

# **IMPACT OF INSTITUTIONALIZATION ON THE DEVELOPMENT OF ORGANIC AGRICULTURE**

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## **ABSTRACT**

Research examine role of institutionalization on life-cycle of organic agriculture development. It also evaluates existing relationship between wealth of consumers and demand for organic products, as well as development of the branch.

## **KEYWORDS**

Organic agriculture, institutionalization, development, life-cycle

## **INTRODUCTION**

Organic farming plays socio-economic role in rural areas, and growing demand for organic products brings new possibilities to advance development of organic agriculture.

But in the recent years farmers' meeting new challenges - whether to grow energy crops or food. That means that in the agriculture market increases competition not only between production systems (organic and conventional, int.al. GMO), but it increases also between the groups of products (energy and food production crops).

Different kind of institutional measures – policy, programs, and organizations involved in the organic system plays an important role in the promotion of organic agriculture. On the basis of institutional support farmers are able to reduce business uncertainty and even demonstrate better economical performance.

The objective of research is to analyze:

- If there exist relationship between wealthy of consumers and demand for organic products, and does it have effect on land area under organic farming, as well as
- If implementation of different policy and financial means considerably further development of organic agriculture.

## **DATA AND METHODS**

Investigation focuses on the determinants of development of organic agriculture in European Union from the aspects of life-cycle theory.

Investigation based on the statistical data provided by EUROSTAT (Statistical Office of the European Communities) and IFOAM (International Federation of Organic Agriculture Movements).

Research uses graphical and statistical methods. The correlation and linear regression method applied to investigate relationship between GDP (gross domestic product) per capita, turnover and consumption of organic products, and land area under organic agriculture.

Graphical method used, to reflect the impact of policy and financial means on the development of organic agriculture. The research systemizes institutional development of

organic agriculture, as well as determines current product life-cycle stage of organic agriculture in the European Union.

## RESULTS AND DISCUSSION

Development of environmentally friendly technologies becomes main task of every national economy in the world, and organic farming is the way to reorganize agriculture in environmentally friendly production system.

Regulatory and policy support structures, intermediary market structures, as well as farmers are interested to realize common policy in the development of organic production to reach increasing level of demand for healthy and environmentally friendly food. And institutionalization becomes one of the most important agents in the development of organic farming.

The development of organic production system Kristensen N.H. summarizes into four stages (Table 1).

The first was the informal period where the diffusion of ideas, knowledge and methods were closely related to close and very informal links and networks. On this period group aiming at formulating and harmonizing guidelines for organic farming International Federation of Organic Agriculture Movement (IFOAM) was founded.

The second was the initial growth period where the close relationships were transformed to a growing need to be organized. The relatively close relationship between producer and consumer were dominating and the confidence in this relationship was a major strategy especially for the producer.

