

HELLENIC REPUBLIC

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# HELLENIC STATISTICAL AUTHORITY

### PRESS RELEASE

#### FARM STRUCTURE SURVEY, YEAR 2013

The Hellenic Statistical Authority (ELSTAT) announces the results of the Farm Structure Survey of the year 2013.

The 2013 Farm Structure Survey is a sample survey conducted pursuant to Regulation (EC) 1166/2008, within the framework of a special programme of structural surveys compiled by the European Union, in order to monitor the evolution of the structure of agricultural and livestock holdings. The programme consists of sample surveys, conducted every three years, and of a Basic Farm Structure Survey, conducted every ten years, in the form of a Census covering all the holdings.

This press release presents the results of the 2013 Farm Structure Survey, as regards to the number and type of holdings, the agricultural areas, the number of animals, and the employment in agriculture, in comparison with the relevant data of the 2009 Agricultural Livestock Census. The data are presented in the form of charts and tables (presented in the Annex).

#### Summary

In 2013 compared with 2009, at Country level, both the total number of holdings and the utilized agricultural area (UAA) decreased.

In accordance to the UAA decrease, the areas under permanent crops (vineyards and trees) also recorded a decrease. On the contrary, annual crops recorded an increase and so did irrigated areas.

The total number of livestock holdings presents a decrease except holding breeding sheep, while the number of animal heads decreases in all categories.

As regards employment in agriculture, family labour and mutual aid are favoured against paid labor schemes (permanent and seasonal workers). In addition, family labour force accounts for the vast majority of the work days in agriculture.

#### 1. Structure of agricultural and livestock holdings

#### <u>1.1 Number of holdings and utilized agricultural area (UAA)</u>

Between 2009 and 2013, at Country level, a decrease of 1.9% is observed both in the total number of holdings and the number of holdings with utilized agricultural area (UAA). More specifically, the number of holdings was 723,007 in 2009 and 709,449 in 2013, whereas the holdings with UAA amounted to 716,823 in 2009 and 703,535 in 2013 (Table 1).

The UAA decreased by 2.8% in 2013 in comparison with 2009, at Country level. More specifically, the total utilized area amounted to 34,779 thousand stremmas (1 stremma = 0.1 ha) in 2009, while the area utilized in 2013 was 33,815 thousand stremmas (Table 1).

Information:

Division of Primary Sector Statistics, Structure of Agricultural and Livestock Holdings Section

Anastasia Brati Tel : 213 135 2052 Fax: 213 135 2473 1Ha.brati@statistics.gr According to Table 1 and Chart 1, in 2013 the largest number of holdings with UAA is recorded in Kentriki Makedonia (99,226), followed by Peloponnisos (91,946) and Kriti (89,774), while according to Table 1 and Chart 2, the largest areas are recorded in Kentriki Makedonia (6,819 thousand stremmas), followed by Thessalia (4,209 thousand stremmas) and Kriti (3,617 thousand stremmas).



#### Chart 1: Number of holdings with utilised agricultural area, by region

Chart 2: Utilised agricultural area, by region 2009 Agricultural – Livestock Census and 2013 Farm Structure Survey



It should be noted that as regards the number of holdings with UAA per region, a general decline is observed, mostly in Ipeiros (-9.4%) and Dytiki Ellada (-4.5%), whereas an increase is observed only in Attiki (+0.8%) and Kriti (+0.4%) (Table 1).

With respect to the UAA per region, the biggest decrease is observed in Ipeiros (-22.3%), Sterea Ellada (-14.4%) and Ionia Nisia (-12.3%), while an increase is recorded in Dytiki Makedonia (+13.3%), Thessalia (+7.3%), Kentriki Makedonia (+6.2%) and Anatoliki Makedonia and Thraki (+0.4%) (Table 1).

The average UAA per holding records a small decrease (-0.9%) in 2013 in comparison with 2009. More specifically, in 2009 the average UAA amounted to 48.52 stremmas per holding, while in 2013 to 48.06 stremmas (Table 2).

The largest average UAA per holding is found in Dytiki Makedonia (107.30 stremmas), followed by Thessalia (68.87 stremmas) and Kentriki Makedonia (68.72 stremmas). Accordingly, the lowest average UAA per holding is recorded in Attiki (18.93 stremmas), followed by Ionia Nisia (23.79 stremmas) and Ipeiros (27.02 stremmas) (Table 2, Chart 3).



#### Chart 3: Average utilised agricultural area of holdings, by region 2009 Agricultural – Livestock Census and 2013 Farm Structure Survey

#### 1.2 Production type of the holdings

As regards the production type of the holdings, in 2013, 61.8% of the holdings are agricultural, 34.7% are mixed and 3.5% are livestock farms. More specifically, in 2013, there were 575,525 agricultural holdings with 20,910 thousand stremmas of UAA, 115,461 mixed holdings with 11,722 thousand stremmas and 18,463 livestock holdings with 1,184 thousand stremmas of UAA (Table 3a, Table 3b, Chart 4).

Chart 4: Percentage distribution of mixed, agricultural and livestock holdings 2009 Agricultural – Livestock Census and 2013 Farm Structure Survey



In 2013 in comparison with 2009, the number of mixed holdings records a decrease of 12.5%, agricultural holdings slightly decreased by 0.1% and livestock holdings increased by 13.9% (Table 3a).

With regard to the UAA of the above holdings, in 2013 in comparison with 2009, the UAA of mixed holdings decreased by 14.6%, the UAA of the agricultural holdings increased by 6.2% and the UAA of the livestock holding decreased by 13.3% (Table 3b).

#### 2. Land use

Available survey data on the distribution of the UAA by basic categories of land use indicate that in 2013 compared with 2009, at Country level, there is a decrease in the number of holdings with annual crops (-3.6%), areas under trees (-3.4%) and other areas (-5.2%), while a larger decrease is observed in the number of holdings under vineyards (grapes and raisins) (-21.8%) (Table 4a).

The areas under annual crops recorded an increase (+3.7%) in 2013 in comparison with 2009, while the areas under vineyards and trees, as well as the category "other areas" recorded decreases (-7.3%, -1.8% and -14.7%, respectively) (Table 4b).

