Bavaria; +19.1% in Federal Germany).

There was no significant expansion or contraction of the poultry flock in the uplands. Chickens account for 96% of the flock. All in all, poultry production dropped approximately 20% between 1976 and 1984.

Mining and manufacturing

Between 1977 and 1983, the labour force of this sector contracted by 12.4% in the uplands. The drop in the number of workers was particularly marked (-14.4%); the number of salaried staff increased by 1.8%.

As against this expansion occurred in the Bavarian Forest plus adjoining Danube Valley (labour force +3.8%, workers +0.7%, salaried staff +20.7%) - indeed the expansion here was much more marked than that in Bavaria (labour force +1.4%, workers -2.8%, salaried staff +12.3%).

The expansion was even more substantial in the towns of Passau and Straubing, and to a lesser extent in Deggendorf (labour force +8.8%, workers +3.4%, salaried staff +31.3%).

[1] *Source*: Landwirtschaftamt Regen.

Earned incomes [1] in the uplands (though slightly lower) and in the Bavarian Forest plus Danube Valley were only 80% the average in Bavaria. In the three towns of Straubing, Passau and Deggendorf they were 90.4% of the Bavarian average.

Wages in the uplands were approximately 90% of the Bavarian average, salaries only 79%. This can be a motive for, in particular, skilled labour to leave the uplands.

Between 1977 and 1983, upland manufacturing firms pushed their total turnover (excluding VAT) up by 28.6%. This was markedly less than the average for Bavaria (+48.1%), the Bavarian Forest plus Danube Valley (+59%) and the towns of Passau, Straubing and Deggendorf (+69.7%).

Wages/salaries per employed person rose 38% in the Bavarian Forest plus adjoining Danube Valley, and approximately 40% in the other reference regions.

The ratio of wages/salaries per employed person to turnover per employed person is a pointer to the economic strength of the corporate sector. In 1983 this ratio was 1:2.6 in the uplands (1977 = 1:2.5), 1:4 in the Bavarian Forest (1977 = 1:3.6) 1:3.9 in the towns (1977 = 1.36) and as much as 1:4.6 (1977 = 1:4.4) in Bavaria.

Between 1977 and 1983, the number of mining/manufacturing firms with a labour force of more than 20 dropped 5.3% in the uplands, and rose in Bavaria (+11.1%), Bavarian Forest plus adjoining Danube Valley (+13.5%) and the towns of Passau, Straubing and Deggendorf (where the increase was as much as 47.5%).

In 1984 the main mining/manufacturing sub-sectors in the uplands were wood processing (31.8% of firms), stone quarrying and working (14.0%) and clothing (12.7%).

These three sub-sectors were also the most important in the Bavarian Forest, though the percentages were slightly different (wood processing, 21.4%; stone quarrying and working, 18.8%; glass industry, clothing etc., 13.3%).

In 1984, 46.5% of upland firms were in the mining, quarrying and producer's goods sectors, 10.8% made capital goods, 33.1% made consumer goods and 9.6% were in the food sector.

The corresponding figures for the Bavarian Forest plus adjoining Danube Valley (1984) were 43.2%, 16.0%, 29.9% and 10.9%. [2]

Manual crafts

Between 1978 and 1983, the number of craft concerns in the uplands increased markedly (4.9%), but the labour force of this sector contracted slightly (-0.3%). (There was a similar trend in the Bavarian Forest plus adjoining Danube Valley; firms +3.2%, labour force -0.4%.)

Between 1978 and 1983, the turnover of this sector increased by 24.4% in the uplands and in the Bavarian Forest plus adjoining Danube Valley. In 1983 turnover per firm was approximately DM 419 500 in the uplands, DM 526 500 in the Bavarian Forest plus adjoining uplands.

In 1983 there were 6.3 employed persons per firm in the uplands, 7.3 in the Bavarian Forest plus adjoining Danube Valley.

Between 1978/1983 the number of trainees/apprentices increased by 3.2% in the uplands, and by 2.5% in the Bavarian Forest plus adjoining Danube Valley. In both areas there were 1.2 trainees/apprentices per firm.

The main sub-sectors (1984) in the uplands were metal-working (31.1% of firms), food (18.6%), building (14.2%) and wood procesing (10.9%).

The pattern was very similar in the Bavarian Forest plus adjoining Danube Valley: metal-working 33.5%, food 15.8%, building 15.2% and wood processing 10.9%. [3]

In 1983, aproximately 20.3% of the labour force was employed in the manual-crafts sector.

Table 7

Manual crafts

(1983)

	Bavarian Forests uplands[1]	% change[2] 1978 - 83	Bavarian Forest + adjoining Danube Valley	% change[2] 1978-83
Firms	1 892	+ 4.9	6 312	+ 3.2
Labour force	11 910	— 0.3	46 055	— 0.4
Turnover (DM '000)	793 655	+ 24.4	3 323 465	+ 24.4
Employed persons per firm	6.3	— 4.5	7.3	— 3.9
Turnover per employed person (DM '000)	66.6	+ 24.7	72.2	+ 24.9
Turnover per firm	419.5	+ 18.6	526.5	20.5
Trainees/apprentices	2 364	+ 3.2	7 829	+ 2.5
Trainees/apprentices per firm	1.2	— 7.7	1.2	± 0

Sources:

1 Handwerkswirtschaft in Niederbayern/Oberpfalz (Handwerkskammer), Erstes Hbj. 1984, p. 82.

2 Handwerkswirtschaft in Niederbayern/Oberpfalz (Handwerkskammer), Erstes Hbj. 1977/78, p. 56.

1 Wage and salary bill divided by number of employed persons.

2 Bergbau und verarbeitendes Gewerbe in den Kreisfreien Städten und Landkreisen Bayerns 1984, March 1985.

3 Information provided by Passau Handwerkskammer, 1985.

Tourism

Full figures on private accommodation have not been compiled since 1980, because of the privacy directive. A full survey is therefore impossible.

Between 1974 and 1980 there was a 41.6% increase in the number of commercial concerns providing accommodation. It must be pointed out however, that there were four times as many private accommodation units as commercial firms, the former providing 59.1% of beds (1980 figures) and the latter 40.9%.

The average number of beds in private accommodation units in the uplands was 6 in 1974 and 5.6 in 1980. The corresponding figures for commercial concerns were 30.2 in 1974 and 29.9 in 1980.

In the uplands, the number of guests increased by 28.9% between 1974 and 1983, while the number of nights increased only 14.8%. The average stay shortened from 10.1 days to 9.0.

The proportion of foreign guests was 1.9% in 1980, and they accounted for 1.8% of nights. The average stay of foreigners was 8.6 days, i.e. less than that of Germans.

According to IHK-Passau, the number of guests has increased steadily since 1980. The most popular region - measured in terms of guests and nights - was still the Bavarian Forest plus adjoining Danube Valley in 1984. [1]

Summary

Bavarian Forest uplands are handicapped by location and climate.

Population trends: stabilization at low level. Birth rate exceeds death rate. Net out-migration to other parts of Bavaria. Out-migration to rest of Germany offset by in-migration.

Age group to 25 disproportionately large, middle-aged and elderly groups disproportionately small. Net out-migration of the most economically active age groups.

Uplands mainly forested. Small proportion of arable land, large proportion of permanent grass.

Agriculture, mining and manufacturing account for disproportionately large proportion of labour force.

Structural change in employee workforce. Contraction of employment in agriculture, forestry, and industry, increase in service sector.

Contraction or arable land, increase in permanent pasture.

Above-average structural unemployment; substantial seasonal unemployment

Decline in mining, manufacturing and craft labour force.

Marked expansion of tourism.

Two conclusions can be drawn:

The population of the Bavarian Forest uplands has stablized at a low level, despite the peripheral location, poor climate, problems with industrialization and inferior agricultural conditions. However, this stabilization is largely attributable to the economic growth in the adjoining Danube Valley and its towns, rather than to the retention of jobs in the uplands.

In developing the area, the main task must be to provide better infrastructure and transport links. Steps should also be taken to promote training, attract small craft firms and develop tourism.

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1 IHK-Information 6/85, pp. 190/191.

Detailed survey of pilot areas

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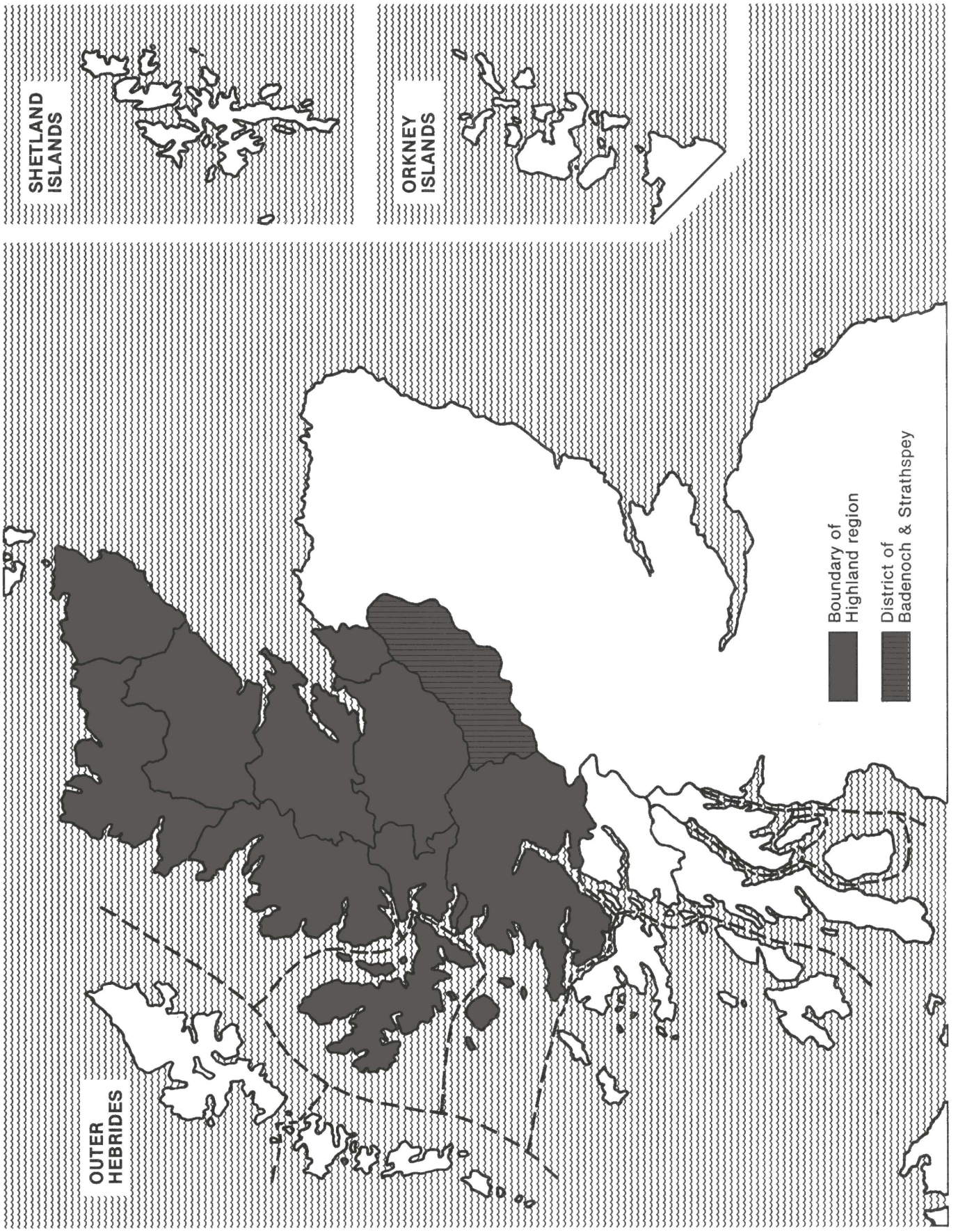
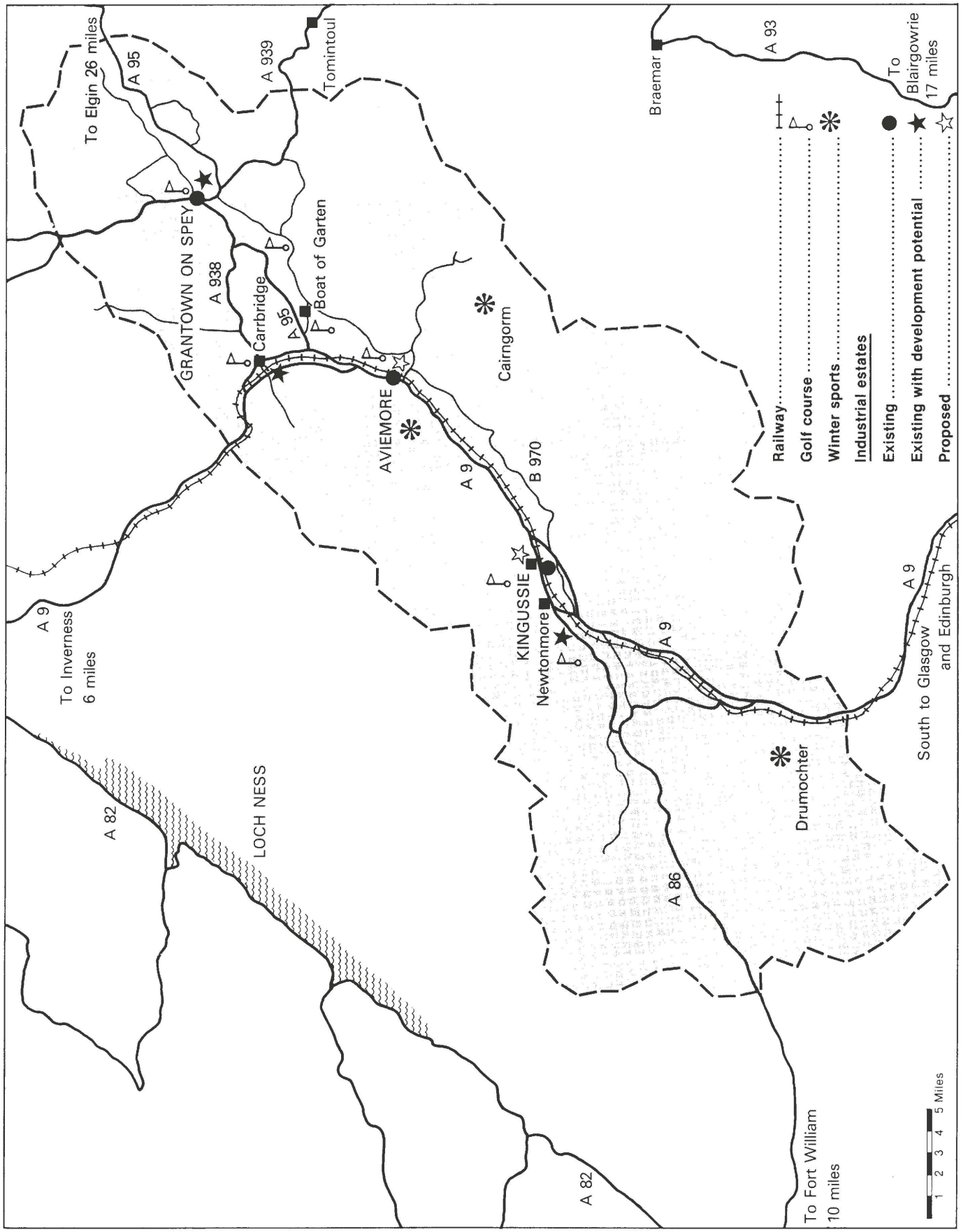


Badenoch and Strathspey



Highland region - Brief survey

The following text gives a brief survey of the Highland region as a whole, and follows this by a more detailed analysis of the District of Badenoch and Strathspey, an administrative district within the Highland region.

