



“SUSTAINABLE AGRICULTURE AND FOOD PRODUCTION IN THE DANUBE REGION”

CLUJ-NAPOCA ON MAY 3-5, 2012



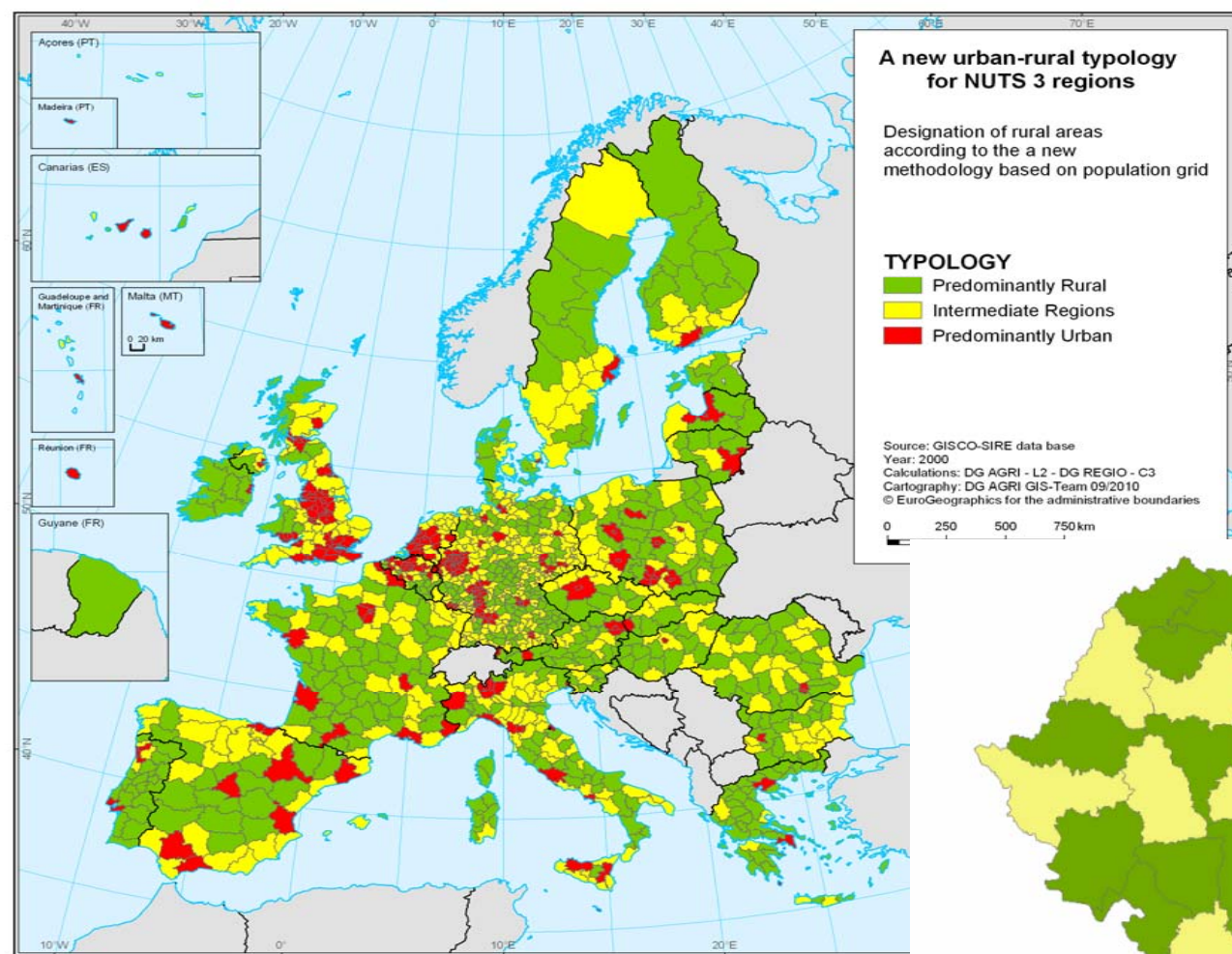
Comparative Study between Production Gross Margin of Ecological and Conventional Agriculture in Romania