More specifically, it is observed that the largest areas under annual crops are located in Kentriki Makedonia (5,168 thousand stremmas), followed by Thessalia (3,172 thousand stremmas) and Anatoliki Makedonia and Thraki (2,857 thousand stremmas). The largest areas under vineyards are found in Peloponnisos (198 thousand stremmas), followed by Dytiki Ellada (141 thousand stremmas) and Kriti (138 thousand stremmas). The largest areas under trees are found in Peloponnisos (2,064 thousand stremmas), followed by Kriti (1,474 thousand stremmas) and Dytiki Ellada (952 thousand stremmas) (Table 4b).

Furthermore, during 2013, the areas under annual crops accounted for 49.6% of the UAA, the areas under trees for 25.0%, vineyards for 2.4% and the "other areas" for 23.0% of the UAA (Chart 5).



Chart 5: Percentage distribution of utilised agricultural area, by basic categories of land use 2009 Agricultural – Livestock Census and 2013 Farm Structure Survey

#### 3. Irrigation

The irrigated UAA in 2013, compared with 2009, recorded an increase of 13.4%, while the number of holdings with irrigated land increased by 2.4%. In 2013 the total irrigated land of the Country amounted to 11,779 thousand stremmas, representing 50% of the total UAA, excluding rough grazing land (Table 5).

As presented in Chart 6, most of the irrigated areas are recorded in Kentriki Makedonia (3,027 thousand stremmas), followed by Thessalia (2,140 thousand stremmas) and Dytiki Ellada (1,123 thousand stremmas).





#### 4. Livestock capital

In 2013 compared with 2009, a decrease is recorded in the number of holdings with cattle (-4.7%), goats (-4.6%), pigs (-2.0%) and poultry (-12.1%), while the number of holdings with sheep increased by 2.7% (Table 6a).

As regards the number of animals, in 2013 compared with 2009, a decrease is observed in all categories of animals. More specifically, the number of cattle decreased by 5.1%, of sheep by 5.1%, of goats by 13.3%, of pigs by 18.9% and of poultry by 24.2 % (Table 6b).

Available survey data on the number of animals by region indicate that Kentriki Makedonia is one of the largest livestock regions of the Country, with all categories of animals. A large number of cattle is also recorded in the regions of Thessalia and Anatoliki Makedonia and Thraki. Thessalia is at the top of the list as regards the number of pigs (146,749), while Ipeiros as regards poultry (8,323,766), at the level of the Country as a whole. Kriti and Anatoliki Makedonia and Thraki are characterized by a high number of sheep and goats (Table 6b).

Table 7 illustrates livestock units by region, for the years 2009 and 2013. The livestock unit, abbreviated as LSU (or sometimes as LU), is a reference unit which facilitates the aggregation of livestock from various species and age as per convention, using specific coefficients established initially on the basis of the nutritional or feed requirement of each kind of animal. The reference unit used for the calculation of livestock units (=1 LSU) is the grazing equivalent of one adult dairy cow producing 3,000 kg of milk annually, without additional concentrated foodstuffs.

According to Chart 7, the largest number of livestock units is recorded in Kentriki Makedonia (336,689), followed by Thessalia (296,272) and Dytiki Ellada (280,933). The smallest number of livestock units is recorded in Attiki, Voreio Aigaio, Notio Aigaio and Ionia Nisia.



#### Chart 7: Distribution of livestock units, by region

In the whole Country, a decrease of 6.2% is recorded in the number of holdings and a 11.0% decrease in the number of livestock units. The regions recording the largest decrease are Kentriki Makedonia (-25.9%), followed by Sterea Ellada (-15.3%) and Thessalia (-10.1%). On the contrary, the regions of Attiki, Voreio Aigaio and Notio Aigaio record an upward trend (+17.7%, +9.2% and +5.4%, respectively) (Table 7).

#### 5. Employment in agriculture

In 2013 compared with 2009, at Country level, a decrease is recorded in the number of all categories of workers in agriculture, except for the number of family labour force. Specifically, the number of owners and their household members who worked in the holding increased by 2.3%, while permanent workers decreased by 4.6%, seasonal workers by 13.6% and "other workers" (mutual assistance and piece rate work) decreased by 24.5% (Table 8a).

As regards the number of work-days, between 2009 and 2013, the work-days of owners and household members increased by 13.5% and of "other workers" by 15.7%. On the contrary, the work-days of permanent workers decreased by 5.5% and of seasonal workers decreased by 14.8% (Table 8b).

According to Chart 8 in 2013, the family labour force represents 41.9% of the total labour force in agriculture. Seasonal workers accounted for 30.8% of the total, "other workers" for 26.5% and permanent workers for 0.9%.



Chart 8: Percentage distribution of persons employed in agriculture, by category 2009 Agricultural – Livestock Census and 2013 Farm Structure Survey

Furthermore in 2013, the family labour force held 85.3% of the total number of work-days in agriculture, while the work-days of seasonal workers accounted for 9.1%, the work-days of permanent workers for 3.8% and of the other employees for 1.8% of the total number of work-days (Chart 9).



Chart 9: Percentage distribution of work-days of persons employed in agriculture, by category 2009 Agricultural – Livestock Census and 2013 Farm Structure Survey

As regards the labour scheme of the family labour force, in 2013, 938,526 persons (77.0%) out of 1,218,274 owners and household members are employed exclusively in agriculture, 39,931 persons (3.3%) are employed mainly in agriculture and 239,816 persons (19.7%) are secondarily employed in agriculture. In 2013 compared with 2009, the family labour force employed exclusively and mainly in agriculture increased by 7.2% and 10.4%, respectively, while the family labour force employed secondarily in agriculture decreased by 14.1% (Table 9).