The upland area formed by the Highlands is one of the most remote and sparsely populated regions of the European Community. The highland region itself (broadly, the mainland of the North of Scotland with the Isle of Skye), is the principal administrative region, and covers some 2.5 million hectares but has a population of only some 190 000. For local government purposes, the Highland Regional Council (HRC), situated in Inverness, provides most local services, but some are devolved upon district councils: one such council is responsible for the District of Badenoch and Strathspey. With the Western Isles, the Orkneys and Shetlands the area increases to 3.7 million hectares and the population to over 300 000. The Highlands and Islands Development Board (HIDB), the principal body for economic development in the area, covers both highlands and islands.

The highland region is divided into eight districts (Nairn, Badenoch and Strathspey, Inverness, Lochaber, Skye and Lochalsh, Ross and Cromarty, Sutherland, and Caithness). Most administrative functions, if not directly the responsibility of central government (the Secretary of State for Scotland) fall to the region rather than the district. A very large part of the area is upland, but the sea is never far away and many important communities are traditionally more closely linked to fishing than to agriculture.

Table 1

Basic data - 1981

	Badenoch & Strathspey	Highland region	Scotland
Area (ha)	231 721	2.5 mill.	7.7 mill.
Persons per hectare	0.041	0.08	0.67
Total population	9 515	191 966	5.1 mill.

Source: HRC, Highland Region Economic Profile, 1982. The difference between the figure for Highland region population and that shown on p. 14 of R/CES 435/84 is represented by the District of Argyll and Bute, strictly an upland area but not within the Highland region.

The active population is composed as follows:

Primary	8.9%
Secondary (manufacturing and construction)	24.1%
Services (HIDB figures)	66.8%

It should be noted that the nature of the services sector in the Highlands cannot be strictly compared with that in the lowlands of Scotland, since many of the growth areas (insurance, banking, computers) are almost entirely absent in the Highlands, where most service jobs are connected with tourism.

Population in the Highlands increased by 13.3% between 1951 and 1981, growth concentrating around the larger towns, but this was accompanied by a decrease of population in some of the islands. Population and employment have been affected in varying degrees in the coastal towns by the impact of the oil industry, the main work being in rig building and servicing.

There are two important elements with regard to agriculture and land tenure which make the situation in the Highlands unique:

(1) the presence of 'crofters', farmers who own or lease small quantities of land and hold other land in common with other crofters, and combine this with other forms of activity (fishing, crafts and services, etc);

(2) the presence of large estates which are either:

(a) divided up as farms; and

(i) let to tenant farmers;

(ii) managed as farms by the estate owners themselves;

or

(b) used for commercial forestry purposes;

or

(c) left generally uncultivated and used as 'sporting estates', i.e. for deerstalking, grouse-shooting and other field sports;

or

(d) any combination of the above.

Farm production is primarily geared to beef and sheep, with an increasing emphasis on sheep. However, only 8% (6 000 persons) of the total labour force is directly employed in farming on a full-time or part-time basis, there having been a reduction in agricultural employment of some 2% since 1971, largely as a result of improved productivity and because large areas of marginal land have gone out of production.

10% of the region is currently under woodland, and this provides some 1 400 direct jobs and another 900 in wood-using industries. The potential forest area of the region is estimated at 27% and there is considerable scope for development.

Fishing provides employment for 1 000 people directly and another 500 in fish-processing industries.

As regards industry, the oil-related industry provides some 6 000 jobs (i.e. the same as agriculture) but

numbers employed have fluctuated considerably with variations in orders for rigs and drilling platforms. Non-oil manufacturing employment has fallen considerably since 1977, there being only 5 500 jobs to be found here.

Although the area accounts for only 5% of the national population, in 1980 the Highlands and Islands received 19% of all tourist expenditure in Scotland. It is estimated that in the Highland region tourism supports some 6 000 jobs, but many others are tourism-related and there are many seasonal jobs. The tourist season is primarily a summer one (but there are winter sports in Badenoch and Strathspey, see below) and the general pattern of holidays in the Highlands is that of a relatively short length of stay (6-8 days), shortness of season, emphasis on private transport and on touring holidays.

Table 2

Employment in upland areas compared with Scotland

(000)

	1961	1971	1981
Economically active			
HIDB mainland	94	99	116
Scotland	2 320	2 343	2 399
Population in Employment			
HIDB mainland	90	92	104
Scotland	2 216	2 169	2 105
Primary			
HIDB	17.9	11.7	6.0
Scotland	214.5	127.0	68.8
Secondary (manufacturing & construction)			
HIDB	20.3	23.2	23.4
Scotland	888.7	870.5	676.1
Services			
HIDB	54.6	59.1	63.1
Scotland	1 113.2	1 169.9	1 341.0

Source: HRC, based on census.

Area and geographical features

Badenoch and Strathspey District is one of the eight districts of the Highland region and extends over some 2 500 km^2. It is a landlocked upland area dominated by the Monadhliath Mountains to the east and the Cairngorms to the west, the highest of which is Cairn Gorm (1 245m). The only other feature is the strath or valley of the River Spey, which rises just outside the district and flows in a north-easterly direction to the sea, the river valley widening as it moves further north east. Nearly all the villages and homesteads are in this valley, and virtually all the rest of the land is mountain. Over 90% of the total area is upland (above 240 metres), 45% being over 489 m.

Demographic aspects

General population

The estimated population at 30 June 1984 was 10 199 persons (the last full census was in 1981). Badenoch and Strathspey had one of the lowest population densities in the Highland region, with 0.041 persons per hectare, ranking only after Sutherland and Skye and Lochalsh (0.022 and 0.039 respectively).

Population trends

At the first census in 1831 the district had 11 589 inhabitants. By 1901 this figure had dropped to 9 968, and this figure remained more or less static for more than 70 years. In 1981 the usual resident population was 9 860, but this rose to 10 199 by 1984, the main reason being the growth of tourism in the area. There is no evidence of depopulation in the last hundred years; it may be that the threat of depopulation has been averted by the growth of the tourist industry.

Table 3

Badenoch & Strathspey resident population 1971-84

	1971	1981	1984
Aviemore	1 410	2 038	2 275
Boat of Garten	497	499	478
Carrbridge	496	472	451
Dalwhinnie	150	115	114
Grantown	2 769	3 038	3 082
Kincraig	350	386	439
Kingussie	1 266	1 439	1 414
Kinlochlaggan	104	92	81
Laggan	192	180	145
Nethybridge	585	584	605
Newtonmore	917	1 020	1 115
Total			
Badenoch & Strathspey	8 736	9 863	10 199
HIDB area	240 612	250 688	264 808
Scotland	5 228 964	5 035 315	5 145 722

Source: HRC, census statistics. These figures show the usually resident population, i.e. excluding visitors.

Table 4

Population change - 1971-81

	1971	1981	% change
Badenoch & Strathspey	8 736	9 515	+ 8.9
Highland Region	170 365	191 966	+ 12.7
Scotland	5 217 400	5 149 000	— 1.3

Source: HRC, Highland region economic profile. The figures for Badenoch and Strathspey exclude visitors (in the UK, the census of population is based on the place where persons are living on the day of the census, there being no other register of population).

Aviemore, Grantown, Kingussie and Newtonmore account for nearly 50% of the total population. The population increase in Aviemore is largely accounted for by the development of the tourist industry (see below).

In some of the other main villages (Boat of Garten, Grantown, Kingussie, Nethybridge, Newtonmore) there are high percentages of elderly people, suggesting that these may be popular retirement areas, especially since road improvements have made Inverness - the principal town of the Highlands, with a population of some 40 000 - much more easily accessible.

Breakdown by age group

The estimated population age structure at 30 June 1984 was as shown at Table 5.

The population age structure of Badenoch and Strathspey shows little variation from the highland region as a whole and there is little evidence of an ageing population. The fact that young people are tending to stay in the Highlands is in part the result of the economic crisis (which has meant serious unemployment in the lowlands of Scotland and no jobs for newcomers), in part the result of the successful policies of the Highland Regional Council and Highlands and Islands Development Board in attracting new businesses to the area, and in part the growth of interest among young people in activities like crofting.

Table 5

Estimated population age structure

(30.6.1984)

	Badenoch & Strathspey		Highland region	
	No	%	No	%
0 - 9	1 243	12.2	27 174	13.8
10 - 19	1 491	14.6	31 289	15.9
(0 - 19)	*2 734*	*26.8*	*58 463*	*29.7*
20 - 29	1 515	14.9	28 955	14.7
30 - 39	1 504	14.7	27 838	14.1
40 - 49	1 137	11.1	23 034	11.7
50 - 59	1 168	11.5	21 300	10.8
(20 - 59)	*5 324*	*52.2*	*101 127*	*51.2*
60 - 69	1 034	10.1	18 129	9.2
70 - 79	761	7.5	13 849	7.0
80 - 89	303	3.0	5 030	2.6
90 +	43	0.4	610	0.3
(60 +)	*1 141*	*21.0*	*37 618*	*19.1*
	10 199	100.0	197 208	100.0

Source: Population statistics.

Economic and social aspects

Employment

The 1977 statistics for employment are shown in Table 6.

These figures should be interpreted with care. As regards the primary sector, it should be recalled that much of the area is basically uncultivated land owned by large estates and kept for sporting purposes. Although in the past some of these estates were substantial providers of jobs, this is no longer the case, and even those areas which are farmed (mainly hill sheep and beef cattle) have been under pressure to increase productivity by shedding jobs where possible. Some of the estate land (see below) is under forestry and these forests and the associated sawmills provide some jobs, especially at Boat of Garten and Carrbridge.

Table 6

Employment by sector - 1977

	Badenoch & Strathspey	Highland Region
Total employment	3 382	76 427
% by sector		
Primary	12.9	11.6
Manufacturing	5.7	15.2
Construction	6.3	13.8
Utilities + transport	3.6	6.6
Distribution	9.5	10.1
Finance Prof. Medical	14.1	19.6
Misc. Services	43.7	16.7
Public administration, Defence	4.1	6.3
Total	99.9	99.9

Source: HRC, Highland region economic profile.

The main manufacturing industry is whisky distilling, the water of the Highlands being one of the essential ingredients for good quality Scotch whisky. There were distilleries at Dalwhinie, Balmenach and Tormore, but recent years have shown a decline in the overall demand for whisky and one distillery recently closed. Most of the other manufacturing enterprises are on a very small scale. A recent attempt to establish ski manufacture in the area was unsuccessful.

Construction work was, for a time in the 1960s and 1970s, a major source of employment. The construction of the Aviemore Centre hotels and the skilifts provided a source of many jobs, and some of these were continued after the work was completed, thanks to the reconstruction of the A 9 road, which is of motorway standard from Inverness to Perth. The importance of this road for communications and economic development of the region (most goods are transported by road in the Highlands) cannot be underestimated.

Although the service sector is very large, it should not be thought that it may be compared to the service sector in the lowland cities. There are no major banks or financial institutions with head offices in the Badenoch and Strathspey district, no central government offices, and local government and defence provide only a small number of jobs. The services sector is thus concentrated on tourism and recreation, the main employers being the hotels (especially at Aviemore), the various activities (skilifts etc.) at the Aviemore skiing centre, and various sports-related businesses.

The following tables give more information regarding the employment situation:

Table 7

Activity rates

(%)

	Badenoch & Strathspey		HIDB		Scotland	
	M	F	M	F	M	F
1961	83.8	27.9	83.6	27.4	87.1	35.9
1971	81.2	41.1	79.1	34.3	18.2	42.2
1981	92.4	59.9	91.8	54.4	90.5	61.7

Table 8

Part-time working

(less than 30 hours per week, as % of total workforce)

	Badenoch & Strathspey	Highland region
Male	3.2	2.9
Female (non-married)	15.5	13.6
Female (married)	44.1	50.4
Total	18.6	12.0

Table 9

Self-employed

(as % of all employees)

	Badenoch & Strathspey	Highland region
Male	22.1	15.0
Female	13.1	6.6
Total	18.6	12.0

Table 10

Unemployment within Badenoch and Strathspey

(April 1981) (%)

	Male	Female	Total
Grantown	7.1	8.9	7.8
Nethybridge	13.8	9.3	12.4
Carrbridge	10.3	8.3	9.5
Boat of Garten	8.8	6.2	7.8
Aviemore	11.0	9.1	10.2
Kincraig	6.3	7.1	6.6
Kingussie	9.8	3.8	7.3
Newtonmore	7.5	7.1	7.3
Laggan	5.4	12.0	7.5
Kinlochlaggan	4.3	0.0	3.4
Dalwhinnie	7.7	11.5	9.2

Sources: Census, April 1981. HIDB Area Profile.