Table 1

**The Periods of Institutionalization of Organic Production**

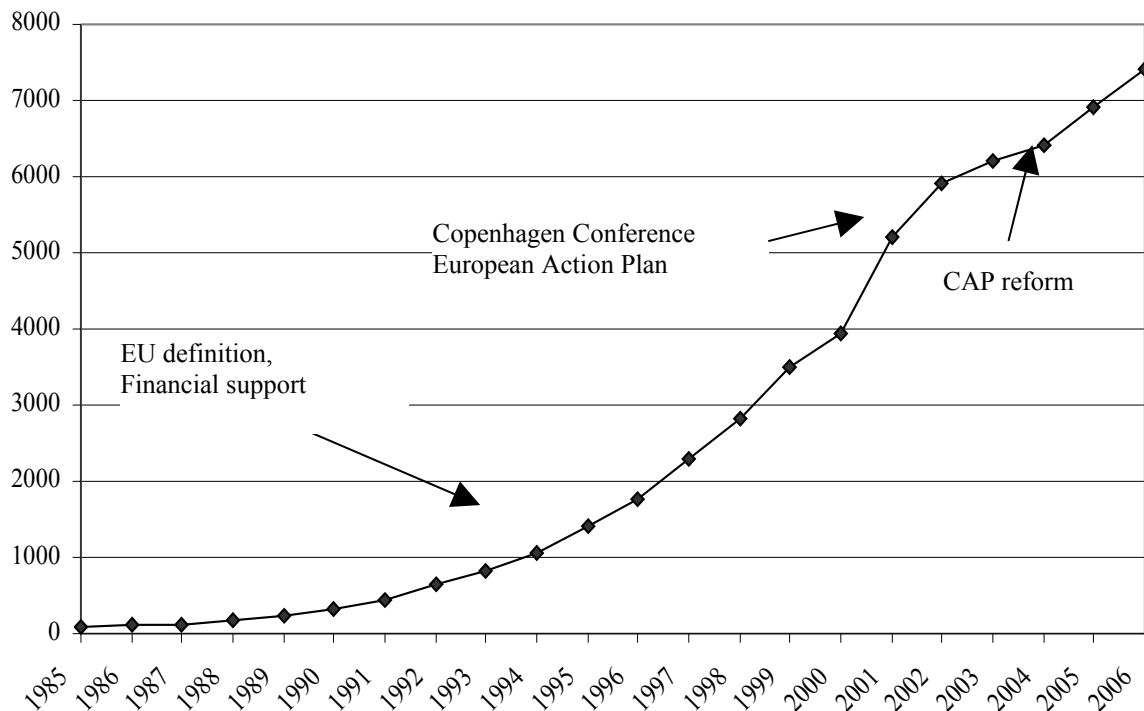
	<b>The Informal Period</b>	<b>The Initial Growth Period</b>	<b>The Industrialization Period</b>	<b>The Communicative Period</b>
Goals	To alternate society	To heighten living quality	To become professional in the market	To differentiate products and increase organic bulk
Market actors	Individuals & Network	Organic farmers and their organizations, retailers	Manufacturing, wholesalers	International organizations of food system
Regulations	Mutual confidence	National	EU	WTO, UNO
	IFOAM			
Time (EU)	1970	1980	1990	2000

Source: KRISTENSEN, 1999

The third period was the industrialization period characterized by a break-through in the market.

Tendencies for the fourth period – the communicative period – are materializing in last decade.

In process of development and institutionalizing of organic production government influence had been notable. Rapid growth of organic farming in EU was spurred by the 1993 establishment of a common EU definition for “organic” and subsequent EU-wide policies to provide financial support for farmers to convert to organic. Less visible, but significant had been introduction of European Action Plan for Organic Agriculture after Copenhagen Conference in 2001 and reform of Common Agriculture Policy (CAP) in 2004 (see Figure 1).



**Figure 1 Certified Organic Land Area in European Union, thsd ha**

Source: European Commission, 2008, EUROSTAT, 2008

To evaluate consumers demand impact on development of organic farming in EU, macroeconomic indicators of households’ welfare were taken into account.

That is generally accepted that people with higher education and/or with higher income demand higher quality goods.

Since organic food has been evaluated as higher quality food than conventionally produced there must be relationship between indicators of economic welfare and development of organic farming.

One of the main indicators for economic analysis GDP per capita in EU countries used as indicator of economic welfare of consumers, and that is compared to consumption of organic products per capita, turnover of organic products and organically cultivated areas in EU countries (see Table 2).

The null hypothesis is that the value of GDP per capita have no impact on consumption of organic products ( $H_0: \beta_2=0$ ). To test this hypotheses regression model (see Eq.1) is estimated,

$$Y_i = \beta_1 + \beta_2 X_i + u_i \quad (1)$$

where  $Y_i$  - consumption of organic products per capita, EUR;

$X_i$  – GDP per capita, thsd EUR;

$\beta_1, \beta_2$  – fixed parameters (regression coefficients),

$u_i$  – stochastic error.