#### <u>ANNEX</u>

#### Table 1: Number of holdings and utilised agricultural area (UAA), by region

2009 Agricultural – Livestock Census and 2013 Farm Structure Survey

		2009			2013		(	Change %	
	Number	Thereof		Number	Thereof		Number	Thereof	
Regions (NUTS2)	of	with	UAA	of	with	UAA	of	with	UAA
	holdings	UAA		holdings	UAA		holdings	UAA	
Total	723, 007	716, 823	34, 779	709, 449	703, 535	33, 815	-1.9	-1.9	-2.8
Anatoliki									
Makedonia									
& Thraki	53, 148	51, 952	3, 468	52 <i>,</i> 066	51, 219	3, 483	-2.0	-1.4	0.4
Kentriki Makedonia	101, 337	100, 027	6, 420	100, 451	99 <i>,</i> 226	6, 819	-0.9	-0.8	6.2
Dytiki Makedonia	24, 230	23, 758	2, 227	23 <i>,</i> 857	23, 504	2, 522	-1.5	-1.1	13.3
Ipeiros	33, 464	33, 069	1,041	30 <i>,</i> 559	29, 946	809	-8.7	-9.4	-22.3
Thessalia	63, 456	62, 111	3, 921	62, 467	61, 114	4, 209	-1.6	-1.6	7.3
Sterea Ellada	69 <i>,</i> 660	69, 214	3, 336	68 <i>,</i> 095	67, 631	2, 856	-2.2	-2.3	-14.4
Ionia Nisia	28, 972	28, 960	769	28, 383	28, 372	675	-2.0	-2.0	-12.3
Dytiki Ellada	87, 560	87, 164	2, 977	83 <i>,</i> 703	83, 245	2, 719	-4.4	-4.5	-8.7
Peloponnisos	93, 188	92 <i>,</i> 984	3, 369	92, 162	91, 946	3, 120	-1.1	-1.1	-7.4
Attiki	26, 837	26, 614	509	27, 032	26, 836	508	0.7	0.8	-0.3
Voreio Aigaio	30, 197	30, 165	1, 648	29, 661	29, 640	1, 585	-1.8	-1.7	-3.8
Notio Aigaio	21, 493	21, 390	992	21, 088	21, 081	895	-1.9	-1.4	-9.8
Kriti	89 <i>,</i> 465	89, 415	4, 103	89, 926	89, 774	3, 617	0.5	0.4	-11.9

In thousand stremmas (1)

<sup>(1)</sup> 1 stremma = 0.1 ha

Note: Any differences between the total and the sum of individual values are due to rounding.

#### Table 2: Average utilised agricultural area of holdings, by region

2009 Agricultural – Livestock Census and 2013 Farm Structure Survey

Regions (NUTS2)	U	e utilised ural area	Change %
	2009	2013	
Total	48.52	48.06	-0.9
Anatoliki Makedonia &			
Thraki	66.75	68.00	1.9
Kentriki Makedonia	64.18	68.72	7.1
Dytiki Makedonia	93.74	107.30	14.5
Ipeiros	31.48	27.02	-14.2
Thessalia	63.13	68.87	9.1
Sterea Ellada	48.20	42.23	-12.4
Ionia Nisia	26.55	23.79	-10.4
Dytiki Ellada	34.15	32.66	-4.4
Peloponnisos	36.23	33.93	-6.3
Attiki	19.13	18.93	-1.0
Voreio Aigaio	54.63	53.48	-2.1
Notio Aigaio	46.38	42.46	-8.5
Kriti	45.89	40.29	-12.2

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### Table 3a: Number of mixed, agricultural and livestock holdings, by region 2009 Agricultural – Livestock Census and 2013 Farm Structure Survey

Regions			2009			2	2013			Cł	nange %	
(NUTS2)	Total	Mixed	Agricultural	Livestock	Total	Mixed	Agricultural	Livestock	Total	Mixed	Agricultural	Livestock
Total	723,007	131,988	574,812	16,207	709,449	115,461	575,525	18,463	-1.9	-12.5	0.1	13.9
Anatoliki Makedonia												
& Thraki	53,148	9,943	41,674	1,531	52,066	8,751	42,108	1,207	-2.0	-12.0	1.0	-21.2
Kentriki Makedonia	101,337	11,563	87,934	1,840	100,451	9,736	88,908	1,806	-0.9	-15.8	1.1	-1.8
Dytiki Makedonia	24,230	5,278	18,224	728	23,857	4,629	18,596	632	-1.5	-12.3	2.0	-13.2
Ipeiros	33,464	10,008	20,423	3,033	30,559	8,728	17,846	3,984	-8.7	-12.8	-12.6	31.4
Thessalia	63,456	14,290	46,714	2,452	62,467	11,540	47,878	3,049	-1.6	-19.2	2.5	24.3
Sterea Ellada	69,660	11,886	56,189	1,585	68,095	9,395	56,996	1,705	-2.2	-21.0	1.4	7.6
lonia Nisia	28,972	3,805	24,965	202	28,383	3,318	24,857	208	-2.0	-12.8	-0.4	3.0
Dytiki Ellada	87,560	23,823	61,993	1,744	83,703	21,051	60,402	2,251	-4.4	-11.6	-2.6	29.1
Pelopon- nisos	93,188	12,808	79,873	507	92,162	10,901	80,521	740	-1.1	-14.9	0.8	46.0
Attiki	26,837	1,440	25,042	355	27,032	1,543	25,172	316	0.7	7.2	0.5	-11.0
Voreio Aigaio	30,197	5,609	23,949	639	29,661	6,004	23,000	657	-1.8	7.0	-4.0	2.8
Notio	04.465						45.050					
Aigaio Kriti	21,493	5,780 15,755	15,178 72,654	535 1,056	21,088	5,518 14,347	15,079 74 162	491 1 417	-1.9 0.5	-4.5 -8.9	-0.7 2.1	-8.2 34.2
NHU	89,465	15,/55	12,054	1,050	89,926	14,347	74,162	1,417	0.5	-8.9	Z.1	34.Z

## Table 3b:Utilised agricultural area of mixed, agricultural and livestock holdings, by region2009 Agricultural – Livestock Census and 2013 Farm Structure Survey