(These unemployment figures reflect the position between the main winter and summer tourist seasons. Summer is the peak employment season and in this particular year skiing had run down by April)

Agriculture and forestry

The high barren wasteland of the Cairngorms and the Monadhliaths provides magnificent scenery but has little or no agricultural value. Agricultural production is thus concentrated on the valley floor and the area of grazing and woodland on the lower upland slopes (up to around the 600 metre contour).

Exigencies of the climate and the pattern of landholding have led to the formation of large farms - up to 4 000 ha - at the top end of the valley, with smaller farms at the more fertile, northern end. The system of landholding is based on the large estates which were developed in the nineteenth century. Some of these are predominantly sporting estates, while others are organized as mixed farming/sporting enterprises. Estate owners have also diversified into forestry and tourism, bearing in mind the limited returns available from farming and field sports.

The crofting system (see introduction) is not widespread although the area was once an important crofting area. There are a few scattered crofts at the northern end of the valley and around Newtownmore and Laggan. Balgowan is the only traditional crofting township remaining.

Most farming in the district is based on the raising of high quality beef and hill sheep. Arable farming is limited to the production of winter keep and barley, but the low-lying land in the valley of the River Spey is often subject to flooding in winter and spring. Dairying is limited to the production of milk for local consumption. The severe winter climate precludes the large scale production of market garden and root crops: even potatoes may be damaged by the frosts which can be expected at almost any time of the year.

Table 11

Agricultural production and labour
1976 and 1984

	1976	1984
Production		
All crops incl. stock feeds	2 064 ha	1 839 ha
Crops and grains	8 453 ha	9 075 ha
Barley	492 ha	701 ha
Cattle	16 109	15 531
Sheep	74 968	77 480
Pigs	—	—
Poultry	4 000	1 533
Labour		
Occupier full-time	109	93
Occupier part-time	55	51
Wife/husband	44	34
Employees, regular full-time	131	127
Employees, regular part-time	29	25
Casual or seasonal	23	25

Of the total area 231 721 ha, some 228 000 are occupied by farms. However, part of this area is left as 'rough grazing', i.e. unimproved grassland, and around 70-80 000 ha. are 'wild land' used only for hunting.

In 1980 there were some 211 major farms, plus another 200 or so smallholdings. About 50% of farms were owner occupied, the remainder being farmed by tenants. In recent years there has been a tendency to amalgamate holdings, so that whereas in 1976 there were 328 farms, the figure had dropped to 211 by 1980. There were several reasons for this:

The major estates which are the owners of the land have been more and more reluctant to lease farms. As farms fall vacant they have been incorporated into the estate land and farmed by a manager or bailiff.

The major estates are reluctant, even when granting a lease, to grant it for a long or indefinite period, so that there is an increasing pattern of fixed-term leases for limited periods. This permits the estate which owns the land to take back the farm into its own management or to use the land for forestry if it is more advantageous to do so.

Falling profits in beef and in sheep may have forced farmers on marginal land out of production altogether.

The declining economy of the sporting estates because of shortage of internal funds and the low returns from venison sales (venison is not a traditionally popular dish in the United Kingdom so that there is some dependence on export markets, which can be affected by variations in rates of exchange). Table 12 shows details of land tenure and utilization.

Table 12

Land tenure and utilization
1976 and 1984

	1976		1984	
	ha	%	ha	%
Land tenure				
Rented	77 857	51	63 566	42
Owner-occupied	74 261	49	87 992	58
	152 118		151 558	
Land utilization (Agriculture)				
Cereal crops	1 239	0.8	1 105	0.8
Fodder crops	729	0.5	706	0.5
Cultivated grass	6 390	4.3	7 236	4.9
Rough grazing	140 402	94.6	137 274	93.8
	148 760		146 771	

Note: The difference between the total hectarage as shown above and the total surface area (231 721 ha) is represented mainly by:
(1) built-up areas;
(2) lochs;
(3) 'wild land' i.e. land which is not even suitable for grazing sheep, but is used for deerstalking and grouse shooting.

Despite these factors, the area possesses some advantages for the development of its agriculture:

The valley pastures produce high quality grass favourable to the raising of beef cattle and sheep.

While the climate is severe, rainfall tends to be lower than that in the western highlands.

Shelter for stock is available from the large areas of standing timber, so that it is not always necessary to inwinter the stock or only for short periods.

The arable land in the valley can produce good quality winter feed.

There are market and abattoir facilities at Grantown and the all-year tourist season provides a larger than average local market for meat.

Forestry is important in Badenoch and Strathspey, and the principal forests are owned by private companies or the big estates. The main crop is Scots Pine, and there are naturally occurring birch woods in the valley, but birch is not exploited commercially. Forestry Commission woodlands are still maturing, so that timber production from them tends to be restricted to thinnings, while the saw log material comes from the longer established private woodlands.

Fish farming enterprises operate in Grantown, Cromdale and Aviemore. They are not of major economic importance.

Table 13

Woodland
Badenoch and Strathspey

	Forestry Commission	Private woodlands	Total
Total area of woodlands (ha)	6 482	13 590 [1]	20 072
Planting rate (ha/annum over next 5 years)	30	120	150
Plantable reserve (ha)	150	2 568	2 718
Timber production m^3	1 370	18 275	19 645

Source: HRC.

[1] Plus an additional 300 ha of approved woodlands and 247 ha of birch scrub.

Industry and crafts

In Badenoch and Strathspey there are no large businesses employing hundreds of workers. In the past, industry has been centred on the distilleries, but distilling is not labour intensive and falling demand for whisky has reduced the number of distilleries in the district to two. The Highlands and Islands Development Board has endeavoured to encourage light industry to expand in the area by providing factories and workshops for use as industrial premises. These factories and workshops are then let to tenants. In 1983 there were such factories and workshops in 3 different locations in Badenoch and Strathspey: Aviemore, covering some 1 700 m^2, Grantown, covering some 300 m^2, and Kingussie, covering some 1 700 m^2. These premises are let out to light engineering, ski-manufacturing, sportswear and pottery

Table 14

Main employers — 1981

	Male Full-time	Female Full-time	Male Part-time	Female Part-time	Total
British Rail Aviemore	32	2			34
Cairngorn Chairlift	51	14			65
Badenoch Hotel, Aviemore	25	28			53
Coylumbridge Hotel	50	48	3	2	108
Highland Tourist Dev. Ltd	65	98	14	32	209 (since reduced)
Ladbroke Freedom Inn	22	30	1	1	54
Post Hotel Aviemore	26	34	—	10	70
Strathspey Hotel	29	23	4	26	62
Chapleton Timber	34	—	1	1	36
Scottish Malt Distillery	30	2	—	1	33
Highland China	13	20	—	3	36
Highland Regional Council	52	2	—	—	54
British Rail, Kingussie	40	—	—	—	40
Badenoch & Strathspey District Council	28	9	3	4	44
Badenoch Hotel, Newtonmore	27	31	1	—	59

firms, and the Board hopes to acquire further sites in the area for similar purposes.

It is obvious that the strength of the conservation interests in the area would preclude any large-scale industrial development in the area, even if this would be economically viable.

Table 14 shows details of the main employers in the district. Of the 15 firms shown, only three (timber, distillery, china) could be regarded as relating to industry or crafts, the remainder being concerned with transport, tourism and local government administration. The table also indicates the increasing dependence of the district on tourism and the hotel industry. (However, it should be noted that this was always a district where tourism was important, but today the tourists tend to head for the Aviemore area rather than the villages along the A 9.)

From 1971 to 1982 the Highlands and Islands Development Board provided assistance for the development of local industry as follows:

While tourism dominates the picture, many jobs have been created by assistance to industrial and business development, especially manufacturing and crafts. The majority of land cases involved assistance to farms.

The outlook for the development of light industry and crafts is relatively good. The improvement to the A 9 road linking the region to Inverness and the south means that communications are easy compared with other highland districts, and the all-year tourist market will encourage the growth of small businesses. However, the existence of a powerful conservationist lobby may restrict development.

Tourism

Tourism in Badenoch and Strathspey dates from the time when in the 1860s Queen Victoria began the custom of spending part of the summer at her castle at Balmoral (in the valley of the River Dee, about 50 km to the east of Badenoch and Strathspey). Following her example, members of the nobility built or acquired houses or castles in the area where they spent the summer months,

Table 15

HIDB assistance for development, 1971-82

(1982 prices)

	Total project cost UKL 000	Grant UKL 000	Loan UKL 000	Jobs created	Jobs retained	No of cases
Industrial and business development	2 532.7	327.9	719.3	243	65	38
Tourism	9 298.3	2 213.2	342.0	252	43	89
Fisheries	252.3	49.3	89.9	9	10	11
Land	3 781.0	467.1	339.5	71	26	53
Publishing	0.8	0.3	—	—	—	—
Area total	**15 865.1**	**3 057.8**	**1 490.7**	**575**	**144**	**192**

Source: HIDB, Area profile.

and their presence and that of their servants provided a major boost for the economy of the area. As their numbers dwindled in the mid-part of this century, a new source of tourists appeared-car-owners, who in increasing numbers took their holidays touring the highlands. In the 1960s came the development of the Aviemore ski centre, which extended the tourist season into the winter.

Surveys indicate that in 1981 half a million bed-nights were spent in the Spey valley, around 50% of the visitors coming from England. In contrast to the rest of Scotland, there was a fair distribution throughout the year. The main type of accommodation was hotel, but there was also widespread use of bed and breakfast, self-catering and static caravans. Camping accounted for 17% of bed-nights. Three-quarters of the summer visitors were on an independent rather than a package holiday, and most of them stayed for short periods - i.e. their stay in Badenoch and Strathspey was part of a touring holiday in the highlands rather than a long stay in the district itself. In the winter, many people stay for one or two weeks, although others drive up to Aviemore at the weekend to go skiing.

The Aviemore centre was the idea of Lord Fraser of Allander, Chairman of the House of Fraser Group. Skiing in the Cairngorms goes back to army training in the 1940s, and in 1956 a group of hoteliers set up a Ski Development Group. In 1976 a start was made with the Aviemore centre, with the intention of providing an all-year tourist facility of international importance, thereby resisting the potential depopulation of the valley. The centre (which is situated in the village of Aviemore, some distance from the ski slopes) provides accommodation and catering of all types, extensive recreational facilities (ice-skating, curling, swimming, theatre/cinema, ballroom, etc.) and has been a great success, but it has tended to centralize tourism development in the village of Aviemore, to the detriment of other areas in Badenoch and Strathspey.

The relative success of the Aviemore centre has led HIDB and the Highland Regional Council to look for the possibility of extending the area for skiing. However, conservation interests have strenuously opposed any extension of the skiing areas, and up to now applications for permission to extend the facilities at Cairngorm or develop new ones elsewhere in the valley have been refused.

Although the facilities at Aviemore tend to be stretched to capacity at weekends and peak periods, it is uncertain whether further investment in skiing would be profitable. The *Sunday Times* of 27 January 1985 stated that Aviemore in 1985 recorded 40% fewer visitors than it did in the late 1960s. It is possible that many skiers regard Aviemore as a supplement to a skiing holiday in Austria or Switzerland rather than as an alternative.

Tourism in Badenoch and Strathspey is however not all skiing. There is a long tradition of tourism in the strict sense of 'making a tour', moving from place to place to enjoy the scenery of the highlands. This form of tourism grew especially in the 1950s with increasing car ownership. Table 17 shows the accommodation supply as at 1983, distinguishing between Aviemore and the rest of the area. Occupancy levels tend to be slightly lower than the HIDB average: in 1982, for instance, hotels in Badenoch and Strathspey were showing 41% as against 47% for HIDB, and self-catering units 62% as against HIDB's 63%, one of the reasons being the increase in supply of all types of accommodation over recent years (see Table 17). Another problem in this connection is that the A 9 improvements, by-passing Carrbridge, Aviemore, Kincraig, Kingussie, Newtonmore and Dalwhinnie, have tended to speed up the visitors' passage through the valley instead of encouraging them to stay overnight in one of the hotels. In 1981 HIDB set up a project to revitalize Newtonmore, Dalwhinnie and Laggan in order to make them more attractive to visitors. This included rebuilding the golf clubhouse, extending the Clan MacPherson Museum, new tourist brochures, etc. Nevertheless, some of the hotels in these villages have been in financial difficulty.

Senior management positions in the tourist industry tend to be filled by incomers, and local people's wages tend to be lower than the average in Scotland. Nevertheless, tourism is a major source of employment, as Table 16 shows.

Table 16

Tourism employment
Badenoch and Strathspey - 1978

	All year						Summer only						Winter only					
	F/T			P/T			F/T			P/T			F/T			P/T		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
North of Aviemore	93	147	240	13	62	75	61	169	230	11	34	45	15	14	29	1	13	14
Aviemore/Glenmore	315	396	711	28	53	81	95	91	186	20	14	34	90	48	138	39	10	49
South of Aviemore	75	124	199	8	45	53	34	54	88	3	39	42	12	16	28	1	3	4
Totals	**483**	**667**	**1150**	**49**	**160**	**209**	**190**	**314**	**504**	**34**	**87**	**121**	**117**	**78**	**195**	**41**	**26**	**67**

Source: HIDB, Area profile, from Dr Getz, *The impact of tourism in Badenoch and Strathspey*, 1982.