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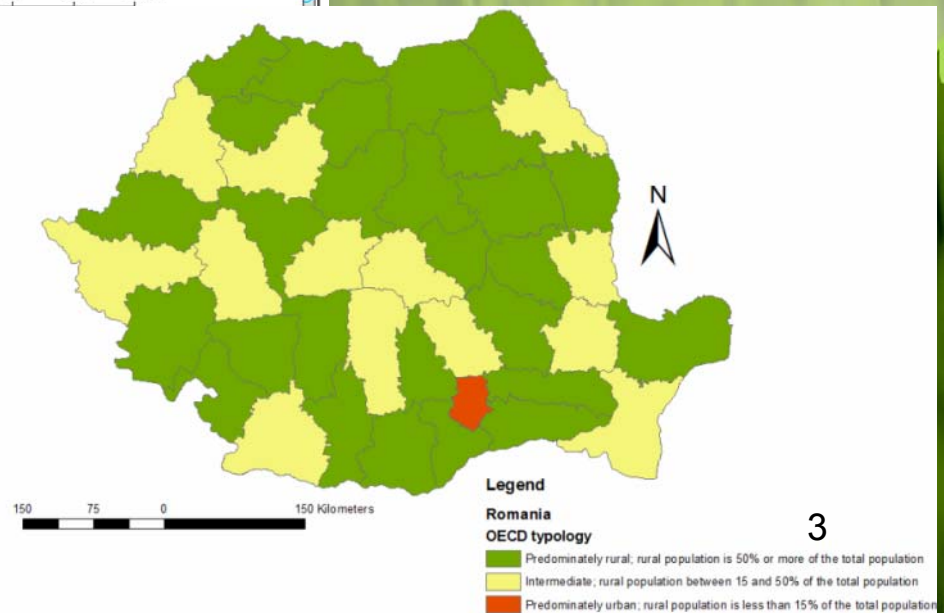
Hypothesis

- request of Ministry of Agriculture and Rural development in Romania (2009)
- ecological certified agricultural producers and the farmers in the period of conversion need to be supplementary subsidized?

Context



Rural areas of Romania (OECD, 2011)

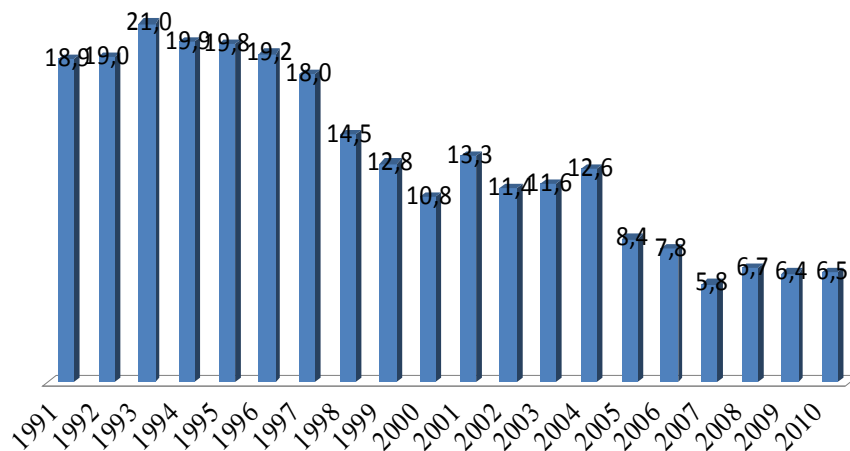


Context

14,635.5 thousands hectares of agricultural
9.632.563 inhabitants living in rural areas - 44.9%
almost 1/3 active people

Agriculture and Forestry in GDP

(INSEE, 2011)