In thousand stremmas

Regions			2009				2013			C	hange %	
(NUTS2)	Total	Mixed	Agricultural	Livestock	Total	Mixed	Agricultural	Livestock	Total	Mixed	Agricultural	Livestock
Total	34,779	13,730	19,683	1,366	33,815	11,722	20,910	1,184	-2.8	-14.6	6.2	-13.3
Anatoliki Makedonia & Thraki	3,468	867	2,582	18	3,483	763	2,697	23	0.4	-12.0	4.5	27.8
Kentriki	5,400	807	2,382	10	5,465	705	2,097	25	0.4	-12.0	4.5	27.0
Makedonia	6,420	1,356	4,953	110	6,819	1,142	5,539	138	6.2	-15.8	11.8	25.5
Dytiki												
Makedonia	2,227	868	1,312	46	2,522	1,034	1,449	39	13.2	19.1	10.4	-15.2
Ipeiros	1,041	560	318	163	809	432	280	97	-22.3	-22.9	-11.9	-40.5
Thessalia	3,921	1,253	2,576	92	4,209	1,095	2,951	163	7.3	-12.6	14.6	77.2
Sterea Ellada	3,336	1,263	1,916	157	2,856	843	1,915	98	-14.4	-33.3	-0.1	-37.6
lonia Nisia	769	367	339	63	675	309	311	54	-12.2	-15.8	-8.3	-14.3
Dytiki Ellada	2,977	1,731	1,189	57	2,719	1,362	1,295	62	-8.7	-21.3	8.9	8.8
Pelopon-												
nisos	3,369	1,220	2,086	63	3,120	982	2,095	43	-7.4	-19.5	0.4	-31.7
Attiki	509	84	409	17	508	73	404	32	-0.2	-13.1	-1.2	88.2
Voreio Aigaio	1,648	956	499	192	1,585	955	476	154	-3.8	-0.1	-4.6	-19.8
Notio												
Aigaio	992	693	241	59	895	614	217	65	-9.8	-11.4	-10.0	10.2
Kriti	4,103	2,510	1,264	329	3,617	2,119	1,282	216	-11.8	-15.6	1.4	-34.3

#### Table 4a: Distribution of holdings, by basic categories of land use and by region

2009 Agricultural – Livestock Census and 2013 Farm Structure Survey

		200	9			2013	3			Change	e %	
Regions (NUTS2)	Annual crops <sup>(1)</sup>	Vineyards (grapes and raisins)	Areas under trees	Other areas <sup>(2)</sup>	Annual crops <sup>(1)</sup>	Vineyards (grapes and raisins)	Areas under trees	Other areas <sup>(2)</sup>	Annual crops <sup>(1)</sup>	Vineyards (grapes and raisins)	Areas under trees	Other areas <sup>(2)</sup>
Total	291,354	131,753	520,813	263,546	280,917	103,052	502,909	249,768	-3.6	-21.8	-3.4	-5.2
Anatoliki Makedonia												
& Thraki	41,650	4,678	14,491	25,794	41,501	4,205	13,793	23,787	-0.4	-10.1	-4.8	-7.8
Kentriki Makedonia	69,808	7,022	49,114	29,014	69,503	5,669	47,726	27,666	-0.4	-19.3	-2.8	-4.6
Dytiki												
Makedonia	19,731	5,636	4,576	12,488	20,071	4,423	4,237	13,870	1.7	-21.5	-7.4	11.1
Ipeiros	13,963	3,281	21,673	18,263	10,544	1,283	19,403	15,851	-24.5	-60.9	-10.5	-13.2
Thessalia	42,597	7,938	25,444	26,127	41,923	5,832	23,626	24,983	-1.6	-26.5	-7.1	-4.4
Sterea												
Ellada	25,899	11,373	56,966	25,373	25,351	7,247	53,547	20,701	-2.1	-36.3	-6.0	-18.4
Ionia												
Nisia	9,005	9,508	28,225	14,706	5,689	6,541	27,558	12,349	-36.8	-31.2	-2.4	-16.0
Dytiki Ellada	28,370	15,389	75,111	34,778	26,290	12,079	69,790	36,731	-7.3	-21.5	-7.1	5.6
	20,570	15,569	/5,111	54,770	20,290	12,079	09,790	50,751	-7.5	-21.5	-7.1	5.0
Pelopon- nisos	12,601	17,855	88,902	24,005	11,095	14,892	87,475	23,791	-12.0	-16.6	-1.6	-0.9
Attiki	3,073	6,275	24,410	3,389	3,024	5,192	24,719	2,756	-1.6	-17.3	1.3	-18.7
Voreio	,	,	,	,	,	,	,	,				
Aigaio	4,593	5,651	27,314	10,182	4,733	4,734	27,086	10,257	3.0	-16.2	-0.8	0.7
Notio												
Aigaio	7,347	6,233	17,836	8,985	7,268	4,769	17,511	7,843	-1.1	-23.5	-1.8	-12.7
Kriti	12,717	30,914	86,751	30,442	13,926	26,187	86,439	29,184	9.5	-15.3	-0.4	-4.1

<sup>(1)</sup> Fallow land is not included.
 <sup>(2)</sup> Included: kitchen gardens, permanent grassland, rough grazing land, nurseries and other permanent crops and fallow land.