Table 17

Spey Valley accommodation supply

(1983)

	Registered with ATO				Not registered with ATO						Total			HIDB
	Aviemore		Rest of area		Aviemore			Rest of area						
	No of units	Bed-spaces	No of units	Bed-spaces	% (a)	No of units	Bed-spaces	% (a)	No of units	Bed-spaces	No of units	Bed-spaces	%	%
Hotels	13	1 268	37	1 377	20	3	254	20	7	275	60	3 174	38	37
Bed & breakfast	3	65	32	421	60	2	39	60	19	253	56	778	9	6
Self-catering (b)	240	1 440	187	1 222	20	48	288	20	37	224	512	3 074	37	27
Static vans (b)	40	240	54	324	20	8	96	20	11	65	113	725	9	13
Youth hostels (c)			2	168							2	168	2	4
Total	**320**	**3 155**	**346**	**3 646**		**69**	**724**		**85**	**894**	**820**	**8 419**		
Caravan pitches	175		353								528			
Tent pitches	215		235								450			

(a) Estimated % not registered with ATO (Area Tourist Office).
(b) Units are multiplied by 6 to give bedspaces.
(c) Not registered with the ATO.

Nature conservancy

Over 25% of the area is covered by nature conservation designations, the most important being the Cairngorm National Nature Reserve, 25 948 ha. The site is of major importance containing as it does geological, geomorphological and biological features which are characteristic of mountain ecology. The Nature Conservancy Council owns about 10% of this reserve, and the remainder is subject to a management agreement with the owners.

There is a much smaller National Nature Reserve at Craigellachie (259 ha), and eight designated sites of special scientific interest, with a total of 36 397 ha.

The Spey valley is also noted for its bird life. There is an RSPB reserve at Loch Garten, where ospreys have bred for many years. The Scottish Wildlife Trust has a nature reserve at Ryvoan.

67 200 ha of the Cairngorms have been designated as a national scenic area.

Social aspects

Gaelic is still used as a medium of communication by a small percentage of the inhabitants of Badenoch and Strathspey. In 1961 the census showed there to be 4.54% Gaelic speakers in the district, compared with 13% in the Highland region and 1.5% in Scotland as a whole. By 1981 the percentage of Gaelic speakers had dropped to 3.33% in Badenoch and Strathspey, compared with 9.3% in the Highland region and 1.64% in Scotland.

Household composition (see Table 18) is very similar to Scotland as a whole, but there are slight variations as to the number of pensioners (more in Badenoch and Strathspey) and single-parent families (more in Scotland as a whole).

Housing is still a problem, but there have been major improvements between 1971 and 1981, and the situation in the district is better than in Scotland as a whole. Table 19 shows details of overcrowding and below standard housing, plus car ownership. The fact that only 31.5% of the households have no car reflects the way in which car ownership has almost become a necessity in rural areas in Scotland.

Summary

Badenoch and Strathspey, almost entirely mountain area, is a sparsely populated area coming to rely increasingly on tourism, thanks to its unique position offering both summer and winter attractions for tourists. In some ways it represents many of the problems of the Highlands today - declining prosperity of the big estates, pressure for afforestation, pressure for conservation, and pressure for farmers to move out of farming marginal land and undertake some more profitable occupation. The district is not representative of all Highland communities in that many are closely linked with fishing and the sea, an element that is entirely lacking in landlocked Badenoch and Strathspey. In general, however, the district is a good reflection of many of the economic and social problems in the Highlands today.

Table 18

Household composition - 1981

(% of private household comprising)

	At least one child aged under 5	3 or more dependent children	Single-parent families	1 person living alone	1 pensioner living alone	2 or more pensioners living alone
Scotland	13.5	7.7	2.3	22.0	14.8	8.7
Region	15.2	9.2	1.9	20.7	13.2	8.9
Badenoch & Strathspey	12.4	6.9	1.6	23.8	14.5	10.3

Source: HRC, Highland Region economic profile.

Table 19

Housing: amenities and car ownership

(% of households)

	Over-crowding (1+ person per room)		**Below tolerable standard**		**With no car**	
	1971	1981	1971	1981	1971	1981
Scotland	19.2	13.2	13.2	2.6	47.6	48.7
Region	14.8	11.3	11.6	3.5	43.0	36.0
Badenoch & Strathspey	11.9	8.7	12.1	5.8	37.4	31.5

Source: HRC, Highland Region economic profile.

Bibliography

Highlands and Islands Development Board, *Area profile of Badenoch and Strathspey*, May 1983.

Highland Regional Council, *Highland Region economic profile,* September 1982.

Highland Regional Council, *Structure plan review,* August 1985.

Highland Regional Council, *Economic review,* various issues.

The Studies and Research Division is indebted to the Highlands and Islands Development Board and to the Highland Regional Council for the information supplied which served as a background for this report.

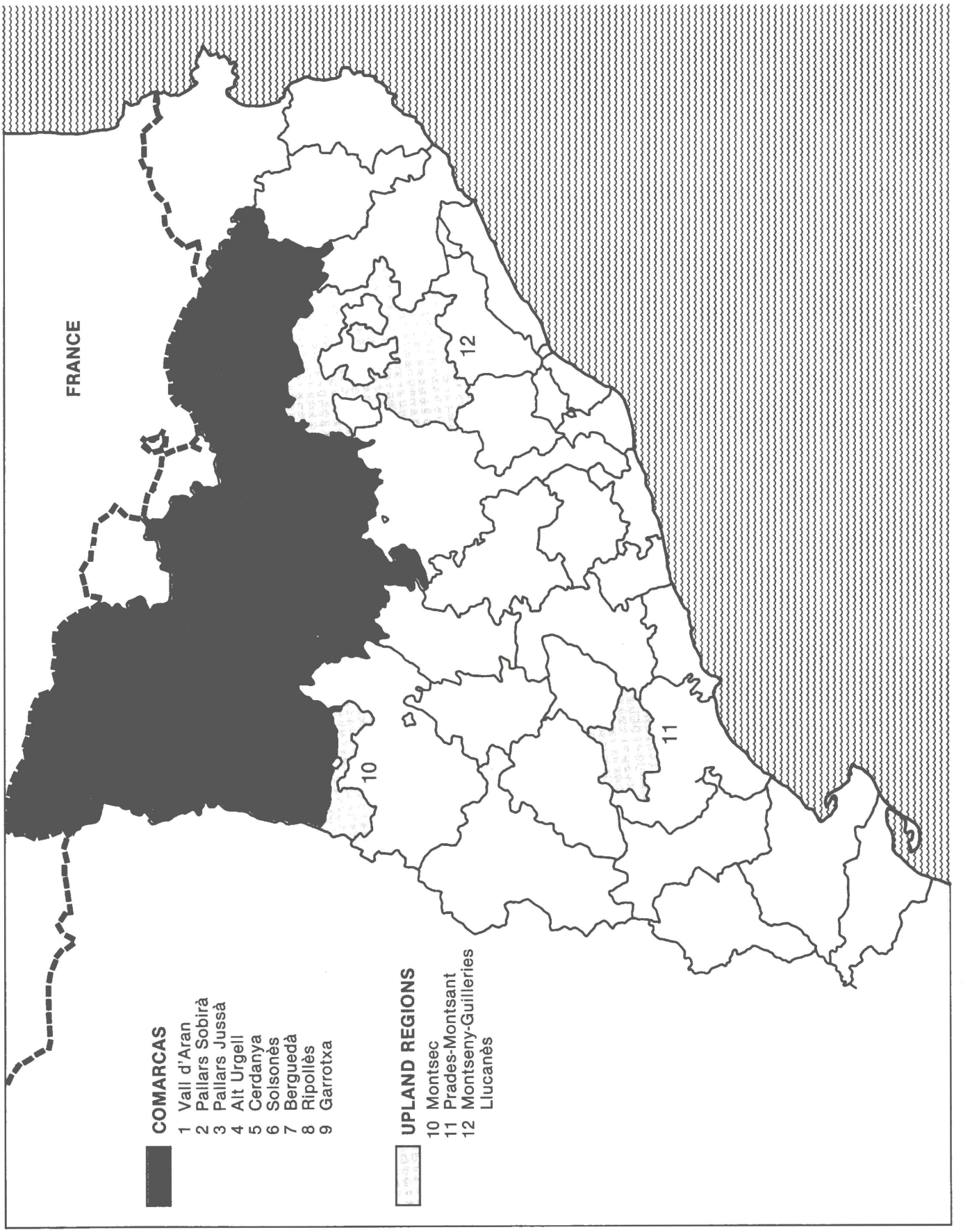
Detailed survey of pilot areas

Catalonia

Pyrenees
Spain

Contents

The nine upland *comarcas* and three upland regions in Catalonia



General comments

Definition of uplands and statistics available

Definition

Law No 2 of 23 February 1983, adopted by the Catalan Parliament, sets the framework for uplands policy. It distinguishes two types of upland: upland authorities ('comarcas') and upland regions.

Comarcas are self-contained economic and social areas in which the altitude, slope and climate restrict economic activity, with more of certain resources (water, snow, pastures, forest) than the rest of Catalonia, and with a population density below the Catalan average. The law established nine upland comarcas: Vall d'Aran, Pallars Sobirà, Pallars Jussà, Alt Urgell, Cerdanya, Solsonès, Berguedà, Ripollès and Garrotxa. [1]

Upland regions are established by the executive council of the Catalan Generalitat (autonomous government), according to the definition and criteria laid down by the law. Article 3.1 defines these upland regions as areas of one or more 'municipios' (local authorities) situated outside the comarcas and meeting one of the following conditions:

(a) have 65% of surface area above 800 m;

or

(b) have an average slope of over 20% *and* at least 60% of surface area over 800 m. The executive council has so far announced three upland regions (Prades, Montsec and Montseny-Guilleries-Lluçanes).

Statistics available

(1) Upland policy is very recent. Thus, although the bodies responsible have worked very hard, statistics are insufficient. The Directorate-General for territorial policy is preparing an economic and social study of upland territory as a whole for 1986.

(2) On the basis of the data available, an economic and social overview of the 1970s can be made; longer term trends cannot however be established, as data are not available for the 1960s and 1980s. The only information which can be used here is population figures and certain information on agriculture. In general, there is more information on agriculture than on other sectors of the economy.

(3) Tables 1 and 2 contain some basic data on the three upland regions. All other information deals solely with the 9 upland *comarcas.*

Note: A *comarca* is an administrative body set up in 1936 on the basis of the agricultural markets. It currently applies only to comarcas in the uplands, following an explicit statement to this effect in 1983 Law No 2. Most comarcas consist of several 'municipios' (local authorities).

[1] The names of the *comarcas* and other localities are given in the Catalan language.

Area and geographical features

Area

Uplands (*comarcas* + regions) cover 11 424 km², or 35.8% of Catalonia.

222 *municipios* make up the uplands; 57 of these are in the upland regions (6.1% of Catalonia's *municipios*), and 165 (17.6%) in the *comarcas* (total: 23.7% of Catalan *municipios*) (see Table 1).

Table 1

Area and number of *municipios*
(total Catalan uplands)

Upland regions	Number of *municipios*	Area km²
Prades-Montsant	11	329.75
Montsec	2	263.90
Montseny-Guilleries-Lluçanès	44	1 235.42
Total	**57**	**1 829.07**
% Catalonia [1]	*6.1*	*5.7*
Upland *Comarcas*		
Alt Urgell	19	1 446.85
Berguedà	30	1 182.46
Cerdanya	16	546.37
Garrotxa	21	734.18
Pallars Jussà	17	1 716.72
Pallars Sobirà	15	1 355.22
Ripollès 24 1 031.16		
Solsonès	14	971.88
Vall d'Aran	9	620.47
Total	**165**	**9 595.31**
% Catalonia *	*17.6*	*30.1*
Total (*Comarcas* + upland regions)	**222**	**11 424.38**
% Catalonia [1]	*23.7*	*35.8*
Catalonia	**939**	**31 930**

Source: Informacion estadistica economico social sobre las areas de montana de Cataluna. Direccion general de Politica territorial, 1985 (Economic and social statistics on the Catalan uplands, Directorate-General for Territorial Policy, 1985).

[1] % of Catalan total.

Geographical features

The upland *comarcas* are in the eastern Pyrenees. The Garona, Segre, Llobregat and Ter rivers play a considerable part in the upland landscape.

Half of the territory is above 1 200 m and one-third above 1 600 m. The highest peaks are along the main axis of the Pyrenees (3 000 m).

The upland *comarcas* are geographically very varied, and plants and animals vary accordingly.

Demographic aspects

Total population

In 1981 the upland regions and *comarcas* together had 246 289 inhabitants, or around 4.1% of the Catalan population. Upland population density is 21.6 inhabitants/km² against 186.6 for Catalonia as a whole (see Table 2).

Table 2

Total population
(upland regions + *comarcas*)

Upland regions	Population in 1981	Density in hab./km²
Prades-Montsant	3 328	10.1
Montsec	1 215	4.6
Montseny-Guilleries-Lluçanès	49 616	40.2
Total	**54 159**	**29.6**
% Catalonia [1]	*0.9*	—
Upland Comarcas		
Alt Urgell	19 332	13.4
Berguedà	41 630	35.2
Cerdanya	12 041	22.0
Garrotxa	45 245	61.6
Pallars Jussà	18 768	10.9
Pallars Sobirà	5 450	4.0
Rippolès	33 102	32.1
Solsonès	10 764	11.1
Vall d'Aran	5 808	9.4
Total	**192 130**	**20.0**
% Catalonia [1]	*3.2*	—
Total (*Comarcas* + upland regions)	**246 289**	**21.6**
% Catalonia [1]	*4.1*	—
Catalonia	5 925 283	186.6

Source: Informacion estadistica (Statistical information) - op. cit. Table 1.

[1] % of Catalan total.

Population trends

Data on population trends are available only for the *comarcas*; there are at present no specific data on the upland regions.

However, a study underway at the Population Studies Centre of Barcelona University has reached the following provisional conclusions:

(i) although the situation in the upland *comarcas* varies, the population fell by an average of around 5% from 1950 to 1981;

(ii) this is due to net emigration, a high mortality rate, and a low birth rate.