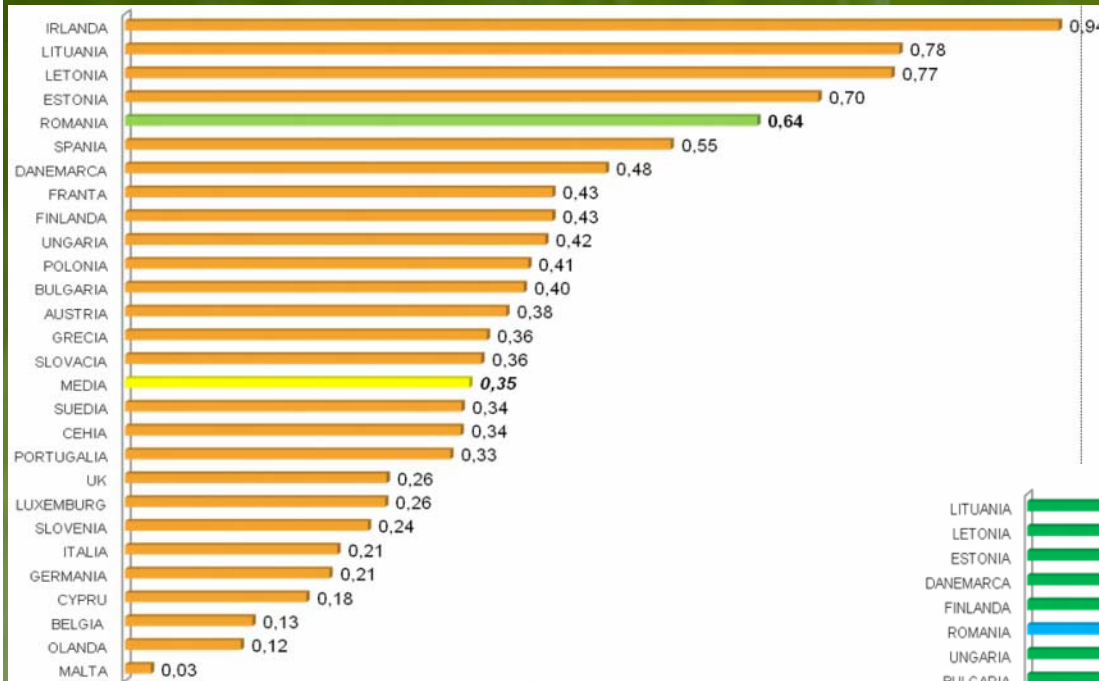
Context

Structure of land

(Romanian Statistics Yearbook, 2011)

Area	2007	2008	2009	2010	2010/ 2007 %
TOTAL	23.839,1	23.839,1	23.839,1	23.839,1	100%
Agricultural land, din care:	14.709,3	14.702,3	14.684,9	14.635,5	99,5
Arable	9.423,30	9.415,10	9.422,50	9405,0	99,8
Pstures	3330,0	3333,0	3.313,80	3.288,8	98,8
Hays	1531,4	1532,4	1528,0	1.529,7	99,9
Vineyard	218,0	214,5	215,4	213,4	97,9
Orchards	206,6	207,3	205,2	198,6	96,1
Forests and other forestry related areas	6.740,9	6.728,6	6.752,9	6757,6	100,2
Forests	6.314,9	6.309,3	6.334,0	6.354,0	100,6
Buildings	685,7	692,1	703,3	728,3	106,2
Road and railway	390,1	390,4	389,9	388,8	99,7
Water and swamp	849,9	849,3	833,3	833,6	98,1
Other (non-productive)	463,2	476,4	474,9	495,3	106,9

Context

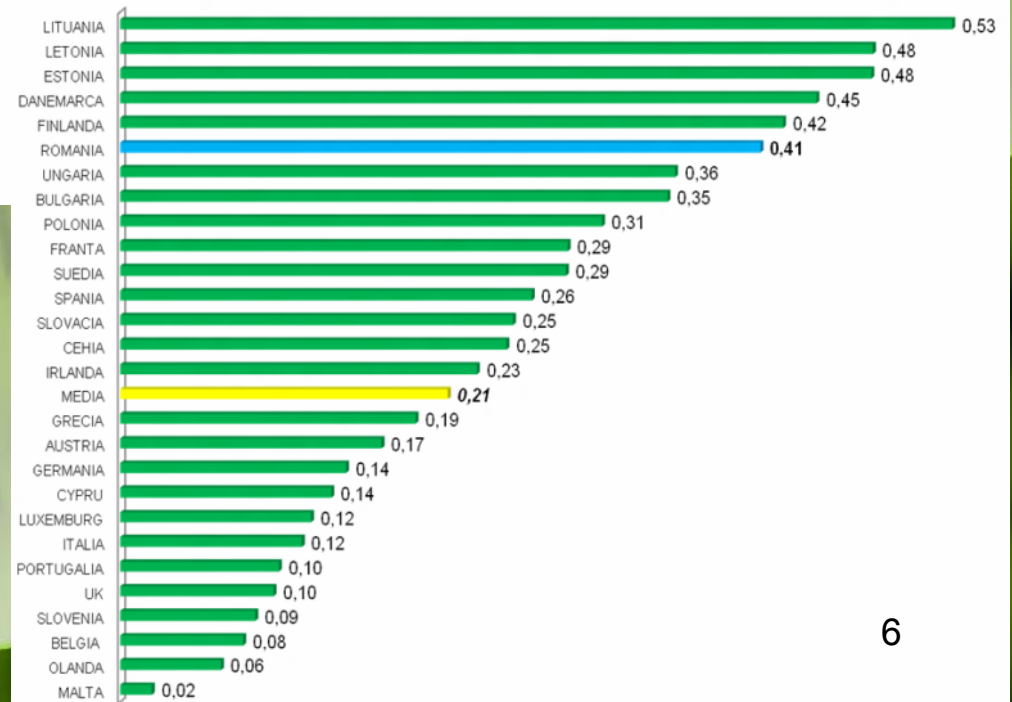


Agricultural area/inhabitant

(Eurostat Yearbook 2010, data 2007)

Arable area/inhabitant

(Eurostat Yearbook 2010, data 2007)