#### Table 4b: Distribution of utilised agricultural area, by basic categories of land use and by region

2009 Agricultural – Livestock Census and 2013 Farm Structure Survey

In	thousand	stremmas
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		2009	)			2013	3			Change	e %	
Regions (NUTS2)	Annual crops <sup>(1)</sup>	Vineyards (grapes and raisins)	Areas under trees	Other areas <sup>(2)</sup>	Annual crops <sup>(1)</sup>	Vineyards (grapes and raisins)	Areas under trees	Other areas <sup>(2)</sup>	Annual crops <sup>(1)</sup>	Vineyards (grapes and raisins)	Areas under trees	Other areas <sup>(2)</sup>
Total	16,169	863	8,613	9,134	16,764	800	8,462	7,789	3.7	-7.3	-1.8	-14.7
Anatoliki Makedonia & Thraki	2,859	41	160	408	2,857	41	166	419	-0.1	0.0	3.8	2.7
Kentriki Makedonia Dytiki	4,760	53	864	744	5,168	51	946	654	8.6	-3.8	9.5	-12.1
Makedonia	1,628	22	60	517	1,739	20	64	699	6.8	-9.1	6.7	35.2
Ipeiros	306	7	281	447	285	4	243	276	-6.9	-42.9	-13.5	-38.3
Thessalia	2,970	42	429	480	3,172	38	433	565	6.8	-9.5	0.9	17.7
Sterea Ellada	1,494	57	811	975	1,431	48	758	618	-4.2	-15.8	-6.5	-36.6
lonia Nisia	61	35	346	328	62	27	310	276	1.6	-22.9	-10.4	-15.9
Dytiki Ellada	1,106	134	976	761	1,084	141	952	542	-2.0	5.2	-2.5	-28.8
Pelopon- nisos Attiki	350 100	212 51	2,130 283	678 76	315 95	198 49	2,064 291	543 72	-10.0 -5.0	-6.6 -3.9	-3.1 2.8	-19.9 -5.3
Voreio Aigaio	150	24	583	892	157	20	594	814	4.7	-16.7	1.9	-8.7
Notio Aigaio	226	31	172	563	216	25	167	487	-4.4	-19.4	-2.9	-13.5
Kriti	161	155	1,521	2,266	183	138	1,474	1,821	13.7	-11.0	-3.1	-19.6

<sup>(1)</sup> Fallow land is not included. <sup>(2)</sup> Included here are: kitchen gardens, permanent grassland and, rough grazing land, nurseries and other permanent crops and fallow land.

#### Table 5: Holdings with irrigated areas, by region

2009 Agricultural – Livestock Census and 2013 Farm Structure Survey

#### In thousand stremmas

			2009					2013			Chan	ge %
Regions (NUTS2)	Hold	ings	Thereo	f with irrigate	ed areas	Holdir	ngs	Thereof	with irrigate	ed areas	Holdings wit are	•
(100132)	Total	UAA <sup>(1)</sup>	Holdings	Total UAA <sup>(1)</sup>	Irrigated	Total	UAA <sup>(1)</sup>	Holdings	Total UAA <sup>(1)</sup>	Irrigated	Holdings	Irrigated
Total	723,007	30,169	484,607	22,893	10,386	709,449	29,780	496,149	23,554	11,779	2.4	13.4
Anatoliki Makedonia												
& Thraki	53,148	3,410	44,146	3,078	1,480	52,066	3,460	44,828	3,206	1,696	1.5	14.6
Kentriki Makedonia	101,337	6,384	76,368	4,752	2,574	100,451	6,811	78,958	5,227	3,027	3.4	17.6
Dytiki Makedonia	24,230	2,220	14,993	1,488	360	23,857	2,173	15,483	1,605	382	3.3	6.1
Ipeiros	33,464	866	25,270	702	331	30,559	711	24,075	608	327	-4.7	-1.2
Thessalia Sterea	63,456	3,817	49,813	3,308	1,681	62,467	4,052	50,202	3,557	2,140	0.8	27.3
Ellada	69,660	2,905	37,733	2,097	941	68,095	2,721	46,116	2,224	1,112	22.2	18.2
Ionia Nisia	28,972	589	15,696	348	27	28,383	539	13,943	300	28	-11.2	3.7
Dytiki Ellada	87,560	2,752	57,611	2,069	976	83,703	2,624	60,822	2,170	1,123	5.6	15.1
Pelopon-												
nisos	93,188	3,125	57,296	2,200	926	92,162	2,819	55,828	1,946	898	-2.6	-3.0
Attiki	26,837	478	12,892	258	101	27,032	471	12,280	268	117	-4.7	15.8
Voreio Aigaio	30,197	981	11,636	470	58	29,661	867	14,394	454	87	23.7	50.0
Notio												
Aigaio	21,493	603	12,104	392	63	21,088	499	12,003	324	71	-0.8	12.7
Kriti	89,465	2,041	69,049	1,731	868	89,926	2,033	67,216	1,665	770	-2.7	-11.3

<sup>(1)</sup> Rough grazing land is not included.

#### Table 6a: Holdings with animals, by kind of animal and by region

Regions			2009					2013					Change %		
(NUTS2)	Bovine	Sheep	Goats	Pigs	Poultry	Bovine	Sheep	Goats	Pigs	Poultry	Bovine	Sheep	Goats	Pigs	Poultry
<b>Total</b> Anatoliki Makedonia	16,679	91,933	71,585	19,332	215,373	15,899	94,448	68,274	18,941	189,252	-4.7	2.7	-4.6	-2.0	-12.1
& Thraki Kentriki	3,373	4,220	2,877	1,152	19,839	3,244	4,241	2,762	1,019	17,342	-3.8	0.5	-4.0	-11.5	-12.6
Makedonia Dytiki	3,140	5,422	4,194	1,514	22,108	2,809	5,245	3,612	1,351	13,634	-10.5	-3.3	-13.9	-10.8	-38.3
Makedonia	1,369	2,887	2,270	1,714	8,440	1,278	2,970	2,057	1,232	8,014	-6.6	2.9	-9.4	-28.1	-5.0
Ipeiros	1,103	9,834	5,317	571	15,614	1,234	9,673	5,360	506	12,569	11.9	-1.6	0.8	-11.4	-19.5
Thessalia Sterea	1,548	9,392	4,930	1,901	24,539	1,657	9,886	5,006	1,557	19,744	7.0	5.3	1.5	-18.1	-19.5
Ellada Ionia	723	9,163	7,590	1,578	16,842	655	8,374	6,527	1,469	12,963	-9.4	-8.6	-14.0	-6.9	-23.0
Nisia Dytiki	407	2,490	2,961	553	9,965	328	2,343	2,720	492	9,915	-19.4	-5.9	-8.1	-11.0	-0.5
Ellada Pelopon-	1,742	17,974	11,534	3,911	36,708	1,728	19,019	10,664	3,379	34,780	-0.8	5.8	-7.5	-13.6	-5.3
nisos	903	8,198	8,203	1,278	23,168	768	8,388	7,708	1,516	21,714	-15.0	2.3	-6.0	18.6	-6.3
Attiki Voreio	106	989	748	139	1,660	71	1,025	801	164	1,954	-33.0	3.6	7.1	18.0	17.7
Aigaio Notio	707	4,467	4,008	1,402	7,650	727	5,145	4,116	2,136	8,269	2.8	15.2	2.7	52.4	8.1
Aigaio	1,349	3,698	4,678	1,837	6,118	1,309	3,594	4,426	1,965	6,358	-3.0	-2.8	-5.4	7.0	3.9
Kriti	209	13,199	12,275	1,782	22,722	91	14,545	12,514	2,155	21,994	-56.5	10.2	1.9	20.9	-3.2