The population of the upland comarcas fell from 202 405 in 1950 to 192 130 in 1981, i.e. a 5% drop in 30 years (see Table 3).

Population trends also vary with the size of the *municipio*; depopulation was most marked in the smallest *municipios*, while in those with over 3 000 inhabitants the population rose (see Table 4).

Table 4

Rural exodus
(Breakdown of upland population trends according to size and population centres)

Population centre	Number of *municipios*	Growth 1960-70 (%)	Growth 1970-81 (%)
less than 500 inhabitants	134	—33.9	—26.0
500 — 1000 inhab.	31	—7.0	—14.7
1000 — 3000 inhab.	40	—2.5	—1.7
3000 — 5000 inhab.	6	10.8	4.45
5000 — 10 000 inhab.	7	6.4	6.08
over 10 000 inhab.	4	16.5	16.0

Source : Statistical information, op. cit. Table 1.

Table 3

Population trends in the upland *comarcas*

Comarcas	Total population			In towns or villages					Outlying				
	1950	1981	Annual growth rate (%)	1950 Total	1950 %	1981 Total	1981 %	Annual growth rate (%)	1950 Total	1950 %	1981 Total	1981 %	Annual growth rate (%)
Alt Urgell	22 134	19 828	—0.3641	19 433	87.8	17 543	88.5	—0.3387	2 701	12.2	2 285	11.5	—0.5530
Pallars Jussà	25 088	19 977	—0.7525	23 799	94.9	16 768	83.9	—1.1543	1 289	5.1	3 209	16.1	3.0704
Pallars Sobirè	10 223	5 245	—2.1844	9 678	94.7	4 674	89.1	—2.3844	545	5.3	571	10.9	0.1546
Solsonès	11 956	10 711	—0.3639	3 794	31.7	7 228	67.5	2.1601	8 162	68.3	3 483	32.5	—2.7841
Vall d'Aran	6 555	5 923	—0.3356	6 273	95.7	5 594	94.4	—0.3791	282	4.3	329	5.6	0.5124
Cerdanya	11 582	12 456	0.2415	10 041	86.1	10 368	83.2	0.1063	1 541	13.3	2 088	16.8	1.0123
Berguedà	41 933	42 154	0.0174	35 491	84.6	35 530	84.3	0.0036	6 442	15.5	6 624	15.7	0.0924
Ripollès	33 209	32 958	—0.0252	21 987	66.2	28 049	85.1	0.8106	11 222	33.8	4 909	14.9	—2.7042
Garrotxa	39 725	44 942	0.4100	23 316	58.7	37.761	84.4	1.6114	16 409	41.3	7 181	16.0	—2.7028
Total 9 *comarcas*	**202 405**	**192 130**	Rate 1950-81 — 5 %										

Source: Centre d'Estudis Demogràfics, *Estudi demogràfic de la població de Muntanya a Catalunya* (Population Studies Centre: Demographic survey of the Catalan uplands population) (Study underway at present).

Table 5

Population breakdown by age group and rate of growth — 1981

Comarcas	Aged 0 - 14 %	Aged 15 - 64 %	Aged 65 and over %	Substitution index (Is) P 0-14 / P 50-64	Growth index (Ic) P 0-14 / P 15-29	Potential index Is x Ic
Alt Urgell	20.13	64.33	15.54	1.05	0.93	0.97
Pallars Jussà	17.93	63.99	18.08	0.86	0.84	0.73
Pallars Sobirè	15.38	65.02	19.60	0.69	0.69	0.47
Solsonès	21.18	65.59	13.23	1.10	0.94	1.03
Vall d'Aran	22.59	65.48	11.93	1.39	0.93	1.30
Cerdanya	22.34	64.60	13.06	1.19	1.03	1.23
Berguadà	18.62	65.92	15.46	0.89	0.86	0.76
Ripollès	19.60	66.07	14.33	0.98	0.89	0.87
Garrotxa	19.41	65.92	14.67	0.92	0.93	0.85

Source: Centre d'Estudis Demogràfics, *Estudi demogràfic de la població de Muntanya a Catalunya* (Population Studies Centre: Demographic survey of the Catalan uplands population) (Study underway at present).

Table 6

Employment in the upland *comarcas* (1981)

(%)

	Employment rate			**Sectoral employment**		
Comarcas	Both	Men	Women	Primary	Secondary	Tertiary
Alt Urgell	38.1	61.0	14.3	29.73	33.93	36.34
Pallars Jussà	34.1	57.6	9.8	34.58	32.94	32.48
Pallars Sobirà	37.7	58.9	13.7	52.93	21.08	25.99
Solsonès	37.5	62.7	10.9	40.66	30.58	28.76
Vall d'Aran	39.1	63.8	12.9	21.84	30.10	48.06
Cerdanya	37.9	63.2	11.5	26.68	32.00	41.32
Berguedà	42.6	58.2	27.5	11.42	65.94	22.64
Ripollès	45.1	62.2	28.8	11.48	64.21	25.21
Garrotxa	45.8	62.5	29.8	13.91	61.46	24.63

Source: Centre d'Estudis Demogràfics, *'Estudi demogràfic de la poblacio de Muntanya a Catalunya'* (Population Studies Centre: Demographic survey of the Catalan uplands population). (Study underway at present).

Table 7

Alt Pirineu (high Pyrenees), sectoral breakdown of the workforce

(%)

	Primary		Secondary		Tertiary	
	1970	1975	1970	1975	1970	1975
Cerdanya	30	26.7	33	32.0	36	41.3
Alt Urgell	35	29.7	31	33.9	33	36.3
Pallars Sobirà	53	52.9	20	21.1	27	26.0
Pallars Jussà	43	34.6	31	32.9	26	32.5
Vall d'Aran	25	21.8	32	30.1	43	48.1
Alt Pirineu	39	32.0	30	31.7	31	36.3

Source: Comarques del Pirineu. *Sintesi d'un estudi territorial.* Ed. Direccio général de politica territorial. 1983 (The Pyrenees Comarcas. Outline territorial study. Ed. Directorate-General for Territorial Policy).

Population breakdown by age group

The average age is increasing throughout the uplands, and particularly in the *comarcas* of Pallars Jussà and Pallars Sobirà (see Table 5).

Economic and social aspects: Employment and production structure

Employment (workforce and unemployed)

For figures on all the *comarcas*, see Table 6.

In the high Pyrenees, sectoral distribution of the workforce is quite uniform. The move from the primary to the tertiary sector is explained by the growing popularity of skiing holidays. The primary sector occupies 32% of the workforce, which is considerably higher than the Catalan average (8.4%).

Table 8 gives unemployment rates.

Table 8

Unemployment rates (%) 1984

Garrotxa	8.1
Cerdanya	5.9
Ripollès	12.7
Berguedà	15.1
Solsonès	9.5
Alt Urgell	5.6
Pallars Jussà	10.3
Pallars Sobirà	6.1
Vall d'Aran	8.9

Source: Informacion estadistica (statistical information). op. cit. Table 1.

Production structure

Crop farming

Crop farming has been marked by a return to the production of animal fodder. Fodder crops and artificial meadowland have increased over the last 10 years. Despite this, cereal crops still occupy more land than fodder crops.

Upland crops fall into four main groups (see Table 9):

(i) *Cereals*: 75% of agricultural land is used for wheat and barley. Maize and oats come next in importance. These crops are grown on non-irrigated land.

(ii) *Fodder crops*: are grown both on ploughed and unploughed land. The main crops are lucerne, fodder maize and oats.

(iii) *Tubers*: seed potatoes have occupied a large area alongside potatoes for human consumption.

(iv) *Fruit*: is a supplementary production area. The main crops are apples and pears, followed by almonds and olives.

Livestock

Cattle are the major form of livestock. Milk is the most important product, followed by meat. Livestock density in the upland *comarcas* is above the Catalan average (see Tables 10, 11 and 11 a).

The number of sheep has fallen dramatically over the last 10 years.

Pig and poultry farms are fully industrialized.

The main types of farm in the five *comarcas* of the high Pyrenees (Cerdanya, Alt Urgell, Pallars Sobirà, Pallars Jussà and Vall d'Aran) are:

(i) *Intensive cattle breeding*: family farms with around 30 high-quality cattle yielding around 5 000 litres of milk per cow annually. These farms make intensive use of meadowland.

(ii) *Intensive breeding*: farms based mainly on mixed cattle products (milk + suckling calves). These farms use high and medium upland meadowland and practise transhumance in winter.

(iii) *Land exploitation supplemented by intensive livestock breeding*: type of farming developed in the areas where 'Mediterranean' agriculture is suitable.

(iv) *'Residual' farming*: this is a general term for traditional farms growing mixed crops. They are found both in tourist areas and in areas where the production of hydroelectric power is important. (*Note:* These categories are taken from the Sintesi d'un estudi territorial (Outline territorial study) prepared by the Directorate-General for Territorial Policy).

Table 9

Farm crops in the 9 *comarcas* (1981)

(ha)

	Gar.	Rip.	Ber.	Cer.	A.Ur.	P.Jus.	P.Sob.	V.Ar.	Sols.	Total
Cereals	6 397	932	5 717	1 481	3 792	11 901	1 329	66	10 129	41 744
Vegetables and seeds	171	22	116	4	60	124	39	—	91	627
Tuber	454	659	637	887	1 079	958	448	135	1 561	6 818
Fodder crops	3 616	2 461	1 957	744	4 001	3 507	2 784	386	2 773	22 229
Market garden crops	183	63	72	5	166	205	115	15	67	891
Fruit	95	6	10	25	451	1 339	14	5	10	1 955
Total										**74 264**

Source: Información estadistica (statistical information) op. cit. Table 1.

Table 10

Livestock numbers

	Sols.	Gar.	Rip.	Ber.	Cer.	A.Ur.	P.Jus.	P.Sob.	V.Ar.	Total
Pigs	45 638	36 125	16 006	68 874	5 653	16 061	20 442	3 954	—	212 753
Cattle	6 660	12 532	16 779	7 347	7 685	15 258	5 574	8 997	2 426	83 258
Sheep and goats	12 728	13 452	18 426	18 098	3 045	27 277	50 238	24 351	1 192	168 807
General total										**464 818**

Source: Información estadistica (statistical information) op. cit. Table 1.

Table 11a

Ratio crops: livestock (ratios of intensity of use of fodder resources)

	Gar.	Rip.	Ber.	Cer.	A.Ur.	P.Jus.	P.Sob.	V.Ar.	Sols.
1. Cows + $\frac{bravas + 1\ year/ha}{2}$ [1]	0.136	0.141	0.060	0.324	0.099	0.024	0.076	0.045	0.03
2. Cows + $\frac{bravas + 1\ year/ha}{2}$ [2]	0.679	1.207	0.540	0.920	0.597	0.072	0.619	0.344	0.07
3. Sheep/ha. productive	0.15	0.19	0.17	0.13	0.16	0.34	0.22	0.02	0.27
4. Sheep/ha. ploughed land	0.77	1.59	1.52	0.36	0.96	1.01	0.47	0.17	0.62

[1] Productive

[2] Ploughed land.

Source: Información estadistica (statistical information) op. cit. Table 1.
'Brava' cow: cow between 1 and 3 years' old to be used for breeding.

Table 11b

Density of livestock in the Catalan *comarcas*

Upland *comarcas*	UL/UAA
Garrotxa	0.14
Ripollès	0.15
Cerdanya	0.32
Berguedà	0.08
Solsonès	0.03
Alr Urgell	0.11
Pallars Jussà	0.06
Pallars Sobirà	0.09
Vall d'Aran	0.04

Ratio UL/UAA: number of heads of livestock (UL) divided by used agricultural area (UAA).

Other Catalan *comarcas*	UL/UAA
Baix Llobregat	0.05
Barcelone	—
Maresme	0.07
Vallès Occidental	0.05
Vallès Oriental	0.12
Alt Emportà	0.18
Baix Empordà	0.17
Gironès	0.23
Selva	0.11
Alt Camp	0.02
Alt Penedès	0.02
Garraf	0.03
Terragonès	0.04
Baix Camp	0.01
Conca de Barberà	0.02
Priorat	0.01
Ribera	0.02
Baix Ebre	0.03
Montsià	0.04
Terra Alta	0.01
Osana	0.18
Anoia	0.02
Bages	0.02
Garrigues	0.03
Noguera	0.07
Segarra	0.03
Segrià	0.08
Urgell	0.06

Source: Información estadistica (statistical information) op. cit. Table. 1.

Land use and usable agricultural area

In 1982, 57.4% of UAA in the upland *comarcas* was used for grazing and meadowland (114 219 ha), and 42.6% for ploughed land.

Woodland covered 49.2% of the upland *comarcas* in 1982.

UAA (ploughed land + grazing and meadowland) was 198 845 ha, or 25.5% of the productive area of the upland *comarcas*. [1]

'Other unploughed areas' + wasteland represent 28.8% of the productive area of the upland *comarcas*.

Structure of farms

Number and size of farms

In 1962, farms in the upland *comarcas* formed 12.7% of the Catalan total. This fell to 10.5% in 1972. The reduction in the number of farms from 1962 to 1972 (-42%) is much more acute than for the rest of Catalonia (-29%). From 1962 to 1982 the reduction in the upland *comarcas* was 48%.

The average size of farms in the uplands rose from 39.15 ha in 1962 to 57.68 ha in 1972. This average size is

[1] UAA shrank considerably between 1972 and 1982. The area of ploughed land grew and grazing and meadowland shrank (for the overall picture, see Tables 12a and 12b).