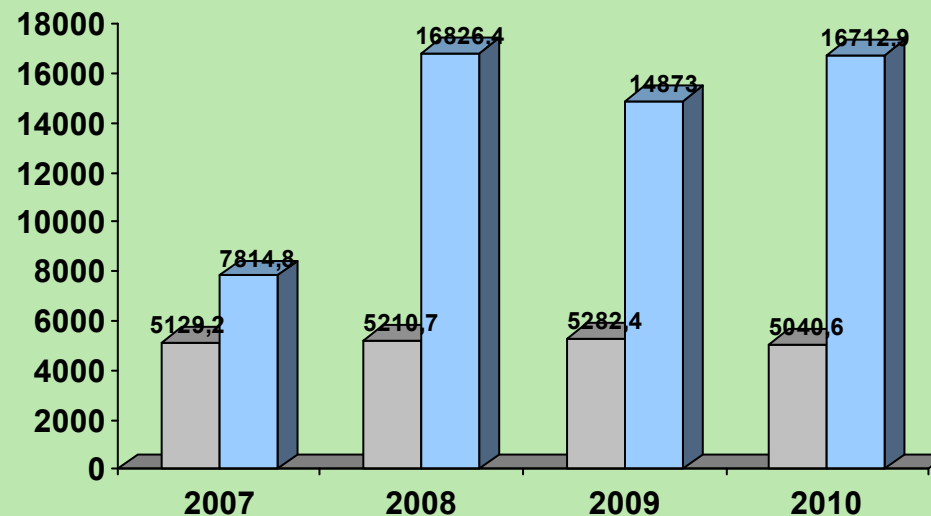
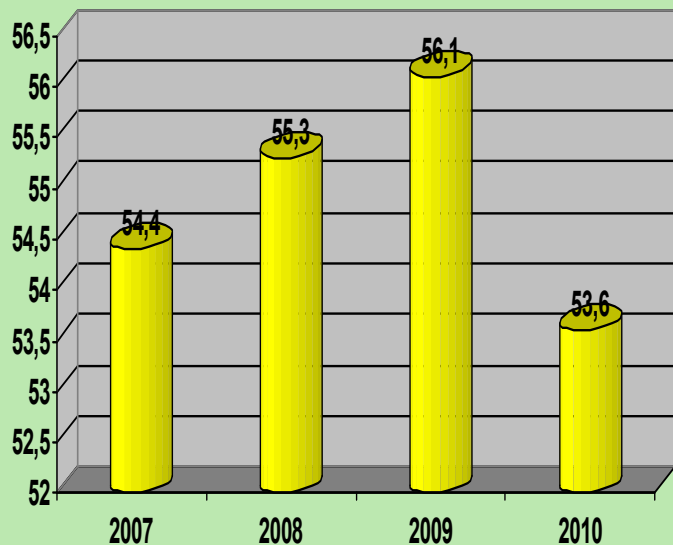
Context

Structure of agricultural exploitations in Romania, 2010

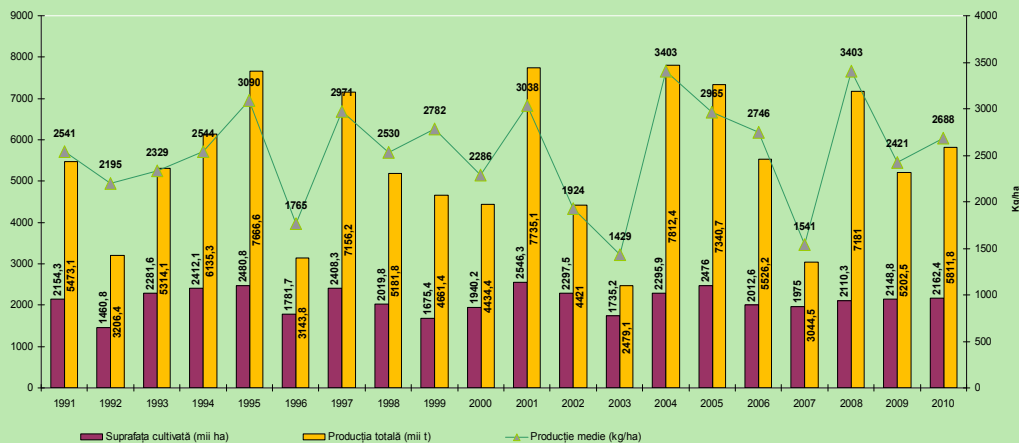
National Institute of Statistics (2011). Recensământul General Agricol 2010. Ministry of Agriculture and Rural Development