#### Table 6b: Number of animals, by kind and by region

Regions			2009					2013					Change %		
(NUTS2)	Bovine	Sheep	Goats	Pigs	Poultry	Bovine	Sheep	Goats	Pigs	Poultry	Bovine	Sheep	Goats	Pigs	Poultry
<b>Total</b> Anatoliki Makedonia	648,067	9,156,821	4,213,230	947,222	36,767,565	614,992	8,686,117	3,654,793	767,958	27,882,413	-5.1	-5.1	-13.3	-18.9	-24.2
& Thraki Kentriki	107,067	626,511	426,058	81,681	920,948	100,580	585,760	368,533	56,868	820,448	-6.1	-6.5	-13.5	-30.4	-10.9
Makedonia Dytiki	186,766	892,252	521,445	140,730	9,888,246	164,503	815,981	478,325	125,109	5,966,671	-11.9	-8.5	-8.3	-11.1	-39.7
Makedonia	40,230	400,301	163,732	22,209	307,141	35,502	384,392	146,981	16,025	239,064	-11.8	-4.0	-10.2	-27.8	-22.2
Ipeiros	61,368	805,156	198,690	108,429	10,588,644	60,585	622,393	156,696	132,814	8,323,766	-1.3	-22.7	-21.1	22.5	-21.4
Thessalia Sterea	110,694	1,197,979	413,217	211,450	1,215,041	117,763	1,211,464	408,252	146,749	1,712,708	6.4	1.1	-1.2	-30.6	41.0
Ellada Ionia	27,727	547,925	371,849	100,037	2,929,127	24,905	511,263	306,062	71,765	1,729,717	-10.2	-6.7	-17.7	-28.3	-40.9
Nisia Dytiki	5,523	123,701	120,445	4,259	307,402	4,256	116,256	112,663	1,929	217,385	-22.9	-6.0	-6.5	-54.7	-29.3
Ellada Pelopon-	59,097	1,478,883	476,381	121,809	1,647,280	62,895	1,511,280	448,996	101,497	1,662,109	6.4	2.2	-5.7	-16.7	0.9
nisos	17,005	508,201	517,081	78,321	1,368,105	13,533	448,194	393,976	53,838	1,182,831	-20.4	-11.8	-23.8	-31.3	-13.5
Attiki Voreio	4,361	80,195	39,611	6,504	5,141,997	3,240	83,805	33,672	3,281	3,579,529	-25.7	4.5	-15.0	-49.6	-30.4
Aigaio Notio	8,755	428,037	105,747	8,304	281,987	9,048	485,001	107,680	9,239	211,106	3.3	13.3	1.8	11.3	-25.1
Aigaio	17,071	190,000	226,451	16,751	353,181	16,362	168,257	200,865	13,450	277,037	-4.2	-11.4	-11.3	-19.7	-21.6
Kriti	2,403	1,877,680	632,523	46,738	1,818,466	1,819	1,742,072	492,092	35,395	1,960,044	-24.3	-7.2	-22.2	-24.3	7.8

#### Table 7:

	200	9	201	13	Chan	ge %
Regions (NUTS2)	Holdings	LSU	Holdings	LSU	Holdings	LSU
Total	268,214	2,406,842	251,486	2,142,977	-6.2	-11.0
Anatoliki Makedonia						
& Thraki	24,916	217,125	22,886	192,952	-8.1	-11.1
Kentriki Makedonia	29,412	407,047	21,786	336,689	-25.9	-17.3
Dytiki Makedonia	10,907	97,924	10,618	87,927	-2.6	-10.2
Ipeiros	19,403	257,244	17,496	221,298	-9.8	-14.0
Thessalia	29,912	305,546	26,888	296,272	-10.1	-3.0
Sterea Ellada	21,620	165,962	18,321	134,363	-15.3	-19.0
Ionia Nisia	11,222	33,576	11,357	29,474	1.2	-12.2
Dytiki Ellada	42,567	289,448	42,590	280,933	0.1	-2.9
Peloponnisos	27,055	150,614	26,146	120,839	-3.4	-19.8
Attiki	2,530	68,299	2,978	54,369	17.7	-20.4
Voreio Aigaio	10,423	67,360	11,378	72,259	9.2	7.3
Notio Aigaio	8,081	65,410	8,516	57,143	5.4	-12.6
Kriti	30,166	281,287	30,515	258,436	1.2	-8.1

Holdings and livestock units (LSU), by region 2009 Agricultural – Livestock Census and 2013 Farm Structure Survey

## Table 8a:Number of persons employed in agriculture, by category and by region2009 Agricultural – Livestock Census and 2013 Farm Structure Survey