Table 12a

Classification and size of agricultural land (1982) [1]

(ha)

Classification	Gar.	Rip.	Ber.	Cer.	Sols.	A.Ur.	P.Jus.	P.Sob.	V.Ar.[2]
1. Geographic (2+8)	83 995	103 152	118 246	54 641	97 190	144 688	175 653	135 524	62 048
2. Productive (3+4)	64 656	94 498	103 540	45 483	89 082	116 011	148 801	116 585	—
3. Ploughed	8 968	3 485	12 472	4 315	20 521	7 115	25 049	2 113	588
4. Unploughed (5+6+7)	55 688	91 013	91 068	41 168	68 501	108 896	123 752	114 472	—
5. Meadow and grazing land	1 659	28 604	3 587	15 747	2 083	13 453	20 504	15 430	13 152
6. Woodland	43 190	36 607	67 808	15 500	44 003	56 826	56 030	48 892	14 968
7. Other unploughed (thickets + fallow land)	10 839	25 802	19 673	9 921	22 475	38 617	47 218	50 150	—
8. Unproductive area (1-2)	19 339	8 654	14 706	9 158	8 108	28 677	26 852	18 939	—
9. Urban	595,8	534,47	659	410,75	177,65	313	328	222,5	175,5

[1] Taken from the Spanish agricultural census of 1982. National Statistical Institute.

[2] 1976 figures — Areas used for crops.

Table 12b

General total for Table 12a — key (1982)

	General total in ha
1. Geographic area	975 137
2. Productive area	778 656
3. Ploughed area	84 626
4. Unploughed area	694 558
5. Meadow and grazing	114 219
6. Woodland	383 824
7. Other unploughed land	224 695
8. Unproductive area	134 433

1. Geographic area (2+8)
2. Productive area (3+4)
3. Ploughed area: land worked by any tool
4. Unploughed area (5+6+7)
5. Meadow and grazing land
   Meadow: permanent grassland, mainly for harvesting
   Grazing: land for animal pasturage
6. Woodland
7. Other unploughed land (thickets + fallow land)
8. Unproductive area (1-2)
   Under this classification, UAA = 3+5

higher than in the rest of Catalonia (12.75 in 1962 and 17.93 in 1972). In the period 1962 to 1972 the growth rate of the average farm size was also higher in the upland *comarcas* (47.3%) than in the rest of Catalonia (40.6%) (see Tables 13 and 15a)).

Structure of land ownership and breakdown of farms by size

Statistics show that land is 70% privately owned, 6% tenant farming, 3% share-cropping, and 21% other forms of ownership (public).

Private ownership is important in Ripollès, share-cropping in Pallars Sobirà, and public ownership is particularly important in Alt Urgell, Pallars Jussà and Pallars Sobirà (see Table 14).

Farm size is characterized by the following features (see Tables 15a and 15b):

(i) the considerable number of farms under 10 ha; these are found in irrigated valleys. However, their number was higher in 1962 than in 1972 and 1982; the sharpest fall has been in those under 1 ha;

(ii) the number of large and medium-sized farms, mainly in medium and high upland. Much of the land here has become unproductive;

Table 13

Number of farms, average size trends

		Gar.	Rip.	Ber.	Cer.	A.Ur.	P.Jus.	P.Sob.	V.Ar.	Total *comarcas*	Total Catalonia
Number of farms	1962	6 247	4 314	5 487	1 543	2 986	3 459	1 735	777	26 548	207 585
	1972	3 145	1 517	3 648	880	2 080	2 383	1 252	634	15 539	147 526
Growth 1962/72	%	—49.7	—64.8	—33.5	—43.0	—30.3	—31.1	—27.8	—18.9	—42	—29
Area per farm	ha 1962	12.16	18.02	18.71	25.68	40.50	48.22	62.43	87.48	39.15	12.75
	1972	21.63	57.04	29.66	44.77	53.90	65.48	104.06	84.43	57.68	17.93
Growth 1962/72	%	77.9	216.5	58.5	74.3	33.1	35.8	66.7	—3.9	47.3	40.6

Source: Información estadistica (statistical information) op. cit. Table 1.

Table 14a

Land ownership

		Gar.	Rip.	Ber.	Cer.	A.Ur.	P.Jus.	P.Sob.	V.Ar.
Total area surveyed		68 021	93 813	103 224	22 297	154 678	167 275	129 987	64 281
Owner-occupied	1972	59 184	69 910	89 870	18 233	107 489	122 157	32 228	61 307
% owner-occupied	1972	87.01	74.41	87.06	81.87	64.49	73.03	24.79	95.37
% owner-occupied	1962	86.82	83.59	88.46	82.89	93.95	95.95	99.10	99.28
Tenant farming	1972	5 286	19 349	7 264	3 603	6 483	5 911	2 925	480
% tenant farming	1972	7.77	20.63	7.04	16.16	4.19	3.53	2.25	0.75
% tenant farming	1962	5.24	7.61	4.73	15.11	3.22	1.65	0.72	0.63
Share cropping	1972	3 358	3 956	5 409	202	1 505	3 070	9 555	31
% share cropping	1972	4.94	4.22	5.24	0.91	0.97	1.84	7.35	0.05
% share cropping	1962	7.46	7.12	6.25	1.21	2.57	1.69	0.75	0.02
Other	1972	193	698	681	259	39 201	36 134	85 279	2 463
% other	1972	0.28	0.74	0.66	1.16	25.34	21.60	65.61	3.83
% other	1962	0.48	1.79	0.56	0.79	0.85	0.71	0.03	0.07

Source: Información estadistica (statistical information) op. cit. Table 1.

Table 14b

		Total ha	%
Area surveyed	1972	803 576	100
Owner-occupied	1972	560 378	70
Tenant farming	1972	51 303	6
Share cropping	1972	27 086	3
Other	1972	164 908	21

Source: Información estadistica (statistical information) op. cit. Table 1.

Table 15b

Breakdown of farms according to size
(1962-82)

	1962	1972	1982 [1]
0.1 to 5 ha	17 158	6 468	4 621
5 to 10 ha	3 507	2 740	2 567
10 to 50 ha	3 887	3 990	4 531
50 to 100 ha	649	797	922
over 100 ha	1 050	1 198	1 260
Total	26 458	15 539	13 901

Source : Información estadistica (statistical information) op. cit. Table 1.

[1] The figures for 1982 cover all of upland *comarcas*.
The other figures exclude Solsones.

Table 15a

Trends in farm size

	Gar.	Rip.	Ber.	Cer.	A.Ur.	P.Jus.	P.Sob.	V.Ar.	**Total**
Year 1962									
Farm with no land	12	78	60	29	69	31	9	9	297
Farm with from 0.1 to 0.9 ha	2 780	2 493	2 705	503	594	488	219	96	9 878
Farm with from 1 to 4.9 ha	2 211	789	1 180	265	851	837	730	417	7 280
Farm with from 5 to 9.9 ha	469	289	532	292	612	778	347	181	3 500
Farm with from 10 to 49.9 ha	419	362	582	407	654	1 097	312	54	3 887
Farm with from 50 to 99.9 ha	162	116	170	15	72	97	17	—	649
Farm over 100 ha	194	186	258	30	132	131	101	18	1 050
								Total	**26 541**
Year 1972									
Farm with no land	62	26	197	23	10	24	3	1	346
Farm with from 0.1 to 0.9 ha	412	191	405	48	148	124	86	44	1 458
Farm with from 1 to 4.9 ha	1 318	368	1 120	170	587	648	443	356	5 010
Farm with from 5 to 9.9 ha	491	200	471	160	389	550	293	183	2 737
Farm with from 10 to 49.9 ha	516	363	850	413	649	863	295	37	3 986
Farm with from 50 to 99.9 ha	157	165	226	23	116	83	26	1	797
Farm over 100 ha	189	204	379	42	181	91	101	11	1 198
								Total	**15 532**

Source: Información estadistica (statistical information) op. cit. Table 1.

(iii) between 1962 and 1982 the number of farms under 5 ha fell sharply (-73%), those between 5 and 10 ha less sharply (-27%); the number for the other sizes rose slightly.

Forestry

There are 600 000 ha of woodland in the *comarcas* of the Pyrenees, covering 70% of total surface area. 53% is privately owned, 47% publicly owned.

The volume of wood (trees of 25 cm diameter) is estimated at 16.6 x 106m³. Annual production is currently around 200 000 m³.

Given the importance of woodland in the Pyrenees, the bodies involved are taking measures to:

(i) maintain the current area of woodland;
(ii) assist and monitor businesses;
(iii) ensure planned use of woodland for tourism.

Industry

Industry in the uplands is of marginal importance in the Catalan economy. Industry is concentrated around Barcelona (see Table 16).

The western upland *comarcas* have particularly little industry (Solsonès, Cerdanya, Alt Urgell, Pallars Sobirà, Pallars Jussà and Vall d'Aran), only accounting for 0.53% of the Catalan industrial workforce. In none of the *comarcas* does the industrial workforce exceed 25% of the total workforce.

The *comarcas* of Garrotxa, Berguedà and Rippolès have a broader industrial base.

These three *comarcas* have 3.16% of the Catalan industrial workforce. In each of them, industry accounts for over 50% of the total workforce. The main industries in Rippolès and Berguedà are in decline (iron and steel, textiles, mining), while the industrial base of Garrotxa is more diversified and is made up of small and medium firms.

Among the nine upland *comarcas*, Garrotxa, Rippolès and Berguedà account for (see Tables 17a and 17b):

(i) 46% of firms (1 029) and 69.5% (7 491) of workers in the category of firms employing under 50 people;

(ii) 88% of firms (116) and 69.5% (31 471) of workers in the category employing under 500 people;

(iii) 100% of firms (2) and workers (3 552) in the category employing over 1 000 people.

In the other six upland *comarcas*, industry is concentrated in firms employing under 50 people.

Breakdown of the workforce according to sector of activity shows the following (see Table 18):

(i) the three most industrialized *comarcas* (Garrotxa, Rippolès and Berguedà) account for 90% of employment in the extractive industries, 8% of employment in manufacturing industry, 19% in electricity, water and gas, and 59% in construction;

(ii) the other six *comarcas* are most involved in electricity, water, gas and construction; manufacturing industry is lowest in Alt Urgell, Solsonès and Pallars Jussà.

Tourism

The Catalan uplands have major resources for tourism: scenery, snow, rural architecture (Romanic monuments).

Tourism is a major activity in all the upland *comarcas*, particularly in those with little industry, such as Cerdanya

Table 16

Percentages share of Catalan industry

	1967	1969	1971	1973	1975	1977	1979
Barcelona							
workforce	81.8	82.2	83.2	83.0	83.3	82.6	74.7
total production	83.0	83.0	82.5	83.8	81.7	80.7	—
Gerona							
workforce	8.0	7.8	7.4	7.2	7.2	7.6	8.5
total production	7.3	6.6	6.8	6.4	6.3	6.7	—
Lerida							
workforce	4.3	4.1	3.3	3.6	3.3	3.3	5.4
total production	4.1	3.9	3.7	3.4	3.5	3.4	—
Tarragona							
workforce	5.8	5.8	5.6	5.4	6.2	6.4	8.4
total production	5.7	6.4	6.8	6.3	8.5	9.2	—
	100	100	100	100	100	100	100

Source: Información estadistica (statistical information) op. cit. Table 1.

Table 17a

Size of firms according to number of employees

	0 - 49		50 - 99		100 - 199		200 - 499		500 - 999		over 1 000		Total	
	F	E	F	E	F	E	F	E	F	E	F	E	F	E
Garrotxa	541	4 737	25	1 808	13	1 850	3	1 028	1	547	1	2 201	584	12 171
Cerdanya	185	545	—	—	1	131	—	—	—	—	—	—	186	676
Ripollès	215	1 320	9	615	8	1 196	10	3 527	1	525	—	—	243	7 183
Berguedà	273	1 434	6	442	9	1 296	14	4 407	2	1 396	1	1 351	305	10 326
Solsonès	121	601	1	70	3	359	—	—	—	—	—	—	125	1 030
Alt Urgell	270	785	1	66	4	526	—	—	1	569	—	—	276	1 946
P. Jussà	299	941	1	62	2	232	—	—	—	—	—	—	302	1 235
P. Sobirà	154	256	—	—	—	—	—	—	—	—	—	—	154	256
Vall d'Aran	78	150	1	50	—	—	—	—	—	—	—	—	79	200
9 *comarcas*	2 136	10 769	44	3 113	40	5 590	27	8 962	5	3 037	2	3 552	2 254	35 023
Catalonia	37 285	273 610	1226	86 326	736	103 367	449	134 571	96	63 488	34	79 149	39 826	740 503

Source: Información estadistica (statistical information) op. cit. Table 1.

F = Number of industrial firms. E = Number of employees.

Table 17b

Data from Table 17a on the three most industrialized *comarcas*

Comarcas	0 - 49		50 - 500		over 1000	
	F	E	F	E	F	E
Garrotxa	541	4 737	42	5 233	1	2 201
Rippolès	215	1 320	28	5 863	—	—
Berguedà	273	1 434	32	9 072	1	1 351
Total 3 *comarcas*	1 029	7 491	102	20 168	2	3 552
Total 9 *comarcas*	2 136	10 769	116	20 592	2	3 552

Table 18

Sectoral breakdown of workforce (1975)

Comarcas	Extractive industries	Manufacturing industries	Electricity, water and gas	Construction
Garrotxa	80	10 125	25	2 360
Cerdanya	5	440	10	1 020
Rippolès	-	8 500	100	1 115
Berguedà	1 500	8 780	125	1 550
Solsonès	5 740	15	500	
Alt Urgell	10	1 715	85	655
P. Jussà	150	675	675	695
P. Sobirà	-	80	130	240
Vall d'Aran	-	155	140	325
Total 9 *comarcas*	**1 750**	**31 180**	**1 305**	**8 460**

Source: Informacion estadistica (Statistical information) op. cit. Table 1.

Table 19

Number of tourists per *comarca* (1981)

Comarcas	Tourists	Floating population	
		% s/total population of the *comarca*	% s/total Catalan
Alt Urgell	3 280	17	0.1
Berguedà	7 856	18	0.2
Cerdanya	22 120	168	0.8
Garrotxa	5 120	10	0.1
Pallars Jussà	7 350	38	0.2
Pallars Sobirà	12 925	244	0.4
Ripollès	10 835	31	0.4
Solsonès	11 950	105	0.4
Vall d'Aran	10 765	209	0.4
Total 9 *comarcas*	**92.204**		**3**
Total Catalonia	**2 686 056**		**100**

Source: Els Serveis Municipals a Catalunya. Generalitat de Catalunya. (Municipal services in Catalonia, Generalitat de Catalogne. Contained in 'Informacion estadistica' (statistical information)) op.cit., Table 1.