Indices		Total agricultural exploitations	Non-legal entity agricultural exploitations	Legal entity agricultural exploitations
Number of agricultural exploitations	thousands	3856	3825	31
Utilised agricultural area	thousands hectares	13298	7445	5853
- crop land	thousands hectares	8305	4721	3584
- pasture/range	thousands hectares	4494	2306	2188
- perennial crops	thousands hectares	317	236	81
- family gardens	thousands hectares	182	182	-
Utilized agricultural area / agricultural exploitation	hectares	3.45	1.95	190.84 ⁷

Context



■ Suprafață-mii ha ■ Producție -mii tone



Cereals in Romania

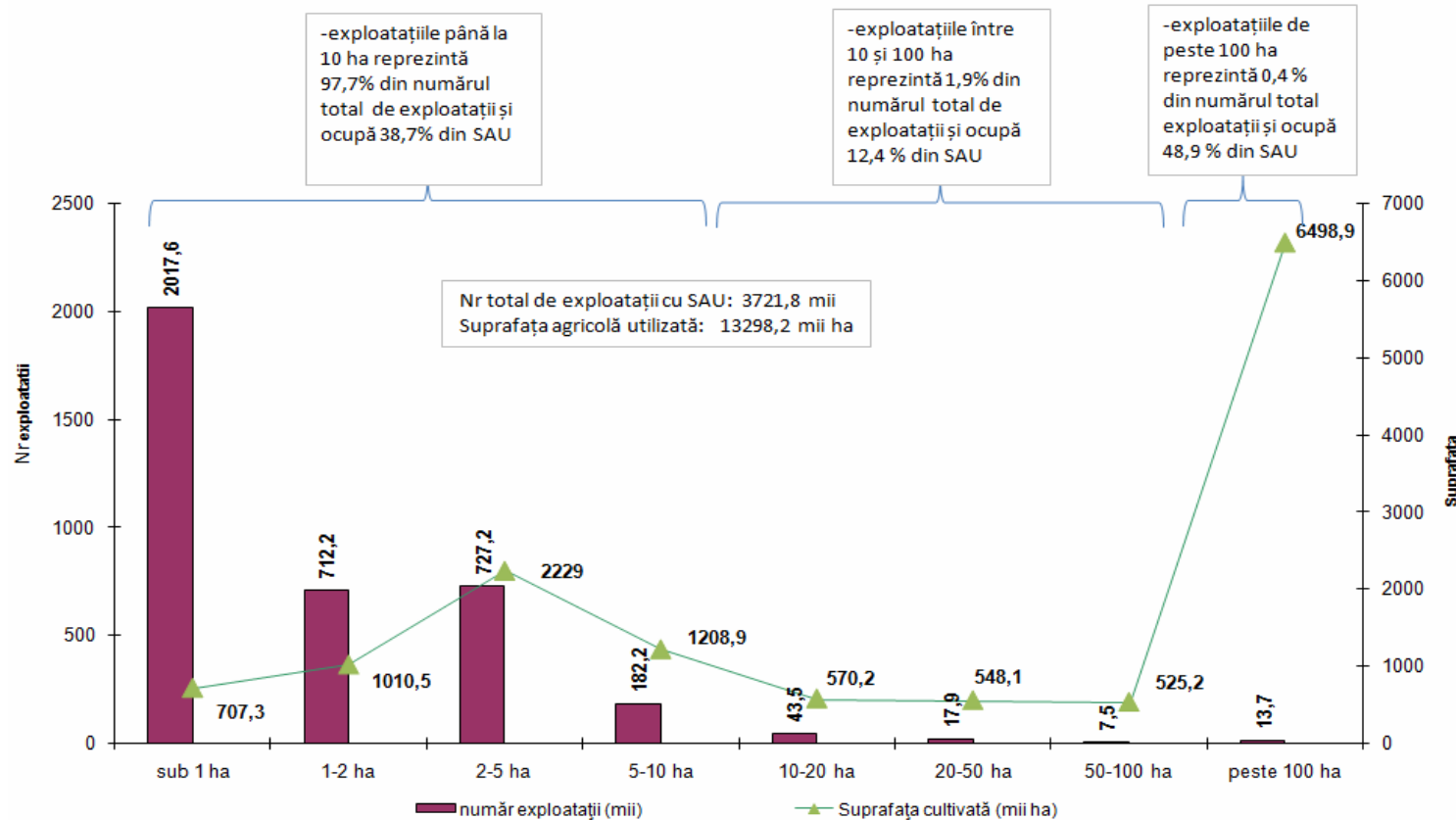
Romanian Statistics Yearbook, 2011

Context

Structure of agricultural exploitation in Romania

STRUCTURA EXPLOATAȚIILOR AGRICOLE PE CLASE DE MĂRIME A SUPRAFEȚEI AGRICOLE UTILIZATE (SAU)