Table 2

**GDP per capita and market of organic agriculture in European Union, 2006**

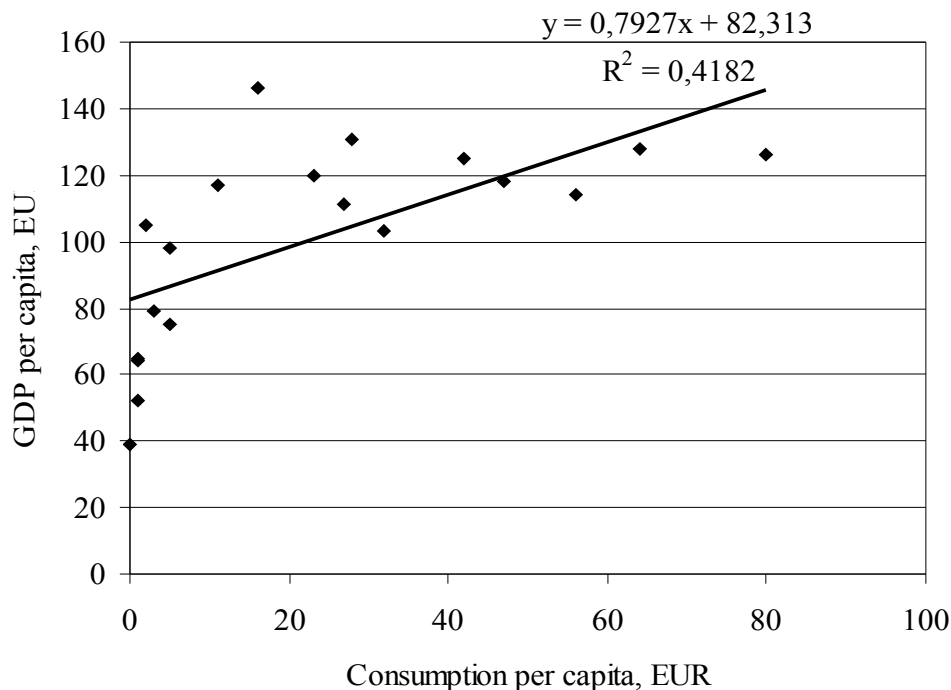
Country	GDP per capita, EUR	Area under organic farming		Consumption per capita, EUR	Turnover, Mio EUR (volume of export excluded if data available)
		ha	%		
Austria	128	:	13,03	64	530
Belgium	120	21754	2,12	23	245
Bulgaria	37	2728	0,17	:	:
Cyprus	92	665	1,31	:	:
Czech Republic	79	216319	6,61	3	26,8
Denmark	126	133048	5,33	80	434
Estonia	69	44878	8,79	:	:
Finland	117	130940	6,42	11	57
France	111	499589	2,00	27	1700
Germany	114	:	4,85	56	4600
Greece	98	182848	7,59	5*	50*
Hungary	65	92167	2,88	1	7
Ireland	146	:	0,95	16*	66*
Italy	103	801350	9,04	32	1900
Latvia	54	51213	9,44	:	:
Lithuania	56	30498	3,46	:	:
Luxemburg	280	:	2,81	:	:
Malta	77	:	0,20	:	:
Netherlands	131	47045	2,49	28	460
Poland	52	:	1,55	1	20
Portugal	75	:	7,32	5*	50*
Romania	39	65111	0,77	0,1	3
Slovakia	64	40085	5,76	1	4,3
Slovenia	88	20151	5,53	:	:
Spain	105	605296	3,73	2	70
Sweden	125	201298	7,06	42	379
United Kingdom	118	489108	3,79	47	2831

: Data not available;

\* Data of 2005: Greece, Ireland, Portugal

Source: WILLER, 2008, EUROSTAT, 2008

Results show (see Figure 2), correlation between  $X_i$  and  $Y_i$  is rather high ( $R = 0,647$ ), as well as 41,8 % of changes in organic consumption by countries explicable by changes in GDP per capita. But there were neutral correlation between income per capita and such measures as turnover of organic products and organic areas in the EU countries.



**Figure 2 Regression model of GDP per capita impact on consumption of organic products**

With the 95 % probability it could be assumed that GDP per capita have an effect on consumption, and following on the demand of organic products in EU countries.

#### CONCLUSION

Implementation of different programs, action plans, financial support and legal basis increases involvement of new members into the market of organic agriculture and overall development of the branch.

In the EU countries with higher income per capita consumers consume more organic products, but there is no relationship between economic wealth and organically cultivated areas.

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