Table 20

Tourist accommodation (hotels and camping sites) (1981)

Comarcas	Hotels (beds)	%	Camping (beds)	%
Alt Urgell	1 031	0.6	1 348	0.9
Berguedà	660	0.4	—	—
Cerdanya	3 331	1.9	1 022	0.7
Pallars Jussà	1 330	0.8	1 431	0.9
Pallars Sobirà	1 485	0.9	2 210	1.4
Ripollès	1 614	0.9	1	—
Solsonès	592	0.3	—	—
Vall d'Aran	2 289	1.3	340	0.2
Total 8 *comarcas*	12 332	7.0	6 352	4.0
Total Catalonia	171 109	100.0	156 865	100.0

Source: Elaboracion del Banco de Estadisticas Municipales Repres par Informacion estadistica (figures from the municipal statistics bank) op.cit., Table 1.

Table 21

General features of Catalan ski resorts in the Pyrenees

Resort	Distance Barna (km)	Tourist accommodation	Accommodation	
			At the foot of piste	Surrounding areas
Vallter 2000	150	1 340	—	450
Nuria	135	227	800	1 200
La Molina	155	3 794	3 800	6 400
Masella	160	3 179	550	8 650
Rasos Beguera	125	710	—	400
Port Compte	145	3 315	280	475
Llesui	258	1 019	356	1 730
Super Espot	270	1 024	390	1 730
Bargueira	310	4 269	2 500	2 250
La Tuca	298	1 597	240	2 360

Source: Plan de Ordenacion de Estaciones de Montana en el Piniteo Catalan (Breakdown of ski resorts in the Catalan Pyrenees) Direccion General de Transportes. Generalitat de Cataluna (Directorate-General for Transport, Catalan Generalitat) Contained in 'Informacion estadistica' (statistical information) op.cit., Table 1.

and Vall d'Aran. Cerdanya is the traditional holiday resort for the residents of Barcelona, and Vall d'Aran is popular with French tourists.

The growth of winter tourism has prompted reorganization of the sector in the *comarcas* of Cerdanya and Vall d'Aran. Tourism now has two seasons, with differing demands in summer and winter. The large downhill skiing resorts of Catalonia have become the focal point of tourism in the Pyrenees:

(i) Alta Cerdanya, Puigarda and Alp Llivia are directly linked to the ski resorts of Molina and Masella;

(ii) Medio and Alto Aran with the resorts of Vagueira and Tuca;

(iii) Sort, Prialp, Espot and Esterri where hotels have appeared to cater for the needs of the ski resorts of Llesui and Espot.

The 12 ski resorts (10 downhill skiing and 2 cross-country) are situated in the upland *comarcas* of the Catalan Pyrenees.

Statistics on tourism in the upland *comarcas* yield the following (see Tables 19 and 20):

(i) the 9 upland comarcas account for 3% of tourists in Catalonia;

(ii) tourist accommodation (number of beds) in the uplands in hotels is 7% of the total in Catalonia and in camp sites 4% of the total in Catalonia.

Table 21 gives the general features of the 10 ski resorts in the upland *comarcas*.

Bibliography

Regional Law 2/1983. High uplands.

Decree (Generalitat of Catalonia) 566/1983. Implementing Law 2/1983.

Decree (Generalitat of Catalonia) 84/1984. Implementing Law 2/1983.

Decree (Generalitat of Catalonia) 414/1983. Implementing Law 2/1983.

'Informacion estadistica economico-social sobre areas de montana de Cataluna' (Economic and social statistics on the Catalan uplands). (This document was drawn up by the Directorate-General for Territorial Policy, Department of Territorial Policy and Public Works, Generalitat of Catalonia, in answer to the questionnaire sent by the ESC Studies and Research Division).

'Comarques del Pirineu'. Sintesi d'un estudi territorial. Ed. Departement de Politica territorial i Obres Publiques. 1983 (*Comarcas* of the Pyrenees. Outline Territorial Study. Ed. Department of Territorial Policy and Public Works).

Centre d'Estudis Demogràfics, 'Estudi demografic de la poblacio de Muntanya a Catalunya' (Population Studies Centre; Demographic survey of the Catalan uplands population) (Study underway at present).

Detailed survey of pilot areas

Drama

Greece

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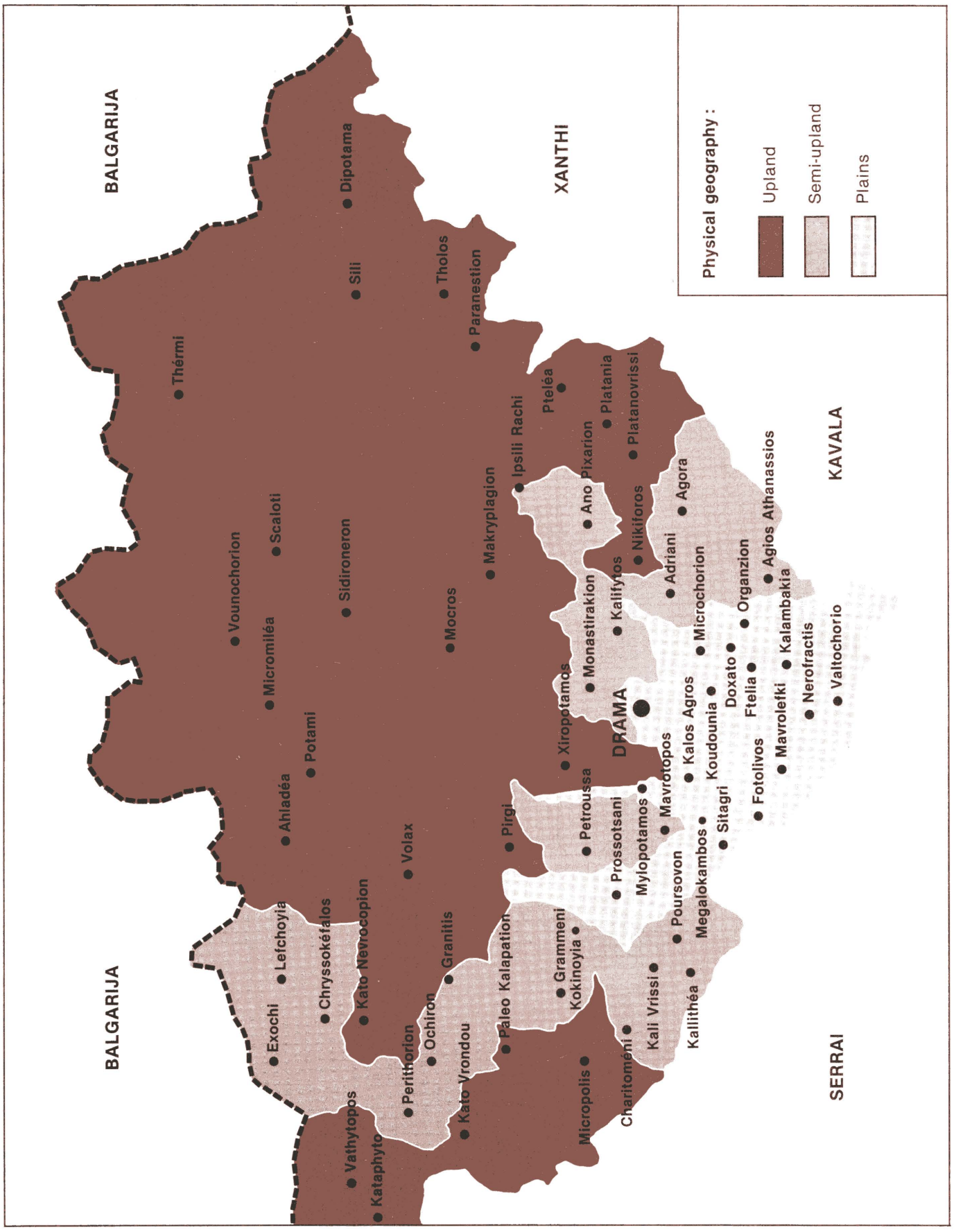

Area and geographical features

The province of Drama lies in the north-east of eastern Macedonia, on the border with Bulgaria. Its geographical position is far away from the north-south development axis.

The province comprises one prefecture, four local authorities (Drama, Prossotsani, Doxato, C. Nevrocopi) and 66 communes with 121 villages.

The province is 3 468 km² and covers 36.3% of eastern Macedonia and 2.63% of Greece. 16.4% of the province is farmland, 42.56% is pasturage and 36.4% is wooded.

70.2% of the province is upland, 19.2% is semi-upland and 10.6% is lowland (see Bibliography, source No 9).

Geographically, there is a clear-cut distinction between the southern part (lowland) and the north (upland), which causes imbalance in the development of the province.

Environmentally, the province is also varied, with such features as the forest of C. Rodope, the Caves of Maara, true mountains, and the springs of Varvara.

Table 1

Upland, semi-upland and lowland population in Greece, Macedonia and Drama

	Population				
	Total	Lowland	Semi-upland	Upland	% upland population
Greece	9 740 417	6 712 870	2 085 574	941 973	9.67 %
Macedonia	2 121 953	1 579 118	379 671	163 164	7.69 %
Drama	94 772	65 498	19 825	9 449	9.97 %

Source: Greek National Statistics Office (GNSO), *1983 yearbook* of statistics, p. 23.

Demographic aspects

Total population

At the time of the 1981 census the population was 94 772. Population density is 27.3 per km².

Population trends

Population trends in Drama have been similar to those of most Greek provinces. The number of inhabitants remained virtually unchanged between 1951 and 1961, but fell dramatically between 1971 and 1981. Over the period 1951 to 1981 there has been an annual average drop of 0.69%, compared with a rise of 0.816% for Greece as a whole (see source No 10).

During the decade 1961 to 1971, emigration in Drama took on epidemic proportions. 25% of the population left the province, many to live abroad. This figure puts Drama in second position in Greece for out-migration. However, emigrants returned during the decade 1971-81 (see Table 2) and the population rose by 4%.

Table 2

Emigration 1951-81

Years	Change for the decade as a whole	Caused by birth/death	Due to emigration	Emigration as % factor in total population/ beginning of decade
1951-61	+ 514	+ 1 764	- 1 250	+ 10.25 %
1961-71	- 29 997	+ 10 783	- 40 780	- 337.01 %
1971-81	+ 3 763	+ 2 075	+ 1 688	+ 18.55 %

Source: GNSO, *Yearbook of statistics*, 1954-81. Study on births and deaths by decade, Regional Development Service, Ministry of Regional Development and the Environment (MRDE), 1983.

Table 3

Overall population trends and changes

Overall population				Population change				
					Decade %		AAC [1] %	
Year	Province (1)	Country (2)	% (1)(2)	Decade	Prov.	Country	Prov.	Country
1951	120 492	7 632 801	1.5%	1951 1961	0.43	4.9	0.043	0.95
1961	121 006	8 388 552	1.4%	1961 1971	24.8	4.5	- 2.5	0.44
1971	91 009	9 768 641	1.3 %	1971 1981	4.1	11.0	0.4	1.06
1981	94 772	9 740 417	0.9%					

Source: Greek population census, volume 1, GNSO for 1951, 1961, 1971, 1981; population by province, sub-prefecture, local authority, commune and village. Population study, Town planning service - Ministry of Regional Development and the Environment, 1983.

[1] AAC = Average annual change.

Table 4

Trends in population (breakdown by age) in Drama and Greece, 1951-81

(%)

Age group	1951		1961		1971		1981	
	Drama province	Greece	Drama province	Greece	Drama province	Greece	Drama province	Greece
0 - 14	29.5	28.59	28.82	26.74	29.20	25.36	24.20	23.70
15 - 44	47.80	47.08	42.79	44.74	37.40	42.52	37.50	40.66
45 - 64	16.20	16.87	19.98	20.32	20.40	21.29	23.90	22.92
65 and over	6.50	7.46	8.41	8.20	13.00	10.83	14.40	12.72

Source: Population censuses, volume II, GNSO, 1951, 1961, 1971, 1981.

Population breakdown by age group

The age pyramid for the province has shown a rise in ageing and a corresponding fall in those of productive age (15-44 years). This affects both population increase and employment.

Population distribution (urban, semi-urban, rural)

The urban population in 1981 was 37 118, forming 39.2% of the population of the province, and concentrated in the town of Drama itself. In the decade 1971-81 the population rose by an annual average of 1.9%. However, the semi-urban and rural population is falling.

The semi-urban population fell by an annual average of 6.7% over the decade 1961-71 and by 1.1% over the decade 1971-81.

The rural population fell by an annual average of 1.8% in 1961-1971 and by an annual average of 0.1% in 1971-1981.

Table 5 shows the situation in Drama and Greece as a whole respectively.

Table 5

Population distribution (urban, semi-urban, rural) in Drama province and in Greece as a whole, %

Year	Area	Urban	Semi-urban	Rural	Total
1951	Drama	27.5	29.4	43.1	100
	Greece	36.8	15.5	47.7	100
1961	Drama	27.7	30.0	42.3	100
	Greece	43.2	13.0	43.8	100
1971	Drama	33.7	21.2	45.1	100
	Greece	53.2	11.7	35.1	100
1981	Drama	39.2	21.6	39.2	100
	Greece	58.1	11.6	30.3	100

Source: Yearbook of statistics (GNSO), 1951-81.
Study by the Regional Development Service : population trends and distribution for 1951, 1961, 1971, 1981.

Economic and social aspects

Sectoral employment: working population and unemployment

Table 6a shows a dramatic fall in the working population, from 52.8% in 1961 to 37.5% in 1981. This is a 15.3% fall compared to the population of the province. At national level over the same period the fall was 7.04%.