APIA, 2011

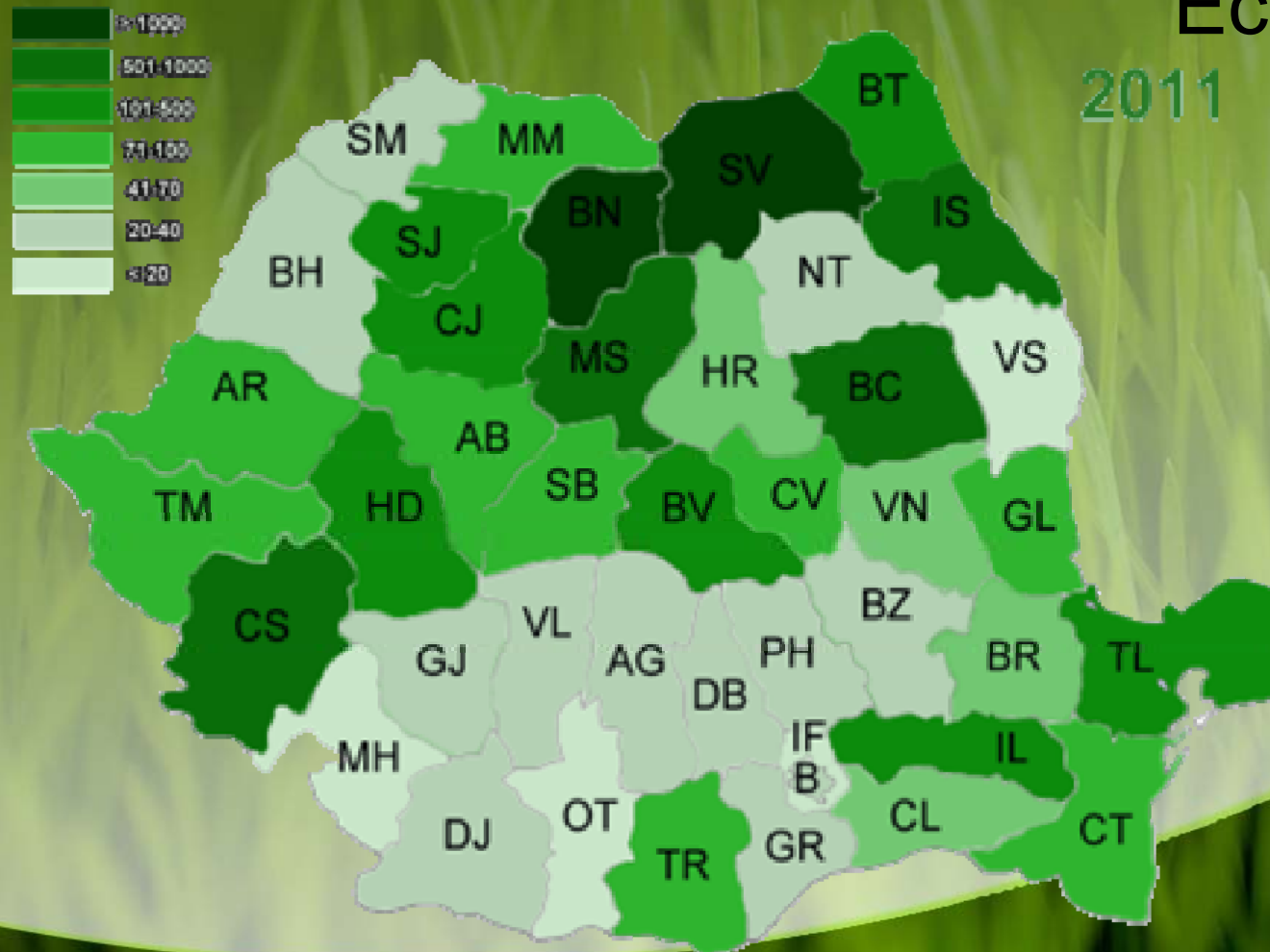


Context

Ecological land in Romania

2011

MADR, 2011



Context

Converted crop area in Europe

EUROSTAT, 2012

GEO/TIME	2007			2008			2009			2010		
	FC	UC	%	FC	UC	%	FC	UC	%	FC	UC	%
European Union	3,997,440	1,511,033	4.0	4,487,798	1,639,504	4.4	3,761,884	2,179,651	4.7	n.a.	n.a.	n.a.
Belgium	23,842	8,785	2.4	27,376	8,778	2.6	29,778	11,680	3.0	30,410	18,595	n.a.
Bulgaria	8,387	5,260	0.3	4,236	12,427	0.3	4,955	7,365	0.2	12,691	12,956	n.a.
Czech Republic	224,373	69,276	8.2	232,939	87,371	9.0	267,483	109,440	10.6	296,379	139,231	n.a.
Denmark	n.a.	n.a.	5.0	139,021	11,083	5.6	139,539	16,894	5.9	145,638	17,265	n.a.
Germany	n.a.	n.a.	5.1	n.a.	n.a.	5.4	n.a.	n.a.	5.6	n.a.	n.a.	n.a.
Estonia	55,445	24,086	8.7	71,848	15,498	9.6	76,200	26,105	11	82,391	39,178	n.a.
Ireland	n.a.	n.a.	1.0	n.a.	n.a.	1.0	37,662	10,202	1.1	n.a.	n.a.	n.a.
Greece	174,724	105,171	7.0	266,745	51,079	7.8	293,644	32,608	8.5	292,584	17,239	n.a.
Spain	640,536	347,786	3.9	691,196	626,555	5.3	605,366	997,505	7.0	1,084,589	530,458	n.a.
France	497,314	59,819	1.9	502,234	81,565	2.0	525,638	151,875	1.9	571,815	273,627	n.a.
Italy	903,254	246,999	7.9	812,139	190,275	7.5	735,327	371,356	8.1	821,921	291,821	n.a.
Cyprus	1,398	925	1.5	n.a.	n.a.	1.6	1,890	1,294	1.9	n.a.	n.a.	n.a.