		2009				2013				Change	%	
Regions (NUTS2)	Owners and their household members	Permanent workers	Seasonal workers	Other workers (mutual assistance	Owners and their household members	Permanent workers	Seasonal workers	Other workers (mutual assistance	Owners and their household members	Permanent workers	Seasonal workers	Other workers (mutual assistance
	employed in the holdings			and piece- rate)	employed in the holdings			and piece- rate)	employed in the holdings			and piece- rate)
Total	1,191,006	26,207	1,036,524	1,019,653	1,218,274	25,014	895,610	769,802	2.3	-4.6	-13.6	-24.5
Anatoliki Makedonia												
& Thraki Kentriki	94,846	2,104	69,264	116,196	97,498	2,159	70,789	87,408	2.8	2.6	2.2	-24.8
Makedonia Dytiki	166,678	6,419	134,323	204,555	175,356	4,964	147,282	157,637	5.2	-22.7	9.6	-22.9
Makedonia	40,889	1,364	11,741	66,310	42,052	1,267	11,858	41,956	2.8	-7.1	1.0	-36.7
Ipeiros	52,530	1,239	31,333	41,721	51,683	874	24,023	29,906	-1.6	-29.5	-23.3	-28.3
Thessalia Sterea	104,484	2,728	71,151	127,630	110,555	2,495	63,042	103,442	5.8	-8.5	-11.4	-19.0
Ellada Ionia	114,414	1,750	116,364	95,298	111,908	1,235	81,347	57,482	-2.2	-29.4	-30.1	-39.7
Nisia Dytiki	45,891	589	20,074	7,569	43,750	240	22,511	11,992	-4.7	-59.3	12.1	58.4
Ellada Pelopon-	139,605	1,595	177,124	75,553	140,837	1,986	152,422	64,170	0.9	24.5	-13.9	-15.1
nisos	155,537	2,511	191,681	192,458	160,703	2,195	149,211	131,178	3.3	-12.6	-22.2	-31.8
Attiki Voreio	44,212	3,089	39,333	11,838	44,064	3,536	29,687	13,679	-0.3	14.5	-24.5	15.6
Aigaio Notio	47,697	319	24,923	13,309	49,222	984	18,069	8,301	3.2	208.5	-27.5	-37.6
Aigaio	36,293	301	7,997	8,958	36,311	297	16,640	13,273	0.0	-1.3	108.1	48.2
Kriti	147,930	2,199	141,216	58,258	154,333	2,782	108,728	49,377	4.3	26.5	-23.0	-15.2

### Table 8b:Number of work-days of persons employed in agriculture, by category and by region2009 Agricultural – Livestock Census and 2013 Farm Structure Survey

Regions (NUTS2)	2009					2013		Change %				
	Owners and their household members employed in the holdings	Permanent workers	Seasonal workers	Other workers (mutual assistance and piece- rate)	Owners and their household members employed in the holdings	Permanent workers	Seasonal workers	Other workers (mutual assistance and piece- rate)	Owners and their household members employed in the holdings	Permanent workers	Seasonal workers	Other workers (mutual assistance and piece- rate)
<b>Total</b> Anatoliki Makedonia	102,823,559	5,464,108	14,658,407	2,175,954	116,681,559	5,162,620	12,483,833	2,518,368	13.5	-5.5	-14.8	15.7
& Thraki Kentriki	10,286,025	492,408	937,656	165,389	11,613,237	442,248	812,583	194,951	12.9	-10.2	-13.3	17.9
Makedonia Dytiki	15,654,517	1,298,624	2,861,925	293,293	18,579,256	1,035,800	2,672,960	541,165	18.7	-20.2	-6.6	84.5
Makedonia	3,530,265	335,275	274,852	83,729	4,149,269	260,405	182,044	80,252	17.5	-22.3	-33.8	-4.2
Ipeiros	6,206,740	266,108	338,844	81,592	6,675,084	207,225	290,890	106,506	7.5	-22.1	-14.2	30.5
Thessalia Sterea	9,450,064	604,964	1,026,834	143,023	11,410,558	577,336	1,030,765	197,050	20.7	-4.6	0.4	37.8
Ellada Ionia	7,626,466	350,239	1,192,562	155,339	9,019,609	268,282	1,062,560	178,699	18.3	-23.4	-10.9	15.0
Nisia Dytiki	3,885,642	88,606	331,505	32,692	3,056,994	47,403	290,129	69,571	-21.3	-46.5	-12.5	112.8
Ellada Pelopon-	12,325,569	296,619	2,437,617	246,766	14,292,927	361,473	2,120,164	206,129	16.0	21.9	-13.0	-16.5
nisos	12,737,785	415,809	2,577,524	518,684	14,152,719	359,463	1,814,964	498,999	11.1	-13.6	-29.6	-3.8
Attiki Voreio	2,103,455	767,678	409,537	65,353	2,431,161	867,032	355,663	44,363	15.6	12.9	-13.2	-32.1
Aigaio Notio	3,728,296	63,878	385,506	122,463	4,576,994	140,497	365,121	95,353	22.8	119.9	-5.3	-22.1
Aigaio	3,147,369	66,455	100,973	82,968	2,891,297	63,523	246,775	70,218	-8.1	-4.4	144.4	-15.4
Kriti	12,141,366	417,445	1,783,072	184,665	13,832,455	531,935	1,239,214	235,113	13.9	27.4	-30.5	27.3

#### Table 9: Employment of owners and their household members in agriculture, by category and region

Regions (NUTS2)		2009				2013		Change %					
	Owners and	Thereof, employed in the owner's			Owners and Thereof, employed in the owner's				,		employed in the owner's		
	their	holdings				their holdings			their	holdings			
	household members employed in the holdings	Exclusively	Mainly	Secondarily	household members employed in the holdings	Exclusively	Mainly	Secondarily	household members employed in the holdings	Exclusively	Mainly	Secondarily	
Total	1,191,006	875,563	36,164	279,279	1,218,274	938,526	39,931	239,816	2.3	7.2	10.4	-14.1	
Anatoliki Makedonia & Thraki	94,846	74,482	3,282	17,082	97,498	80,224	2,930	14,344	2.8	7.7	-10.7	-16.1	
Kentriki	94,040	74,402	5,262	17,082	97,498	80,224	2,950	14,544	2.0	1.1	-10.7	-10.1	
Makedonia Dytiki	166,678	128,064	6,796	31,818	175,356	141,223	7,214	26,919	5.3	10.3	6.3	-15.1	
Makedonia	40,889	30,494	1,769	8,626	42,052	32,212	1,814	8,026	2.9	5.7	2.4	-7.0	
Ipeiros	52,530	42,586	1,669	8,275	51,683	43,216	1,010	7,457	-1.8	1.4	-39.6	-10.4	
Thessalia Sterea	104,484	80,663	4,251	19,570	110,555	89,022	4,623	16,910	5.7	10.3	8.8	-13.8	
Ellada Ionia	114,414	82,404	3,188	28,822	111,908	84,327	2,543	25,038	-3.2	1.6	-20.7	-15.0	
Nisia Dytiki	45,891	31,006	1,221	13,664	43,750	33,610	874	9,266	-4.9	8.3	-28.5	-32.5	
Ellada Pelopon-	139,605	105,584	3,161	30,860	140,837	110,090	3,959	26,789	0.0	3.8	24.1	-15.0	
nisos	155,537	117,046	3,962	34,529	160,703	122,301	4,929	33,472	2.5	4.0	23.4	-5.0	
Attiki Voreio	44,212	28,328	629	15,255	44,064	30,599	1,477	11,988	12.0	16.7	176.6	-4.7	
Aigaio Notio	47,697	34,235	1,112	12,350	49,222	36,346	1,547	11,329	3.0	6.0	39.0	-8.5	
Aigaio	36,293	22,462	1,210	12,621	36,311	24,869	1,527	9,915	0.1	10.7	26.2	-21.3	
Kriti	147,930	98,209	3,914	45,807	154,333	110,485	5,484	38,363	3.6	12.0	39.4	-17.3	