In 1981 the working population of the province was 37.5%, compared to 36.33% in Greece as a whole.

Examination of the structure of employment shows:

(a) *Primary sector (agriculture)*: employment plummeted by 36.4% from 1961 to 1981. At national level over the same period the fall was 27.33%.

(b) *Secondary sector (industry)*: employment in Drama province increased from 8.9% in 1961 to 28.0% in 1981 (a rise of 19.1%). Nationally, the rise was just 11.73%.

(c) *Tertiary sector (services)*: employment in Drama province rose dramatically from 1961 to 1981 - a rise of 17.5% (from 11.5% to 29%). Nationally, the rise was 15.5%.

The same table shows that in 1981 the primary sector in Drama was considerably more important than it was nationally (43% and 29.15% respectively). The secondary sector was virtually equal (28% in Drama, 30.47% for Greece as a whole). The tertiary sector accounted for 40.38% in Greece as a whole against 29% in Drama.

Note: GNSO population classification - *urban*: in local authorities and communes with over 10 000 inhabitants; *semi-urban*: in local authorities and communes with between 2 000 and 9 999 inhabitants; *rural*: in local authorities and communes with under 2 000 inhabitants.

Table 6a

Workforce and sectoral breakdown of employment (1961-81)

	Year	Population [1] (1) ('000)	Workforce (2) ('000)	(1) (2)	Jobs ('000)	Sector % Prim.	Sec.	Tert.
Province	1961	121 000	63 864	52.8	61 022	79.4	8.9	11.5
	1971	91 009	33 901	37.2	32 874	64.0	14.2	21.8
	1981	94 772	35 602	37.5	33 692	43.0	28.0	29.0
Greece	1961	8 388 553	3 638 601	43.37	3 423 431	56.38	18.74	24.8
	1971	8 768 641	3 244 768	37.0	3 143 040	40.00	27.40	32.6
	1981	9 740 417	3 538 530	36.33	3 383 251	29.15	30.47	40.3

[1] In 1951 the population was 102 492 and the working population 54 352 (around 45%) (See *Economic Encyclopedia*, Volume D, Greece, p. 845).

Table 6b

Sectoral breakdown of GDP — Investment

GDP 1979 Val. in 000 million DR	% GDP 1970 1979	Composition GDP 1979 % prim.	sec.	tert.	Public investment 1977-81 000 mill. DR	Private savings 000 mill. DR	Public investment per inhab. in Drama	Private savings per inhabitant 1981 in drachmas
8.88	4.6	26.0	30.5	43.5	1.95	7.09	14 800	74 800
1274.04	5.3	16.0	32.0	52.0	297.8	899.04	31 600	92 300

Sources for the above two tables: Basic provincial indicators, Centre for Economic Research and Planning (CERP), Athens 1984.
Population censuses, GNSO, 1961, 1971, 1981.
Regional development programme 1983-87, provincial reports (CERP) Greece.
Censuses 1961, 1971, 1981, October 1982.

The unemployment situation in Drama is as follows: In 1981 (see Table 6a) the workforce was 35 602. 33 692 of these people were actually working, leaving 1 910 unemployed. 1 427 young people were seeking employment. The total jobless was thus 3 337 or around 9%.

At the end of 1983, seasonal unemployment in Drama province was 4 800; this is around 13.5% of the working population (around 35 000).

Production structure

Crop growing and land use

Crop growing is the province's main economic activity. The chief products are potatoes, maize, clover, sugarbeet, tomatoes, hazel nuts and cereals. Development of the sector is hampered by the small size of the farms, the lack of comprehensive up-to-date irrigation, the inadequacy of storage facilities and the incomplete road network in the woodlands.

Stock-raising and forestry could be developed much further if existing resources were used properly.

In 1981, 57 000 hectares were under cultivation (16.4% of the area of the province).

This is 29.73% of cultivated land in Greece (see Table 7 for a breakdown of land use in Greece and in Drama).

Tables 8a and 8b show agricultural trends; land use and average farm size in 1971 and 1981.

According to GNSO data for 1984/1985, the usable cultivated area is 55 350 ha, pastureland 145 100 ha, fallow land 1 400 ha, forest 128 730 ha and barren land 17 620 ha.

All but 0.15% of forest and pastureland is State-owned. [1]

Livestock farming

This is a dynamic area with good development prospects. There are a number of small, family-run farms.

Table 9 shows meat and milk production.

[1] See Table 7.

Table 7

Breakdown of land use 1981

Region	Breakdown of land use													
	Crops		Pasturage						Forest		Water		Other	
	ha [1]	%	Communes ha	%	Private prop. ha	%	Total ha	%	ha	%	ha	%	ha	%
Drama	57 000	16.4	147 980	42.4	510	0.15	148 490	12.50	126 240	36.4	3 440	1.0	11 886	3.40
Greece	3 921 200	29.73	2 994 660	22.7	2 219 720	16.82	5 214 380	39.53	2 979 570	22.5	8 344 930	2.62	731 330	5.54
$\frac{\text{Drama}}{\text{Greece}}$ [2]	0.015		0.05		0.00		0.03		0.04		0.01		0.02	

Sources : GNSO, *Yearbook of statistics* 1981.
Breakdown of land use, Table 1, GNSO 1971.

[1] Converted into ha. : 10 stremmas = 1 hectare.

[2] Proportion — $\frac{\text{Drama}}{\text{Greece}} = \frac{570\,000}{39\,212\,000} = 0.015$

Table 8a

Agricultural trends

Factors affecting agricultural development	Area, ha		Variation %
	1971 a	1981 b	100 $\frac{b - a}{a}$
Type of land use			
Cultivated and fallow land	57 411.4	57 507.2	+ 0.20 %
Fallow land (1 - 5 years)	3 220.3	936.2	— 70.90 %
Number of farms	14 731	11 790	— 20.00 %
Average farm size ha	3.3	4.25(6)	+ 28.80 %
Basic crops			
Horticulture, vegetables, nursery crops, seedlings, flowers etc.	1 551.3	1 286.6	— 17.10 %
Vineyards incl. raisins	602.4	205.3	— 65.90 %
Forestry	1 605.3	3 088.2	+ 92.40 %

Source: GNSO, *Yearbook of statistics*, p. 29.

[1] Data from a GNSO survey in 1977-78 with a margin of error of 2 % as obtained by samples.

Table 9

Meat and milk production for the years 1976-80

(tonnes)

	1976	1980
Beef and veal	4 120	3 016
Goat and sheep meat	846	991
Pork	812	1 562
Poultry	830	1 000
Total	6 608	6 569
Milk production	35 800	37 980

Table 8b

Cultivated and fallow land : Greece, Macedonia and Drama

Area	Total cultivated and fallow land	Arable	Vegetables	Vineyards	Fruit trees	Fallow
Greece	4 062 628	2 416 674	115 760	179 500	843 325	507 368
Macedonia	1 093 870	929 322	32 880	14 161	94 765	22 740
Drama	57 936	52 084	1 433	192	3 319	008

Source: GNSO, *Yearbook of statistics*, p. 29.

Pasturage in the province consists of broadleaved deciduous and broadleaved indeciduous areas, and grassland.

Plans to develop livestock farming are focused on two areas: the southern lowlands and the uplands in the north.

The intensive livestock farming in the lowlands faces serious problems caused by the high cost of fodder.

The creation of model (organized) pasturage will help develop livestock farming and reduce fodder costs.

Livestock farming in the uplands could produce more than double its current head, which is well below the pasturage capacity of the grassland. The five-year programme involves animal production premiums, given that the province has the potential for modern, cooperative animal production.

Other agriculture-linked activities

Bee-keeping is a limited and generally unsettled activity. There are 8 000 hives, and the bees are a local species.

Fisheries: The province has abundant water sources, which have given rise to fish-farming supplied by 6 000 litres of spring water per second. There is some trout-farming. There is no commercial fishing, but some (sometimes illegal) amateur fishing.

The province has three trout-breeding farms covering 2.2 ha. Annual production is 200 tonnes of marketed trout and 500 000 of fry. There is one carp farm of 60 ha producing between 20 and 30 tonnes of cyprinids.

Upland fishing faces problems due to water pollution from industrial discharge and pesticides, the difficulty of obtaining fry, and the cost of food for the fish.

Forestry

The woodland of the forest includes spruce, pine, beech and oak.

The province has 273 800 ha of forest and woodland. 126 240 ha of this is high-productivity forest, with a 1983 yield of 250 000 m² of wood. Average annual wood yield is 316 000 m². Around 1 500 people are employed annually in the forestry sector. The productive forests are in the north of the province, the River Nestos providing their natural boundary. Achievement of the main aim of the five-year programme (a 100% increase in annual wood yield) will require the construction of 1 200 km of roads through the forest.

The depopulation of the upland communities makes it particularly difficult to find forestry workers in the province. Uplands cover 70% of the surface area but only account for 10% of the total population.

The protected forests in the province are Drama, Petroutsa, Callypliton, Kirion and Pteleas. Reafforestation following fires is being carried out in Fiderna and Andilalos, albeit on a limited scale.

The paper industry is the most dynamic processing activity; there are also small sawmills and low-efficiency furniture factories.

There are 800 km of roads (all types) in the woodland and 360 km of tractor paths.

Industry and crafts

Number and size of firms (see Table 10)

GNSO data show that there are 1 156 industrial and craft firms in the province, employing 5 542 people. In 1978 there were eight firms with over 10 employees. The number of firms with over 10 employees rose to 60 over the next few years with the creation of the industrial area.

7 554 people were employed in 1984 (data from the Eastern Macedonia Regional Development Service).

Most of these firms are concentrated around the town of Drama in the industrial area along the main roads in Doxato, Agios, Athanassios, Kefalari and Coudonia.

There is a 224.8 ha industrial area to the east of the town of Drama.

There is considerable interest in the creation of new firms within the industrial area.

Industrial and other sectors

Construction

There are many factories for the processing of construction materials (lime, marble, tiles, etc.).

Table 10

Industrial and craft firms
Average annual employment (1969, 1973 and 1978)

Area	Number of industrial and craft firms			Average number employed		
	1969	1973	1978	1969	1973	1978
Greece	124 651	121 357	128 983	501 522	604 042	671 496
Macedonia	28 201	26 083	29 629	102 770	120 770	148 970
Drama	1 190	945	1 156	2 854	2 648	5 542

Source: GNSO, *Yearbook of statistics*, p. 201.

The large scale of wood production in the province has led to the proposal of a cooperative factory producing doors, windows and fittings in wood, large enough to meet the needs of all eastern Macedonia.

Mines

There are several manganese mines in the local authority areas of Acladea, Pyrgow, Chrussokefalos, Scolati, Lidironero.

There are also some State-owned lignite mines in the local authority area of Silli, although these have recently closed.

Tourism - General features and accommodation capacity

Tourist interest could focus on Mount Falacro and the caves discovered near the springs at Maara; however, the full potential of these sites has not yet been realized.

Hotel accommodation is very limited. Drama has just nine hotels, with a total of 481 beds.

An interesting initiative has been the creation of a 'forest village', built to improve the living conditions of forestry workers. This could perhaps be further developed to form a holiday village.

The province already has a winter-sports resort in Volaca, although facilities here need improvement.

The Zagradenia forest is ripe for eco-tourism, being of considerable ecological interest. Better infrastructure is needed, to allow students and scientists to carry out research there.

Summary of main data

The province of Drama comprises:

(a) 1 prefecture, 4 local authorities, and 66 communes with 121 villages.

(b) 94 772 inhabitants. Population density: 27.3 per km².

(c) An increase in the average age, which is well above the national average.

(d) Employment distribution 1981: primary sector 43%, secondary 28%, tertiary 29%, unemployment 9%.

(e) Agriculture:

Animal production: 6 600 tonnes (beef and veal 3 016; sheep and goat meat 990, pork 1 560, poultry 1 000) and 38 000 tonnes of milk (1980)

Arable land: (1981) 51 990 ha

Horticulture: 1 286.6 ha

Vineyards: 205.3 ha

Forestry: 3 088.2 ha

Number of farms: 11 790

Fallow land (1-5 years): 936.2 ha in 1981

Cultivated land: 55 350 ha

(f) Industry:

1 156 industrial and craft firms: 7 550 jobs;

number of firms employing over 10 people: 60 (1984);

28% of the workforce is employed in industry; many factories processing building materials; manganese and lignite mines.

(g) Tourism:

underdeveloped despite major advantages;

insufficient hotel accommodation.

Development prospects in the province

Development could centre on livestock rearing, forestry products, and mining. The opening of the Greek-Bulgarian frontier (border post at Exochi) could help increase tourism and trade and expand the province's transport system. The dam being built at Nestos will help the development of the north of the province. The winter sports resort at Mount Falacro is a major tourist asset and should be made directly accessible from the town of Drama.

Bibliography

1. Greek National Statistics Office (GNSO)
   (a) *Yearbook of statistics.*
   (b) Greek population censuses 1951, 1961, 1971, 1981.
   (c) Greek farm statistics for 1982.
   (d) 1983 survey on workforce and employment.
   (e) Greek local authorities, communes broken down into lowland, semi-upland and upland, 1980.
   (f) Vocabulary of Greek local authorities, communes and places up to 31.12.1982.
   (g) Monthly statistics bulletins 1983, 1984, 1985.
2. Data from the Ministry of Regional Development and the Environment.
3. Centre for Economic Research and Planning
   (a) Basic provincial indicators
   (b) Regional development 1983-87.
4. National Economy Ministry: Economic and Social Development Programme 1983-87 (Athens 1985).
5. Agricultural Economy Ministry.
6. Ministry of Agriculture: Greek Agriculture 1984.
7. *Vocabulary of the farm economy and farm policy* (N.H. Totsis, 1985).
8. *Greek agricultural bank: Current problems in the farm sector* (Selection of articles: Th. Athanassiou).
9. Eastern Macedonia Regional Development Service, Kavala.
10. *Economic Encyclopedia* Vol. D, Greece, pp. 847-850, Athens 1958.

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