Latvia	62,321	85,813	8.1	141,524	20,100	8.9	141,070	19,105	8.7	140,946	25,374	n.a.
Lithuania	56,542	63,876	4.5	89,890	32,310	4.6	106,060	22,996	4.8	103,225	40,419	n.a.
Luxembourg	2,721	659	2.6	n.a.	n.a.	2.7	3,245	369	2.7	n.a.	n.a.	n.a.
Hungary	98,243	8,542	1.8	108,578	14,238	2.1	110,916	29,376	2.4	97,584	30,021	n.a.
Malta	n.a.	n.a.	0.3	n.a.	n.a.	0.4	16	9	0.5	16	7	n.a.
Netherlands	45,463	1,557	2.5	46,895	3,540	2.6	47,450	1,880	2.6	43,659	2,573	n.a.
Austria	n.a.	n.a.	17.1	n.a.	n.a.	17.5	n.a.	n.a.	18.5	n.a.	n.a.	n.a.
Poland	135,815	153,625	1.8	178,670	135,274	2.0	222,022	145,040	2.3	309,219	212,751	n.a.
Portugal	n.a.	n.a.	6.3	n.a.	n.a.	5.6	n.a.	n.a.	5.7	n.a.	n.a.	n.a.
Romania	84,590	46,866	1.0	71,597	68,535	1.0	83,862	84,426	1.2	82,981	99,724	n.a.
Slovenia	23,560	5,762	5.9	26,125	3,711	6.1	25,816	3,572	6.3	25,056	5,632	n.a.
Slovakia	80,268	37,638	6.1	113,132	27,623	7.3	111,466	34,024	7.5	112,314	62,157	n.a.
Finland	133,543	15,217	6.6	134,820	15,554	6.5	143,033	23,138	7.2	142,012	27,155	n.a.
Sweden	234,429	73,844	9.9	246,628	89,811	10.9	303,298	88,226	12.8	329,319	109,374	n.a.
United Kingdom	510,673	149,527	4.1	582,205	144,176	4.8	607,940	113,786	4.1	651,930	47,708	n.a.
Norway	40,096	8,767	4.7	40,376	11,872	5.1	43,986	12,749	5.5	47,027	10,193	n.a.
Switzerland	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Context