#### **EXPLANATORY NOTES / BRIEF USER ORIENTED QUALITY REPORT**

- **General** The Farm Structure Survey (FSS) is a wide-range, periodic statistical procedure aiming at collecting objective and quantitative information in order to determine the basic characteristics of the structure of agricultural holdings in Greece. The FSS had been carried out in 1966/67, 1977/78 and since 1983 it was conducted every 2 years, except for the census years 1991, 2000 and 2010. From 2010 onwards, it is conducted every 3 years, i.e., it was conducted in 2013 and will be conducted again in 2016. The 2013 FSS received funding from the European Union.
  - **Scope** The FSS aims at collecting statistical data on the number of agriculture and livestock holdings at national, regional and local level, on the characteristics of those holdings as regards their legal form, type of tenure, structure (type of crops, livestock and poultry, farming techniques, etc), as well as on the utilized methods of agricultural production. The data are necessary for drawing National and Community policy in the Agricultural Sector. Furthermore, these data fulfil national and international needs and obligations, as well.
- Legal The legal framework for the FSS is set out in National and Community Legislation. framework The survey was conducted concomitantly in all European Union Member States in accordance with Council Regulation (EC) 1166/2008. The 2013 FSS was conducted pursuant to the Decisions of the President of ELSTAT 10361/Г2-900/31-10-2013 (Government Gazette No 2860/B/11–11–2013) and 3256/Г2-167/17-03-2014 (Government Gazette No 754/B/ 27–03–2014), amended by 128128/Г2–1222 /20–12–2013 (Government Gazette No 3406/B/31–12–2013) and 8766/Г2-551/16-07-2014 (Government Gazette No 2101/B/31-07-2014), respectively.
- ReferenceThe reference period of the 2013 FSS data as regards crops, labour force and other<br/>characteristics was the cultivation period from 1st October 2012 to 30th September<br/>2013. The reference date of the survey data as regards livestock was 1st November<br/>2013.
- Methodology The sampling method used for this survey was the one-stage stratified random Coverage sampling.

The sampling unit is the agricultural, livestock or mixed holding (a unified unit both in terms of technical and economic perspective, which is run by a unified management body and produces agricultural products) which:

- a) has at least 1 stremma of utilized land, or
- b) has at least 0.5 stremma of greenhouses, regardless of the production type, ownership, or the location of the holding, or
- c) has animals of its own and more specifically at least: one (1) or more cows or two (2) or more other "large animals" of any type and age (oxen, horses, donkeys, mules), or five (5) or more "small animals" (sheep, goats, pigs) of any age and type, or fifty (50) or more poultry birds, or twenty (20) or more hives of "domestic" or "European" bees or five (5) or more ostriches, or
- d) cultivates mushrooms.

The statistical frame of FSS is the Farm Register which is generated from the Agricultural Census. Furthermore, the Farm Register is periodically updated from administrative sources (Registers of the Ministry of Rural Development and Food and the Ministry of Finance, specifically on New Farmers and Organic Farming), as well as the agricultural surveys conducted by ELSTAT.

The stratification was based on the Department (NUTS3), the Type (techno-

economic orientation of production) and the Economic Size of the holding. In each stratum the sample has been selected with equal probabilities by systematic random sampling from the population of holdings belonging to this stratum.

The final sample size was 92,014 holdings, corresponding to more than 12% of the total of agricultural and livestock holdings of Greece.

SurveyThe personnel necessary for the implementation of the survey, the processing and<br/>Organisation<br/>and Quality<br/>ControlThe personnel necessary for the implementation of the survey, the processing and<br/>the presentation of the data consisted of ELSTAT staff, as well as almost 2,300<br/>enumerators trained by ELSTAT on data collection. The data of the FSS 2013 were<br/>collected with face-to-face interviews with the owners of the agricultural holdings,<br/>on the basis of a specially designed questionnaire.

After the collection of the questionnaires, logical and completeness checks were performed. Then the data, by means of OCR (optical character reading), were entered into the electronic database. The OCR software was used also for the preliminary validation of the data. Then the data were exported in ELSTAT's database for further validation according to Eurostat's validation rules. During the quality control phase, which followed, major differences were investigated and corrections were attempted at holding level, mostly by identifying abnormally high or low values. At this stage, some follow-up interviews were also considered necessary, resulting in a number of questionnaires being completed by phone interviews. There are detailed manuals describing the various tests and control procedures and only ELSTAT employees with sufficient experience are authorised participate in the data validation and quality control process.

Finally, the results of the FSS 2013 were compared with the results of other surveys and with the available administrative data in order to identify the longitudinal trend and to assess the results. In cases of variables where large variations were detected, in depth analyses were carried out in close cooperation with the regional statistical offices and the former Ministry of Rural Development and Food.

Data The FSS data are available for the following years: 1983, 1985, 1987, 1993, 1995, 1997, 2003, 2005, 2007 and 2013. Furthermore, census data are available for the years 1991, 2000 and 2009. Data, for 2005-2013 are available in electronic form, while for the rest of the years the data are available in hardcopy. Sole responsibility for this publication lies with ELSTAT. The Commission is not responsible for any use that may be made of the information contained therein.

**Reference** More information concerning the results of relevant surveys and the implemented methodology can be found on the webpage of ELSTAT (www.statistics.gr) at: Statistical Themes>Agriculture and Statistical Themes>Livestock.