Number of registered operators

EUROSTAT, 2012

GEO/TIME	2002	2003	2004	2005	2006	2007	2008	2009	2010
Belgium	1,498	1,310	1,210	1,282	1,481	1,558	1,662	n.a.	n.a.
Bulgaria	n.a.	n.a.	n.a.	n.a.	214	339	311	n.a.	n.a.
Czech Republic	n.a.	1,095	1,123	1,234	1,167	1,693	2,228	n.a.	n.a.
Denmark	4,611	4,285	3,875	3,757	3,584	3,563	3,792	n.a.	n.a.
Germany	19,244	20,367	20,909	22,032	23,978	26,820	29,244	n.a.	n.a.
Estonia	n.a.	n.a.	n.a.	1,026	1,190	1,244	1,292	n.a.	n.a.
Ireland	1,010	878	946	1,066	1,208	1,334	1,410	n.a.	n.a.
Greece	6,299	6,642	9,885	16,399	24,654	24,729	24,860	n.a.	n.a.
Spain	17,751	18,505	17,688	16,790	18,318	20,031	23,253	27,627	n.a.
France	16,670	16,327	16,082	16,566	n.a.	18,561	20,877	25,203	n.a.
Italy	55,902	48,353	41,357	49,469	51,065	50,267	49,654	n.a.	n.a.
Cyprus	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Latvia	n.a.	556	1,050	2,883	4,105	4,120	4,218	n.a.	n.a.
Lithuania	n.a.	718	1,202	1,817	2,358	2,861	2,812	n.a.	n.a.
Luxembourg	84	89	104	110	n.a.	119	n.a.	n.a.	n.a.
Hungary	n.a.	1,495	1,898	n.a.	n.a.	2,020	1,994	n.a.	n.a.
Malta	n.a.	n.a.	1	7	11	n.a.	n.a.	n.a.	n.a.
Netherlands	2,388	2,299	2,216	2,234	2,316	2,417	2,616	n.a.	n.a.
Austria	n.a.	20,527	21,235	21,455	n.a.	n.a.	n.a.	n.a.	n.a.
Poland	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	15,040	n.a.	n.a.
Portugal	1,145	1,226	1,461	1,660	n.a.	n.a.	n.a.	n.a.	n.a.
Romania	n.a.	n.a.	n.a.	n.a.	3,409	3,273	2,901	n.a.	n.a.
Slovenia	n.a.	1,434	1,615	1,758	1,992	2,063	2,142	n.a.	n.a.
Slovakia	93	100	127	210	298	338	418	n.a.	n.a.
Finland	5,586	5,471	5,324	4,646	4,443	4,402	4,343	n.a.	n.a.
Sweden	4,456	4,294	5,406	3,456	6,230	3,358	4,686	n.a.	n.a.
United Kingdom	5,929	5,954	5,947	6,356	6,889	7,631	7,896	n.a.	n.a.
Norway	2,599	2,747	2,875	2,825	2,796	3,082	3,359	n.a.	n.a.
Switzerland	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Context

Ecological agriculture in Romania

MADR, 2012

Indices	2006	2007	2008	2009	2010	* 2011
Number of registered operators	3409	3834	4191	3228	3155	10253
Area cultivated in ecological agriculture – arable land (ha)	45605	65112	86454	110014,4	148033,5	158825,4
Area cultivated in ecological agriculture – pasture/range (ha)	51200	57600	46006,5	39232,8	31579,11	89489,22
Area cultivated in ecological agriculture – orchards and vineyard (ha)	294	954	1518	1869,4	3093,04	4583,85

Study

Economic efficiency **differences** of “similar” farms

- Conventional
- During conversion
- Ecological certified

Gross Margin

Study

Survey of “similar” farms

- Conventional
- During conversion
- Ecological certified

Gross Margin / hectare:

- Revenues / ha
- costs of variable inputs / ha

Context

Comparative gross margin for wheat (RON / ha)

	Conventional	Conversion		Certified	
			difference (%)		difference (%)
Production (kg/ha)	3,682	2,905	78.90	2,785	75.64
Price (RON/kg)	0.72	0.70	97.22	1.00	138.89
Revenue (RON/ha)	2,651.04	2,033.5	76.71	2,785	105.05
Variable costs (RON/ha)	2,009.27	1,577	78.49	1,482.66	73.79
Gross margin (RON/ha)	641.77	456.5	71.13	1,602.34	202.93
Difference of Gross margin (RON/ha)	0	-185.27		+660.57	

Context

Comparative gross margin for corn (RON / ha)

	Conventional	Conversion		Certified	
			difference (%)		difference (%)
Production (kg/ha)	5,844	4,208	72.01	3,875	66.31
Price (RON/kg)	1.04	0.98	94.23	1.8	173.08
Revenue (RON/ha)	6,077.76	4,123.84	67.85	6,975	114.76
Variable costs (RON/ha)	1,973.59	1,433	72.61	1,328	67.29
Gross margin (RON/ha)	4,104.17	2,690.84	65.56	5,647	137.59
Difference of Gross margin (RON/ha)	0	-1413,33		+1542,83	

Study

Remarks:

- Difficulties in accounting recordings
- Differences among “similar” surveyed farms
- Instability of policies (agricultural, economic, social, politics etc.) => lack of strategies

Study

Remarks: YES

- Multifunctional character of agriculture (protection)
- Certifying conditions difficult (costs, time, labor)
- Premium prices (and not only) are very volatile (producers = price takers)
- Difference between conversion and certification periods

Study

Remarks: NO

- 80-90% of ecological products are exported
- Production and process of productions in many cases not different (price of products is important)
- loss of productions vs. increase of food demand
=> maximum 5% ecological surface

Thank you for your attention!



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Presidential Committee Public Policies for Agriculture
Development in Romania